Technology and talk in calls to NHS Direct

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Technology and Talk in Calls to NHS Direct

by

Jillian Pooler

Doctoral Thesis
Submitted in partial fulfilment of the requirements
for the award of
Doctor of Philosophy of Loughborough University
(October 2009)

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ABSTRACT

Technology and Talk in Calls to NHS Direct

This thesis is a conversation analytic investigation of the social organisation of talk in telephone and computer-mediated calls to NHS Direct, a telephone health helpline in England.

The data represent fifty-six routinely audio recorded telephone consultations between nurses and callers between June 2003 and June 2004 at one NHS Direct call centre. Data were transcribed using the Jefferson (2004) transcription system. Data analysis follows the broad trajectory of the call. Chapter three illustrates the overall structural organisation of the call as mediated by the Clinical Assessment System (CAS); Chapter four examines how CAS prompted history taking questions are tailored and delivered by the nurse; Chapter five examines the delivery by the nurse, of the CAS output in the form of the ‘disposition’ or course of action the caller may take to manage their concern, and Chapter six examines caller’s responses to the disposition.

The results draw attention to the complexities of telephone and computer-mediated help in which nurses and callers must design their talk to take account of the CAS as a ‘third party’. Analysis reveals that nurses typically orient to the CAS output as potentially troublesome. First nurses regularly deviate from and modify CAS prompted questions which works to ‘cushion’ the system and build rapport between the nurse and the caller. Second nurses regularly simultaneously produce and labour to deny hearably candidate diagnoses. Third callers regularly respond to the CAS produced disposition as dispreferred.

In conclusion, this research has revealed how nurses and callers employ a range of interactional practices which work to skilfully tailor and fashion ‘embodied help’ from an otherwise disembodied CAS technical system. Thus, we can observe nurses and callers artfully displaying through talk the ordinary
practical methods for accomplishing telephone and computer-mediated help in this setting.

Keywords: Telephone, Computer Decision Support Software, Nurses, NHS Direct, Conversation Analysis, Questions, Disposition, Diagnosis, Receipts.

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Contents

ABSTRACT .......................................................................................................................... ii
ACKNOWLEDGEMENTS ................................................................................................. vii
CHAPTER 1 ........................................................................................................................ 9
   Introduction ..................................................................................................................... 9
   Providing help over the phone ..................................................................................... 9
   Telephone helplines and call centres .......................................................................... 14
   Seeking and providing help ......................................................................................... 19
   Conversation analysis and telephone help .................................................................. 20
   Nurse-patient interaction ............................................................................................ 27
   The introduction of computer decision support software .......................................... 33
   Summary ....................................................................................................................... 41
   Structure of the thesis ................................................................................................. 44
CHAPTER 2 ........................................................................................................................ 46
   Research Methods and Methodology ........................................................................... 46
      Origins of the study ................................................................................................... 46
      Access to NHS Direct ............................................................................................... 48
      Collecting the data .................................................................................................... 50
      Ethical considerations ............................................................................................... 54
      Consent ...................................................................................................................... 55
      Anonymity, privacy and confidentiality ..................................................................... 58
      Researcher as a nurse ............................................................................................... 61
      Dissemination ............................................................................................................ 62
      Analytic method ....................................................................................................... 63
      Analytic procedures and techniques ......................................................................... 68
      Rigour in conversation analytic research .................................................................. 72
      Summary .................................................................................................................... 73
CHAPTER 3 ........................................................................................................................ 75
   NHS Direct: the setting, the software and the talk ....................................................... 75
      The work of NHS Direct ........................................................................................... 76
      NHS Direct – the data collection site ....................................................................... 77
      Call Handlers and prioritising calls ......................................................................... 78
Big sick, little sick: when no news is bad news .................................................. 244
Summary .................................................................................................................. 253
CHAPTER 7 .............................................................................................................. 259
Conclusion .............................................................................................................. 259
Contribution to Research ...................................................................................... 276
Reflections on the methodological approach ...................................................... 277
Implications ............................................................................................................. 282
APPENDICES ........................................................................................................ 286
Appendix 1 – Call Review Tool ............................................................................. 287
Appendix 2 – Ethics Approval ............................................................................... 293
Appendix 3 – NHS Direct Consent to take part in the Research ....................... 296
Appendix 4 – University Indemnity ....................................................................... 297
Appendix 5 – Letter Informing University Data Protection Officer ............... 298
Appendix 6 – Staff Flyer (amended depending on date published).............. 299
Appendix 7 – Information for NHS Direct Staff .................................................. 300
Appendix 8 – Extracts from NHS Direct National Confidentiality
Policy ...................................................................................................................... 304
Appendix 9 – Use of Patient Data, recorded message ......................................... 305
Appendix 10 – NHS Direct Patient Data Information Leaflet ......................... 306
Appendix 11 – Copy of Emails to and from Clinical Solutions ....................... 308
Appendix 12 – Audiotape Removal Form .............................................................. 310
Appendix 13 – The Jefferson transcription system ............................................. 312
Appendix 14 – NHS Direct Clinical Assessment System Dispositions ............. 314
REFERENCES ........................................................................................................ 315
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CHAPTER 1

Introduction

This thesis is a conversation analytic investigation of the social organisation of talk in telephone-and computer-mediated calls to NHS Direct, a telephone health helpline in England.

This chapter will locate my research within a wider body of work on providing help over the telephone in health care. To begin, I will provide some context to providing help by telephone in a health care setting. Next I will summarise the explosion of helplines generally, the rapid growth of commercial call centres. I will also illuminate how the notion of ‘help’ is not unproblematic and reveal conversation analyst’s interest in helplines generally. I will then examine concerns relating to nurse-patient communication generally and the increasing use of ‘expert’ systems’ to mediate calls for help. The outcome of this introduction will be to identify how my research contributes to existing knowledge. Finally, I will provide an overview of the structure of the thesis.

Providing help over the phone

Seeking help over the telephone is not new. For over forty years, in health care settings in America, Canada, Australia, UK and Europe, doctors and to a lesser extent until relatively recently, nurses and other health care professionals, have been advising patients by phone, as part and parcel of their everyday work on wards, in departments and units in hospitals and in primary care surgeries and clinics (Balint, 1968; Derkx et al., 2009; Edmonds, 1997; Leclerc et al., 2003; Marsh et al., 1987; Strasser et al., 1979). Studies have largely examined the content of telephone calls in emergency departments and primary care general practice, using simulated and real time calls, either recorded and transcribed, or overheard by a researcher and transcribed in note form. Primary care, both in Europe and the United Kingdom, has attracted a particularly enduring interest in
the caller, the reason for the call, when the call was made, and the final outcome (Lattimer et al., 1998; Marklund & Bengtsson, 1989; Marsh et al., 1987; Molyneux et al., 1994; Salisbury, 2000; Salisbury et al., 2000). However, accident and emergency departments have also seen interest grow in the characteristics of telephone demand (Crouch et al., 1999; Crouch et al., 1996; Kernohan et al., 1992; Knowles & Cummins, 1984).

Varying widely in methods from randomised controlled trials to self-administered coding systems and self-reports, comparisons are hard to make; however, a pattern seems to be emerging. Calls are typically made by women, in the evening or at the weekend, about themselves or on behalf of a child under 5 years of age or another adult. The reasons for the calls range from problems associated with the respiratory (cough, fever), gastrointestinal (diarrhoea or vomiting) or musculoskeletal systems (pain or minor injuries). Calls about children are more likely to result in self-care, and those concerning older people a home visit. The length of individual calls ranges generally between three to six minutes.

Studies have also examined history-taking (Bradley-Brown & Eberle, 1974; Isaacman et al., 1992; Sloane et al., 1985); decision making (B. Edwards, 1994, 1998; Richards et al., 2004; Sloane et al., 1985; Timpka & Arborelius, 1994; Yanovski et al., 1992); advice-giving (Andrews et al., 2002; Evans et al., 1993; Leclerc et al., 2003; O'Brien & Miller, 1990; Rupp et al., 1994; Verdile et al., 1989); caller satisfaction (Egleston et al., 1994; Fatovich et al., 1998; Payne et al., 2001); compliance (Egleston et al., 1994; Fatovich et al., 1998); and benchmarking for the objective assessments of telephone consultation (Crouch et al., 2002).

Again, study methods vary greatly using simulated or real time calls to doctors, nurses or both in accident and emergency or primary care concerning, for example, rash, fever or chest pain. Nevertheless, some findings appear to be
common across time. History-taking can be insufficient and potentially dangerous. Although nurses tend to ask more history-taking questions than doctors, they do not necessarily determine the nature and severity of the callers’ concerns more accurately or, hence, the most appropriate outcome. However, nurses do use ‘picture building’ and hypothesis generation regarding the cause of the patient/caller’s concern, balancing the ‘most probable scenario’ against the ‘worst possible scenario’. Difficulties, however, arise in drawing conclusions from the information collected – making decisions over the phone or deciding whether a patient/caller should see a general practitioner. There is a trend for more experienced doctors to gather less historical data; indeed, teaching strategies are not reflected in actual practice. Decision making by doctors was found to be based neither on a thorough history nor explicit hypothesis testing, and inappropriate management decisions were made.

Research examining telephone advice-giving by doctors, nurses other health care professionals and administration staff has also sought to examine the consistency and accuracy of the advice, quality, standard, appropriateness, and patients/callers’ perceptions. The findings suggest that unstandardised telephone advice may jeopardise the welfare of the patient/caller – even when guidelines or protocols are available, the urgency of calls is not always identified and advice-giving is inappropriate. Indeed, studies have reported inappropriate advice in 37% (13) of cases (Rupp et al., 1994), appropriate advice in 74% (72) cases (Evans et al., 1993) and only 9% (4) of cases respectively (Verdile et al., 1989), and in a more recent study correct advice was only given in 68.5% (54) of the calls (Andrews et al., 2002). Moreover, an earlier study found that advice was given using incomprehensible language unfamiliar to the caller (Ott et al., 1974). The limitations of these studies are that they use simulated calls that are subjected to external scrutiny against a predetermined schema, thus limiting the potential for discovery in the data.

Studies examining caller satisfaction report it to be high (Egleston et al., 1994; Fatovich et al., 1998; Payne et al., 2001), though this should be treated with
some caution because of the tools used, for example a rating scale, which reduces and confines satisfaction to a numerical code or category. This means that it is unclear exactly what callers are satisfied with and whether they are more satisfied with some aspects of the call, for example the time taken to answer the call or whether they are basically pleased to have improved and apparently organised access to remote health care whatever the outcome, or whether the quality of the service matches their expectations and provides them with information and advice that they agree with, can remember, understand, and act upon and are educated in the management of the problem should it recur.

The caller's compliance with advice is also reportedly high. Measured by following up advised attendance at accident and emergency and primary care, or self-reporting by telephone follow-up, both of these approaches have their limitations. First, attendance at the advised service restricts compliance to just that. It neglects to examine compliance with other aspects of advice, for example to take painkillers or rest. Whilst telephone follow-up in order to assess compliance may be useful, it nevertheless relies heavily on self-reporting and a desire to be seen as a good patient. Patient compliance as a term is also problematic and has received much attention in the literature, with commentators lacking consensus on whether we should be examining compliance, adherence or concordance (Bissell et al., 2004; Vermeire et al., 2001). Furthermore, such terms arguably provide justification for attributing blame when patients’ actions do not match the expectations placed on them by health professionals, and neglect to do justice to the relationship between the professional and patient as a space for pooling ideas (Bissell et al., 2004). Compliance has been less a main purpose of studies examining telephone help and more a secondary feature; thus, its relevance has been subjugated by other research priorities. The question remains about how, when someone seeks help, consensus is achieved on what ‘help’ actually constitutes. This may be in the form of medication or rest but if there is no agreement about this, it is questionable whether they actually represent help.
A more recent development concerns setting benchmarks against which telephone consultation can be comprehensively assessed or evaluated. Set against a desire for more formal guidelines and the provision of better and more specific training for telephone advice, Crouch (2002) using a panel consisting of experienced nurses and doctors established consensus, using the Delphi technique, about essential and desirable items for the telephone assessment of ten common complaints. Limited to what Crouch describes as ‘clinical inclusiveness’; the inventory is only designed to assess nurses’ levels of clinical knowledge about assessment questions.

A study by Derkx & Janssenweg (2007) established the validity and reliability of a rating scale to assess communication skills across four phases of the call: reason for calling; information gathering; conclusion; and evaluation, known as RICE (Reason, Information, Conclusion, Evaluation scale). The limitation of these approaches to understanding and assessing what goes on in talk between nurses and their patients/clients is that benchmarks or rating scales do not take into account the interactional contingencies encountered by the nurse and caller in the accomplishment of the call.

In summary, this section has provided a glimpse into the range of empirical literature relating to telephone consultation in health care, and has sought to characterise demand and examine the organisation and management of calls. Methodologically varied, the combined evidence suggests the telephone is a useful, though not unproblematic, resource in managing demand for health care. However, history-taking is often insufficient, decision making unclear, outcomes inappropriate, and advice potentially hazardous. Caller compliance and satisfaction are reportedly high. The development of benchmarks or rating scales to assess communication skills seems to attend to concerns about call organisation and management evident in this review.

The limitations of these studies lie in their methodological approach. Using largely simulated, rather than real time calls limits the enquiry of calls for help to
the work of the professional, and stifles the discovery of the collaboration and co-production of help between the participants: the nurse or doctor and caller. Second, whilst there may be an argument for using simulated patients/callers, particularly for educational purposes, to rely on memory, field notes or a predetermined tick list is reductionist and overlooks the opportunity afforded by the close inspection of the interaction as a mutual endeavour, an examination of which is only made possible by audio recording real time calls. Where calls were recorded and transcribed, the transcripts were merely used to categorise the characteristics of the call. Although compliance and satisfaction were reportedly high, this should be treated with caution as the method of data collection was generally weak. The former was often measured by attendance at accident and emergency or primary care or by telephone survey; the latter relied heavily on self-reports, which are susceptible to problems with recollection and preferred responses. The use of tools for evaluating the content of telephone calls reduces the consultation to a predetermined set of characteristics measuring the professional’s clinical competence. It disregards the caller’s contribution to the call and its collaborative interactional accomplishment.

So far, I have illuminated the literature concerning ad-hoc telephone advice-giving by health care professionals, working largely in accident and emergency and primary care. I will now turn to the literature concerning help provided by designated telephone helplines.

**Telephone helplines and call centres**

Helplines are not new and, indeed, are commonplace today. Their origins can be traced back to the original helpline set up by the Samaritans, which was the first of its kind when it was created in 1953 (Samaritans, 2009). In 2008, the Samaritans received almost 5,159,698 contacts by phone, email, letter, minicom, face-to-face at a branch, through their work in prisons, and at local
and national festivals and other events (ibid). Just fewer than 90% (4,643,728), of these contacts were by phone.

Helplines are typically run on a not-for-profit- basis, staffed by volunteers and funded through charitable trusts. As such, they may operate with as little as one person in their own home or from dedicated premises with a team of staff. In the public sector however, local authority services such as refuse collection, benefit claims, public transport and housing also offer telephone-based help.

Such is the growth of helplines over the last thirty years that the Telephone Helplines Association, established in the United Kingdom in 1980, has over 500 members and an online directory of over 1000 helplines (Telephone Helplines Association, 2009). One can browse helplines online by subject or topic, from addictions to civil rights, disability, health, asylum and immigration, money and debt, advocacy, counselling and befriending, to name but a few.

Alongside the growth of helplines is the exponential explosion of commercial call centres. In 2004, the number of call centre staff reached 435,000 (BBC, 2004) and in 2009, the Call Centre Association has a membership of over 820 organisations ranging from banks to reservation services, private health insurance, utility companies, job centres, and vehicle recovery (Customer Contact Association, 2009). It was predicted that by 2005, over 3% of the UK’s working population would be employed in over 8,500 call centres (Datamonitor, 2000).

A strong example of the growth of the telephone in delivering services is NHS Direct in England. Traditionally in England, if you are feeling unwell you may seek advice from your local General Practitioner, a family member, a friend or just get on with managing it yourself. Since 2000, people have also had the option to telephone NHS Direct, a telephone health helpline located in a matrix of thirty-five call centres across England, and talk to a qualified nurse. NHS Direct is the product of sustained Government health care reforms over the last

Advertised as being available 24 hours a day, NHS Direct aims to “equip people with the health advice and information they need to care for themselves at home” and receives over 9 million calls per year, handled by 1200 nurses (NHS Direct, 2009b). Nurse’s process calls from the general public using an integrated telephone and computerised Clinical Assessment System (CAS), which utilises algorithms and predetermined questions designed to find out about the caller’s concern and provide management options (Department of Health, 1997).

The evidence shows that the telephone is used to deliver a wide range of services. At one end, the telephone is used to provide support, counselling or befriending, and at the other end information and advice using organisational scripts or plans. One of the advantages of using the telephone to seek help is accessibility. Most households have a telephone and many people have mobile phones; access to help is not dependent on getting to see the helper. Appointments do not have to be made or travelled to, and in comparison to seeking face-to-face help from, for example, a general practitioner or financial advisor; often there is only a minimal wait of a few seconds or minutes to be spoken to, rather than days or weeks. In addition, some helplines such as the Samaritans, NHS Direct and the Refugee Legal Centre Advice Line are available 24 hours a day. Waiting is kept to a minimum, thereby feeding a perceived desire for help ‘now’. It is also possible that by calling from their own domain, callers feel more in control and assertive; they can remain anonymous or indeed terminate the call if they so wish.
A disadvantage of seeking help by telephone is a lack of visual cues (Ashmore et al., 2001; Pettinari & Jessopp, 2001) and the potential for misunderstanding, miscommunication or misalignment (Bazzanella & Damiano, 1999; Drew, 2006; Drummond & Hopper, 1991). In 1997, reportedly, in response to a general desire of people to be better communicators, British Telecom published TalkWorks™: ‘How to get more out of life through better conversations’ as part of a major initiative to help people become effective communicators. Intriguingly, throughout the book, freephone numbers were available through which callers were encouraged to dial and listen to ordinary conversations whilst paying attention to what they thought went well in these conversations and what didn’t. The book covered such topics as storytelling, how to be a good listener and giving and receiving feedback. The point of this is that over ten years ago, telephone communication was not being underestimated as a social accomplishment. Another disadvantage of the telephone is the over-adherence to the organisational script, which can lead to caller dissatisfaction (Taylor & Bain, 1999) and pressures on the duration of the call (Bain et al., 2002; Mueller et al., 2008).

Social scientific studies examining call centre work have grown in number (Russell, 2008), focusing largely on work processes and requirements; theorising the systems of management and control; competencies (Hampson et al., 2009); call centre work characteristics (Zapf et al., 2003); quantity and quality (Bain et al., 2002), and worker resistance (Bain & Taylor, 2000) and Cameron (2000) adopting the BT advertising slogan from the 1990’s “It’s good to talk” examined call centre work and compared call centre work to “communication factories” which have adapted typing, telephone technique and clerical tasks to the production line logic (p93). However, Whalen et al. (2002) described the endogenous practices or routine actions of sales reps during their calls with customers, the findings of which suggest that the actions of sales reps represent a ‘performance’ (Goffman, 1959), which is methodical and grounded in the requirements of the work.
The extension of the call centre to professional fields of work such as nursing has received some attention in the literature, although here there is also a preoccupation with monitoring work (Johnson, 2001). Nevertheless, it is a particularly testing arena of investigation because to be professional is to have autonomy not regularly found in call centre work, which is characterised by high levels of routinisation, monitoring and control, not least because:

“The ideal-typical ideology of professionalism stresses the lack of uniformity in the problems its work must contend with, therefore emphasizing the need for discretion. . .. They do custom work which must be, by the very nature of the case, more costly and less productive than standardized work.”

(Freidson, 2001, p. 111).

The relationship between the call centre as a socio-technical system and the professional skills, traditions and identities associated with nursing may well therefore pose considerable challenges to existing professional patterns of the call centre work (Russell, 2008), which would benefit from further investigation.

A recent study sought to examine how nurses discursively construct and negotiate their professional values and identity as nurses, vis-à-vis constraints typically associated with call centre work such as targets imposed by managers (Mueller et al., 2008). The findings of interviews with twenty-seven NHS Direct nurses suggest that they were keen to resist the managerial control they saw as potentially preventing them from developing a sincere relationship with their customers by displaying their ‘authentic’ emotions with callers. Professional values were reflected in the nurses prioritising taking time to talk to callers over quantitative targets. Moreover, what nurses and managers constitute as ‘good customer service’ differed: the managers looked at following clinical assessment protocols, whilst the nurses saw the ‘whole picture’ and exhibited a more holistic and experience-based attitude. These findings reflected the work of (Tjora, 2000), who found that nurses performed tasks of screening, evaluating or diagnosing via the phone autonomously, and Greatbatch (2005), who found that nurses privilege their own expertise to provide individualised
care. Mueller argues that NHS Direct nurses have to find situational solutions to the potentially contradictory demands of call centre values and professional autonomy.

In summary, telephone assistance in the form of helplines and commercial call centres provided by the public, private and third sector have grown in number in recent years. Although there are a number of advantages to telephone help, including accessibility, help ‘now’ and anonymity, it is not without its drawbacks, which include the potential for the misunderstanding, miscommunication or misalignment of agendas. Social scientific studies have largely focused on the quantity and quality of call centre work, staff competence, management and control, and worker resistance. The extension of the call centre to professional fields of work such as nursing has thus far received limited attention in the literature.

**Seeking and providing help**

I have shown how people are being encouraged increasingly to seek help by telephone, rather than face-to-face. So far, I have illustrated that telephone based assistance is provided by public, private and third sector service providers, from a variety of settings, be it the home, an office or commercial call centre, for a variety of concerns from counselling and support to technical, factual or legal information or instructions. The characteristics of calls and the nature of the advice given are largely governed by the remit of the helpline. For example, calls for technical help are dominated by instructions on how to resolve a problem, and rely heavily on the technical competence of the caller (Baker et al., 2005). In contrast, calls to a peer-run helpline are designed to provide social support in the form of listening rather than advising (Pudlinski, 2005) and calls to a national poison information centre are concerned with a delicate balance between knowledge and authority and friendly advice in the pursuit of compliance (Landqvist, 2005). Thus calls may be “business-like” or “casual” (Firth et al., 2005) forms of interaction. Nevertheless, they all build on
shared understandings of everyday conversations that are modified for helpline interactions.

Although providing help may be a fundamental feature of helplines, made visible by requests for help by the caller or offers of help by the call-taker, this does not mean that help is understood in the same way by the caller and call-taker. For example, te Molder shows how callers strive to display themselves as needing someone to talk to rather than someone needing help (te Molder, 2005). This is somewhat reminiscent of the work of Jefferson et al. on trouble-telling and service encounters (Jefferson & Lee, 1981), in which the rejection of advice in talk about a trouble is an attempt by the trouble’s teller to preserve the status of the talk as trouble-telling, as opposed to advice seeking. Thus, callers appear to calibrate for the expertise or help they require when first selecting which helpline to phone from a wide range of choices, and second by how they orient to the help offered. Providing help is therefore a potentially complex yet situationally defined matter that lends itself to the close examination of talk between the caller and call-taker, an area yet to be examined in calls to NHS Direct.

**Conversation analysis and telephone help**

Conversation Analytic (CA) research has taken the investigation of help via the telephone in a direction away from the type of researcher-provoked data collection as seen in previous studies examining ad hoc telephone advice in hospital settings and primary care and managerially-driven concerns about activity, favoured by call centre research, focussing instead on more naturalistic enquiries which cast the telephone helpline as a productive site for the study of language and social interaction in situ.

Conversation analysis has a longstanding association with helplines, or what are also referred to as ‘warm lines’ (Pudlinski, 2002, 2005) or ‘carelines’ (often seen on food packaging) or ‘hotlines’. This association dates back to the work
of Harvey Sacks, the founder of CA, and began with an interest in calls to the Suicide Prevention Centre in the mid-1960s, in which a practical problem for the call-takers was getting the callers to give their names. He observed that callers appeared to have at their disposal important resources for avoiding giving their name, and there seemed to be some order and routinisation to this. In mobilising these resources, callers were skilfully displaying how the activity of avoiding giving your name is achieved through talk. He also discovered how people gave a rational account for wanting to kill themselves and for resorting to seeking help from strangers on a helpline, thus illustrating how calling for help is an accountable matter (Sacks, 1967). And so began a deep interest for Sacks in conversation as a site amenable to the close examination of social life – how conversation works, the detail of talk, how people know when to speak, and how topics of talk are organised. In their seminal paper, Sacks, Schegloff and Jefferson (1974) set out a formal apparatus for taking turns, which forms the foundation for analysing all forms of talk-in-interaction (Schegloff, 1987). Since Sacks’ early work, there has been a steady growth of conversation analytic studies, see Drew and Heritage (2006), and Lerner (2004) for a detailed overview of this work. For an introduction to conversation analysis as a method of enquiry, see Hutchby and Woofitt (1998), Schegloff (2007) and Ten Have (2002).

There has also been a growing interest in the interactional work of helplines, some examples of which concern calls to the 911 emergency service in America, and include displays of the caller’s stance towards the troubles they report (M. R. Whalen & Zimmerman, 1992); the rights and responsibilities in calls for help about a fire (Raymond & Zimmerman, 2007); the sequential and institutional organisation of talk (M. R. Whalen & Zimmerman, 1987) and the contingencies faced by the callers and call-takers in the accomplishment of assistance (Zimmerman, 1992); accepting and rejecting advice in calls to a “warm line” (Pudlinski, 2005); how service guidelines are talked into being in calls to a child health line in Australia (Butler et al., 2009); misalignments in perceptions between physicians and callers in out of hours calls (Drew, 2006); self-help in neighbour disputes (D. Edwards & Stokoe, 2007); trouble
announcements in calls to a children’s helpline in Australia (Emmison & Danby, 2007); concern constructions (Potter & Hepburn, 2003); recipients’ acts of crying (Hepburn, 2007), the role of ‘tag questions’ in responses to crying in calls to a children’s helpline in England, and memory in the analysis of repeat calls to a home birth helpline (Shaw & Kitzinger, 2007); and for an important collection of language and interaction-centred studies exploring what happens when people use the telephone to call for help, see also Baker et al. (2005).

The work of Whalen and Zimmerman (1987) is of particular interest because it concerns calls for help to an emergency service, which is contingently provided in exchange for particular information. Thus, the procedural requirements of the organisation make particular responses from the caller relevant, in order for help to be dispatched. The service began from the premise that the sequential organisation of talk is responsive to the setting and the social identities found therein, and shapes the interactional relevancies and thus the nature of the talk. Accordingly, calls to 911 are ‘specialised’ insofar as when the call-taker answers the phone they do not respond with ‘hello’; rather, they announce their institutional identity, ‘Mid City Emergency’. A further observation is that the absence of a greeting provides for a reduction in the opening sequence, which has consequences for the placement of the first topic of talk – the reason for calling – such that it is moved to turn two, the caller’s first turn, which is the earliest opportunity for the caller to speak. This reduction works cleverly to accomplish an institutionally-constrained focus on the talk, and establishes that the work of the caller is to deliver the reason for the call. Moreover, it is this reduction of the greeting sequence of “prompt response to urgent need” which displays the institutional features of the talk and exhibits the participants’ orientation to, and appreciation of, the contingencies involved in seeking and getting assistance or help. The caller and call-taker thereby exhibit for one another their appreciation of who they are and what they are up to, and bring into the foreground the suggestion that institutions are not so much “out there” but are “talked into being” (Heritage, 1984) by participants (M. R. Whalen & Zimmerman, 1987).
This is particularly relevant for my research, as NHS Direct is an institutional setting that provides help to callers concerned about their health. Whalen and Zimmerman have shown that particular interactional practices work to constrain the focus of the talk between the caller and the call-taker. Taking this view, it may be expected that the general conversational machinery observed in mundane interactions might be adapted to suit the interactional situation of NHS Direct, as seen in calls to the 911 service.

Further work on 911 calls (Zimmerman, 1992) has also focused on the contingencies faced by the callers and call-takers in the accomplishment of assistance, and the interactional tools employed by each party to deal with these contingencies. These contingencies consist of i) the call processing requirements of the organisation and ii) the peculiar circumstances of each call, and Zimmerman suggests that it is the bringing into alignment of these contingencies which is the task of the interaction.

To begin with, Zimmerman notes that in answering a call to 911, the call-taker launches into two parallel activities: talking and listening to the caller and coding and entering information into the computer; the activity of entering information into the computer is audible by the sound of the keyboard being tapped. The sounds of the keyboard can be related to the requirements of the computer, such that they can be located in particular places in the talk, and display an orientation to certain information as being an element of the ‘dispatch package’. What is important here is that the call-taker is not only orienting to what the caller is saying, but also to what they are about to say and how this satisfies the requirements of the computer. An awareness of these matters is critical to whether the call-taker needs to initiate a particular question or pass up the opportunity to do so. Of direct relevance to the dispatch of help is the caller’s ability or willingness to act as an informant. Thus, eliciting and providing information is a powerful contingency, as well as the processing and entering of
this information into the computer. Zimmerman also notes that the first turn by the call-taker has consequences for the caller’s first turn, and thus how the reason for calling is expressed. Callers engage in a number of actions when providing the reason for the call – requests, reports, descriptions and narratives. First, when the call opens with the ‘categorical identifier’ of “Mid-City Emergency”, it does not necessarily determine the nature of the emergency as early as possible in the call. For example, where callers respond by producing requests for, say, a paramedic, the police or fire, it is displayed by the call-taker as insufficient for the dispatch of help. Conversely, reports, descriptions and narratives elicited in response to the question “what is your emergency?” formulate troubles which the call-taker can readily characterise, and which furnishes them with the information required to dispatch help. Hence, the ‘reason for calling’ question is crucial for establishing the “business at hand” (Button & Casey, 1884), and although a question may project an answer, it does not guarantee that it will be an answer. Zimmerman also observes that the concerns of the caller and the call-taker are not always aligned at each point in the call, and that the task of the call-taker is to transform the experiences of the caller into a “routine call”, the characteristics of which are standardised and displayed through the “situated interactional process” of the call. Divergence is an important contingency for the call-taker because the caller creates obstacles to the completion of the call and the production of help. Nevertheless, divergences are amenable to interactional practices which bring the call back into realignment. These observations are relevant for my research in that the provision of help by NHS Direct is contingent on the nurse and caller fulfilling particular organisational requirements in terms of processing the call. However, we have yet to examine how this contingency is managed interactionally.

Moving on from studies examining the contingencies involved in getting to the problem, Butler (2009), in calls to Child Health Line in Australia, also examined the call processing requirements imposed by the organisation’s service guidelines, and how nurses managed these constraints on the content of the advice they could contribute. This was achieved in three ways: i) by invoking the membership categorisation of ‘nurse’ to set the boundaries of expertise; ii)
privileging parental authority to make decisions using phrases such as “it’s your choice”; and iii) by re-specifying a ‘medical’ problem as non-medical. This study is important on two levels. First, it provides a rare glimpse into the interactional work of the nurse, by providing a fascinating insight into the display of epistemic rights and entitlements ascribed to a profession that has received limited attention in interactional research. Second, it reveals the interactional practices employed by nurses in the management of constraints on advising but not advising, callers to a telephone helpline, or the work of camouflaging advice in this setting.

These findings are important for my own study because the work of NHS Direct nurses is governed by organisational guidelines in the form of clinical decision support software, which limits what can be said. Nonetheless, we have yet to examine the interactional resources deployed not just by the nurse, but also the caller in the accomplishment of calls mediated by NHS Direct’s clinical decision support system.

Pudlinski (2002) investigated responses to advice in calls to a “warm line”, a peer-run service staffed by peers, consumers or clients of the community’s mental health system. The findings of the study show that rejection of advice occurred more often than not. Moreover, callers used eleven different methods to reject advice and seven for accepting advice. Straightforward rejection of advice, classed as unmitigated rejection, employs a marked acknowledgement of “no” plus an account. Straightforward acceptance of advice, classed as unmitigated acceptance, involves the caller reporting activities that illustrate acceptance followed by “yeah”. Minimal acknowledgements were depicted as multifunctional, made up of the three functions of i) confirming the previous turn ii) keeping the call-taker as the teller working to keep the talk going, and iii) implying passive rejection. Minimal acknowledgements also indicate rejection, signalled by an ‘oh’ preface. To a far lesser extent in this study, minimal acknowledgements can signal hesitant acceptance. In a complex account,
Pudlinski argues that minimal responses, which are tied to silence and followed by the same speaker who aligns with the prior talk, signals hesitant acceptance.

This study is particularly relevant for my research because it shifts the emphasis of advice reception away from the professional’s role, to examine the work of acceptance or rejection from the position of the caller. The acceptance of advice in calls to NHS Direct is an organisational goal that has received close scrutiny (Munro et al., 1998, 2000a, 2000b; Munro et al., 2001; NHS Direct, 2009a, 2009b); however, we have yet to examine how advice is received interactionally.

A larger body of work examining institutional interactions generally is also relevant to my research. There has been a sustained interest in medical – that is, doctor-patient – interaction spanning many years, examining reasons for the visit (Heritage, 2006; J. D Robinson, 2005; J. D. Robinson, 2006); history-taking (Boyd & Heritage, 2006; Heritage, 2002; Heritage, 2009b; Heritage et al., 2007; Raymond, 2003, 2006); delivery of the diagnosis (Maynard, 2003; Peräkyla, 1998, 2006); patient resistance (Stivers, 2005, 2006, 2007; Stivers & Heritage, 2001), and misalignments (Drew, 2006). For an important collection of these and other social interaction and language studies used in a variety of institutional contexts, see Drew & Heritage (1992a) and Heritage and Maynard (2006).

Combined, this work sheds light on interactions between doctors and patients, and provides a springboard from which other forms of health professional patient/client interaction can be considered. The collective works also illustrate how the close examination of talk using conversation analysis can reveal the interactional practices invoked in medical interaction, which are not exposed by using the classification system/inventory typically used to assess interaction in this setting (Byrne & Long, 1976; Kurtz et al., 2005; D. L. Roter & Hall, 1989; J. Silverman et al., 1998) and casts social discourses (Potter, 2001) as existing independently, which are ‘out there’ waiting to be examined. Such theoretical
models are debatably inadequate for explaining the intimacies or details of how medical interactions are constructed. Nevertheless, it is an approach that has largely been borrowed by nursing from medicine, in order to illuminate the nurse-patient/client interaction.

In summary, conversation analysis has a long-standing interest in the work of helplines as well as face-to-face doctor-patient interactions. In the former, studies have sought to illuminate the interactional practices of callers and call-takers in the pursuit of help, for example how the organisation is “talked into being”; how the call process requirements of the organisation and the local contingencies of the call are managed, and how advice is received. In the latter, studies have eschewed classification systems as a means of understanding doctor-patient interactions in favour of a close examination of the interactional features of, for example, history-taking and diagnosis.

**Nurse-patient interaction**

I mentioned in the last section that nursing, like medicine, tends to employ classification systems to shed light on what happens in nurse-patient interaction. Indeed, as early as 1963, Hays and Larsen (1963) argued that nurses need clear guidelines to guide verbal exchanges. They proposed a range of interpersonal techniques consisting of twenty-five therapeutic techniques, for example silence, giving recognition, and summarising, and nineteen non-therapeutic techniques such as advising, reassuring and stereotypical responses. It was suggested that nurses could evaluate their verbal exchanges using this typology. However, twenty years later, in her seminal study, when Macleod-Clark came to use it as a tool for evaluating nurse-patient communication in ward settings, inter-rater reliability was repeatedly found to be disappointingly low (Macleod-Clark, 1983). She embarked on developing another typology (p. 218 and p. 315) of encouraging behaviour descriptors, for example using open questions, clarification, summarising and discouraging behaviours such as using leading or closed
questions and changing the subject. Using audio and video tape recordings of interactions on surgical wards, Macleod-Clark suggested that nurses regularly control conversations with patients in various ways, by, for instance, limiting the length and content of conversations, and that patients adopt a passive stance.

Macleod-Clark’s study continues to contribute to discussion about nurse-patient communication. However, there are a number of observations to make about this study, which has relevance for my research method. Although the interactions were audio and video taped, transcription was limited to an orthographic gloss of only the audio data. This meant that the transcriptions were devoid of important contextual matter, i.e. the organisational environment in which the nurses and patients were interacting, which was bound by specific rules and regulations governing conduct and behaviour. For example, Macleod-Clark states that many of the nurses’ interactions with the patients were task focused, for example giving patients medication, changing wound dressings and monitoring temperature, pulse, respiration, and blood pressure. However, the import of the task for the interaction was not explored at all. Indeed, the talk and the task were separated out and treated as not being interactionally or relevantly connected. For instance, part of a nurse’s role is to complete fluid balance charts at the patient’s bedside (p. 225), prepare a patient for theatre (p. 231), or give a suppository (p. 228). Arguably, of interest in Macleod-Clark’s work is the collaborative accomplishment of such tasks, the interweaving of talk and task, and how one is of consequence for the other. Disconnecting talk from the lively concern of the task, merely glossing over the behaviours of the nurse as variously child-like; blocking conversation by using the terms “okay” and “alright”, or as delivering questions as orders as a means of manipulation, neglects the consideration of the turn-by-turn interactional and collaborative proficiency of both the nurse and the patient in the completion of these activities. Talk may well accomplish one or more actions. For example, “Can I take your temperature please?” (p. 226) may work to announce an upcoming organisational task, whilst simultaneously be designed as a question relating to consent, with a social element to it. This is not, however, necessarily the same as being manipulated (p. 226). Lexical items such as ‘we’ rather than being an
unnecessary and potential barrier to communication (p. 228), could be viewed as an enactment of the organisation or, indeed, the nurse as a professional, mandated to carry out particular tasks such as inserting a suppository.

Even though coders, who were responsible for classifying the interactions, were critical that there was not enough contextual information on the transcript to allow for adequate categorisation (p.150), video data were not considered to have facilitated coding and classification (p.151). Video data were thus not presented at all, but merely used for background information as it was time-consuming to replay segments of interaction for analysis (p.151). Nevertheless, the work of Macleod-Clark established that nurse-patient communication is amenable to empirical observation.

This study is an important benchmark for my research, inasmuch that it makes a major contribution to our understanding of how nurses apparently talk with patients. The findings, based on a restricted analysis of talk, were, however, largely negative, and continue to cast a shadow over the communication skills of nurses. My research will hopefully add to these findings through the conducting of a fine-grained analysis of talk, which begins with capturing what was interactionally relevant for the nurse and caller as speakers and listeners. I have also captured and analysed naturally occurring talk on audiotapes, but my data collection and analysis focus on what was made relevant in the talk for the participants; this may be the sound of the computer keyboard taps or the caller expanding on problem presentation, dealing with computer problems or a child crying in the background.

How nurses communicate with patients was also a focus of enquiry by early nursing theorists, who considered communication to be central to nursing work (King, 1981; Orlando, 1961; Pearson et al., 2005; Peplau, 1952). Embedded though these theories are in the psyche of nursing, communication research has neglected to test them empirically. Nevertheless, face-to-face
communication between nurses and patients has been extensively studied. For substantial reviews of this literature, see Jarrett and Payne (1995), Caris-Verhallen (1997) and Shattell (2004). Engaging a range of methodological approaches, these studies have used participant or non-participant observation of interactions; tape or video recorded interactions subjected to content analysis; experiments using touch and no touch; video vignettes, or real time video data; and interview or questionnaires. Collectively, this research points to a low level of interaction between nurses and patients. For example, communication with patients has been often found to be task-focused, short-lived and superficial; nurses control what is talked about, and talk varies depending on the age and cognitive ability of the patient. Studies have largely focused on nurses’ communicative strategies, neglecting the patient’s contribution (Jarrett & Payne, 1995). Nonetheless, patients have been observed skilfully managing the nurse’s power by, for example, not doing as they are told.

Since the early nursing theorists topicalised nurse-patient interaction and paved the way for communication as a focus of research, communication training has become a feature of nurse education, which has in turn become the subject of evaluation (Kruijver et al., 2000). Although relatively few studies have evaluated the effects of communication skills training, those which do exist are methodologically varied, ranging from video and/or audio recording of interactions evaluated using rating scales, questionnaires, attitudinal surveys, or semi-structured interviews. Collectively, the findings suggest that training showed limited effects on skills or behavioural change.

I have already mentioned that methods used to assess nurse-patient interaction have themselves drawn attention in the literature (Hays & Larsen, 1963; Macleod-Clark, 1983). In a broad review of assessment instruments, Caris-Verhallen (2004) found that they typically employed qualitative methods such as participant and non-participant observation, audio and/or video recordings subjected to discourse analysis, content or thematic analysis, quantitative methods using coding systems, behaviour rating scales, the Roter Interaction
Analysis System (RIAS), or the Cancer Research Campaign Interview Rating Manual (CRCIRM) to assess interaction. The results suggest that these methods are time-consuming. However, it was thought that this could be overcome by analysing only a specific action, such as a change in the topic of talk, which would provide enough information to verify whether the segment of the interaction was comparable with speech patterns observed across the entire interaction. Nevertheless, Caris-Verhallen (2004) called for the development of “advanced observational instruments” and the “sequential content coding” of interactions.

Communication training programmes for nurses have also come under close scrutiny. Chant et al. (2002) found a number of challenges yet to be addressed. These include: i) the shortage of provision for training; ii) wide variability in the content of training; iii) a lack of specialisation, tailoring training to particular settings such as the dying, older people, unconscious patients, and communicating over the telephone; iv) neglect of the relational aspect of communication in favour of mechanistic components such as questioning and dealing with confrontation; v) the failure to evaluate the effectiveness of training; vi) communication skills teaching as a form of social control, which prioritises speed over ‘good’ communication; vii) the enduring gap between what is taught and what is practiced; viii) the rule-governed nature of nursing work as constrained by organisational policy; ix) dominant medical and managerial discourses, whereby patient non-compliance is seen as ‘irrational’ and not a feature of collaborative accomplishment; and x) occupational culture and the dominance of physical labour over talking. It is evident from this work that the availability and content of training programmes are themselves problematic.

A small clutch of studies have begun to explore the complexities of nurse-patient communication using conversation analysis as a method for unravelling, for example, advice-giving in health visiting (Heritage & Sefi, 1992); nurse-patient communication in cancer care (Jarrett, 1996); humour (Mallett & A’Hern, 1996); patient participation in medication interactions (Rycroft-Malone, 2002);
and carer and health care professional relationships (May, 2003). These studies have shown that advice-giving is predominantly unilateral, both in its initiation and delivery by health visitors – with little effort to accommodate advice-giving to the circumstances of the mother, and the majority of advice was received with passive or active resistance (Heritage & Sefi, 1992); nurses and patients establish and maintain ‘comfortable’ conversation, which avoids difficulty or embarrassment in the pursuit of knowledge, optimism, relationship and helping (Jarrett, 1996); humour is used to avoid conflict (Mallett & A’Hern, 1996); nurses initiate and control conversations with patients, thus inhibiting the patients’ contribution (Rycroft-Malone, 2002); and knowledge and competence are interactional resources for both the nurse and carer (May, 2003). However, its more widespread employment in the examination of nurse-patient interactions has yet to be realised, and it has yet to be used to examine calls to NHS Direct.

In summary, the findings suggest a low level of interaction between nurses and patients in face-to-face talk; moreover, talk is adapted to suit the patient’s age and cognitive ability, and is used to exert power, by controlling what is talked about. Communication skills training is variable and has proved to be inadequate, with arguable impact on behaviour. Observational instruments or rating scales assessing communication skills have proved popular, though time-consuming. These studies have illustrated that face-to-face talk between nurses and patients is not unproblematic both in terms of the actions performed, but also how it is assessed. Arguably, the separation of the nurse and caller spatially and the addition of the telephone and computer have the potential to augment this complexity. My research will shift emphasis away from coding and categorisation towards a micro-analysis of the structural shape, design features and sequential position of talk and the interactional relevances displayed by both participants.
The introduction of computer decision support software

A turning point in the provision of telephone health advice in England was the development and use of computer-based decision support software (CDSS), or what has been described as ‘expert systems’ (Hutchins, 1995).

The growth of the telephone and more recently the use of computer decision support software in the delivery of health care, arguably adds to the complexity of interaction, in that it becomes the ‘third party’ in the consultation (Lepkowski et al., 1998) cited in Fuchs (2002) with its own set of rules governing the interaction. In his study examining the impact of technology on computer-assisted telephone interviews, Fuchs suggests that computer-assisted telephone interviewing (CAI) techniques consist of at least five stages: i) the interviewer finding the next item on the computer screen and understanding the task associated with it, for example the question being presented by the computer; ii) the interviewer reading the question text; iii) the respondent understanding the question, generating an answer and providing the response; iv) the interviewer probing for additional information, as instructed by the CAI or searching for respondent prompted information; and v) the interviewer entering the data into the CAI (p. 474), which may overlap with one another.

Fuchs also suggested that at every stage the design of the computer decision support software system may influence the behaviours of the user or human actor. For example, i) depending on how the information is presented by the CAI, the user may find it easy or difficult to use and be involved in scrolling to find what is required; ii) the CAI may force the user to spend more time engaged with the computer than the respondent; iii) these behaviours may affect how the respondent generates answers to the questions; iv) if asked by a respondent to explain particular questions, the user may not be able to obtain the information to enable them to do this; and v) the way the CAI is designed may affect how easy it is for the user to enter data. The findings of this study (Fuchs, 2002) show that the rigidity associated with CAIs, in that questions
must be asked and answered in a particular order before the system will move on to the next screen, is both advantageous and disadvantageous. It relieves the user of having to roam the system to find appropriate questions/information, but it also makes the order of questions very strict, and if not followed presents the user with dilemmas about what to do next. This rigidity means that the user has to ask the respondent more questions and, consequently, interviews take longer than paper-based ones in which data can be entered in whatever order it arrives. In addition, because the user has to enter information before the next screen and question pop up, they cannot anticipate upcoming questions while recording answers to previous ones. Thus, it is argued that the interviewer or user loses the ‘big picture’ and the relevance of some questions may be unclear. When additional information not yet requested by the CAI flows from the respondent, the interviewer has to decide whether it might be relevant and what to do with it, and more importantly what to do with upcoming questions addressing this information if/when they arise. Does she/he continue with questions as presented by the CAI, thus risking irritating the respondent, or skip the process? Interviewers were found to react to this dilemma by producing unscripted behaviours, deviating from the question wording presented by the CAI in order to make the conversation run smoother. They also anticipated responses and entered them before they were provided. Moreover, the respondents anticipated questions and provided answers in advance, which made some questions redundant. In summary, interviewers did not want to ask for information they already had; they did not want to ignore the contributions made by the respondent and they wanted to follow conversational rules. The interviewer’s priority was considered to be that of customising the question-answer process, taking account of respondents’ contributions that the CAI did not anticipate. Although the study conducted by Fuchs is not located in a health care setting, it nevertheless serves as a point of departure when examining calls to NHS Direct.

Designed to “provide clinicians with patient-specific assessments or recommendations to aid clinical decision making” (Kawamoto et al., 2005), computers are a relatively common feature of health helpline consultations in
the United States and Sweden (Dale, 1998), but were not introduced until relatively recently in the UK. A number of systematic reviews have sought to assess the effects of computer-based clinical decision support systems (CDSSs) on physician performance and patient outcomes (Hunt et al., 1998) in order to identify the characteristics of CDSS that predict benefit (Garg et al., 2005) and identify features of CDSS critical for improving clinical practice (Kawamoto et al., 2005).

The findings suggest that CDSSs can enhance clinical performance for drug dosing, preventive care and other aspects of medical care, but not convincingly for diagnosis (Hunt et al., 1998); CDSS was beneficial in the improvement of practitioner performance in disease management, health promotion and prescribing, but not consistent for diagnosis (Garg et al., 2005); and the CDSS features recommended for improving practice included: (a) decision support provided automatically as part of clinician workflow, (b) decision support delivered at the time and location of decision making, (c) actionable recommendations provided, and (d) computer rather than paper-based. A common theme running through the findings is that the CDSS should be easy to use and must minimise the effort required by clinicians to receive and act on what it produces (Kawamoto et al., 2005). However, although the effects of CDSSs on patient outcomes have been insufficiently studied (Garg et al., 2005; Hunt et al., 1998), there have been a few studies of what Vinkhuyzen and Whalen (2007) describe as “expert systems” or “the system of person-in-interaction-with technology” (Hutchins, 1995), i.e. studies of how people with expert knowledge and experience use ‘intelligent’ systems.

In an early study, Heath (1983) examined computer-aided diagnosis in consultations between doctors and patients in English primary care settings. This study found that patients have a number of interactional resources for dealing with the doctor’s use of the computer during a consultation. These include gestural activity or speech perturbation, which worked to draw the attention of the doctor, without making explicit his level of involvement. However, the computer was found to disrupt the normal ebb and flow of the
consultation. For example, the computer disturbed the patient’s discussion of their problem, and as such represented a poor source of information. Indeed, close examination of the data revealed that many issues raised by the patient, whilst the doctor was using the computer, were ignored or forgotten. Moreover, a recurring feature of the interaction was that the doctor questioned the patient on issues that the patient had already dealt with whilst the doctor was engaged with the computer. Therefore, in continually working to realign the business of the consultation, the doctor’s orientation to the computer interfered with the pace and the flow of the discussion between the patient and the doctor. So, in addition to the problems of disturbed information and the consequences of this for doctor involvement, using the computer whilst the patient was speaking appeared to be an uneconomic use of the doctor’s time. Heath also found that both the doctor and the patient oriented to the sounds made by the computer, such that highly complex and precise ordering not only between the doctor and patient, but also the doctor, patient and computer were observable. For example, talk occurs in between audible computer sounds.

In later studies, Greatbatch (2006; Greatbatch et al., 1995) examined the coordination of talk and computer-based activities in consultations between doctors and patients in English primary care settings. The findings of this work suggest that doctors and patients synchronise their prescription-related talk with computer-related actions, for instance, a doctor’s coordinated information-giving such as medication dosage, with the demands of the computer. This was achieved in two ways, each of which worked to minimise the disjuncture between talk and computer-based activities. First, the doctor spoke to the patient about medication dosage when the cursor was located in the field, which requires this information. Second, the doctor combines talking with the patient whilst typing information into the computer. In addition to this, doctors appear to orient to the patients’ conduct when using the computer, for example gaze and movement, which, as seen in the study conducted by Heath (1983), suggests that patients orient to the doctor’s level of involvement, particularly when a response is due to something they have said, but is not forthcoming, because the doctor is using the computer. Doctors were also observed providing information not prompted by the requirements of the computer. This
was accomplished when the cognitive and physical demands of the computer were low. Patients also displayed resources which appeared to accommodate the requirements of the computer. For example, using minimal responses to the doctor’s advice and withdrawing their gaze from the doctor appeared to avoid actions which might disrupt their computer-based activities. Moreover, if patients asked questions, they timed them to coincide with a ‘juncture’ in the doctor’s use of the computer. Greatbatch concludes that coordinating talk and computer-based activities can work to minimise any disjuncture between the two activities. However, this can also maximise disruption by (i) remaining silent in response to a patient’s talk, or otherwise restricting their contributions whilst concentrating on the computer; (ii) delaying or pausing in the middle of their own utterance whilst attending to the computer; (iii) confining their gaze to the computer; (iv) an abrupt topic shift in order to attend to the demands of the computer; and (v) the abrupt withdrawal of gaze from the patient to the computer. Collectively, these studies suggest that coordinating computer-based activities and talk is not an unremarkable endeavour. Both the doctor and patient orient to the computer in ways which display synchronisation of talk with computer-related actions. Nevertheless, whilst the doctor may endeavour to minimise the disjuncture between the computer-based activities and talk, it can result in a breach in their involvement in the ongoing demands of the consultation.

It is evident in these studies that coordinating talk between patients, along with the demands of computer-based activities, presents an interactional challenge for the doctor and patient. However, nurses are increasingly being substituted for doctors, particularly in primary care, and nurse-led consultations are becoming more commonplace. The establishment of NHS Direct illustrates this very well, as nurses using clinical decision support software assess callers’ health concerns.

NHS Direct has attracted much attention, both in the form of comment and opinion in the media and a small number of substantial empirical studies. These
have largely sought to describe and quantify the nature of demand (Munro et al., 1998, 2000a; Munro et al., 2001; Munro et al., 2005); the characteristics of the nurses (Morrell et al., 2002), and the “core service” for instance awareness of the service, satisfaction, efficiency and call outcome (NHS Direct, 2009a). It has also attracted a number of government-commissioned strategy documents, reports, audits, and reviews (Commission for Health, 2004; Department of Health, 2003; KPMG Consulting Ltd, 1999; Lester, 2004; National Audit Office, 2002). Combined, this appears to represent a not insignificant body of literature. However, much of it focuses on and examines past and future investment, capacity and the impact of the service on other parts of the NHS.

Studies have however begun to examine nurses’ use of the CAS. Ashmore et al. (2001) examined the therapeutic interventions of calls to NHS Direct, by using a simulated mental health call, which was analysed using Heron’s (1986) framework. The findings suggest that nurses adopted a range of interactional strategies for managing the software, which included using a large number of “okays” and what appeared to be ‘filling questions’, which appeared to buy time to seek guidance from the software, before responding to the caller. Ashmore argues that nurses need to learn to engage the caller, while operating the computer decision support system. Interestingly, however, although advice-giving was found to be prescriptive, it was also informative. Considered to be a reflection of the nurse’s lack of experience, there was nevertheless an attempt to match the caller’s concern with the output of the computer. Johnson (2001) also highlighted concern about adherence to the algorithm by the nurse and the risk of poor advice being given.

The computer figured quite prominently in another study in which calls to NHS Direct were evaluated using three scenario-based calls (Williams, 2000). Calls that came in for most criticism were those where the nurse appeared to follow the computer in a mechanistic fashion or, in contrast, where they allowed their own knowledge and beliefs to influence the advice given. It also raised crucial questions about the boundaries of the nurses’ practice. For example, can
nurses treat, and is it true that nurses do not diagnose? Although the NHS Executive says they don’t diagnose, the study argues that there is a fine line between advising and diagnosing.

The role of computer decision support software is brought more sharply into focus when we consider whether it is there to support decisions made by the nurses as professionals or to answer queries about any aspect of health and is thus an “expert system” (Thornett, 2001). In the previous study, it was unclear what the role of the system was, and how the nurse should respond to it; the nurse was apparently damned for adhering to it and damned for not. Interestingly, nurses themselves described a somewhat symbiotic relationship between them and the computer (O’Cathain et al., 2004). For example, they cast the software as a safety net, providing consistency as a script relied upon more heavily when the nurse had limited knowledge of a problem. In addition, nurses contextualised their use of the system, asking questions not prompted by the software or probing for information when the caller’s responses did not fit the requirements of the software, in order to make it more amenable for entry into the computer. Nurses also perceived themselves as active and independent decision-makers, applying ‘critical thinking’ and using the software as a means of providing consensus. Although the nurses aspired to this ideal, it was not always apparent. During busy periods or monotonous calls, a less active role in the consultation was expressed, where there was the potential to just be ‘going through the motions’. This feeling was experienced and described as “chanting from a script” and being “like a battery hen” by callers (Goode et al., 2004). Although the nurses described the software in reasonably benevolent terms, there was some resistance, describing it as interfering with the consultation, to the extent that some nurses ‘flew by the seat of their pants’, not using the triage process at all (O’Cathain et al., 2004). Experience with the software appeared to modify the nurses’ relationship with it, and although they internalised the software script as their own, there was resistance to the limitations imposed on their role by the software and the organisation’s policy first to always use an algorithm and second to avoid straying from it. When it came to resisting the output of the software in the form of a disposition or
course of action, accounting for this resistance was considered to be too hard, so was ostensibly avoided, by following if not agreeing with the output. This study illustrates the contradictions encountered by the nurses in their use of the decision support software. They espouse the ideal of independent decision making, turning a blind eye to the power of the system, which is evident in their internalisation of the scripts yet fear going against the preset format.

Further studies have also begun to illuminate the tensions between the ‘abstract universalism’ of the clinical decision support system employed in NHS Direct and the “tacit practices and knowledge that nurses use and rely upon to interpret the conduct of patient/callers” (Greatbatch, 2005; Hanlon et al., 2005). The findings here suggest that nurses privilege their own expertise over that of the clinical assessment system, using the technology merely as a tool, and echo an earlier study examining medical emergency calls in Norway as mediated by technology, which found that nurses function as “competent suppliers of advice” or “medical oracles”, and that the technology designed to guide nurses’ decisions fails to take account of “the dynamics of real nursing practice” (Tjora, 2000).

The evidence suggests that computer decision support software elicits a range of conflicting emotions and practices in nurses. Callers however have been found to consider the advice helpful because it offers reassurance (O’Cathain et al., 2000); but in one study just under two-thirds of callers triaged to attend accident and emergency did so with the same complaint, and a small number of callers attended accident and emergency having been given other advice (Foster et al., 2003). That callers do not always do as they are advised illustrates the conflicts they also encounter.

Arguably, the success of the decision support system is based on the ability to integrate it into everyday interactional practice. These studies collectively provide important observations into the use of computer decision support
software in the production of help in calls to NHS Direct. However, they are limited in their exploration of the situated practical actions through which nurses and callers coordinate the parallel activities of computer-based activity and talk in the accomplishment of help. As Vinkhuyzen and Whalen (2007) argue, only by examining the real time performance of professionals using an “expert system” will we be able to go beyond “intelligence in the abstract” and “consider the problem of reasoning and action in situ”.

In summary, computer decision support software was originally designed to aid clinical decision making. However, it has been found to disrupt the normal ebb and flow of the consultation, in that it disturbs the patient’s discussion of their problem – many issues raised by the patient, whilst the doctor was using the computer, were ignored or forgotten, and the doctor questioned the patient on issues that the patient had already dealt whilst the doctor was engaged with the computer. Whilst the doctor may endeavour to minimise the disjuncture between the computer-based activities and talk, and both the doctor and patient orient to the computer in ways which display synchronisation of talk with computer related actions, this may nevertheless result in a breach in their involvement in the ongoing demands of the consultation. Whilst research examining talk in NHS Direct and how nurses and callers orient to and coordinate the computer decision support system is limited, those examples that do exist suggest that nurses privilege their own expertise over that of the clinical assessment system, that they function as “competent suppliers of advice” or “medical oracles” and yet the technology designed to guide nurses’ decisions fails to take account of “the dynamics of real nursing practice” (Tjora, 2000), and they fear going against the predetermined format.

Summary

This chapter has located my research within a wider body of work on providing help over the telephone in a health care setting. In summary, the telephone is a useful, though not unproblematic, resource in managing demand for health
care. Using a variety of methodological approaches, studies have suggested that history-taking is often insufficient, decision making unclear, outcomes inappropriate, and advice potentially hazardous. Caller compliance and satisfaction are, however, reportedly high. The development of benchmarks or rating scales to assess communication skills focus on a nurse's contribution to the exclusion of the caller.

Designated helplines and commercial call centres have multiplied in recent years, providing services for public, private and third sector organisations. Although there are a number of advantages to telephone help including accessibility, help 'now' and anonymity, it is not without its shortcomings. These include the potential for misunderstanding, miscommunication or misalignment of the agenda between the caller and call-taker. Studies have largely focused on demand for and the quality of call centre work, staff competence, management and control, and worker resistance. The extension of the call centre to professional fields of work such as nursing has thus far received limited attention in the literature.

Seeking and providing help is not necessarily a straightforward activity; indeed, help is not always understood in the same way by the caller and call-taker. Although built on mutual understandings of everyday conversations, talk is nevertheless modified for helpline interactions, often displaying a combination of "business-like" and "casual" talk. Moreover, callers calibrate for the expertise or help they require when first selecting which helpline to phone, and also by how they orient to the help offered.

Conversation analysis has a long-standing interest in the work of helplines and face-to-face doctor-patient interactions. In the former, studies have sought to illuminate the interactional practices of callers and call-takers in the pursuit of help, for example how the organisation is "talked into being", how the call process requirements of the organisation and the local contingencies of the call are managed, and advice is received. In the latter, conversation analytic studies
have examined the specific interactional features of, for example, history-taking and diagnosis.

With regard to face-to-face nurse-patient communication, studies have shown that it is not unproblematic. Findings suggest that nurses interaction with patients is generally short and superficial, is task focused, varies according to the patient’s age and cognitive ability, and is used to exert power, by controlling topic talk. With both doctors and nurses, observational instruments or rating scales assessing communication skills have proved popular, though time-consuming. Moreover, communication skills training have proved to be inadequate.

(Lepkowski et al., 1998) conceptualises computers used in telephone interviews as the “third party” in the consultation. With its own set of rules which govern the interaction, computers can influence interactional behaviours and interviewers can be observed deviating from the computer’s output in the pursuit of the smooth running of the conversation. Whilst research examining talk in NHS Direct, and how nurses orient to and coordinate the computer decision support system is limited, those examples that do exist suggest that nurses perceive themselves as independent decision makers with the software providing consensus; privilege their own expertise over that of the clinical assessment system; function as “competent suppliers of advice” or “medical oracles”; and that the technology designed to guide nurses’ decisions fails to take account of “the dynamics of real nursing practice” (Tjora, 2000). However, in contrast, nurses are reluctant to stray from the software because to account for this would be too difficult.

To conclude, talk between health professionals and patients is ordinary yet complex, and not entirely unproblematic. Add to the mix the telephone and computer, and there is arguably a melting pot of interactivity yet to be understood. Whilst this might seem unremarkable, help seeking and help
providing have their own sets of challenges, as help may mean different things to the seeker and the provider. Traditional reductionist approaches to identifying what is going on in interaction arguably limit what is discoverable. Taking the view of Whalen and Zimmerman (1987), help is not just out there waiting to be examined – it is created turn by turn, in and through talk, by the participants. This study will examine the social organisation of talk in telephone- and computer-mediated calls to NHS Direct.

**Structure of the thesis**

Chapter Two describes the research method and methodology. Initially, I provide an account of data collection. I then discuss how two theoretical traditions (ethnomethodology and conversation analysis) afford the opportunity of an alternative perspective for the understanding of talk between nurses and callers to NHS Direct.

Chapter Three describes the environment within which calls to NHS Direct are managed. The first section describes the work of NHS Direct, the setting in which data were collected, and the work of the call handlers and nurse advisors as mediated by the clinical decision support software. The second section of this chapter will illuminate a typical telephone call, set against the backdrop of the clinical decision support software.

Chapter Four examines the accomplishment of the Clinical Assessment System (CAS)'s questions. In the first section I examine how questions are designed and responded to during the sequence in which the caller’s problem is identified. In the second section, I examine how questions are designed and responded to during the sequence in which information is gathered, commonly referred to as history-taking.

Chapter Five examines the delivery of the disposition or course of action which the caller may take to manage their problem. The first section moves through a
number of examples to exhibit the dimensions of the delivery of the disposition. The following sections comprise three related analytic foci.

Chapter Six examines how callers receive the disposition or course of action as produced by the Clinical Assessment System (CAS), and the consequences of this for the trajectory of the call. The first section moves through a number of examples to exhibit the dimensions of receiving the disposition. The following sections comprise three related analytic foci.

Chapter Seven summarises the main findings of this study by providing a review of each analytic chapter, before exploring what contribution my research has made, if any, to addressing the gap in the exiting literature. Finally, I reflect on the methodological approach used in this study; further research and implications for practice.
CHAPTER 2

Research Methods and Methodology

In Chapter 2, it was argued that previous research approaches examining help seeking and help giving behaviour conducted over the telephone have made a limited contribution to our understanding of the interactional processes involved in the management of such telephone calls as mediated by computer decision support software.

This study seeks to contribute to what we currently know about telephone helplines and to extend our knowledge about how interactions are organised between nurses and callers to NHS Direct, a national telephone health helpline in England, which employs computer decision support software to help nurses assess callers’ symptoms.

The aim of this study is to examine, turn by turn, the social accomplishment of telephone calls to NHS Direct, mediated by computer decision support software. This chapter describes the research method and methodology. To begin I will provide an account of data collection. I will then discuss how two theoretical traditions, ethnomethodology and conversation analysis, afford the opportunity of an alternative perspective for the understanding of talk between nurses and callers to NHS Direct.

Origins of the study

My interest in how nurses and callers to NHS Direct talk to one another originated from my previous work as a manager within NHS Direct when it was originally set up in 1998. I began to observe my own behaviour and also that of my colleagues as we sought to provide help to callers concerned about a health
problem. We noticed that using a computer to help us assess callers’ problems added a new dimension to our practice as nurses. During the course of our everyday work we considered ourselves to be expert at answering queries from patients, their relatives and friends, both face-to-face and over the telephone. Soon, however, we were required to interleave our professional expertise with that of an ‘expert system’ in the form of computer decision support software. This presented a number of challenges as we tried to balance the parallel activities of talking on the phone, navigating software, reading a computer screen and typing in information, as well as dealing with the particular contingencies of each call.

As a manager, one of my responsibilities was to review calls using a call review tool (a checklist of activities the nurse must be observed to complete during each call, similar to that shown in Appendix 1). As all calls are routinely audio recorded, this was typically achieved by randomly selecting a call and going through the audio recording with the nurse. As the nurse and I worked our way through this checklist, I began to question, for example, not just whether the nurse was using “appropriate questioning skills.....” (Skill 13) or communicates disposition clearly...." (Skill 19), but how we knew it to have been the case. It seemed to me that there was more to accomplishing these activities than at first seemed apparent. For instance, some calls were much longer than others; some callers answered questions minimally, while others expanded their responses; some nurses struggled with the questions presented by the clinical decision support software or to close the call; and some callers appeared to be reticent about the outcome of the call. A review of the research literature identified a gap in our current understanding of how nurses and patients talk to one another over the telephone and manage the computer decision support software. Therefore, the origins of this study were born, with the parallel aims of contributing to what we currently know about calls to helplines generally, telephone talk between nurses and patients/callers mediated by computer decision support software and hopefully encourage conversation about a relatively unexplored brand of health care – NHS Direct.
Chapter 2 Research Methods and Methodology

Access to NHS Direct

Data, determined by the aim of the study, were to be routinely recorded calls to NHS Direct. There are thirty-five NHS Direct call centres. I worked at one regional site which, through a network of five call centres, covered a large region of England. I discussed the study with the manager and the Chief Executive, who initially gave their consent for the site to participate. I pursued ethical approval, but during this process, for various reasons, they withdrew their support. Fortunately, I knew many other call centre managers and decided to approach one outside the area I worked in, yet close to where I was studying, simply for convenience. In 2002, I presented an outline of my research protocol, which was relayed to the senior management team, who agreed – subject to ethical approval (Appendix 2) – to the site being the setting for the study (Appendix 3). Ethical approval was granted by Southampton and South West Hampshire Local Research Ethics Committee in May 2003.

The early stages of the research were exploratory. My initial observations about calls were based on my experience as a manager. Although all calls to NHS Direct were managed by the same software, I was unsure whether there were local variations in its application. I therefore arranged to spend time in the ‘field’ at the NHS Direct site, observing nurses taking calls, as a researcher rather than manager. The nurse consultant approached nurses and call handlers (now known as health advisors) on my behalf and asked permission for me to sit and observe and listen to them taking calls. They were at liberty to refuse if they wished, and to my knowledge all those approached agreed. In addition, callers were also given the opportunity to refuse to let me listen to their ‘live’ call. In March 2002, I spent four shifts, spanning 10.00am to approximately 01.00am over a period of four days, observing calls with different call handlers and nurse advisors. I was required to sign a confidentiality agreement on entering the organisation and before listening to any calls.
Chapter 2 Research Methods and Methodology

The variety of calls observed and listened to included suspected stroke, breast-feeding problems, flu, asthma attack, diarrhoea and vomiting, chest pain, abdominal pain, trauma, panic attacks, and toothache. The nurses had varied levels of experience within primary care and secondary care working in hospital. I was interested to note that individual nurses expressed different levels of confidence when dealing with calls beyond what had previously been their professional domain of expertise (Leprohon & Patel, 1995). For example, a nurse commented that he/she knew little about a presenting problem such as mastitis (inflammation of breast tissues commonly associated with childbirth) and felt limited in what they could offer the caller beyond what the software prompted them to say. In such a call, the nurse appeared to struggle with bringing the call to a close, apparently double checking that the caller understood the advice that was being provided. Conversely, a nurse experienced in dealing with trauma moved swiftly through such a call, getting it to a point at which closure could be achieved neatly. Similarly, I observed some callers providing a lot of information about their concern and others only a small amount. Some calls sounded like survey interviews, whilst others were more conversational, and I began to question the interactional consequences of these two approaches. I also noted that there were no procedural differences between how calls were managed where I had previously worked and the data collection site.

Spending time in the ‘field’ constituted an important component in the design of the study, and served three purposes. Most importantly, I noted how rich the calls themselves were as a source of data, and this sharpened the focus of my enquiry from a broad interest in the interaction. Questions began to emerge not only about how nurses and callers talk to one another, but also moment-by-moment how callers describe their concerns, the dialogic processes involved in realising the call as mediated by the computer decision support software, how the outputs of the software are received, how the nurses and indeed callers interactionally manage the ‘expert system’, and the interactional competencies that nurses and callers routinely draw upon.
Collecting the data

Before data collection officially started, I carried out a test data collection. The purpose of this was to investigate the method of gaining access to the telephone calls in a way that I could work with them, and begin to explore the procedure for analysing them. I have previously mentioned that all calls to NHS Direct are routinely recorded, and these records are held on a server which is backed-up onto a cassette/disk for long-term storage. The challenge was to investigate whether individual calls could be isolated from one another and downloaded onto a conventional audiotape, and whether playback would be clear enough for transcription and analysis. In the event, four calls were downloaded onto audiotapes by NHS Direct staff, the procedure for which was uncomplicated. With regard to working with the data, initially, NHS Direct only consented to me listening to, transcribing and analysing recorded calls on-site. Contingent upon this, however, was access to an office, with a computer and tape recorder for a number of hours at a time. This was not practical for NHS Direct or indeed me. In the event, I was given consent to remove recordings of the telephone calls from the premises.

Another issue which required some consideration during this exploratory period was sampling. This NHS Direct site generates a large volume of telephone enquiries from the public in any given 24-hour period. Based upon an average of 1000 calls per 24-hour period alone, from a geographical population of approximately 2 million people, there is the potential for 7000 calls from which to sample calls in any given week: 28,000 in one month alone. Clearly it was necessary to identify a method of sampling these calls in order to generate a smaller number, which could be analysed within the parameters of this study.

Whilst in experimental research sampling decisions are bound up with ‘generalising’ of the population under study (Cohen & Manion, 1994), for conversation analysts the concern is not of “empirical generalisations” (Psathas, 1995) but of analyses that meet the criteria of “unique adequacy”
(Garfinkel et al., 1970). Of primary concern are the discovery, description and analysis of complex interactional phenomena in their own right. Therefore, the mechanisms that produce an instance of something are of analytic interest. The instance is considered to evidence that the phenomenon involves the competency of individuals in producing it, and thus is culturally available. Further instances of the phenomenon “provide another example of the method in action, rather than securing the warrantability of the description of the machinery itself” (Benson et al., 1991, p. 131). The analytic task Psathas argues is not concerned with frequencies but how this instance is organised (Psathas, 1995, p. 50). Although questions such as frequency and distribution are not pursued here, though they may be in future enquiries, nevertheless, a sampling procedure was designed to address pragmatically how I would select the calls for my study from a very large existing data set within NHS Direct. It was designed less for its capacity for probability sampling of a representative group as in experimental research, but more as an accepted tool to ‘work down’ to the final sample (Cohen & Manion, 1994).

Calls were sampled on the basis of their relevance to the research aim. Initially, I only wanted calls managed by nurses, not those by call handlers/health advisors who take demographic details from callers at the beginning of calls. Whilst their contribution to the call is of analytic interest, it was outside the scope of this study, and may be the focus of a future study. In addition, I wanted the sample to encapsulate a range of telephone calls between nurses and callers in order to maximise what could be understood (Cresswell, 2007). I wanted to avoid, for example, a corpus of calls dominated by concerns with diarrhoea and vomiting in the summer, or flu in the winter (in the same way as calls to NHS Direct at the time of writing, are dominated by concern about swine flu). I also wanted maximum variation across days of the week, the time of the day and the time of year because, again, I might end up with a corpus of similar call concerns. Similarly, I wanted calls handled by different nurses, with various call outcomes, for example ‘999’ or ‘self-care’ and nurse, because I had previously observed calls with diverse outcomes sounding different from one
another. This strategy would avoid clusters of calls being sampled with a similar call reason that were managed on the same day, around the same time of day and year, by the same nurse, with the same outcome. Although, arguably, phenomena of interest can be found in all situations (Sacks, 1984), I was aiming to obtain a database containing a variety of types of calls from ‘diarrhoea and vomiting’ to ‘rash’ to ‘trauma’, and generate a varied data corpus, from which to examine interactional practices engaged in seeking and providing help. Although the logic that any data is ‘good’ data and worthy of detailed examination (Ten Have, 2002) – and so in this study, arguably, all calls are of concern – the sample drawn from NHS Direct is not divorced from ethical considerations. With this in mind and following discussion with NHS Direct, vulnerable members of society were excluded from the sampling framework.

Whilst those calls excluded would arguably have a contribution to make to the study, it would be unethical to include calls where a caller had specifically stated that they did not want their details to be included in any research. Moreover, it is debateable whether the extent to which children under 18 years of age can provide informed consent, and including callers whose first language is not English or those who have a hearing impairment, would present analytical challenges beyond the scope of this study, but which arguably could be a topic for further research. In addition, in keeping with the Mental Capacity Act, ("Mental Capacity Act," 2005), which only came into force in 2007, after the data collection was completed for this study, and seeks to provide safeguards for a person who lacks the capacity to consent to taking part in research, I took the decision not to include any data from calls where the caller was known to have a mental health problem and was considered by the Act to be unable to understand the information given at the beginning of all calls and therefore make a decision for him/herself relating to withholding personal information, because of an impairment of, or a disturbance in the functioning of, the mind or brain.
To this end, the exclusion criteria were in accordance with those already established and specified by the Department of Health NHS Direct satisfaction survey guidance and the Mental Capacity Act 2005. Thus, calls excluded from the study included:

- Children under 18 years
- Callers whose first language is not English and were using Language Line
- The deaf
- Patient/caller refusal
- Patient/caller under the jurisdiction of the Mental Capacity Act 2005

A further consideration was the impact of data collection on the business of NHS Direct, which was keen to limit any disturbance from the research affecting the activity focus of the organisation. In relation to the timing of data collection, therefore, calls were sampled over a seven-day period, for the first week of every month for twelve months to coincide with the Department of Health Telephone Satisfaction Survey, routinely conducted at the beginning of every month. This would contain data collection to a small sample for one week per month over a long period, and was considered by NHS Direct to be more manageable than collecting a larger number of calls in a short space of time.

Data collection not only involved developing a sampling framework, but also identifying someone to actually sample the calls, which are held electronically on a server, and who would isolate and download them onto audiotapes for me to take away for analysis. NHS Direct considered it to be more appropriate to sample the calls for me, as to sample them myself would require training, access to their entire database of calls, and the presence of a supervisor to monitor my activity. Therefore, for the duration of the study, a Data Analyst was made available to sample the calls.

Each month, the Data Analyst followed the same procedure. In the first instance, a report of all nurse-triaged calls was generated using a software
programme called Crystal Reports, which is a reporting tool connected to the computer decision support software used by the nurses during telephone consultations. Second, all calls for the specified time period – the first seven days of each month – were selected and filtered out from the main report. Third, this sub-report was exported into Microsoft Excel. Once in Microsoft Excel, the data (which included the software assigned call identification number (ID) and time of call) were randomised, using the Excel 'Randbetween' function. This is a standard Microsoft Excel function that will produce a randomly selected number based on a list of numbers – in this case the call ID. This procedure was carried out four to five times to produce four to five randomly selected call IDs, which were then written down along with the time the call was made, so that calls could be isolated on the software and matched to the written call records. This information was handed to a member of staff who, using a software system called RACAL, isolated the calls digitally and downloaded them onto an audiotape. At the same time, the electronic ‘Call Report’, which is a typed summary generated at the end of every call, was printed off and parcelled with the appropriate audiotape. For each month over one year I collected the data from NHS Direct after signing it out. The final data corpus for this study was amounted to fifty-six routinely recorded calls to NHS Direct collected between June 2003 and June 2004.

**Ethical considerations**

The aim of this section is to explore in more detail any ethical concerns related to this study. Research – both clinical and non-clinical – is regulated by a number of legislative documents and policies. However, no single document completely captures the full range of legislation, standards and good practice guidelines that apply to health and social care research. It is therefore crucial as a researcher to be fully aware of the legal and procedural responsibilities of the researcher in the safety and protection of research participants. For example, the Research Governance Framework for Health and Social Care (Department of Health, 2005) sets out a framework for the governance of research in health
and social care, which is of direct relevance to those who host, conduct, participate in, fund, and manage health and social care research. Organisations, and in the case of this study, NHS Direct, must ensure that they have systems to ensure the principles and requirements of this research governance framework are consistently applied when discharging their duty of quality under Section 45 of the Health and Social Care (Community Health and Standards) Act 2003 (ibid). To this end, the use of patient information held within NHS Direct is also regulated by the service’s own confidentiality policy (NHS Direct, 2003b). Notwithstanding these policies, health and social care research, and in particular this study, is also governed by the Data Protection Act ("Data Protection Act," 1998), which gives individuals rights regarding the personal data that organisations hold about them and organisations responsibilities regarding that data. These responsibilities are enshrined in eight data protection principles. In addition, as a nurse who is also a researcher, I am governed by my professional code of conduct (Nursing and Midwifery Council, 2002), which sets out standards of conduct, performance and ethics for nurses and midwives. Collectively, these documents protect the dignity, rights, safety and wellbeing of participants taking part in any research study. In addition to this, and in accordance with university post graduate study requirements, the research was indemnified by the University of Southampton (Appendix 4) and approved by their data protection officer (Appendix 5).

**Consent**

Informed consent is at the heart of ethical research. As stated previously, NHS Direct consented in January 2002 to take part in the study (Appendix 3), and I was given permission to observe and listen to calls and access training documents, policies/protocols/guidelines and audio recordings of calls. Also, as mentioned earlier, in accordance with the NHS Research Governance Framework (Department of Health, 2005), the proposal for this study was referred for independent ethical review to the Southampton and South West Hampshire Local Research Ethics Committee, a process set up in order to safeguard callers’ dignity, rights, safety and wellbeing. Approval was granted in
2002 and amendments approved in 2003 (Appendix 2). The study was developed with the active involvement of NHS Direct, which was important, particularly at a time when as a relatively new part of the NHS, NHS Direct was the subject of a number of requests for audits, evaluations and research. In an attempt to avoid overwhelming them, I took care to balance their priorities over and above the research agenda at all times. Thus, data collection and data handling was designed to fit in with their other research, audit and evaluation commitments.

Informed consent does not stop once an organisation has agreed to take part in a study; rather, it involves keeping them informed through regular meetings to discuss the research topic and methodological approach and to provide updates using posters on the progress of the study. Sensitivity to this concern was also addressed by the concepts of ‘transparency’ and ‘external scrutiny’ (Williamson & Prosser, 2002). Over the course of developing the research proposal, the research design and method from the perspective of the organisation was given meticulous consideration by the nurse consultant, the senior management team and the nursing officer for NHS Direct at the Department of Health. Each was provided with a draft research proposal for their scrutiny and review and, where appropriate, any amendments or inclusions made. For example, at one meeting there was a discussion about the data collection method and methodology – how I would analyse the recordings and the different approaches to the investigation of verbal interaction. Reading material such as articles and book chapters were provided for the managers, thereby giving the participants a voice. Having a voice is an important dimension in the design, conduct and analysis of research (Department of Health, 2005), and was an important component both in achieving informed consent in accordance with the NHS Research Governance Framework (ibid) and in the development of this study.

In addition to the consent of the organisation to take part in the study, the same principles of consent were applied when seeking the consent of the individual
participants. Although nurses employed by NHS Direct are considered to have a professional responsibility to take part in research, as outlined in their job description, in accordance with the spirit of ethical research (Department of Health, 2005) I provided the nurses with information about the study, seeking to obtain individual consent and publicising their right to withdraw. To this end, I proposed offering a series of seminars for all the staff of the NHS Direct site, in order to introduce myself, the research topic and methods and seek individual consent. The seminars were also designed to offer a question/answer opportunity, supplemented with a written summary of the research protocol. However, this suggestion was considered impractical by NHS Direct, due to the large numbers of staff (130) that would need to attend, taking them away from managing calls. As an alternative, I developed a number of measures to keep staff informed: i) information leaflets/flyers were circulated throughout the NHS Direct building, periodically during data collection (Appendix 6); ii) I composed short updates for the NHS Direct in-house publication Direct News; iii) a research link was created on the Intranet in order to provide information and updates (Appendix 7), all of which meant that staff could read about the study without having to leave their computers. Details of how to contact me were made widely available, and staff were invited to get in touch with me if they wished to discuss any aspect of the study, or if they wished not to take part. I received no requests not to be involved in, or to withdraw from, the study; and iv) I also took time to become acquainted with the setting, the people, routines and environment during exploratory work before the study began, and I visited the call centre regularly throughout data collection so that staff members could ask me questions.

I did not meet, speak by phone or have any other form of contact with any of the callers whose calls represent the data corpus for this study. Rather, the data were obtained through NHS Direct as a third party. There was a great deal of deliberation about the issue of the consent of callers. It was not practicable to send all callers to NHS Direct (potentially 28,000 per month, for one year), information about the study and their right to withdraw. The NHS Direct senior
managers, Caldicott Guardian\(^1\) and Southampton and South West Hampshire Local Research Ethics Committee, considered that the arrangements in place at the time regarding the use of patient/caller data were sufficient to fulfil the requirements of Principle 1 of the Data Protection Act (1998) – that data shall be processed fairly and lawfully – and the NHS Direct’s own confidentiality policy (NHS Direct, 2003b) (Appendix 8), and provided information to the caller about the use of information relating to them, the right to privacy and, in addition, that the caller had the right to withhold personal information if they wished. At the time of the study, all callers to NHS Direct were routinely informed at the beginning of calls about the use of information provided by them (Appendix 9). At this point, callers were given the opportunity to withhold personal information or request further information. Leaflets advertising NHS Direct also informed callers about how information held by NHS Direct may be used, and their right to withhold information (Appendix 10). If callers did not wish to have their information used in any of the ways described, or if they wanted further information, they were advised to contact NHS Direct.

Clinical Solutions kindly gave permission for me to reproduce images of the screenshots presented in this thesis (Clinical Solutions, 2009b) (Appendix 11). All of the names and details in these screenshots are fictitious.

**Anonymity, privacy and confidentiality**

Legislation and Policy is particularly attentive to the protection of research participants’ identities. In accordance with this legislation, and in order to safeguard participants against unwanted exposure, all patient/caller identifiable features were removed, and names and places replaced by pseudonyms at the time of transcribing. Thus, data were anonymised in accordance with the

\(^1\) “Caldicott Guardian is a senior person responsible for protecting the confidentiality of patient and service-user information and enabling appropriate information-sharing. The Guardian plays a key role in ensuring that the NHS, Councils with Social Services responsibilities and partner organisations satisfy the highest practicable standards for handling patient identifiable information” (Department of Health, 2009).
requirements of the Data Protection Act (1998), which requires researchers to either anonymise fully all data or fulfil the conditions of the eight data protection principles. It is, however, unavoidable that data extracts may be recognised by the individuals who created them, but I ensured that no identifiable features of the data could be traced by a person other than the person who produced the talk.

The introduction of new technologies brings with it the opportunity to improve the effectiveness and efficiency of care given to patients. Such technologies and clinical information systems facilitate the collection and analysis of vast amounts of information about patients, so that treatment outcomes and patients’ progress can be evaluated and the findings contribute to the development of an evidence base. However, technology also brings with it new risks, and concerns have arisen over the confidentiality of patient information and the possibility of unauthorised or inappropriate access to personal information. It is therefore important to safeguard participants further against unwanted exposure. A number of methodological challenges emerged relating to access to data and to the management of visits to the organisation. The first challenge concerned visits to NHS Direct, where calls being managed by the nurse advisors can be partially overheard. The second concerned the transportation and storage of the taped recordings of calls, and the third was the transcribing and anonymising data. Finally, the risk and protection from harm, in the event that the content of a taped call raising cause for concern, had to be managed.

During the course of the research it was necessary for me to go into the call centre. Some of these visits were observational, others to attend meetings. Once in the main call centre, it was unavoidable overhearing parts of consultations, and it is important for NHS Direct to protect overheard patient information. Although as a nurse I am legally bound by my professional code of conduct in terms of confidentiality and anonymity, indeed protecting patient information has become a part of my ‘professional morality’ (Williamson &
Prosser, 2002), I was required to sign a confidentiality form. Nevertheless, although I was conscious of being able to overhear many consultations and behaviours during my visits and appointments, this ethnographic content, unless a part of planned observation visits, did not become part of my research.

With regard to the second and third challenges, I have already mentioned that audiotapes of routinely recorded calls to NHS Direct were to be my data corpus, and that the extraction of these data from the NHS Direct server was undertaken by a data analyst. I have further mentioned that it was impractical for NHS Direct to arrange for me to transcribe and analyse the data on site, and that it was agreed that I could remove these tapes from the premises so long as certain conditions were met – before removing audiotapes, I would sign a form acknowledging receipt, which would be countersigned by the NHS Direct Education and Training Manager (Appendix 12). I agreed to transport tapes securely in the locked boot of my car directly to my office, where they were stored in a locked container in a locked cabinet, in an alarmed property throughout the period of research. The data were anonymised on transcription, and computer files containing the transcripts were password protected on my computer. These security measures were intended to reduce the risk of unwanted exposure by careless storage of patient/caller data.

The fourth challenge also relates to managing risk and the protection from harm. Although the potential for harming participants as a direct result of being involved in the study were considered to be minimal because I was not conducting an intervention study, nevertheless, a contingency had to be in place should I, in the course of my analysis of calls, encounter concern about the content of a call. In my professional capacity as a nurse I must at all times act in accordance with my professional code of conduct (Nursing and Midwifery Council, 2002). There are therefore circumstances when the researcher, as a nurse, may break confidentiality. These circumstances apply when information is disclosed or comes to my attention, where research participants(s), in this case callers or nurses, are at risk of harm either to themselves or others.
Should an issue of risk or harm that had not been previously identified become evident during analysis, these concerns were to be managed through discussion with my research supervisors and by referral to my code of professional conduct, which may result in notifying the manager of NHS Direct.

Ethical research does not end on completion of the study, but extends into reflections on myself as a researcher, simultaneously occupying various membership categories, and to disseminating the research findings.

**Researcher as a nurse**

A challenging aspect of this study was reconciling the roles of the researcher, nurse and patient (Colbourne & Sque, 2004; Finlay, 2002; Reed & Proctor, 1995). On the one hand, I wanted to be accepted as ‘one of them’, the nurses, who, having worked for NHS Direct, had an ‘emic’ or insider perspective on the organisation, and what it is like to work in a call centre. As such, I would be in a position to provide explanations or accounts of events or instances from a member’s point of view. As a user of NHS Direct, however, I would also be drawing upon the perspective of me as a patient/caller; I wanted to appear credible as a researcher who happened to be a nurse, interested in examining nursing practice in NHS Direct.

Adopting one position over another, though, was not helpful or indeed possible. For example, it was not possible for me to ‘bracket’ my member’s perspective of NHS Direct, either as a previous member of staff or as a previous user. I therefore invited this membership to sit alongside my analysis, sharing its observations but not ruling them. For the purpose of this study I always introduced myself as a researcher who is also a nurse, with experience of both working and using NHS Direct. As such I have reflected on the values, attitudes and beliefs both as a health professional, researcher and lay member, which I bring to the research domain, in order to achieve ‘transparency’.
Dissemination

Whilst participants in research may consider it a compliment to be asked to take part in a study, they risk exposure to negative experiences or findings. The Research Governance Framework encourages dissemination of research findings: “When established, findings (including negative findings) are published in ways that allow critical review and dissemination to those who could benefit from them” (Department of Health, 2005, p. 17). In this study, participants may perceive data on an audiotape as neutral, but when exposed to detailed analysis the findings may be perceived as unhelpful or misleading, and as such could have a potentially negative impact not only on research participants, but also on a much wider audience such as readers of published research findings. I have considered this at length and been careful to report my findings in a balanced and objective manner, concluding with the opportunities afforded by the findings for personal and organisational development.

In summary, ethical research – both clinical and non-clinical – is a complex and dynamic activity which permeates the duration of the study and is regulated by legislation and policy. Informed consent, anonymity and confidentiality are key pillars of this endeavour, so too was the management of data security and risk, and the protection from harm of research participants in the event of concern or an apparent untoward incident hitherto unnoticed, and brought to my attention during the course of listening to and analysing calls. Added to this are the apparently competing and perplexing concerns of the ‘emic’ and ‘etic’ approach to analysis – the pursuit of scientific objectivity and the contrasting or indeed complementary role of my personal experience as both a deliverer and user of the service in question. Finally, the ethical dissemination of research findings seeks to be sensitive to the potentially negative impact the findings may have on participants and others.
Analytic method

I have already mentioned that the data consisted of fifty-six routinely recorded calls between nurses and callers to NHS Direct. These data were analysed using conversation analysis (CA), which conceptualises communication as a source for examining how participants, in this case nurses and callers, accomplish their interactional activities, which in this study is to seek and provide help as mediated by the telephone and computer decision support software.

CA is an established discipline which emerged at the intersection between Goffman’s study of social order and face-to-face interaction (Goffman, 1959) and ethnomethodology’s concern with the common sense methods that people use to make sense of their experiences and constitute social realities (Garfinkel, 1967). Focusing on ‘talk’ as a site for the empirical observation of social order, rather than ‘language’ as a system, the main tenets are that:

“... social actions are meaningful for those who produce them and that they have a natural organisation that can be discovered and analysed by close examination”.

(Psathas, 1995, p. 2)

The advantage of this approach is that it does not rely on what people say they do in interactions, but on the moment-by-moment construction of talk. The examination of talk avoids pre-formulated theoretical categories in favour of ‘unmotivated looking’ (Sacks, 1984). Alongside this is the insistence that this order can only be found in the naturally occurring material of interaction, rather than data drawn from laboratory experiments (such as the breaching experiments of Garfinkel (1967). Because CA is concerned with the detail of interactions, interactional data must be audio and/or video recorded rather than
reliant on notes, codes or recollections. These recordings are essential to the
conversation analyst. Conversation analysis proceeds on a number of different
analytic levels (Drew & Heritage, 2006), the workings of which will be manifest
in the body of the thesis.

Conversation analysis has increasingly been applied to not only the study of
ordinary interactions, but also institutional interactions, a snapshot of which can
range between talk between pilots in the cockpit of a commercial aircraft
(Neville, 2004) to news interviews (Clayman & Heritage, 2002), doctor-patient
interaction (Heritage, 2009b; Maynard, 2003; Peräkyla, 1998, 2002; Stivers,
2006), courtroom interaction (Drew, 1992), psychotherapy (Antaki, 2008),
emergency calls (Zimmerman, 1992), and calls to a child helpline (Hepburn &
Potter (2010); Potter & Hepburn, 2003). Such studies illustrate how participants
in such settings manage institutional activities, for example in patient-physician
encounters, and calls to a child helpline, both as a professional or lay person.
Conversation analysis enables the detailed examination of interactions to reveal
the practices of institutional life in which, for example, institutional identities are
evoked and managed through talk, and how these identities constitute, within
the interaction, both a resource and constraint for the activities of the
participants.

Transcription is a core activity of CA, which uses a system of transcription
developed by Gail Jefferson (Jefferson, 1983a, 2004) and represents a distinct
phase in making possible the analysis of recorded data. The aim is to provide a
representation of the data or interaction and to represent the detail of verbal
and non-verbal conduct (Drew & Heritage, 2006). In terms of what constitutes
data, the transcripts that are necessarily impressionistic are not viewed as data,
but are merely a ‘representation’ of what is said on the audiotape and seen as a
‘reproduction’ of a social event (Hutchby & Wooffitt, 1998). The data are
analysed using the transcript as a ‘tool’. The transcript and the audiotape are
used during analysis; one is not discarded in favour of the other. And it is
because an intimate knowledge of the recording is so crucial that the
researcher carries out the detailed transcribing. Extracts from these transcripts are presented in the analysis. Below is an example of a typical orthographic transcription of an extract of a telephone call to NHS Direct (Cal=Caller, Nur=Nurse):

Example of a basic orthographic transcription

1  Cal    Hello
2  Nur    Oh hello can I speak to Jo please
3  Cal    Yeah who’s speaking
4  Nur    It’s the confidential helpline he rang earlier
5  Cal    Oh sorry not many people call me Jo that’s all it
6        are you calling from the NHS helpline
7  Nur    Yes, yes I am

The same example using the Jeffersonian method of transcription

1  Cal    hello(.)
2  Nur    .hh Oh hello(.)
3        can I speak to Jo please.
4        (0.2)
5  Cal    yeah who’s speakin
6  Nur    .h its the confidential helpline he rang her earlier
7  Cal    Oh the un un .hh sorry.
8        not many .hhh people .hh call me Jo that’s all
9        it just a he he nickname(.)
10       .hhh are y are you calling from the
11       en aitch ess helpline
12       [Yes yes I am

In the first example, the talk heard on the audio recording of the call is transcribed word for word, and on first inspection may appear unremarkable. In the second example, symbols have been added to show a micro pause in speech (end line 1), a longer silence (line 4), increased voice pitch signified by up arrows (lines 2, 3 and 4), and overlapping talk where the nurse and caller speak at the same time, which is signified by a bracket (lines 11 and 12). For conversation analysts these symbols shine a torch on the way turns are constructed, the actions being performed, how turns respond to one another and build sequences, what patterns are being displayed, and how it is that participants manage social actions and activities in interaction with one another. Here we can observe the request to speak to Jo (line 3). The silence at line 4
treats the request as somehow problematic (Davidson, 1984; Heritage, 1984; Pomerantz, 1984). The source of this trouble becomes apparent in the following turn, in which the caller asks who’s speaking, thereby making the nurse’s request to speak to Jo contingent on the supply of some identification (line 5). A very brief analysis serves to illustrate the utility of CA for how participants arrive at an understanding of one another’s actions, and how turns are responsive to one another. CA therefore focuses specifically on the features of talk that are salient for the participants. In this example, identity was relevant for the progression of the interaction. The purpose of a conversation analysis’s distinctive style of transcription is:

“... to get as much of the actual sound as possible into our transcripts, while still making them accessible to linguistically unsophisticated readers”.

(Sacks et al., 1974, p. 734).

We can observe from this small extract that the kinds of detail represented in transcripts are timing (silences), prosodic features (pitch and intonation) and overlapping talk. The detail of transcription depends on the analytic issues of concern in the data. Over-concern with transcription conventions can render the text unreadable; therefore, in this study, the amount of transcription detail will be limited to what is relevant for the interactants and my analysis. For example, I have already mentioned that audio recordings and transcripts may exclude some aspects of social interaction. However, in this study, the data are derived from telephone calls. As such, the audio recording is a pure representation of what was audibly available to the nurse and caller at the time of the call. There may have been other things going on in the immediate environment of the call for each person, and these will form part of the transcription if they are made relevant for the participants in the call. For example, the nurse may type information into the computer which is audible to the researcher and the caller, as the nurse can be heard tapping the keyboard. Likewise, a caller may be talking to a child asking him to roll his sock down so a swelling can be checked.
Through transcription, these actions may be made relevant in the call by the silence of the caller or nurse whilst this is happening. Thus, silence will form part of the transcription. However, the point is not to transcribe everything that is going on, but to be guided by the analytic focus. This may mean that laughter is of particular interest, in which case the transcription will carefully detail this phenomenon in terms of onset and duration. This detail may not be required where the focus is not laughter.

Nevertheless, detailed transcription has an important role in the claim of CA being a rigorous empirical discipline, insofar as transcripts of the data are made publicly available to anyone, thus guaranteeing what Hutchby describes as “the cumulative and publicly verifiable nature of conversation analytic research” (Hutchby & Wooffitt, 1998). A glossary of transcript symbols used in this study is provided in Appendix 13.

Audio taping, however, is not without its critics, and Cicourel (1987) argues that the decision to tape record interactions naturally limits what is identified as relevant data and, thus, the analysis (ibid). Indeed, whilst Sacks (1984) acknowledges that audiotapes avoid the pitfalls of interviews and observations, he also accepts that an audio recording will not reproduce everything that happened within the recording area of the equipment. Despite this, he argues that it represents a ‘good enough’ record:

“Such materials had a single virtue, that I could replay them. I could transcribe them somewhat and study them extendedly—however long it might take. The tape-recorded materials constituted a ‘good enough’ record of what happened. Other things, to be sure, happened, but at least what was on tape had happened”.

(Sacks, 1984 p. 26)
The case for using recorded interactions is that it makes possible examination and analysis of data, which first is not researcher-contrived as in simulated interaction, and second goes beyond researcher-dominated coding and field observation, to a research endeavour which allows the preservation and recording of ‘natural’ exploits. Indeed, an audiotape provides a means of observing in situ how members of society establish and maintain mutual understanding in interaction moment-by-moment, in the here and now (Hutchby & Wooffitt, 1998). Whilst Speer (2002) argues against the natural/contrived distinction of data, suggesting that the status of the data depends largely upon the researcher’s intentions in relation to analysis (ibid), there appears to be an argument for avoiding avoidable researcher influence, where possible, in order to preserve the very phenomena of interest, rather than being distracted by observing how the participants deal interactionally with researcher provocation. Therefore, audio records of people going about their normal business (Drew & Heritage, 2006) create a way of discovering phenomena as they occur in real time, which are central to the organisation of interaction and work towards the development of a “naturalistic observational discipline that could deal with the details of social action(s) rigorously, empirically and formally” (Schegloff & Sacks, 1973).

**Analytic procedures and techniques**

The objectives of conversation analytic research have shaped the ways in which analysis is carried out. However, the diversity of conversation analytic writings renders access to the most basic analytic methods difficult (Heritage, 1984). Drew and Heritage (2006) suggest focusing on turn taking, the actions performed by turns such as an invitation, how individual turns are designed, how they are responsive to one another and build sequences, and how these sequences are organised. I found the five stages of analysis developed by Pomerantz and Fehr (1997) a useful point of departure for the consideration of these characteristics.
Whilst these stages are neither exhaustive nor linear, but used more dynamically to move back and forth through the transcripts and recordings, they do however provide a systematic method for looking at the data.

The first stage of the analysis for this study involved *repeated listening and transcribing*. Repeated listening facilitates an intimate knowledge of the audiotape and represents a fundamental component of analysis. Audiotapes were transcribed using the transcription conventions developed by Gail Jefferson (1983a, 2004). All transcript extracts have an individual numerical identifier to make it possible to locate within the data. Each segment is also timed so it can be located in the main audio file. So, for example, each transcript will have an identifier which looks like this:

<table>
<thead>
<tr>
<th>Extract 29</th>
<th>Extract number</th>
<th>C17</th>
<th>Case number</th>
<th>6.03.60-6.07.08</th>
<th>Location in the main audio file in minutes, seconds and tenths:</th>
</tr>
</thead>
</table>

The second stage of analysis involved a process of *unmotivated looking*. Transcripts, together with the recordings, were subjected to what Sacks describes as “unmotivated looking” rather than generating a research idea then looking for data to support it to:

“... sit down with a piece of data, make a bunch of observations, and see where they will go”.

(Sacks, 1984 p. 27)

For the third stage of analysis, a *sequence of interest* was selected. The purpose of this activity was to begin focusing on a particular part of the transcript and data.
In the fourth stage, each sequence was characterised in relation to *the action being performed*, for example ‘requesting information’ or ‘giving advice’. These actions together build up the sequence.

The fifth stage involved considering *how the speakers packaged the actions* and considered, for example:

- The delivery of the action
- The observable understandings of the recipient tied to this delivery

In considering these questions, it is important that during the course of analysis the researcher seeks to be true to the participant’s perspective and refrain from looking ahead at the data and attributing meaning to actions based on what followed, because this information is not available to the participants. Consequently, when reading and re-reading transcripts, attention was paid to what was available to the participants as they interacted, the understandings they displayed and how the participants oriented themselves to what they anticipated may come next, which was demonstrated clearly in their actions.

The sixth stage of analysis considered how the *timing* of turns in sequences provided for certain understandings of the actions and matters being talked about. This included, for example, how the speaker obtained the turn.

The seventh stage considered how the ways the actions were accomplished pointed to *particular identities and/or relationships* for the participants and how the ways the participants took their turns pointed to particular identities.

Finally, sequences were examined alongside one another in order to identify and describe patterns of interactional phenomena such as ‘greetings’ or ‘disagreement’.
In addition to the broad framework for analysing data outlined above, specific attention was given to the consideration of the institutionality of talk between the nurse and patient/caller through the consideration of the “dimensions of interactional conduct” (Drew & Heritage, 1992b):

i) Lexical choice: the choices made in relation to descriptive terms such as we instead of I or ‘analgesia’ instead of ‘pain killers’ to discover how speakers evoked and oriented to the institutional context of their interaction.

ii) Turn design: the action being performed in the talk such as ‘giving advice’ and how it was realised, for example evoking an ‘official’ stance, was examined as a means of identifying organisational tasks.

iii) Sequence organisation: including patterns of talk were identified to illuminate on a turn-by-turn basis the accomplishment of institutional activities or actions.

iv) Overall structural organisation: the impact of the task-related shape of the telephone consultation on its overall structural organisation were examined, to identify an overarching set of functionally-oriented stages or phases or standard pattern, which characterise the institution.

v) Social epistemology and social relations: consultations were examined for interactional asymmetry to illustrate the ways in which nurse-patient/caller talk was oriented to role-related asymmetries and the consequences for the interaction and its outcomes.

Whilst there are some overlaps between these characteristics and those outlined above, they dovetailed into one another as I moved back and forth between the seven stages developed above. In addition to the above approaches to analysis, what is currently known about ordinary conversation provided a benchmark against which the data of institutional interaction were recognised. Cognisant of this, observations were made between ordinary
conversation and institutional interaction to highlight distinctiveness in terms of the variations and restrictions of these interactions.

Managing the data was a challenge. Having attended a number of workshops on the use of qualitative research software, I experimented with and decided to use QSR N6 Non-numerical Unstructured Data Indexing Searching and Theorising (NUD*IST) software for qualitative data analysis to help manage the data and in particular large numbers of extracts. First, all orthographic transcripts were imported into the software as text files. During the third and fourth stages of analysis, particular turns at talk and sequences of talk were characterised according to the action being performed. 'Nodes' were then created to characterise these turns and sequences. So, for example, one node was ‘history-taking’, and into this folder I entered all the extracts of talk concerned with this action such as utterances warning the caller about the questions. Another node was ‘advising,’ which contained extracts of talk concerned with the production of the disposition. The imported transcripts and nodes could be searched by a single word or strings of words. I became so familiar with stretches of talk that I could type them in to the software, and it would locate the segment of talk in which it occurred and the transcript.

**Rigour in conversation analytic research**

Issues of validity (the extent to which an instrument measures what it is supposed to measure) and reliability (the consistency of the instrument) are no less important in CA than in any other type of qualitative research. Conventionally applied to the quantitative paradigm, qualitative researchers nevertheless need to find a way to establish the truth and authenticity of a piece of research. To this end, qualitative researchers have found qualitative equivalents to interpret quantitative approaches to reliability and validity (Cresswell, 2007, p. 203). In particular, Lincoln and Guba (1985) suggest that the fundamental criterion for qualitative research is “trustworthiness”, and introduce the concepts of “credibility” or “truth value”; “transferability” or whether
the conclusions of the study are conceptually transferable to similar contexts; “dependability” or whether the process can be replicated to obtain the results; and “confirmability” or whether the analytic findings are reflected in the data, to measure the quality of qualitative research (Ulin et al., 2005, p. 25). Conversation analysis is particularly rigorous in the empirical grounding of its descriptions, because it uses audio recordings as data and detailed transcripts as representations of these data. These transcripts are reproduced in the analysis for others to examine and analyse for themselves. Harvey Sacks argued that he began using audio recordings because he could and:

“... consequentially, because others could look at what I had studied, and make of it what they could, for example they wanted to be able to disagree with me”.

(Sacks, 1984, p. 26)

Thus, audio recordings and transcripts provide for a very accessible representation of social interaction and as such attend to the credibility, dependability and confirmability of the study. Moreover, the research process is transparent. The extent to which the findings are transferable is a quest for the appliers of the findings (Lincoln & Guba, 1985). Because the context of the study is a key influence in the transferability of findings, I accounted in detail for the situational context for data collection.

**Summary**

To summarise, this chapter has outlined the research method and perspective and method of conversation analysis which offers a rigorous means of studying verbal interaction in calls between nurses and callers to NHS Direct. The advantage of this approach is that it does not rely on what people say they do in interactions, but on the moment-by-moment construction of talk. Moreover, the reliance on the use of recorded data, which is transcribed and subjected to detailed analysis, provides for the trustworthiness of the data and findings, and
the opportunity to bring new insights to the traditional analysis of nurse-patient interaction using a systematic technique.
CHAPTER 3

NHS Direct: the setting, the software and the talk

The previous chapter presented the research design and method for examining calls to a telephone health helpline in England, located within the broad theoretical tradition of ethnomethodology and conversation analysis.

This chapter will describe the procedural environment within which calls to NHS Direct are managed and begin to illuminate their interactional accomplishment.

The first section of this chapter describes the work of NHS Direct, the setting in which the data were collected and the work of the call handlers/health advisors and nurse advisors, as mediated by the clinical decision support software. The second section will illuminate a typical telephone call, as set against the backdrop of the clinical decision support software. All the images used in this chapter are reproduced with the kind permission of Clinical Solutions, who produce the Primary Prioritisation Process and Clinical Assessment System known as CAS, the clinical decision support software used by NHS Direct (Clinical Solutions, 2009b) and the NHS Direct site where the data were collected.

I will clarify what Drew and Heritage describe as the “functionally oriented to phases” (Drew & Heritage, 1992b) of the interaction between the nurse and caller to NHS Direct. I will also show that whilst calls are highly organised using clinical decision support software, the moment-by-moment materialisation of the interrogative design plan of the Clinical Assessment System is not as ordered as it might first appear, and its situated accomplishment may not be realised in such an apparently effortless procedural manner.
The work of NHS Direct

NHS Direct provides health advice and information over the telephone 24 hours a day, 365 days a year via a single national telephone number 0845 4647. Approximately 25,000 calls are handled each day by a network of thirty-five call centres. As part of the National Health Service (NHS), NHS Direct works closely with numerous health authorities, hospitals, primary care trusts, general practitioners, social services, and community and voluntary organisations. However, over half of these calls are managed by NHS Direct without further referral to another agency. Nationally, Boxing Day is the busiest day of the year, Saturday the busiest day of the week, and the morning the busiest time of the day. In a study conducted by (Munro et al., 2000a), three-quarters of calls were of 15 minutes duration or less, and KPMG found call duration to vary between 5.1-7.3 minutes (KPMG Consulting Ltd, 1999; Munro et al., 2000a). Three thousand people are employed by the organisation, of which 1,200 are shift-working nurses.

Calls are highly varied. The most common reasons for calling are rashes, abdominal pain, dental pain, and medicines advice. Sixty per cent of callers are women (NHS Direct, 2009e). Calls may require a clinical assessment by a nurse and/or information on local health services, advice on maintaining a healthy lifestyle, information about illnesses, conditions, tests, treatments and operations, or information in response to national health scares, which may be provided by a health information advisor.

All calls are processed using computer decision support software: the Primary Prioritisation Process (PPP) and the Clinical Assessment System (CAS), produced by Clinical Solutions (previously a product of AXA Assistance, MDS International and CAS Services Limited; the latest version of which is known as IntefleCS™ Telephone Triage (Clinical Solutions, 2009a). This system uses
algorithms to prioritise and guide calls. These algorithms were developed by a large group of UK-lead clinicians “from every college and ‘ology’ you can think of, as well as lay/patient interest groups” (Johnson, 2001). They are constantly under review and represent any potential call that could be made to NHS Direct. Calls are routinely audio recorded and both the computer record and audio data are stored and treated as any other medical record (“Data Protection Act,” 1998). A typed electronic record of the subject and content of calls is also created by the nurse as the call progresses.

NHS Direct – the data collection site

Data for this study were collected at one NHS Direct call centre, where call handlers/health advisors and nurses receive calls from the general public concerned in some way about their health. The premises were purpose-built to include a large call centre complex with a separate reception. The call centre was only accessible through a security door, which the staff accessed using a swipe card. Alongside the call centre were administration offices, training and conference rooms and a health information library.

The room where the calls were taken was open plan, with workstations arranged in hexagonal pods of three. At each workstation there was a telephone and headset, a computer which was set up with internet access, and a range of computer software used to guide the consultation and provide information to the nurse such as Toxbase, a database of the National Poisons Information Service, and the British National Formulary, a database of medicines. The nurse also had access to a range of medical and other health-related texts. Access to the computer was gained by logging-on with a personal username and password. In addition, to one side of the room was a large desk with computers, telephones, headsets, and general administrative furniture such as filing cabinets. This was where the call centre manager was located. From there it was possible to view the physical call centre environment including staff, the number of calls waiting to be answered by a nurse – referred
to as the ‘call queue’ – and visitors. In addition, by virtue of being located within a few metres of nurses answering calls, the manager could overhear what the nurses were saying or alternatively formally monitor calls by logging-in to the computer and, with the permission of the caller, listening to both the nurse and caller. All workstations were ‘hot-desked’, which meant that when staff came on duty they chose a desk to sit at and this could change each shift. Call handlers and nurses could sit alongside one another, although very often clusters of nurses and call handlers sat in distinct groups.

**Call Handlers and prioritising calls**

In the majority of cases, calls to NHS Direct are initially answered by call handlers, now renamed ‘health advisors’. These staff are not medically trained and are employed to record, using computer software, callers’ demographic information such as name, age, gender, address, telephone number, and the reason for calling, and then assign a priority to the call which is dealt with in order of priority by the nurse, either via the call queue (see accessing NHS Direct below) or via immediate transfer to a nurse. Health advisors undergo six hours training in what is referred to as the ‘Primary Prioritisation Process’ (hereafter PPP) (NHS Direct, 2003a).

The PPP is a computer decision support software package described as providing “a standard prioritisation process across England. This will ensure that each call centre will use the same process and callers will have a length of wait to speak to a nurse dependant on their signs and symptoms” (CAS Services Limited, 2003, p. 3). This translates to getting “the caller to the right service as quickly as possible… The PPP helps [the health advisor] to recognize whether the caller has an immediate life-threatening condition and, if so, instructs [the health advisor] to refer quickly to 999” (NHS Direct, 2003a, p. 1).
During training, health advisors learn basic anatomy and physiology, basic life support, how to manage difficult calls or reports of unexpected death, and how to use the computer software. They also have a two-hour ‘skill check’ to assess technical skills. The prioritisation sequence set out in their introduction and resource pack (NHS Direct, 2003a) follows a number of steps summarised in Table 1, and the health advisor must achieve a number of competencies before they can take ‘live’ calls.

Table 1: The sequence of the Primary Prioritisation Process (NHS Direct, 2003a, p. 7)

1. Setting up the call.

2. Establishing the Call Reason and Checking Airway, Breathing and Circulation (ABC). If the caller is ringing about themselves and is able to make the call and interact, then you can assume ABCs are intact. If the caller is calling about someone else, the ABCs must be checked to ensure the person they are calling about has no immediate life-threatening condition, using the non-symptomatic protocols.

3. For all calls, identifying the symptom, selecting and following the protocol to reach an ‘endpoint’.

4a. If 999 is the endpoint, setting up 999.

4b. If there is another endpoint, identifying the priority.

5. Complete record and transfer call completing full demographic details and recording accurately outcomes or priority.

6. Setting up calls for different priorities.
Table 1 illustrates the computer-driven activities undertaken by the call handler during the prioritisation process. Initially, when a call is received by NHS Direct, an electronic record is created on the computer. Second, the health advisor establishes the urgency of the call. Third, depending on the urgency, the health advisor selects what is referred to as a ‘protocol’, which aids the prioritisation of the call. Fourth, if the call is urgent, the health advisor immediately transfers the call to the ambulance service. If the call does not require urgent attention, a priority is assigned, which indicates how quickly the concern should be dealt with. Fifth, the health advisor completes all the caller’s details on the computer and sixth assigns a priority (Table 2) and places the caller’s details in an electronic call queue visible to the nurses.

Table 2: Assigning a Priority to the Call

<table>
<thead>
<tr>
<th>Possible Assigned Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 999 transfer.</td>
</tr>
<tr>
<td>- Priority 1 means immediate nurse consultation.</td>
</tr>
<tr>
<td>- Priority 2 means nurse consultation within 30 minutes.</td>
</tr>
<tr>
<td>- Priority 3 means nurse consultation but not urgent.</td>
</tr>
<tr>
<td>- Priority 4 is a health information call.</td>
</tr>
<tr>
<td>- Priority 4QC (Quick Call) is a simple information call that may be answered by the call handler or in line with local procedures.</td>
</tr>
</tbody>
</table>

(NHS Direct, 2003a, p. 9)

Table 2 illustrates the possible priorities that can be assigned to a call. Priority 1 requires immediate transfer to the ambulance service. Priorities 2 and 3 require the attention of the nurse. Priority 4 calls are referred to the health information advisor, who provides information about specific conditions or treatment, for example about the management of head lice or chronic conditions such as coronary heart disease or diabetes, or where to get information about disability
benefits. Priority 4QC calls are managed by the health advisor, an example of which is a caller requesting information about the nearest pharmacy or dentist. If a call is deemed urgent (Priority 1), it will be managed immediately, or in the case of priorities 2 and 3 placed in a call queue. Table 3 provides a schematic representation of the pathway of the call.

Table 3: Schematic Pathway of calls through NHS Direct

![Care Pathway through NHS Direct and Role of PPP](image)

(NHS Direct, 2003a, p. 2)

Table 3 illustrates how calls to NHS Direct are received by the health advisor (represented here as ‘call-taker’). We can see that the health advisor has at hand a Minicom device, which transmits typed text over the telephone for hearing-impaired individuals, and Language Line – an interpretation service for callers whose first language is not English. When the PPP is completed and the health advisor has assessed the priority of the call, if it does not require transfer to the ambulance service, callers are advised to replace the receiver so the call...
is terminated and that the appropriate person will phone them back within a given time, for example 30 minutes. The caller’s details are then placed in an electronic call queue (Figure 1), which the nurse has sight of either on their computer screen or on a screen mounted on the wall of the call centre so they can monitor how busy the service is. All names and details in these screen shots are fictitious.

**Figure 1: The Call Queue**

<table>
<thead>
<tr>
<th>Surname</th>
<th>Age</th>
<th>Call Reason</th>
<th>Priority</th>
<th>Call Type</th>
<th>Time in Queue</th>
<th>User</th>
<th>Region</th>
<th>CallReceived</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROGERS</td>
<td>30 Y</td>
<td>Injured Ankle</td>
<td>1</td>
<td>Stage</td>
<td>17</td>
<td>Ben...</td>
<td>Beds 5...</td>
<td>06/04/2004 6</td>
</tr>
<tr>
<td>WALLS</td>
<td>47 Y</td>
<td>Crushed Hand</td>
<td>1</td>
<td>Stage</td>
<td>19</td>
<td>Ben...</td>
<td>Beds 5...</td>
<td>06/04/2004 1</td>
</tr>
<tr>
<td>FELLAJ</td>
<td>47 Y</td>
<td>Bleeding PR</td>
<td>2</td>
<td>Stage</td>
<td>14</td>
<td>Ben...</td>
<td>Beds 5...</td>
<td>06/04/2004 0</td>
</tr>
<tr>
<td>FULLER</td>
<td>51 Y</td>
<td>Illness and Fever</td>
<td>2</td>
<td>Stage</td>
<td>16</td>
<td>Ben...</td>
<td>Beds 5...</td>
<td>06/04/2004 0</td>
</tr>
<tr>
<td>HAPSBUL</td>
<td>59 Y</td>
<td>Rash Allergic Reaction</td>
<td>2</td>
<td>Stage</td>
<td>5</td>
<td>Ben...</td>
<td>Beds 5...</td>
<td>06/04/2004 1</td>
</tr>
<tr>
<td>YATES</td>
<td>36 Y</td>
<td>Eye Problems</td>
<td>3</td>
<td>Stage</td>
<td>16</td>
<td>Ben...</td>
<td>Beds 5...</td>
<td>06/04/2004 0</td>
</tr>
</tbody>
</table>

Figure 1 illustrates the call queue where calls are listed in order of priority. Those with the highest priority are at the top of the list. The queue shows the surname of the patient, their age, the reason for their call, the assigned priority of the call, call type, and how long they have been in the queue (CAS Services
Limited, 2004, p. 93). At the bottom of the screen is the ‘black message bar’. This tells the nurses the number of calls waiting in the queue and the maximum time a caller has waited. It is from the call queue that the nurse selects a call to return in order of priority. It is the point at which the nurse interacts with the caller that this investigation is concerned.

**Nurse advisors and triaging the call**

Each nurse working at NHS Direct is registered with the Nursing and Midwifery Council, and as such has met the standards of proficiency for pre-registration nursing education (Nursing and Midwifery Council, 2009b). The Nursing and Midwifery Council exists to safeguard the health and wellbeing of the public, and registers all nurses and midwives to ensure that they are properly qualified and competent to work in the United Kingdom (Nursing and Midwifery Council, 2009a).

Nurse advisor jobs in NHS Direct are routinely advertised, and require nurses with additional qualifications, for example in mental health nursing, learning disabilities nursing or children’s nursing (NHS Direct, 2009c). When nurses join NHS Direct they undergo a three-week training/induction programme prior to taking telephone calls from the public.

The aim and objectives of the training are summarised in Table 4 below, extracted from the training manual.
Table 4: The aims and objectives of the CAS training

**Aim:** The aim of this training is to enable you [the nurse advisor] to use CAS (a clinical assessment system) safely and effectively, to…. “provide easier and faster information for people about health, illness and the NHS so that they are better able to care for themselves and their families” Department of Health. *(The New NHS).* London Stationary Office, 1997.

**Objectives:**

The Nurse will:

Understand the background to CAS.

Provide high quality and service by using decision support software.

Log-on to the system.

Create new calls.

Document correct and essential information.

Use the algorithms correctly.

Search for histories.

Use correct dispositions [see Appendix 14].

Give appropriate advice and information to the patient.

Access, print and/or fax the final report.

Understand and use the queues effectively.

Manage calls and use CAS effectively, thereby reducing the length of the call and increasing productivity.

*(AXA Assistance, 2001b)*
In Table 4 we can see the range of activities required by the nurse to process a call, from understanding the background to decision support software and applying it to a call effectively, reducing the length of the call and increasing productivity. The nurse must achieve each of these objectives in order to work in the call centre. On completion, a periodic review of calls is undertaken for audit and training purposes (Appendix 1).

The previous section illustrated how health advisors receive calls to NHS Direct, assess urgency, assign a priority, terminate the call, and place the caller’s details in an electronic call queue (Figure 1). It is from here that the nurse selects a person to call back.

Once they have highlighted and selected a call from the call queue (Figure 1), the nurse’s computer screen is populated with what is referred to as the ‘Active Call Screen’ (Figure 2).

**Figure 2: The Active Call Screen**
Figure 2 illustrates the Active Call Screen on which the nurse can read details about the caller recorded on the computer by the health advisor. These details include gender and age, date of birth, ethnicity, address and telephone number (to the left of the box), who is calling, the reason for the call, and priority (to the right of the box).

From here the nurse launches the Teleguide Nurse Triage Algorithm System and a screen appears on the computer presenting questions about the caller’s past medical history, which must be completed by the nurse for the algorithm to progress (Figure 3).

**Figure 3: Teleguide Nurse Triage Algorithm System-Past Medical History**

![Teleguide Nurse Triage Algorithm System-Past Medical History](image)

Figure 3 shows the initial stage of the triage process using an algorithm. An algorithm is defined as:
“A structured set of clinical triage questions organised around a specific patient complaint or symptom. The responses to specific questions are then used to trigger an additional question or to route the patient to a decision about level of care”.

(AXA Assistance, 2001a)

Triage with CAS is defined as:

“The assessment process whereby, with the use of computer algorithms, a patient is asked a series of questions. The patient is then advised, according to the answers given and with the nurse’s clinical knowledge and judgement on the appropriate level of care in the appropriate place within an appropriate timeframe”.

(AXA Assistance, 2001a)

Three primary questions must be asked with each assessment concerning medical problems, current medications and allergies. If the caller answers ‘yes’ to any of these questions, the nurse is required to enter the details on to the computer in the description field. If the answer is ‘no’, the nurse places a tick in the box and can proceed to the algorithm field. The nurse cannot proceed to the algorithm without completing this section of the software. If it is not completed and the nurse tries to move to the next set of questions, a warning will be displayed reminding the nurse to complete it. On completion of this section, the nurse can proceed to the Algorithm List, where the first few letters of the caller’s symptom are typed, for example ‘hand’ for ‘hand injury’. From here, the nurse can select the most appropriate algorithm. If the symptom required is not listed, the entire list (in excess of 200) of symptoms may be viewed.
Having chosen an algorithm, the next screen appears with a symptom-related question for the nurse to ask the caller, the response to which must be entered on the computer (Figure 4):

**Figure 4: Teleguide Nurse Triage Algorithm System – Hand Injury**

Figure 4 illustrates how algorithm questions related to the symptom are presented to the nurse on the computer screen. As the answer to each question is entered, another question is presented. This continues until they are all answered.
On the computer screen, the nurse will see four fields:

1. Questions that take two forms: a) those requiring ‘Yes’/’No’/Uncertain answers and b) a list of symptoms. The nurse ticks those present then selects process or ‘No’.
2. The rationale for the question provides the clinical reasoning behind each individual algorithm question.
3. Co-morbid information, which is essentially a list of conditions or medications the nurse should take into consideration during the triage process.
4. Free text for the nurse to add any further notes relating to the questions.

The nurse is required by the organisation to follow the algorithm process, asking each question “in the prescribed order” (AXA Assistance, 2001a, p. 5) and documenting the answers, replies and information. When the algorithm is completed a disposition (Appendix 14), defined as “the end result of a triage question or set of questions” (ibid p 8), screen appears on the computer (Figure 5).

**Figure 5: Disposition Screen**
Figure 5 illustrates how the disposition produced at the end of the algorithm question set is displayed on the computer screen for the nurse to read and convey to the caller. For example, here in the field at the top of the screen, we can see “Accident and Emergency within 4 Hours” displayed. Below this are instructions appropriate to the outcome of the call, for example “if the individual concerned is unable to safely get to a car, call 999 and ask for an ambulance”.

The nurse selects the instructions she/he wants to give the caller, in this case the highlighted top line, and they appear in the field below. All advice must be recorded on the screen. Although additional advice may be provided by the nurse, it too must be recorded by typing it in to the ‘Advice Recommended’ box, which distinguishes CAS and nurse-generated advice. The disposition may be overridden if the nurse considers it is not clinically appropriate. It is also possible for the nurse to triage another symptom with the same caller. At the end of the triage, the nurse will be prompted to save the information recorded, confirm the disposition as final, exit the Teleguide Nurse Triage Algorithm System, and close the call. The CAS produces an electronic record and paper call report, both of which are treated as any other medical record (Figure 6):

Figure 6: Call Report
Figure 6 illustrates the electronic and printable call report produced on completion of the triage questions, and shows the questions the nurse asked the caller, the answers provided and the disposition. This report can be faxed if necessary to another health care setting such as a general practice or accident and emergency department.

In summary, I have shown that calls to NHS Direct are highly organised through the use of clinical decision support software known as the Primary Prioritisation Process (PPP) and Clinical Assessment System (CAS). Health advisors routinely answer initial calls to NHS Direct, and using the PPP record the reason for the call and the caller’s demographic details, and assess the urgency of the call and assign a priority. At this point, emergencies are transferred to the ambulance service and less urgent calls typically placed in an electronic call queue. From here, the nurse selects callers to call back in order of priority.

Nurses are mandated to use the Clinical Assessment System (CAS) to assess callers’ concerns, using questions prescribed by the CAS. These questions must be asked in the prescribed order and the answers entered onto the computer. This in turn generates an electronic record of the consultation, which is stored on the computer can be printed out and scrutinised. I have previously mentioned that in addition to this all calls are routinely audio recorded, which provides an additional source of data about the structure of the call, what was said and when.

Many kinds of institutional encounters are organised to a standard structure/shape or series of phases – doctor-patient interactions (Byrne & Long, 1976; D.L Roter & Hall, 1992; J. Silverman et al., 1998), nurse-patient encounters (Lloyd et al., 2007, pp. 40-56; Loftus & Mackay, 2008) and calls to an emergency service (J. Whalen et al., 1988). This suggests that it is through this logical design or shape that institutions are observed to be realised, or what Heritage describes as “accountably talked into being” (Heritage, 1984, p. 290).
Chapter 3 NHS Direct, the setting, the software and the talk

Having illustrated the PPP and CAS, which provide the gross structure of calls to NHS Direct, I will now move on to work through a single call.

**Overall structural organisation of calls to NHS Direct**

This section will illuminate one complete consultation, in order to begin to provide an outline of the overall structural organisation of these calls as realised through talk. What I will be doing here is merely describing the routine phases of a call and identifying which areas I will later return to for concentrated analysis.

To begin I have outlined what Drew and Heritage (Drew & Heritage, 1992b), describe as the “functionally oriented to phases” of the interaction between the nurse and caller to NHS Direct, summarised in Table 5 below:

**Table 5: Oriented to phases/stages or patterns**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 1. | Opening:  
Identification, recognition and confirmation of call participants |
| 2. | Boundary setting:  
Establishing the caller’s expectations of the service |
| 3. | History-taking:  
Problem identification – an account of the current problem  
General health history – historical context for the problem  
Problem-specific history – current presenting problem |
| 4. | Disposition:  
The outcome of the call, for example contact your GP; attend accident and emergency, or homecare |
| 5. | Advice-giving:  
The nurse provides additional self-care information about the management of the presenting concern |
| 6. | Closure:  
The call is concluded |

Table 5 makes visible a trajectory aimed at moving the call forward from the opening to closure, by means of a number of phases which involve identifying the caller’s concern or problem, finding out more information about it, advising the caller about a course of action, and expanding this to provide self-care.
advice. Apparently unremarkable, these phases have yet to be examined as interactional accomplishments for the CAS. I will now move to explicate these phases in more detail.

I have already stated that data were transcribed using the Jeffersonian method (Atkinson & Heritage, 1984; Jefferson, 2004). The call concerns a 69-year-old male (Cal), who telephones the helpline in the morning with concerns about blood in his semen. The call is eight minutes long.

Extract 1
C38
0.02.03-0.23.04

Opening sequence

In the first extract the nurse can be observed making what is referred to as a ‘call back’, whereby the caller’s initial call to NHS Direct is answered and assessed in terms of its priority, by a health advisor. I will examine this in some further detail to illustrate its importance for the shape of the call.

The openings of telephone conversations have a distinctive shape (Schegloff, 1979) not found in face-to-face conversation where recognition is established visually. Typically in this corpus, not only are identification and recognition established, but also the type of conversation being embarked upon is displayed, accepted or rejected. Such identification is important because
contingent upon it is the trajectory of the call, the selection of words, the construction of sequences, and the organisation of turns (ibid). To begin, during telephone talk, given that the participants do not have visual access to one another, a question that necessarily arises for both the nurse and caller is ‘who am I talking to?’ – what Schegloff (1979) describes as the “identification problem”. In this extract the ‘opening’ begins with an utterance by the caller, designed to be heard as responding to the telephone ring from the nurse (Schegloff, 1986), in which he greets the nurse with an announcement of the number dialled (line 1). This works to provide information against which the nurse can check the correct number has been dialled, after which he/she can begin the identification sequence.

Sacks describes greetings as “the initial part of the beginning sequence in conversations” (Sacks 1995) and instances of what he refers to as *adjacency pairs* ². Typically in ordinary conversation, a first-greeting is followed by a greeting-return, which is provided not to get yet another greeting, but so that the first speaker can hear that the second speaker understood, or otherwise, the greeting (Fragment 1 below):

Fragment 1

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nan</td>
<td>Hello:</td>
</tr>
<tr>
<td>2</td>
<td>Emm</td>
<td>.hh HI:.(.)</td>
</tr>
<tr>
<td>3</td>
<td>Nan</td>
<td>Oh:‘I:; ‘ow a:re you Emmah:</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Emm</td>
<td>FI:NE yer LINE’s BEEN BUSY</td>
</tr>
</tbody>
</table>

In fragment 1 the first speaker answering the phone produces a response to the telephone ring summons ‘hello’ (line 1), the second speaker – the caller – responds with a greeting return ‘hi’ (line 2), which is immediately followed not by another greeting but by recognition turn (line 3):

² *Adjacency pairs* have the following features: i) they consist of two utterances, ii) the utterances lie adjacent to one another, and iii) different speakers produce each utterance. Moreover, the utterances are related to and operate a typology, which partitions the utterance into ‘first pair’ and ‘second pair’ parts affiliated to form a pair type. The wider relevance of this for CA can be seen in the following examples: ‘greeting-greeting’, question-answer’, offer-acceptance". 

94
Chapter 3 NHS Direct, the setting, the software and the talk

Extract 1 is typical of calls to NHS Direct, which very often begin with the nurse pursuing the identity of the caller, displaying their own professional identity and that of the organisation and thereby establishing their situated identity. Callers typically minimally acknowledge this information and adopt the role of producing answers to the nurses’ questions. The opening sequence is therefore implicated in situating the participants as having particular identities related to the organisational task in hand, i.e. the nurse adopts the role of questioner and the caller as answerer, which projects the type of call that is emerging (Whalen & Zimmerman 1987). Therefore, the action being performed by the opening sequence seeks to align speakers as a seeker (caller) and provider (nurse) of help, but also as questioner (nurse) and answerer (caller), roles that are practically negotiated through a series of turns. Whilst this might appear conventional, it is nevertheless based on a tacit understanding of normative expectancies associated with the institutional work of organisations like NHS Direct that openings such as this are designed to do. The sequence is also designed as a pre-beginning, which works to establish not only identities and the character of the call, but also a particular footing for the call (Schegloff, 1979). This has implications for the course or trajectory the call takes, which can be observed in the following extract (2):

Extract 2
0.22.87-0.36.39

Boundary setting

18    Nur ← =have you called up this service before. =
19    Cal ← =no
20      (.)
21    Nur .hh okay just briefly then about the service =
22 =.h It's a nurse run service =
23    ← =we can't, diagnose. =
24    =but based on the information you give us =
25    ← =we can offer you some advice [.hh=
26    Cal [right
27    Nur =on what we think you should do [next=
28    Cal =yeh it
29    Nur =is that okay,
30    Cal ← yes >that's what I want<

In Extract 2 the nurse can be observed working to establish further the “frame” (Goffman, 1974), or “footing” (Goffman, 1981) for the type of call this is – the
roles of the nurse and caller, the social organisation of the situation or the context of the call – and their understanding of what is going on (Tracey, 1997). Briefly the nurse enquires about the caller’s familiarity with the ‘service’ (line 18), which works to establish whether he knows what to expect. The caller responds in the negative (line 19). Between lines 21 and 27 the nurse informs the caller about what he will and will not get from NHS Direct: he will not be given a diagnosis (line 23), to which the nurse swiftly latches that he will get advice on the production of information (line 25), to which the caller responds positively (line 30). I shall be returning to the nurses’ disclaimer about what NHS Direct can and cannot offer in Chapter Five. Having established the footing for the call, the nurse moves to identify the caller’s concern (Extract 3 below):

In Extract 3 the nurse sets out to establish what the caller’s reason is for phoning NHS Direct (line 31), to which the caller hesitantly expresses concern about blood in his semen (line 33). Following a silence (line 35), he adds the incremental and extreme formulation ‘very’ red (line 36), which works to underscore his concern. He abandons an expansion of his concern (lines 39-41) and the nurse does not pursue this further, which is possibly explained by the supposition that at this point the nurse already has enough information – a symptom from which a CAS algorithm can be launched. Note how the nurse
elicits the reason for calling and the caller’s reasonably succinct problem presentation. I shall be returning to problem solicitation and presentation in Chapter Four. From here, the ‘footing’ of the call shifts as the nurse embarks on a series of CAS-prompted questions about the caller’s general health (Extract 4 below):

**Extract 4**

0.53.18-2.07.04

*General health history*

45 Nur → Okay hh erm (0.2) >can; I just ask you how you are
46 → normally=do you have any ongoing medical problems.<=
47 Cal → no none at all
48 (.)
49 Nur → none at all
50 Cal → as far as I know I’m a hundred percent fit=
51 Nur → hh okay
52 Cal → well (considering my age)
53 Nur → oh right good man he hu=
54 Cal → hhm
55 Nur → =.hh any erm- diabetes=asthma:
56 (.)
57 Cal → no nothing=
58 Nur → =nothing like that=any hospital admissions?
59 (0.7)
60 Cal → er not for a long time no.
61 Nur → no okay w-w-when were you in hospital then?:
62 Cal → er (0.8)(cu-it-.h can’t-re-) ah right >do you know< so
63 long ago I can’t remember (it’s so many years).
64 Nur → ah right okay so-okay that’s fine=do you >take any
65 → medic[ations<
66 Cal → [no.
67 Nur → routinely:? .h nothing over the counter=nothing her:bal?
68 Cal → no::,
69 Nur → (clicking of computer keyboard) (1.0)
70 Nur → okay; and what about allergies=any aller[gies?
71 Cal → [yeah I do have a
72 Nur → =lot of al-er-allergie[s
73 Cal → [oh right o[kay.
74 Nur → as a child I had
75 Cal → hayfever:
76 Nur → right
77 Cal → er and that continued eh-it-er through most of my adult
78 life
79 Nur → right
80 Cal → but I suppose like a lot of people over the last (0.8) ten
81 years er-it’s been mo:re er-sort of >instead of< just in
82 the summer it’s been all round, .h [erm and I think it’s
83 Nur → [right
84 Cal → >I’ve been to have it< tested
85 Cal → and I think it’s a-(0.8) .hh er: shrubs and trees and
86 also house dust.
87 (0.4)
88 Cal → .h so I’ve be-er I am allergic uh-have that er (0.3)
89 allergy (0.5)
In Extract 4 we can observe the nurse moving to pursue general health questioning (lines 46, 64-5, and 71). This is signalled by seeking permission to ask the caller how he is normally (lines 45-46). It is notable that the nurse not only asks CAS-prompted questions, but also supplements them with her own (line 55, 58 and 67). In lines 55 and 58 the nurse pursues the caller’s negative response (line 47) with more focused questions about medical problems, and succeeds in eliciting from the caller that he has had a hospital admission (line 60), thus indicating a medical problem at some time. The nurse also pursues the caller’s negative response (line 66) about medications with a further, more focused, question about herbal remedies (line 67), to which she still receives a negative response. It is notable that in response to the nurse’s question about allergies, the caller reports a lot of allergies (line 73), to which the nurse orients as news (Heritage, et al., 1984) evidenced by the item ‘oh’ (line 74). Whilst this might seem unremarkable, it illustrates that revealing the callers health history is not unproblematic-after all, this caller has so far reported being ‘a hundred percent fit’ (line 50).

Note that when the nurse gets a positive response from the caller (lines 71-72) about allergies, she does not pursue it further. When she gets a negative response she does pursue it further. This seems to suggest that callers do not always answer the question as designed by the CAS; hence it is redesigned to probe the caller deeper. This seems to suggest that the prescriptive structure of the CAS lacks sensitivity to the local contingencies of the call, in response to which the nurse starts to display some rather refined interactional practices. Nevertheless, the roles of the nurse as questioner and the caller as answerer are firmly positioned and enacted in this extract. I shall be examining in more detail the design and response to general health questions in Chapter Four.
Having gathered information about the caller's general health, the nurse again shifts the 'footing' of the call to focus on the caller's current concern (Extract 5 below):

**Extract 5**

2.07.04-7.26.03

**Current problem history**

101  Nur → okay I’ve got that so: .hh uh*
102      ›let’s just have a little look; °=,
103      ‹I just need to type a few things in as we g[o:: okay?
104  Cal     [yeah. yeh.
105  (3.7)
106  Nur  Right. hh.
107  (3.1)
108  Nur → so it’s definitely! blood in-in the semen [not-
109  Cal    [yes.
110  Nur =not blood in the urine?
111  Cal no
112  (0.3)
113  Nur no oka:y.
114  (2.1)
115  Nur Right (. ) I’m just going to put you on hold for one minute
116  Nur [hold on!.
117  Cal [uh right.
118  (1.0.0)
119  Nur  erm mtch .h hello:: hello:; thank you=right no=I’m back
120  → with you that’s fine=right .h so when did you first↑
121  Cal [right
122  Nur notice this the[:n=?
123  Cal → [uh-er i-er-this mor;ning.
124  (0.4)
125  Nur  right blood; in=
126  Cal =when I woke yeah.
127  Nur semen, .h right, erm so one day history,
128  Cal [holding keyboard] (0.6)
129  Cal Yes, .h maybe (. ) it’s only just maybe a very slight er ()
130  → about a month ago:
131  (0.3)
132  Cal but I- sort of dismissed it thought no it isn’t.
133  Nur erm maybe::
134  (clicking of computer keyboard) (0.3)
135  Nur → also:, (1.0) was that just one episode a month ago?
136  Cal [yes:,
137  (1.7)
138  Cal yes:=like a little fleck.
139  (1.7)
140  Nur → also maybe one episode er month ago.
141  Cal Yeah.
142  (clicking of computer keyboard) (1.4)
143  Nur → right oka:y. >okay!< do you have↑,
144  → er I need to ask you a series of questions okay?
145  Cal Yes.
146  Nur → Do you have a fever at all?
147  Cal No.
148  Nur No, no fever nothing like that.
149  Cal No.
150  Nur → erm do you have any pain in your lower back?
[or below the ribs in the back?

is your urine a different colour?

No I don’t think so.

is it particularly smelly?

No.

No oka:y.

mh alright then have you recently undergone any surgical procedures?

[none no.

No pain at all. (0.3) .hhh right is-

is your urine a different colour?

No.

No (0.6)

mh alright then have you recently undergone any surgical procedures?

[none no.

No

is it particularly smelly?

No.

No oka:y.

Nothing like that oka:y. .hh erm is there any discharge at all?

No.

(0.3)

No: oka:y.

(Mka:y, (1.0) right,

right >I’m just going to have to put you on hold again=I just need to consult with a colleague< o[kay?

hold on a moment.

(1.0.0)

right I’m back with you=

=sorry about [that okay, we’re-

right okay.

we’re ready to roll again [okay,

[yes.

.h >jus<- had a problem with my screen there=but I’m

straight no:w,

yes.

okay s[ight so (0.9) .h on:e da:y history: (0.5)

(clic[king of computer keyboard)

history:=.h (0.4)

=ble]d=I’m just typing this in okay

right

bear with me okay=>one day history< .h and then and

pos]sibly possibly one episode a month ago.

Yes.

(0.5)

[ep-i-so:de (0.4) a month ago

.which resolved spontaneously did it?

(clic[king of computer keyboard

Yes.

(0.3)

a month ago (0.6) which (clic[king of computer keyboard

re:sol*::ved (1.0) resolved spon.
In Extract 5 the nurse pursues questions regarding the caller’s current health concern. To begin, the nurse orients to the needs of the computer, first for the screen to be read and second to enter information (line 102-103). Note that the nurse has not mentioned to the caller that she is using a computer to guide the call; this is instead left implicit. After a series of questions seeking to verify the caller’s concern and the onset (lines 108, 110 and 120, 122 and 134), the nurse announces that she needs to ask the caller some questions (lines 142). This is notable because the nurse has evidently already been asking questions of the caller. Nevertheless, this utterance seems to indicate that the nurse is moving to ask questions of a different sort. Indeed, she then embarks on another series of CAS-prompted ‘Yes’/’No’ interrogatives (Raymond, 2003), beginning with one about fever (line 144), which in alignment with the CAS indicates that the nurse has moved out of asking questions about the caller’s general health history on to questions about the caller’s current health concern (see bold text). We can observe other indicators of the nurse orientating to the CAS, when at line 190 after putting the caller on hold the nurse remarks that she has a problem with her screen, which can be heard as orienting to the CAS and repeating audibly to herself, or conversing with the computer, some of the information provided by the caller (lines 138, 193, 198, 199, 202, 207 and 208). Where the CAS prompts the nurse to ask a question for which she already has information, she can be heard saying she has already asked the caller, thus orienting again to the CAS (line 215). Similar practices have been observed in police interrogation of suspects (Stokoe 2008) in which phrases are designed by police officers to orient to the tape recorder using such phrases as ‘for the benefit of the tape’ and ‘for the tape’ (p. 1888) and similarly to NHS Direct,
because the recordings may be used in other public arenas for example for audit and monitoring, or indeed for legal matters, the tape recorder represents non-present recipients or overhearing audience (Heritage, 1985). Speakers therefore display accountability for talk about matters already established by prior talk (Raymond 2003). Nevertheless, the nurse adds a declarative question (lines 216-217) perhaps double checking the caller’s answer to the first response.

In this extract the nurse moves to gather problem-specific information from the caller, using interrogatives prompted by the CAS that require a simple yes or no response from the caller. We can observe the nurse orienting to the CAS in a range of ways, by apparently ‘conversing’ with it (line 138), by making explicit reference to it (line 190), and where it prompts a question to which she already has the answer modifying the question to merely seek verification (lines 215-216). We can also observe how the caller responds to the nurse’s history-taking questions using type-conforming ‘Yes’/‘No’ responses. I shall be examining how the nurse manages the CAS-promoted questions and the caller’s responses in more detail in Chapter Four.

So far, extracts 1-5 have provided an outline of the practical accomplishment of the CAS questions through the identification and recognition of the nurse and caller; establishing the footing of the call in terms of boundaries and expectations and the practical realisation of general health history and current problem history-taking. In these extracts we can begin to detect interactional challenges apparent in the literal and mechanical application of the interrogative design plan of the CAS and the local contingencies of the call, as the nurse and caller attempt to ‘make sense’ of the situation.

On completion of history-taking the CAS produces a disposition, also referred to as the ‘call outcome’ or ‘course of action’ the caller may take to manage their concern (Extract 6 below).
Chapter 3 NHS Direct, the setting, the software and the talk

Extract 6
7.26.03-7.50.86

Disposition or call outcome

222 Nur yeh (0.3) okay (1.0) okay . hh what; I think you need to
do: the[n Carl >if I can call you Cal[r]<
224 Cal [yes
225 Nur -> .h I think you need to make a routine appointment with
226 your gee pee
227 Cal -> right.
228 Nur -> it’s definitely something that you need to get checked
229 Cal yeh.
230 Nur -> oui:.h okay .h but I would say a routine appointment
231 (0.2)
232 Cal -> right.
233 Nur -> so:: .h erm er* (0.7) er* just get on the phone I-I
234 wouldn’t— the Monday would be [the nearest wouldn’t
235 Cal [yeh. sure
236 Nur -> it=because here we are Saturday afternoon= [hh that’s right (.)
238 Cal ye:h,

In Extract 6 the nurse produces the disposition (line 225-226), advising the
caller to make a routine appointment with their general practitioner. Here we
can observe that although the caller accepts receipt of the disposition (line
227), the nurse orients to it requiring some reinforcement (228), and repeats it
(line 230) with guidance on how to accomplish it (line 233). This suggests that
although the CAS routinely produces a disposition for the nurse to convey to
the caller, its practical accomplishment hints that it requires some additional
work by the nurse. I shall be returning to the production of the disposition, and
its actions, in Chapter Five, and its receipt in Chapter Six.

From this point in the consultation the nurse embarks on providing advice
relevant to the caller’s concern (Extract 7).

Extract 7
7.50.86-8.07.56

Care advice

237 Nur =but if the symptoms worsen persist worsen or any new
238 Nur ones deve:lop .h then either give us a ring back
239 (0.3)
240 Nur or contact the out of hours surgery for your gee pee::,
241 Cal ri:ght=
242 Nur =and erm (0.2)
In Extract 7 we can observe the nurse informing the caller that he should contact his general practitioner or ring NHS Direct again should his symptoms worsen. This information is always displayed on the CAS for the nurse to convey to the caller and is commonly observed to be located towards the end of the call. When the nurse has given care advice, calls typically move to closure (Extract 8 below):

Extract 8
8.07.56-8.10.31
Closure

250  Nur  Okay [thanks for that then,
251  Cal  [((ss very much)
252  Cal  Take care
253  Nur  Thank you
254  Nur  [bye bye
255  Cal  [bye bye

In Extract 8 we can see that call closure is accomplished in an apparently unremarkable fashion. Although not prescribed by the CAS, it is notable how closure can be managed in this environment. Having checked that the caller knows how to contact his general practitioner, almost out of the blue the nurse produces first a closing turn (Schegloff & Sacks, 1973) ‘okay’ (line 249), tagged to which is a closure implicative ‘thank you’. The caller in overlap collaborates with closure by producing his own ‘thank you’ (line 251), followed first by ‘take care’ (line 252), then by the first and second terminal ‘bye-bye’ components (lines 254-255) of closure (Button, 1987).
Summary

In summary I have illustrated that calls to NHS Direct are highly organised through the utilisation of clinical decision support software. Health advisors routinely answer initial calls to NHS Direct, use the PPP to record the reason for the call and the caller’s demographic details, assess the urgency of the call, and assign a priority. At this point, emergencies are transferred to the ambulance service and less urgent calls typically placed in an electronic call queue. From here nurses select callers to call back in order of priority.

NHS Direct employs 1,200 nurses, all of whom are mandated to use the Clinical Assessment System (CAS) to assess callers’ concerns, by using interrogatives prescribed by the CAS. I have shown how these questions appear to the nurse on the computer screen in a particular order, which must be followed. I have also illustrated the overall structural organisation of these calls and how the materialisation of the interrogative design plan – the production of the disposition – of the CAS may not as ordered as it might first appear, and that its situated completion may not be realised in such an apparently effortless procedural manner.

The following analytic chapters will examine three interactional features relating to these calls. Chapter Four will examine the interactional accomplishment of the interrogative design plan of the Clinical Assessment System (CAS). Chapter Five will examine the delivery of the disposition. Finally, Chapter Six will examine how the caller receipts the disposition.
CHAPTER 4

A question of design: interrogating the problem

Chapter Three illustrated that the CAS used by NHS Direct is a highly structured machine for assessing callers’ concerns. Using questions prescribed by the CAS, I have shown how they appear to the nurse on the computer screen in a particular order, which must be followed. I have also illustrated the gross structure of these calls, and how soliciting the caller’s concern, taking the history and producing the CAS disposition may not be realised in such an apparently effortless procedural manner.

This chapter will examine the situated practical realisation of the CAS questions – the literal and mechanical application of the interrogative design plan of the CAS. Examining the properties of question design, the structural organisation or the shape of questions, their sequential organisation or positioning, and the actions they perform will reveal the range of activities accomplished by this form and open up a new perspective that will illustrate the interactional practices embodied in the practical accomplishment of the CAS.

The chapter is organised as follows: In the first section I will examine how questions are designed and responded to during the sequence in which the caller’s problem is identified. In the second section, I will examine how the questions are designed and responded to during the sequence in which information is gathered, commonly referred to as history-taking.

I will show that the in situ practical realisation of the CAS is quite remarkable. When identifying the caller’s concern, I show that the nurses regularly deviate from the CAS-prompted reason for calling question, typically constructing questions that implicate what the caller can and cannot contribute, working to
cushion the force of the CAS, and engaging a range of interactional devices to manage the demand of the CAS.

**Introduction**

Most of us are accustomed to contacting by telephone organisations as diverse as insurance and utility companies, banks and leisure facilitates, for advice or information. At first glance, that whoever answers the phone might first ask questions before providing their service might seem unremarkable. Questions are, after all, a pervasive feature of everyday social life, from early childhood utterances to seeking directions to the nearest fuel station. However, asking questions and providing answers is not as simple as it may seem. Rather, it is a complex multidimensional activity.

NHS Direct is an organisation from which people may seek help, advice or information about a health concern. The institutional mandate is to provide “expert health advice, information and reassurance” (NHS Direct, 2009d). As already demonstrated in Chapter Three, the CAS uses algorithms to triage, i.e. sort and rank callers’ health problems so that they can be dealt with in order of priority. Algorithms are clearly defined step-by-step procedures or instructions for solving a problem, which result in a predictable end-state. This translates to the CAS as a “set of logically structured symptom-based questions”, which are put to the caller by the nurse in order to eliminate the possibility that a serious condition may underlie the symptoms being presented (AXA Assistance, 2001a, p. 4). The end-state is the disposition or course of action which the caller may take to manage the problem. Triage questions are defined as:

“A set of prioritised questions designed to guide a specific symptom or complaint into an appropriate disposition, addressing the most serious problems first, down through to non-emergency problems. In this way, urgent problems are rapidly triaged to an emergency health care recommendation”.

(AXA Assistance, 2001a, p. 7)
This process is not new. Doctors are accustomed to patients presenting to them with a health problem. Through verbal examination, doctors embark on history-taking, the purpose of which is to elicit the necessary information to enable an understanding of the patient’s situation and/or make a diagnosis. Indeed, the doctor-patient encounter has a well-established tradition of research (Bales, 1950; Boyd & Heritage, 2006; Byrne & Long, 1976; Cassell, 1985a, 1985b; Cohen-Cole, 1991; Drew, 2006; Labov & Fanshel, 1977; Maynard, 2003; Peräkylä, 2006; Ricardi & Kurtz, 1983; J. D. Robinson, 2006; D.L Roter, 2001; J. Silverman et al., 1998; Stivers, 2006).

The changing landscape of health care in the UK has meant that nurses are increasingly being substituted for doctors, particularly in primary care. Although nurse-led consultations have become more commonplace (Araoyinbo & Bateganya, 2008; Laurant et al., 2004), we are yet to understand the features of these types of consultations at a micro interactional level.

Added to this is an increasing use of computer decision support software to aid the clinical decisions of both doctors and nurses. Studies seeking to assess physician performance and patient outcomes have revealed that CDSSs can enhance clinical performance for drug dosing, preventive care and other aspects of medical care, but do not work convincingly for diagnosis. Furthermore, the effects of CDSSs on patient outcomes have been insufficiently studied (Hunt et al., 1998). However, real-world performance – how the user and the ‘expert system’ function are used in and for their work – has received limited attention.

Those studies completed (Hartland, 1993; Suchman, 2007; Vinkhuyzen & Whalen, 2007; J. Whalen, 1995) have demonstrated that differences between human reasoning and the operation of machine-based intelligence, presents troublesome difficulties for the users. The CAS is a manifestation of such ‘expert systems’. It utilises clinical and patient information assembled through
questioning to accomplish an ordered series of activities, establishing the problem they are calling with or the reason for the call and gathering information about the problem via history-taking. In so doing, the nurse acts as a human transmitter of information from the caller to the CAS in an elaborate “choreography” (Thompson, 2005) involving the nurse, caller and the CAS, which ultimately ‘makes sense’ of this information and produces the disposition or course of action for the caller to take. This is in addition to care advice. However, we have yet to examine the choreography of CAS-prompted questions as vocalised by the nurse or the capturing and reconciliation of the callers’ responses with the input requirements of the CAS machine. These data sets provide two environments for the examination of these concerns: the first can be located as the nurse seeks to solicit the caller’s concerns, whilst the second can be found as the nurse gathers information about the caller’s concern, commonly referred to as history-taking.

**Question design – some preliminary observations**

Calls to NHS Direct are often complex constructions initiated by a caller concerned about their health in some way, and are geared to receiving a solution of some sort. This is accomplished primarily via an intricate network of ‘Yes’/’No’ interrogatives (Raymond, 2003), for example Figure 5 (p. 89). Because calls may be received from people of all ages, education and ability, nurses are advised that they may need to change the wording of an algorithm question so that what is being asked can be understood by the caller and that their response fits the question correctly in order for the triage to progress (AXA Assistance, 2001a, p. 26). To this end, the nurses are trained to formulate ‘Yes’/’No’ interrogatives (AXA Assistance, 2001a, p. 27).

‘Yes’/’No’ interrogatives are one of the most pervasive practices found in interaction, and are so named because of the type of response to the question (Raymond, 2003). The origin of the ‘Yes’/’No’ interrogative can be found in the
organisation of the adjacency pair (Schegloff & Sacks, 1973), which is composed of two turns – a first pair part (FPP) and a second pair part (SPP), for example question (FPP) and answer (SPP). Thus, a question makes an answer relevant. Answers or responses, however, can be manipulated by the grammatical structure of the question and the action type embodied within it. Accordingly, a request for information embodied within a question makes relevant granting, and the action-type preference embodied in the question makes relevant a ‘yes’ or ‘no’ response only, not an expansion (see Fragment 1 below):

Fragment 1
Rahmen 4
(Raymond, 2003, p. 945)

1 Mat: ‘lo Redcah five o’ six one?
2 Ver: Hello Matthew is yer mum the:hr love.
3 Mat: Uh no she’s, gone (up) t’town, h
4 Ver: → Alright uh will yih tell’er Antie Vera rahn: g then.
5 Mat: → yeh.
6 Ver: Okay.

In Fragment 1 Vera formulates a request ‘will you’ (line 4), which makes relevant granting. Moreover, the action-type preference makes relevant a ‘yes’ response. Mat conforms to both of these relevancies and produces ‘yes’ (line 5). Referred to as a ‘type-conforming’ response, this represents the default response form in that they are the most commonly produced responses indicating a preference for agreement (Pomerantz, 1984). Non-conforming ‘no’ responses are an option, but are employed less frequently. Both of these responses have different sequential consequences for ongoing talk in that type-conforming responses indicate confirmation or agreement and non-conforming responses indicate disagreement (Pomerantz, 1984; Raymond, 2003). This is relevant to this analysis because, as shown earlier in this chapter, the CAS is built around an intricate maze of ‘Yes’/’No’ interrogatives.

‘Yes’/’No’ interrogatives are also widely used by doctors (D.L Roter & Hall, 1992), lawyers (Atkinson & Drew, 1979), survey researchers when administering questionnaires, and between family members and friends when
issuing, for example, invitations and requests. Consequently, they have received growing attention in the literature (Byrne & Long, 1976; Frankel, 1990; Hootkoop-Steenstra & Antaki, 1997; Mishler, 1984; Raymond, 2003, 2006). Indeed, in medical interactions, although patients may be seeking help and information, more than 90% of doctors’ utterances are questions, whilst patients’ utterances consist mainly of answers (Frankel, 1990; D.L Roter & Hall, 1992).

The delivery of health care is evidently frequently contingent on answering questions, the compliance with which is often critical to potentially life-saving decisions (J. Whalen et al., 1990; M. R. Whalen & Zimmerman, 1987; Zimmerman, 1992). Frankel argued that “the pragmatic effect of a question cannot be understood without reference to the response of its recipient” (Frankel, 1995, p. 237), and that to study questions without examining how they link to answers is to “miss their instrumental and social significance in clinical encounters” (ibid p. 236). This analysis will also examine how callers respond to questions. Boyd and Heritage (2006) and (Heritage, 2009b) provide a valuable framework for examining both questions and answers (Table 1).

**Table 1: Dimensions of Question Design**

<table>
<thead>
<tr>
<th>Interviewer Questions:</th>
<th>Interviewee Responses:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Set Agendas:</strong></td>
<td></td>
</tr>
<tr>
<td>(i) Topical agendas</td>
<td>Conforms/Does not conform with</td>
</tr>
<tr>
<td>(ii) Action agendas</td>
<td>(i) Topical agendas</td>
</tr>
<tr>
<td></td>
<td>(ii) Action agendas</td>
</tr>
<tr>
<td>Embody presuppositions</td>
<td>Confirm/Disconfirm presuppositions</td>
</tr>
<tr>
<td>Convey epistemic stance</td>
<td>Display congruent/incongruent epistemic stance</td>
</tr>
<tr>
<td>Incorporate preferences</td>
<td>Align/Disalign with preferences</td>
</tr>
</tbody>
</table>

Table 1 illustrates the actions that questions perform rather than the syntax or grammatical construction of questions as seen in the work of Raymond.
(Raymond, 2003), though the two perspectives are complementary in helping to understand question design. Heritage suggests that questions establish particular agendas for the interviewee’s response; they embody presuppositions or propositions about the matter being discussed and incorporate preferences in that they are often designed to favour one response over another. Questions also display the questioner’s epistemic stance towards the response. That is, questions propose a likely hunch as to the answer. For example, the question “You’re married?” is used when the questioner already holds this information and is just seeking confirmation, thereby displaying a shallow epistemic gradient to the likely response (Heritage, 2009b). Correspondingly, interviewees engage or decline to engage in the agenda set by the question, confirm or not the presuppositions, and align or not with its preferences.

Questions are highly relevant for NHS Direct, as the nature of the work of the helpline is assembled through them, and the nurses’ and organisation’s identities are displayed by them. I will draw on the work of both Raymond (2003) and Heritage (2009b) to illuminate the interactional practices employed in the asking and answering of questions in this setting. I will begin by applying an analytic lens to how questions are designed and the actions they perform during the sequence in which nurse is trying to find out about the caller’s problem.

Analysis

Soliciting the caller’s concern

Soliciting callers’ concerns is an important locus for research because different question designs have consequences for what the callers have to say about their concerns, and the way in which these concerns are presented. Furthermore, the presentation of the callers’ concerns sets the scene for the consultation as a whole – it determines the algorithm, thereby the focus of the
questions to be used during history-taking. To gloss over or underestimate the importance of the solicitation of the callers’ concerns risks failing to spot or overlook the actual reason why the caller has telephoned, which may have crucial consequences for the call’s outcome. A common environment for an enquiry into the solicitation of patients’ concerns is the doctor-patient interaction (Beckman & Frankel, 1984; Frankel, 1995; Halkowski, 2006; Heritage, 2006; Heritage & Robinson, 2006; Heritage et al., 2007; Marvel et al., 1999; Mishler, 1984; J. D Robinson, 2005; J. D. Robinson, 2006; D.L Roter & Hall, 1992; Stivers, 2002). Of particular interest here is an investigation of question formats designed to index new, follow-up and chronic routine conditions, which found that patients orient to questions as appropriately or inappropriately framed and hold doctors accountable for this (J. D. Robinson, 2006). The investigation also found types of acute problem presentation and how the nature of the problem creates constraints on how presentations are made, inasmuch that patients’ problem presentations are typically taken up with justifying the decision to seek help (Heritage & Robinson, 2006) rather than the problem itself. Added to this, patients typically present with more than one concern. In their study of physician behaviour, Beckman and Frankel (1984) found that if a physician inadvertently focuses on the patient’s first problem and not the second, then the activities that follow may be inadequate for the overall task of the consultation.

These findings are relevant to the concerns of this analysis because the CAS is largely motivated to rule out biomedical concerns such that, in the main, questions are geared towards identifying problems in the functioning of the systems of the body such as neurological function – ‘has he lost consciousness?’ – and gastrointestinal function – ‘has he vomited more than once?’ Such questions are initiated by problem identification such as ‘shut child’s head in car door’ reformulated into a symptom ‘headache injury – toddler’, which is used to launch an algorithm. If the nurse focuses on the wrong symptom, the outcome of the call may be rejected by the caller. For example, if a caller telephones NHS Direct concerned about vaginal bleeding and after mentioning a history of polycystic ovaries is advised to see a chemist, one might question why the caller responded with silence (C 32 p. 207). Similarly, if
a caller telephones concerned about a swelling on her son’s leg and is advised to attend accident and emergency, one might wonder why the course of action was received with silence (C52 p. 208). It seems, therefore, that soliciting the caller’s concern is crucial for the outcome of the call.

This section will examine how this is accomplished, by presenting some typical question format examples. In the first instance I will merely be making some initial observations. This will be followed by a more detailed analysis. To start, however, it is worth noting that identifying the caller’s problem or soliciting the caller’s concern does not just happen. It forms part of a series of gross actions ostensibly enforced by the CAS. In particular, it is a constituent of taking the caller’s health history (Table 5 p. 92).

As a point of departure it is notable that the CAS training proposes the following question for the nurse to put to the caller about their reason for calling: “What is the reason you are calling today?” (AXA Assistance, 2001a, p. 11). We can see the substance of this question being replicated in Extract 1 below (line 2):

**Extract 1**

C38
0.37.26-0.40.10 (CB)

1 Nur so in your own, wo:rd:<=
2 =what’s the reason for your call today please=?

In Extract 1 the nurse can be observed delivering the problem identification question almost verbatim with how it is stipulated by the CAS. Nurses do however depart from this format. Consider Extract 2 below:

**Extract 2**

C10
1.39.81-1.43.99

1 Nur lovely. .hh okay,=
2 =an can I just take a brief reason why you’ve ca:ll:ed
today?
3 (0.3)
Extract 2 is strikingly different to Extract 1. Although the question is general, allowing the caller to present their concern in their own terms, the addition of the adjective ‘brief’ has implications for the caller’s response. Other departures from the CAS’s proposed question format can also be found in the data.

Consider Extract 3 below:

**Extract 3**

C40
1.12.10-1.14.82 (CB)

1. Nur → Right↑ what’s the problem then?

Extract 3 illustrates again a general question in which the nurse enquires about an unspecified problem, allowing the caller to define it. Questions are also designed to be heard as departing altogether from identifying the problem.

Consider Extract 4 below:

**Extract 4**

C5
0.22.48-0.25.50 (CB)

1. Nur → =lovely ri:ght okay an how can I help you today Malcolm?

Extract 4 provides a contrast to previous extracts, in that rather than asking the caller about the reason for calling or what the problem is, it is an example of the nurse asking the caller how they can be helped. The following extract illustrates a further departure from the CAS-prescribed question format:

**Extract 5**

C37
0.58.14-1.01.34 (CB)

1. Nur → Okay=now describe to me what’s happening for you.

In Extract 5, in contrast to soliciting the caller’s reason for calling, the problem or how they can be helped, the nurse is inviting any response the caller cares to make.
The extracts so far show the nurses deviating from the CAS problem identification question and displaying themselves as having no prior knowledge of the caller’s concern, thus inviting the caller to present their concern in their own way (apart from Extract 2, during which the caller is asked to be brief). It is worth noting, however, that in most cases the caller’s contact with the nurse is via a call back, whereby the caller has contacted NHS Direct, been spoken to by a call handler and assigned a priority (Ch 3), which is then placed in a call queue. See Figure 1 below:

**Figure 1: Call Queue**

Figure 1 illustrates the call queue in which calls are listed in order of priority. Those with the highest priority are at the top of the list. The queue shows the surname of the patient, their age, the reason for their call, the assigned priority of the call, call type, and how long they have been in the queue for (CAS Services Limited, 2004, p. 93). At the bottom of the screen is the ‘black
message bar’, which tells the nurses the number of calls waiting in the queue and the maximum time a caller has waited.

From the call queue, nurses select people to call back in order of priority, influenced by the reason for the call. This is relevant, as such calls make available to the nurse prior to the call back the reason for the call, as seen in the third column from the left. Extracts from such calls have been annotated (CB). Consider again Extracts 1, 3, 4 and 5 in which the nurse has information readily available on the computer screen about the caller’s concern, but acts as if she/he does not know; a similar phenomenon has been observed of radio call hosts who have been primed with information about callers in the queue, and invoke that as relevant (Hutchby 1996). Consider also Extract 6 below:

**Extract 6**

C2
0.47.77–0.50.70 (CB)

1 Nur → an I believe you had a fa:ll, at the weekend.=
2 → [=is that correct,(.)]?

Notably in Extract 6 we can observe the nurse revealing limited prior knowledge of an incident in which the caller had fallen at the weekend. Designed as a ‘Yes’/’No’ interrogative (Raymond, 2003), it invites only confirmation. However, nurses do zoom in on the problem. Consider Extract 7 below:

**Extract 7**

C21
0.18.92–0.24.42 (CB)

1 Nur → =Now I understand that erm you’ve got a very severe
2 headache at the moment=
3 → =[is that correct?]

In Extract 7 the nurse displays specific prior knowledge of the caller’s symptoms – a severe headache. Designed as a ‘Yes’/’No’ interrogative, this question again confines the caller’s response to a mere confirmation of specific symptoms, thereby limiting the opportunity for them to elaborate.
In summary, I have exhibited a number of examples of question formats that index callers’ concerns and are designed in different ways to elicit institutionally relevant information from the caller. On initial inspection such variable ways of eliciting information may appear to be unremarkable. However, they are far more complex than they appear. I have shown that i) the CAS ‘reason for calling’ question is routinely departed from; ii) these departures display the nurses revealing or concealing their prior knowledge of the caller’s concern; and iii) these departures have consequences for the caller’s response. I will now move to examine these phenomena in more detail.

Identifying why people call NHS Direct

Identifying patients’ health problems is not a straightforward activity, and has received a not insubstantial amount of interest in the doctor-patient literature (Frankel, 1995; Halkowski, 2006; Heritage, 2006; Heritage et al., 2007; Marvel et al., 1999; Mishler, 1984; J. D Robinson, 2005; J. D. Robinson, 2006; D.L Roter & Hall, 1992; Stivers, 2002). The previous section provided some examples of questions used by nurses to find out why the caller is phoning NHS Direct. This section will provide more detailed analysis. To begin, however, consider again Extract 8 below:

Extract 8
C38
0.36.88–0.40.20 (CB)
1 Nur great okay then=
2 =>so in your own, wo:rd<=
3 what’s the reason for your call today please=?
reason for the call and its properties. This is what Heritage refers to as a Type 1 (general inquiry) question (Heritage, 2006), commonly seen in interactions between doctors and patients. This question can be observed to be a) inviting an immediate presentation of the caller’s health concern; b) general, taking a diagnostic stance towards the caller’s concern; and c) allowing the caller to present their concern in their own terms (ibid). This is a somewhat exemplar extract, which is not replicated in the rest of the data. However, nurses do produce similar diagnostic questions. Consider Extract 9 below:

Extract 9

C10
1.38.85-1.43.97

1   Nur  =you’re his wi[fe].º yeh]
2   Cal  [yeah         ]
3   Nur  lovely. .hh okay,=    
4   → an can I just take a brief reason why you’ve ca[lled
5     today?
6     (0.3)

Extract 9 again illustrates a Type 1 question (Heritage, 2006), but with a striking difference – the addition of the adjective ‘brief’. Although the question is general, allowing the caller to present their concern in their own terms, there is however a proviso – it must be kept short. So whilst the CAS designs the question to elicit a broad account of the reason the call has been made, its practical accomplishment in these extracts seeks to limit the caller’s contribution. A second salient observation is the silence on possible completion of the nurse’s question (line 6). Many sequences of talk are organised around the basic unit of the “adjacency pair” consisting of two turns – a first pair part and a second pair part (Sacks, 1995, pp. 521-570. Vol. 522). Moreover, questions are designed to elicit information by means of interrogative syntax (Heritage, 2002). Silence following a first pair part is treated as foreshadowing some difficulty with the prior talk (Heritage, 1984). Why the question enquiring about the reason for the call is not answered immediately on possible completion is unclear, but it may have something to do with trouble being brief. Consider Extracts 10, 11 and 12 below, during which further departures occur:
Extract 10
C40
1.12.10-1.14.82 (CB)

1  Nur → Right↑ what’s the problem then?
2  (0.4)

Extract 11
C5
0.22.48-0.25.54 (CB)

1  Nur → =lovely ri:ght okay an how can I help you today Malcolm?
2  (0.2)

Extract 12
C37
0.58.14-1.01.35 (CB)

1  Nur → Okay=now describe to me what’s happening for you.
2  (1.0)

Each of these extracts are examples of Type 1 (general inquiry) questions (Heritage, 2006) in which the nurse displays no definite knowledge of the caller’s concern and therefore adopts an epistemological stance of ‘unknowing’. Heritage (2009b), in examining ‘Yes’/’No’ interrogatives, suggests that this works to index a deeply sloping epistemic gradient, in this case between an ‘unknowing’ nurse and a ‘knowing’ caller (Heritage, 2009b). Although the questions in these extracts are not ‘Yes’/’No’ interrogatives, we can nevertheless observe the nurse making complex choices about conveying his/her own information state relative to the caller. This is significant, because taking an ‘unknowing’ stance can invite the caller to elaborate their response – a practice I shall examine further in a following section. Nonetheless, type 1 questions also invite the caller to present their concern without delay, and to present it in their own terms (Heritage, 2006).

As noted earlier, another observation concerns the callers’ receipt of the question with a silence. Why this is the case is debatable. However, it is plausible that repetition is an active consideration (Heritage, 2006) for the caller who, having already provided the reason for calling to the health advisor, needs some display by the nurse that she/he has had sight of it. Not to display this
knowledge is treated as a source of trouble (Heritage, 1984) by the caller – evidenced here by silence on possible completion of the nurse’s question. Taking this view, nurses are being held accountable for inappropriately designing their question; a finding supported by Robinson (2006), who examined physician-patient consultations and found that patients oriented to as troublesome any questions that did not display the physician’s prior knowledge of their concern. However, as I have previously shown, nurses do display their epistemological stance as knowing. Consider again Extract 13 below:

**Extract 13**

C2

0.47.77–0.50.71 (CB)

1  Nur → an I believe you had a fall, at the weekend.=
2  → [=is that correct, (.).?

It would appear that whether to reveal prior knowledge of the caller’s concern is what Heritage (2006) describes as a ‘lively consideration’ within the interaction. Notably, in Extract 13, using a declarative ‘Yes’/’No’ question format (Heritage, 2009b), the nurse reveals prior knowledge of the caller’s concern, thus adopting a ‘knowing’ stance (line 1) greater than that seen in previous extracts (Heritage, 2009b). This question is designed to request confirmation of a generalised gloss of the caller’s concern known to the nurse, and is described as a Type 2 (gloss for confirmation) question commonly seen in doctor-patient encounters (Heritage, 2006). It displays what Schegloff (1972) describes as a degree of granularity. That is, it does not specify the particular problem, merely a generalisation. Such questions exhibit limited knowledge of the caller’s concern, but when designed as a ‘Yes’/’No’ interrogative (Raymond, 2003) invite only confirmation. Such a question type first reveals the nurse’s prior knowledge of the caller’s concern; second, it is designed to constrain the caller to a ‘yes’ or ‘no’ response, which works to avoid repetition and conceal any residual concerns the caller might have. We can see a similar action in another question type. Consider again Extract 14 below:

**Extract 14**

C21
In Extract 14, as observed in extract 13, the nurse displays prior knowledge of the caller’s concern. However, in this extract it is more specific symptom-based knowledge. We can also observe the nurse producing a declarative ‘Yes’/’No’ interrogative (lines 2-3) (Heritage, 2009b), which is designed to confine the caller’s response to a mere confirmation of the specific ‘a severe headache’ symptom, thereby limiting the opportunity for the caller to elaborate.

The design of this question requires a more specific confirmation than that seen in the previous extract. Heritage describes these as Type 3 (symptoms for confirmation) questions (Heritage, 2006). Because they reveal symptom-specific rather more general knowledge of the caller’s concern, they constrain the caller through the use of ‘Yes’/’No’ questions, making elaborations which the nurse may already be knowledgeable about, thus avoiding repetition, which, again, appears to be a ‘lively consideration’ (Heritage, 2006). Across these extracts we can observe that more general Type 1 questions seek elaboration. In contrast, Type 2 (gloss for confirmation) and Type 3 (symptom confirming) questions are more exhaustive of the caller’s concerns, and thereby take the form of summaries offered by the nurse. As such, this question type is the least exploratory of the caller’s concern.

I have suggested that the epistemological stance adopted by the nurse when soliciting the caller’s concern places on a gradient their prior knowledge of the concern, thereby displaying the nurse as either ‘unknowing’ or ‘knowing’ (Heritage, 2009b). This is significant, as taking an ‘unknowing’ stance (extracts 8 and 10-12), can invite an elaboration of the caller’s concern. In contrast, taking a ‘knowing’ position (extracts 13 and 14) merely invites confirmation of ‘known information’ from the caller as an authoritative source (Heritage, 2009b).
It is notable that, in most cases, the nurse has information readily available about the caller’s concern. So too is that the nurse makes a complex choice about whether to reveal this information to the caller. As a result, the nurse can be observed mobilising this information in the course of soliciting the caller’s concern, or adopting an alternative strategy by acting as though she does not have it. Mishler (1984), argued that through the use of what he describes as ‘closed questions’ and (Heritage, 2006) describes as Types 2 and 3 questions, priority is given to the relevance of the biomedical world to the exclusion of the patient’s ‘lifeworld’ experiences. I will now move to examine the interactional consequences of different question types for the caller.

**Producing the problem: callers’ responses to the reason for calling**

In deciding how to answer the nurse’s enquiry about the reason for calling NHS Direct, the caller is faced with the practical issue of what to present. I have already shown that how the question is designed projects the type of response required. Consider again Extract 15 below:

**Extract 15**

C5
0.22.48–1.12.80

1   Nur → =lovely ri:ght okay an how can I help you today Malcolm?
2       → (0.2)
3  Cal   well what am er- I’m in the Royal Navy=an I’ve just
4       wor:king (0.2) very strange shifts for the last seven
5     weeks which is nothing new
6      (.)
7  Cal   [er (.)
8  Nur   [ri:ght
9  Cal   I’ve been havin: **real** (.). problems being able to rela:x
10       → an my hearts beating very ha,:rd.
11      (0.5)
12  Nur   .hh ri:gh[t o-
13  Cal   [and I was waking up abou:t (0.3) half three
14      (.)
15  Cal   four in the mornin
16      (0.5)
17  Nur   [ri:ght
18  Cal   [and I’m (finding) can’t sleep again
19  Nur → ri:ght .h okay this problem with your heart beat is that
only at night when you’re trying to sleep=
or is it all the time
Cal [Nah it’s ju—it’s not so co-it is during the day if
I sit down and relax I can just feel .hhh I’m really
conscious of my heart beat=
Nur → =you’re conscious of i:t
Cal yeah
Nur → ri:ght oka:y=is it quite regular or is it-
(0.9)
Cal wha- whad’you mean?
(0.3)
Nur → its not jumping around a:ll over [the place]
Cal [yea:h it a has that [feels to miss a beat yeah
Nur [do you,
Nur → yea:h=an you’re also having trouble slee.:ping=
Cal =yeah
(.
Nur → which of these things is worrying you the mo:st=
Cal =er the sleep mainly
(.
Cal .h I didn’t sleep’s—I think the sleep’s a knock on effect
(.
Cal .hh [I think
Nur [yea:h
Cal .hh I thinks it’s the heart beat a >knock on< effect of
not being able to rela:x
(.
Nur ye:a:h
(0.2)
Nur .hhh oka:y. right, now I’m—I’m gonna a,:sk you a few
questions about this=

Extract 15 illustrates the most commonly used Type 1 (general inquiry) question format found in these data: ‘how can I/we help’. In line 1 the nurse produces a question enquiring how she can help. However the caller refrains from answering the question about how s/he can be helped. Consider an alternate response to the one seen in the fragment below:

[SSMC 01.] (Halkowski, 2006, p. 94)

DOC: How can I help you.
PAT: Oh ah (0.2) I’m not sure how you can help me

In this extract we can observe the doctor in the opening moments of a primary care encounter, ask the patient how he can help. Following some hesitation and silence the patient informs the doctor that he does not know how the doctor can help. This does not mean the patient does not have a problem, but that they are
unable to second guess what help the doctor can provide. Arguably therefore as a problem identification question, commonly seen at the beginning of such encounters, it is ill fitted to the task at hand.

Turning now to extract 15, again following a silence (line 2), suggestive of some trouble with the nurse’s request about how s/he can help (Heritage, 1984), the caller refrains from providing this information and instead embarks on a lengthy narrative of events (lines 3-18). This is interspersed with the nurse producing the continuer ‘right’ (lines 8, 12, and 17), (Schegloff, 1982). ‘Right’ is often placed at a particular point in the course of an on-going turn. As such it displays hearership, and even though a transition relevance place has been reached, does not require the prior speaker, in this case the caller to relinquish their turn. Between lines 19-36 the nurse attempts to clarify the caller’s concern (lines 19-21, 25, 27, 31 and 36), which is being variously presented as not ‘being able to relax’ (line 9); ‘heart beating very hard’ (line 10) and ‘finding [he] can’t sleep’ (line 18). Finally the nurse enquires which is worrying the caller the most which of these things is worrying you the most= (line 39), to which the caller responds that sleep is his main concern (line 40).

Leppänen (2005), in an examination of calls to Swedish primary care, found that callers embark on what is described as ‘narratives’ in which the caller presents the initial problem, as seen here in extract 16 (lines 9-10), the nurse utters a continuer, displaying a preparedness to listen, also seen in lines 12 and 17, followed by the caller detailing the problem (lines 13-18), and the nurse proceeding to ask questions about the problem (lines 19-21, 25, 27, 31, and 36). What is different about the NHS Direct data is that callers never presented themselves as needing to know who to turn to, at the beginning of the call. Rather they sought to present themselves as having a problem about which they were concerned, and which they believed NHS Direct could help them with. As in Leppänen’s study, callers in these data, could be observed presenting themselves as having an initial problem, which over time, was
becoming of greater concern, and building a case for legitimately seeking help. Halkowski (2006), argues that one way patients in doctor-patient interactions, manage to present themselves as “reasonably seeking care” is via “narratives of symptom discovery”; and how the telling of such narratives display the “doctor-relevance” of a candidate problem. This works he suggests to display people as “reasonable patients properly monitoring their bodies”. In this extract we can observe the caller present himself as having awareness of bodily sensations in the form of having problems relaxing I’ve been havin: real(.) problems being able to relax (lines 9), along with noticeable heart beats an my hearts beating very ha,rd. (line 10), and symptoms in relation to insomnia [and I’m (finding) can’t sleep again (line 18), Not only that, he proposes a candidate explanation that one is responsible for the other I thinks it’s the heart beat a >knock on< effect of not being able to relax (lines 46-47). Collectively these actions delicately work to display the caller as coming to realise he had a problem, monitoring himself, and formulating a description of the problem. Furthermore as in the study conducted by Leppânen (2005), callers could also be observed to offer a candidate diagnosis. However its sequential location varies, occurring after problem presentation or later in the call. Nevertheless questions inviting the caller to narrate their concern have interactional consequences for the trajectory of the call.

One of the consequences of Type 1 question formats is the volume of information provided by the caller – the nurse’s task is to try to pull out of it and acknowledge a health problem (Halkowski, 2006) or to find an entry into the problem; a handle which will allow the nurse to begin the assessment (Cassell, 1985b, p. 91). So much information provided by the caller may seem illogical and incoherent, which begs the question: ‘What do you want me to work on?’ (ibid p.92). To this end, nurses may need to use some other device to get what they want. Indeed, we can observe in this extract the nurse asking the caller directly what is worrying them the most (line 36). Whilst Type 1 question
formats may yield a lengthy response from the caller, Type 2 questions are also challenging for the nurse. Consider again Extract 17 below:

**Extract 16**

C2
0.47.77-0.52.34

1 Nur → an I believe you had a fall, at the weekend.=
2 → (=is that correct, (.).?)
3 Cal [yes
4 Nur → an what actually happened.

In Extract 16 we can observe the nurse producing a Type 2 question (Heritage, 2006), designed as a ‘Yes’/’No’ interrogative (Raymond, 2003) (line 1-2), which, as proposed earlier in this section, displays the epistemic stance of the nurse having some limited knowledge of the caller’s concern (Heritage, 2009b), and is designed to invite only confirmation from the caller. However, although such questions can also permit expansion by the caller (Heritage, 2006), here the caller duly produces a type-conforming response (line 3), which not only conforms with and accepts the design of the ‘Yes’/’No’ interrogative (Raymond, 2003), but also suggests that the caller does not orient to the question as soliciting re-presentation or expansion of the caller’s problem. Notably, however, the nurse orients to this as being a somewhat unsatisfactory means of soliciting the caller’s concern. Following the caller’s ‘yes’ response (line 3), we can observe the nurse shift to a Type 1 question (line 4) (Heritage, 2006), in order to solicit more fully the caller’s concern – a tactic observed in doctor-patient interactions (Raymond, 2003). Similarly, a Type 3 question provides evidence of further challenges in terms of soliciting the caller’s concern.

Consider again Extract 17 below:

**Extract 17**

C21
0.18.92-0.26.45

1 Nur → That’s lovely thank you.=
2 → =Now I understand that erm you’ve got a very severe
3 headache at the moment=
4 → ={is that correct?
5 Cal [That’s right yes.
6 Nur → How long have you had it?
In Extract 17 the nurse produces a Type 3 question format designed as a ‘Yes’/’No’ interrogative (lines 2-4). This question displays a stronger epistemic stance than that seen in Extract 17, but which again constrains the caller through the use of a ‘Yes’/’No’ question from making elaborations that the nurse may already be knowledgeable about. In response, the caller again produces a type-conforming confirmation (line 5). Symptom-confirming Type 3 questions are more exhaustive of the already reported caller’s concerns than Type 2 questions, and are exhibited by the nurse and treated by the caller more as summaries of the concern, in contrast to more general Type 1 questions which seek elaboration (Heritage, 2006). Indeed, the caller orients to the question again as requiring confirmation of specific symptoms rather than representation or elaboration of their concern. As such, this question type is the least exploratory and the least enabling of the caller’s concern, because ‘Yes’/’No’ interrogatives typically default to type-conforming ‘Yes’/’No’ responses (Raymond, 2003). As observed in Extract 17, the nurse responds to the caller’s confirmation by producing a history-taking question (line 6), designed to solicit more information about the problem. Moving to history-taking treats the caller’s type-conforming response as sufficient and complete. However, Type 3 questions do not always produce just type-conforming responses. Consider Extract 18 below:

**Extract 18**

C32
1.18.77–1.29.31

1   Nur → kay. so you’ve got some vaginal discha:rg: e=is that r:ight? 
2   clicking of computer keyboard (0.3)
3   Cal Yes=an:d some sort of bloo:d (with it) som:e as we::ll.  
4   (0.6)
5   Nur   When did the discharge s:ta:rt?

In Extract 18 the nurse produces a Type 3 question (line 1). Here, however, we can observe the caller following a silence filled with audible computer keyboard taps, responding first with a type-conforming ‘yes’ (line 3), which is then immediately latched with an expansion informing the nurse about the presence of blood (line 3); the caller’s expanded response works to add detail to her
lifeworld concerns (Mishler, 1984). Stivers and Heritage (2001) suggest that in doctor-patient encounters, when additional lifeworld information is divulged, the doctor necessarily must determine whether to pursue it or ‘file’ it. This choice is dependent on time, significance and the personality of the patient (ibid). This extract transcribes the caller’s second attempt to introduce her concerns. Just prior to this question the caller expanded her response to an enquiry about medication to inform the nurse that she thought she had just recovered from polycystic ovaries, signalled by the onset of regular periods (data not shown). However, this information is not taken up by the nurse, displaying apparent insensitivity to the context of the caller’s experience and how it relates to the problem. The addition of information about a vaginal discharge with blood is significant in this respect because the caller is displaying the out of the ordinariness of her bleeding (Heritage & Robinson, 2006). However, again, it is not taken up by the nurse. Rather, the caller’s type-conforming ‘yes’ is received as a complete and adequate response and the nurse moves to ask another history-taking question (line 5). Here we can observe the caller break out of the limited response format required by the CAS to expand on her lifeworld concerns. However, these concerns are not assimilated into the problem identification. Type 3 questions, which reveal the nurse’s specific prior knowledge of the caller’s concern, can also run into problems. Consider Extracts 19 and 20 below:

**Extract 19**

C11 1.06.7–1.14.96

1 Nur → .h and the reason for the call is she’s got a nosebleed
2 → [is that right?
3 Cal [no she had↑ a nosebleed this afternoon.
4 Nur Okay
5 Nur .h has she got any medical problems?

In Extract 19 the nurse produces a Type 3 symptom-confirming question, making specific reference to a nose bleed (line 1-2). Not only is the nurse’s question designed to reveal prior knowledge of the call (line 1) and constrain the caller’s response to a confirmation (line 2), but it also presupposes (Boyd & Heritage, 2006; Heritage, 2009b), the caller’s concern as still present: she’s
got a nosebleed (line 1). However, although the question is designed to constrain the caller’s response to a type-conforming confirmation, the caller challenges this presupposition: [no she had↑ a nosebleed (line 3), and firmly places the problem in the past. Raymond (2003) suggests that non-conforming responses to ‘Yes’/’No’ interrogatives are less frequent, an observation reflected in these data. Indeed, Heritage (2006) argues that elaborations must be produced at the caller’s own initiative. Here we can observe not only a non-conforming response by the caller in the form of an implicit ‘no’ (line 3), but also in competition with the nurse the caller overlaps the talk of the nurse to produce a correction to the tense used by the nurse (lines 2-3). Consider also Extract 20 below:

**Extract 20**

C12 1.10.98–1.18.04

1 Nur → now-would you like to=
2 → describe-(0.2) er* this rash that he’s got to me:?  
3 Cal >To be< ho↑nest he’s actually, he:
4 it’s gone↑.  
5 (0.6)

In Extract 20 we can observe similar features to Extract 19 – the nurse produces a Type 3 symptom-confirming ‘Yes’/’No’ interrogative (lines 1-2). Not only is the nurse’s question designed to reveal prior knowledge of the call: this rash that he’s got (line 2) and constrain the caller’s response to a confirmation, but it also presupposes (Boyd & Heritage, 2006; Heritage, 2009b) the caller’s concern as still present. However, although the question is designed to constrain the caller’s response to a type-conforming confirmation, she instead resists this constraint (Mishler, 1984) and produces a non-conforming response (line 3). But rather than produce a non-conforming ‘no’, the caller avoids this altogether and counters the nurse’s presupposition by informing the nurse that the rash has gone (line 4).

In Extracts 19 and 20 we can observe that questions revealing the nurse’s prior knowledge of the caller’s concern work not only to constrain the caller’s response, but also embody presuppositions (Boyd & Heritage, 2006), which can
be problematic. This is relevant for NHS Direct because many of the consultations are call backs made by the nurse; sometimes a number of hours after the initial call was placed. Of those calls which were call backs (n=44), in 27 cases, the nurse revealed prior knowledge, and in 17 cases, nurses concealed prior knowledge of the caller’s concern. The remainder were not call backs (11), and in one call the caller produced the problem before being asked. Whichever way questions are designed to constrain the caller’s response, they nevertheless have at their disposal a variety of resources available with which to resist the agenda-setting function of the CAS questions.

To summarise, so far I have shown that problem identification is not unremarkable. Although the CAS proposes a reason for calling question format, it is rarely used by the nurses, whether taking the initial call to NHS Direct or making a call back. Instead, nurses typically construct alternative Type 1, Type 2 and Type 3 questions (Heritage, 2006) in the form of ‘Yes’/‘No’ interrogatives (Raymond, 2003). These questions are implicated in what the caller can and indeed cannot contribute to the consultation in terms of problem identification.

Nurses are regularly held accountable for Type 1 questions, evidenced by silence on completion; nevertheless, they typically elicit expanded narratives that first cast the caller as reasonably concerned, but in such a way that the nurse needs to use a different device to ascertain what the CAS requires. Type 2 questions are oriented to by the caller as seeking confirmation, and thus limit what they can and cannot say about their concern. However typically the nurse treats this confirmation as being a less than satisfactory response to identifying the callers concern, and can be observed to shift to a Type 1 question; a tactic observed in doctor patient interactions Raymond (2003).

Type 3 questions are also oriented to by the caller as seeking confirmation, and again limit what they can and cannot say about their concern. On production by the caller, of a type-conforming response, the nurse typically moves to history-taking which treats the caller’s response as sufficient and complete. This
question type arguably moves the call forward more quickly and attends to the organisations imperative to manage calls swiftly. Furthermore, Type 3 questions, in embodying presuppositions about the caller’s concern, can turn out to be problematic, producing non-conforming responses (Extract 19) or expansions (Extract 20) that do not necessarily get taken up by the nurse, and challenges (Extracts 19 and 20).

Of particular interest is that the call back represents the majority of these data. This is because nurses already have at their disposal the caller’s already reported concern. In having prior knowledge of the caller’s concern to hand, the nurse must decide whether to reveal or conceal it; however, each of these has interactional consequences. For example, if the nurse conceals prior knowledge, the caller must decide whether and how much to repeat; whilst if the nurse opts to reveal prior knowledge, the caller must decide whether to conform with the preference response embodied within the nurse’s question or elaborate. These challenges conspire to weave some complex interactional dilemmas, which are consequential for identifying the caller’s concern.

The second key environment for examining questions in NHS Direct is during the sequence in which the nurse gathers more information about the caller’s concern, commonly referred to history-taking. Although Boyd and Heritage (2006) investigated questions during the personal history-taking phase of medical encounters, they observed that a systematic examination of history-taking has received little attention (Drew, 2006). The analysis contained in the following section will add to our current understanding.
When two worlds collide: CAS questions and caller answers in history-taking

Questioning in NHS Direct is mediated by the CAS which determines not only the sequential position but also the structure of question. It is also mediated by larger organisational imperatives such as those seen in the call evaluation tool (Appendix 1). However its dominance within the consultation is such that it is inadequate to merely examine local sequences of questioning in order to understand how the various activities relate to one another. A close inspection of how questions are accomplished, in particular their structural organisation or shape, their sequential organisation or position, the actions they perform and their consequences will reveal the challenges posed to reconciling the life world of the caller and the CAS.

I have already shown how nurses solicit the caller’s concern. Having accomplished this task, the consultation moves on to noting the caller’s history in relation to their current health concern. History-taking in this setting involves the nurse asking questions of the caller about their past medical history, current medications, allergies, and the current presenting health concern. Boyd and Heritage (2006) argue that taking the history is commonly associated with differential diagnosis, and as such is more than a simple chain of questions and answers; it is recognisable as a distinct activity within a set of activities which make up a consultation. In NHS Direct, the history-taking questions are ostensibly enforced by the CAS in the pursuit of a course of action the caller can take to manage the health concern they have phoned in with, not in the pursuit of diagnosis. Thus, history-taking is fitted to the purpose of NHS Direct, which is to direct callers to an appropriate level of care, and is occasioned by the predetermined plan or format of the CAS.
There are a number of potentially fruitful lines of enquiry to be found in these data concerning questions and answers. This section is concerned with how CAS history-taking questions are accomplished, in particular the structural organisation or the shape of questions, their sequential organisation or positioning, the actions they perform, and their consequences. I will reveal that reconciling the CAS and the lifeworld concerns of the caller, i.e. what the caller brings to the consultation, presents complex interactional challenges.

Preparing the caller

From the outset it is notable that, in most cases, nurses prepare callers to be asked questions somewhere near the beginning of the call. Consider Extract 21 below:

**Extract 21**

C10 205.29-208.73

1 Nur I'm one of the nurses
2 → so I'm just going to ask a few ques[tions=
3 Cal [yes sure
4 Nur =if that’s o]okay.

In Extract 21 the nurse can be observed stating her identity (line 1) and that she/he is going to ask a few questions (line 2), tagged to which is a question seeking the go-ahead (line 4). Interestingly, the question is designed to prefer a ‘yes’ response, thereby working to avoid the caller responding in the negative. To state that questions will be asked and to seek approval for this course of action might seem unremarkable, but it is not something regularly heard in other history-taking encounters with, for example, doctors; rather, there appears to be a common understanding that when presenting to a health care professional with a health concern, typically some questions will be asked about it as a means of providing an explanation. Why nurses should do this is speculative; however, it appears to convey that the nurse has a prima facie obligation to ask questions, and that help with the caller’s concern is contingent upon the completion of this organisational task. Nurses also prepare callers for
the topic agenda of the questions, for example general health and symptom specific enquiries. Consider Extract 22 below:

**Extract 22**

0.26.92–0.35.00

1 Nur → I-I’ll ask a >few questions
2 → about< your general health,
3 → .hh more >specific< about the symptoms that you’ve got,=
4 =and then ee give you the most appropriate advi:ce=  
5 =really what the best thing is to do toni:ght.
6 Cal Sure↑.

In Extract 22 we can observe the nurse again informing the caller that she/he will be asking a few questions (line 1). In contrast to Extract 22, though, the nurse makes visible the trajectory of the questions – that they will concern the caller’s general health (line 2), then more specifically about their symptoms (line 3). Notably, the nurse then makes explicit that after this has been accomplished, advice will be given (line 4). This is an exquisite display, not only of the caller’s preparation for the nurse asking questions, but also of how history-taking questions are not only “nested” (Frankel, 1995) within the consultation as a whole but that advice is contingent on their completion. In addition to preparing callers for some questions, nurses also account in advance for their content. Consider Extract 23 below:

**Extract 23**

5.31.37–5.44.47

1 Nur → tch .hh e:rm obviously I can’t see you
2 so I’m going to have to ask you quite a few questions,
3 yeah,(.)
4 Cal hm° hm°
5 Nur → some of which might erm seem a bit strange or unusual,
6 Cal [hm°
7 → s[o: don’t be alarmed or offended by any of it okay,=
8 Cal =>her alright<
9 Nur → .hh just to make sure that we’re not actually mi:ssing
10 anything
11 (0.3)
12 Cal yeah

In Extract 23 the nurse, as seen in the previous two extracts, prepares the caller for several questions (line 2). Moreover, the nurse states that these
questions have to be asked: I’m going to have to ask you (line 2). Notably, however, the nurse accounts for this by explaining that this is because he/she can’t see the caller (line 1), a phenomenon not uncommon in these data. This turn construction unit subtly works to prepare the caller for a lengthy series of questions. What is intriguing is that nurse then goes on to describe some questions as seeming strange or unusual (line 5) and that the caller should not to be alarmed or offended (line 7), a feature also seen elsewhere in these data. The nurse accounts for this as not wanting to miss anything (line 9-10). This is a complex sequence in which we can observe a number of phenomena: first, the nurse accounts for the production of questions; second, the nurse displays distance or detachment between him/herself and the upcoming questions, evidenced by the use of ‘have to’, which conveys an organisational imperative; third, the questions are oriented to by the nurse as problematic in their production, prompting the need to inform the caller that there will be quite a few; fourth, the nurse also orients to the questions as potentially problematic in their content, displayed by preparing the caller for the potential peculiarity of some questions. This sequence displays not only the preparation of the caller for the nurse asking questions, but also how the nurse can be observed to labour warily against potential discord triggered by lengthy questioning, some of which may seem ill-fitted to the caller’s concern. This suggests that CAS history-taking questions are not always easily “nested” within the consultation as a whole, necessitating ‘cushioning’ to soften the force.

So far I have shown how nurses manage upcoming CAS questions. Note that in these data the nurses never refer directly to the CAS as prompting these questions. However, the nurse can be heard to display distance between the question and the nurse as questioner during the history-taking process. Consider Extract 24 below:

**Extract 24**

C50

4.27.83-4.39.09

1 Nur → (>er that’s gonna sound as<) re:ally↑ bizarre question
2 to ask when she’s bumped her head=
3 .=.hh has she taken up any medici:nes=
In Extract 24 the nurse is part way through taking the caller’s history when she asks whether her daughter (whom the call is about), has taken any medicines (line 3). Curiously, though, the nurse prefaces this with a statement of the peculiarity of the upcoming question (line 1), which is grammatically and audibly noted in its intonation as being addressed to the CAS: *that’s gonna sound as* (line 1), rather than the caller, but can also be heard as conveying indirectly to the caller the detachment of the nurse from the originator of the questions. Nevertheless, the nurse goes ahead with the question (line 3).

This sequence again illustrates complex phenomena also observed in police interrogations with suspects (Stokoe 2008): first, the nurse displays distance or detachment between him/herself and the upcoming question, evidenced by the apparent conversation with the computer, which works to convey an organisational rather than local imperative to ask the question; and second, the nurse orients to the question content as problematic, prompting the need to inform the caller indirectly that it will sound ‘bizarre’. This sequence neatly illustrates the nurse orienting to dissonance between the CAS and the local circumstances of the caller’s concern, and to labour warily against the possibility of discord triggered by a question seemingly ill-fitted to the caller’s concern, thereby showing remarkable resourcefulness in the delicate balance between the demands of the CAS and the needs of the caller.

In summary, so far I have shown that nurses orient to the production and content of the CAS questions as problematic and warranting work to ‘cushion’ their impact. This is evidenced in a number of ways: first, the nurse can be observed preparing the caller to be asked several questions (Extract 21) and displaying the trajectory of those questions (Extract 22); second, using a range
of interactional devices, the nurse makes implicit reference to the organisational imperative to ask questions (Extract 23); third, the nurse can be observed conversing with the computer (Extract 24) and creating distance between the question and the questioner; fourth, the nurse can be heard accounting for the questions (Extract 23); and lastly, the nurse can be heard judging the relevancy of the question to the local context (Extract 24). Having laboured to prepare the caller, nurses embark on actualising questions as prompted by the CAS.

**Eliciting the caller’s past medical history**

To begin, the CAS prompts questions concerning the callers’ health, medication and allergies. Consider Extract 25 below:

**Extract 25**

C37
0.46.59–0.58.13

1 Nur → right (.). er*-(.) are you under the care of your doctor for any health problems?
2 (0.3)
3 Cal no
4 (0.4)
5 Nur → So you’re normally completely fit and well?
6 Cal Yeh
7 (0.3)
8 Nur → Right (.). are you actually on any medication at all?
9 Cal no
10 (0.4)
11 Nur → And are you allergic to anything?
12 Cal no
13 (0.3)

Extract 25 illustrates the highly typical format of routine questions (lines 1, 6, 9 and 12), which in this extract can be seen to closely follow the format presented by the CAS as shown in Figure 2 below:
Figure 2: CAS History-taking Questions

Figure 2 shows what these questions, which are presented by the CAS, look like on the computer screen as used by the nurse. These questions are illustrative of the ‘Yes’/’No’ interrogatives (Raymond, 2003) favoured by the CAS. The action type is replicated in the questions put by the nurse in that they also require a ‘Yes’/’No’ response by the caller. This format can also be found in questions specifically relating to current health concerns. Consider again Extract 26 below:

Extract 26
C38
4.17.41–7.32.82

1 Nur right oka::y. >okay< do you have!, er I need to ask you
2 a series of questions okay?
3 Cal Yes.
4 Nur → Do you have a fever at all?
5 Cal No.
6 Nur No, no fever nothing like that.
7 Cal No.
8 Nur → erm do you have any pain in your lower back?
9 Cal [no.
Nur → [or below the ribs in the back? 
Cal no.
Nur No pain at all.
13 (0.3)
Nur → .hhh right is—is your urine a different colour? 
Cal No I don’t think so.
Nur → No, is it particularly smelly? 
Cal No.
Nur No oka::y.
19 (0.6)
20 Nur → .hh alright then have you recently undergone any surgical 
proce[dures? 
Cal [none no.
23 Nur → in that area no:, oka:y, .hh have you have you had 
an injury; or have you hurt yourself in-in that area? 
(.
Cal No.
Nur No 
(0.7)
Nur → and you’ve already said no surgery=.h and no procedures 
no-wh-like cystoscopy nothing like that=? 
Cal =No.
(0.2)
Nur → Nothing like that oka:y. .hh erm is there any dis;charge 
at all? 
Cal No.
(0.3)
Nur No: oka:y. 
(2.5)
Nur Mka:y, 
(1.0)
right, 
(2.0)
Nur right >I’m just going to have to put you on hold again=I 
just need to consult with a colleague< o[kay? 
Cal [right. okay 
(1.0.0)
Nur hold on a moment. 
Nur right I’m back with you=sorry about [that okay, we’re-
Cal [ri:ght okay. 
Nur we’re ready to 
Nur roll again [okay, 
Cal [yes. 
Nur .h >jus<- had a problem with my screen there=but I’m 
straight no:w, 
Cal yes. 
Nur oka:y ri:ght so (0.9) .h on:e da:y history: (0.5) 
(clicking of computer keyboard) 
Nur history: .h (0.4) 
blood=I’m just typing this in okay 
Cal right 
Nur bear with me okay=>one day history< .h and then and 
possibly possibly one episode a month ago. 
Cal Yes. 
(0.5)
Nur [ep-i-so:de (0.4) a month ago .h which resolved 
→ spontaneously did it? 
(clicking of computer keyboard) 
Cal Yes. 
(0.3)
Nur a month ago (0.6) which (clicking of computer keyboard)
Extract 26 provides an illustration of a somewhat prototypical call in which the nurse closely follows the CAS-prompted ‘Yes’/‘No’ interrogatives, as shown in Box 1, to which the caller produces type-conforming responses throughout.

**Box 1: NHS Direct Call Report**

<table>
<thead>
<tr>
<th>NHS Direct Call Report page 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the caller have any of the following symptoms?</td>
</tr>
<tr>
<td>Has the individual been shivering or had a fever (temperature over 101°F or 38.3°C) or feeling feverish?</td>
</tr>
<tr>
<td>Does the individual have pain in the lower back or below the ribs in the back on one or both sides?</td>
</tr>
<tr>
<td>Is the urine red, pink, or smoky in colour or is the urine smelly?</td>
</tr>
<tr>
<td>Has the individual undergone any recent surgical procedures in the genital, prostate, rectal, pelvic or lower abdominal area?</td>
</tr>
<tr>
<td>Does the individual have any of the following symptoms?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Is there a discharge or pus-like drainage coming from the penis?</td>
</tr>
<tr>
<td>Has the individual experienced a painful erection lasting more than 2-4 hours occurring without sexual arousal?</td>
</tr>
<tr>
<td>Is there blood in the semen?</td>
</tr>
</tbody>
</table>

Disposition: Routine Appointment with GP
Box 1 shows what CAS-prompted questions look like on the Call Report, a printable document produced on completion of the call. It shows how the questions presented by the CAS are worded on the computer screen, and also shows how the aim of history-taking questions in this setting is designed to find out, as efficiently as possible, as much as possible in the shortest time about the caller’s current concern. This is accomplished using ‘Yes’/’No’ interrogatives (Raymond, 2003), favoured by the CAS, and establishes the nurse as a “fixed measuring instrument”, or what Boyd (2006) described as a living questionnaire, neutral and consistent across (in this case) callers. This style is typically found amongst social surveyors, who must adhere to the script and formulate questions in an objective, de-contextualised way. Whilst there are recognisable social survey elements in this example, whereby the action type of the CAS question is replicated in the questions put by the nurse in that they also require a ‘Yes’/’No’ response by the caller, what is markedly different here is that whilst a social surveyor might ask “What is your marital status; are married, single widowed or divorced?” (Heritage, 2010) here the nurse can be observed breaking down questions into smaller components (see bold Box 1, and Extract 26 arrows (→)). Moreover, the nurse can be observed reversing the polarity (Boyd & Heritage, 2006) of some questions to favour a no problem response using the terms ‘at all’ (line 4), ‘any’ (for example, lines 8, 20 and 33) and ‘did it’ (line 66) (Heritage, 2002). The caller can be observed largely producing type-conforming ‘yes’ or ‘no’ responses and not elaborating or expanding his/her turn. Notably, the structure of the sequence is not unlike ‘objective’ standardised social survey interviews, which are designed to cover a range of topics objectively (Maynard & Schaeffer, 2002), some of which may seem unrelated. Nevertheless, questions do not commonly adopt such an apparently effortless procedural format; sometimes callers have a problem answering the question. Consider Extract 27 below:

**Extract 27**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nur → .hh okay .h an there’s no- obvious deformity of the knee</td>
</tr>
<tr>
<td>2</td>
<td>when you look at it</td>
</tr>
<tr>
<td>3</td>
<td>→ ( 0.3)</td>
</tr>
<tr>
<td>4</td>
<td>Cal → y- erm (0.2) n- (.)</td>
</tr>
</tbody>
</table>
Nur other than [the big swell in[g
Cal m°°° [m°°°
Cal i*- mm: (0.2) no:: I-I->I mean I was a bit afraid at
first< I might have >sort of< pulled the knee:
Cal dislocated the knee=: =but >I mean< it’s sort of more or less in the right
place: but (it’s) s:wollen:, (0.3)
slightly at the side=er ->I mean it’s not that swollen
Nur no:
(0.3)
Nur oka:y al[ght [but that’s why really-I mean I’m hh. >I’m sort
Cal of< not that concerned but having broken: my arms
Nur a number of time[s before=and having (0.3) put-you know
Cal [yeah]
Nur actually
Cal disfigured the: unable to straight [it
Nur yeh
Cal an >I don’t want to do the same to [my leg< I want to do
Nur [no::
Cal the right thi:[ng he ha;
Nur [yeah that’s ri:ght yeah
Cal .hh so when you’re walking on it uh* does it give way or
Nur lock at a::ll (do you think)?

Extract 27 provides an opportunity to examine more closely still and in some
detail a history-taking question, and how this has consequences for the caller’s
contribution. Here we can observe the nurse producing a question (line 1). The
first observation is that the question sets ‘deformity of the knee’ as the topical
agenda, and second a request for information as the action agenda (Boyd &
Heritage, 2006). In addition, it presupposes a deformity of some kind, if not an
obvious one (ibid). Notably, however, it embodies a preference for a particular
type of response from the caller. To summarise, it is designed as a declarative
‘Yes’/‘No’ interrogative (Raymond, 2003), which is polarised in a negative
direction and thereby works to optimise a no problem ‘no’ response from the
caller (Boyd & Heritage, 2006, p. 162). The declarative component: there’s
no- obvious deformity (line 1) is formulated in what Labov and Fanshel
(1977) refer to as a B-event question, which by its design functions as a request
for confirmation of information about the knee, to which only the caller has
access. That said, the question is more complex than this. The ‘Yes’/‘No’
component is grammatically designed: an there’s no- (line 1) to make
relevant and therefore constrain the caller’s response to a choice between ‘yes’
or ‘no’ (Raymond, 2003). Furthermore, ‘Yes’/‘No’ interrogatives can be
designed to reverse the polarity (Horn, 1989) of the question in preference of a particular ‘yes’ or ‘no’ response. In this extract the nurse manipulates the question to preferred ‘no’ answer. In summary, this is a complex question, the action type of which functions as a request for information about the caller’s knee. The caller alone, has access to this information, however, by its design the question constrains the action with which the caller should respond to an optimised no problem ‘no’ answer.

The caller has some difficulty answering this question as it is designed to be responded to, as evidenced by the silence (line 3) and hesitation (line 4) (Atkinson & Heritage, 1984; Davidson, 1984; Heritage, 1984; Pomerantz, 1984). This is possibly because the caller earlier in the call already informed the nurse that the knee was swollen by about an inch in comparison with the other knee (data not shown). As seen in the first section, repetition of prior knowledge appears to be a ‘lively consideration’ within the interaction (Heritage & Maynard, 2006). Indeed, the nurse also orients to the question as problematic and adds an increment which specifically makes reference to information about the swelling gleaned earlier in the call (line 5). What is interesting here is that on the Call Report (Box 2) – a printed document of the CAS questions and caller’s answers produced during the consultation – the nurse, at this point in the consultation, was prompted by the CAS to ask the caller about a deformity, even though the nurse had already gleaned information about the condition of the caller’s knee:

**Box 2: NHS Direct Call Report**

<table>
<thead>
<tr>
<th>NHS Direct Call Report page 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the caller have any of the following symptoms?</td>
</tr>
<tr>
<td>[] Obviously deformed area in the leg, ankle, or foot</td>
</tr>
<tr>
<td>- No</td>
</tr>
</tbody>
</table>

What is also remarkable is that the nurse was unable to manage this repetition, which would have avoided asking for information already known. Why this
should be the case is speculative, but it is likely that the nurse was attending
first to the procedural requirement to ask all the CAS-proposed questions, and
second to the overhearing organisation, listening to and making judgments
about the content and process of the call (all calls are routinely recorded for
audit and research).

Extract 22 provides an example of the complexity of the literal and mechanical
application of the interrogative design plan of the CAS. In Extract 26 we can
observe the application of and moment-by-moment accomplishment of the
prototypical CAS design plan. In Extract 27 we can observe that whilst
information content, i.e. answers can be prescribed and manipulated using
question design, information flow is not prescribable; indeed, stories can pour
out of people in what appears to be a jumble of information. The nurse had
previously asked the caller how she had twisted her knee, to which she
produced an extended and detailed narrative about the context of the injury and
the size of the swelling. The nurse clearly already had information about any
abnormality or deformity of the knee, but in amongst all the other CAS
questions and caller answers it is arguably difficult to keep in mind what has
gone before. When the CAS-prompted question appeared on the screen, the
nurse read it and relayed it to the caller, apparently without being mindful of the
story so far, and it was not until the caller faltered that the nurse was prompted
to rework the question, implicitly acknowledging that she already knew there
was swelling, but allowing for the telling of any other deformity. After further
hesitation, the caller finally produced a type-conforming \textit{\textbf{no}} : : (line 7).

There would appear to be an interactional challenge in managing the collection
of what Heritage and Sefi (Heritage & Sefi, 1992) describe as the bureaucratic
tasks of face sheet information or explicit form filling, evidenced here by the
misfit between the question and the particular interactional circumstances. Here
we can almost envisage ‘man as machine’, as the nurse adopts a mechanised
approach to taking the caller’s history, which falters when the path embarked
upon reaches a blind alley in the form of the caller finding they are unable to
answer the question, thus prompting a recalibration of the question and a display of the tacit and commonsense application of the CAS. Nevertheless, we can observe here the tensions between the procedures embodied within the CAS and the practices of talk-in-interaction.

As a pseudo machine, the nurse is ushered away from entering into the lifeworld concerns of the caller, as the CAS machine churns out questions disconnected from the context of the interaction, affecting a subtle rupture between the CAS and the caller’s lifeworld. We can observe another example of such a phenomenon. Consider Extracts 28-31 below, in which the caller is a 32-year-old man (Cal) telephoning the helpline in the early afternoon with concerns about an injury to his thigh. These extracts are taken in sequence from one call, and begin approximately six minutes into a sixteen-minute call.

**Extract 28**
C17
6.03.60-6.11.57

175  Nur → Is it painful?
176           → (1.0)
177  Cal  not really=I mean when I push it I can feel it but it
178        doesn’t bother me through to the day or somethin.º
179  Nur   Right okay.

**Extract 29**
C17
7.44.29-7.49.29

226  Nur → an er is it sort of a bit painful now?
227           → (0.6)
228  Cal   NAH:: it’s [just (0.2)
229    [no
230    well yu-it jus [NAH::

**Extract 30**
C17
9.41.70-9.45.36

312  Nur → any-have you got any pain or swelling over like a bony
313    area?
314           → (0.4)
315  Cal   No.
Extract 31
C17
10.08.51-10.13.69

329 Nur → mtch is it becoming increasingly painful or swo{llen?  
330 Cal → [no::  
331 Nur [no  
332 Nur [no no  
333 Cal not really no  
334 Nur okay°

Extracts 28-31 provide a more extreme example of a nurse presenting and representing a question with the same topical agenda – pain over the duration of the call. What is immediately striking here is that in each extract the caller has a problem answering the question. In Extract 28 the nurse produces a question (line 175). The first observation is that the question sets ‘pain’ as the topical agenda, and second a request for information as the action agenda (Boyd & Heritage, 2006). In addition, the question presupposes that pain might be present (ibid). Designed as a ‘Yes’/‘No’ interrogative, it is grammatically designed to make relevant and therefore constrain the caller’s response to a choice between ‘yes’ or ‘no’ (Raymond, 2003). Following a silence (line 176), the caller produces a non-conforming response (ibid) (line 177). Of note is that the nurse does not pursue a type-conforming response by representing the question in a different way. Turning to examine Extract 29, once again the nurse asks the caller about pain using a ‘Yes’/‘No’ interrogative. However, the nurse seems to be pursuing a positive response from the caller. To this end the question is designed as a ‘Yes’/‘No’ interrogative (Raymond, 2003), which is polarised in a positive direction and thereby works to optimise a problem response from the caller (Boyd & Heritage, 2006, p. 162). The component: a bit painful now? (line 226) incorporates a candidate answer, a device typically used to guide a person to respond in a particular way (Pomerantz, 1988). Nonetheless, the caller orients to this question, as seen in Extract 28, as problematic, evidenced by silence (line 227), following which he responds with a type-conforming, though loud: ‘no’ NAH:: (line 228) followed by what looks to be an elaboration that is abandoned in favour of a repeated loud ‘no’ [NAH:: (line 230). It is interesting to note that the silence is a little shorter than the one seen in Extract 28, and the caller’s response is audibly more determined.
In Extract 30 we observe yet another attempt by the nurse to clarify whether the caller has pain. In this extract, again a request for information is the action agenda – ‘pain’ is the topical agenda, which presupposes that pain may be present. Notably, though, the question embodies a preference for a particular type of response from the caller. It is designed as a ‘Yes’/’No’ interrogative (Raymond, 2003), which is negatively polarised by the use of the term ‘any’ to optimise a no problem ‘no’ response from the caller (Boyd & Heritage, 2006, p. 162). Accordingly, it appears here that although the nurse asks the question for a third time, she/he has taken account of the caller’s earlier answer about not having pain. It is worth noting here that on the Call Report (Box 3) the nurse was prompted by the CAS to ask the caller about pain or swelling over a bone at this point in the consultation:

**Box 3: NHS Direct Call Report**

<table>
<thead>
<tr>
<th>NHS Direct Call Report page 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the caller have any pain or swelling over a bone?</td>
</tr>
<tr>
<td>-No</td>
</tr>
</tbody>
</table>

This extract provides another example of the complexity of the practical moment-by-moment accomplishment of the interrogative design plan of the CAS. It would appear that although the nurse had previously enquired about pain, these questions may possibly have been ‘social questions’ (Heritage, 2009a). Nevertheless, it was not until this point in the consultation that the CAS presented it as a question. Although specifically about pain over a bone, the nurse was unable to make the question sensitive to the particular circumstances of the interaction. Boyd and Heritage (2006) refer to this as ‘recipient design’, whereby questions are designed to take account of the local circumstances of the interactions, in order to convey the relatedness of the concerns of the CAS with the concerns of the caller. Not doing this risks being heard as inattentive or insensitive and sacrifices rapport with the caller. Indeed, following a silence (line 314) notably shorter than the silences shown in the previous extracts, indicating trouble with the question, the caller produces an
outright ‘no’ (line 315), the first blunt ‘no’ of the series of answers so far. In the final extract (31), the nurse can be heard asking about the caller’s pain for the last time in this consultation.

Once again, the nurse’s question is designed as a ‘Yes’/’No’ interrogative (Raymond, 2003), which constrains the caller’s response to a choice between ‘yes’ or ‘no’ (Raymond, 2003). In contrast with earlier examples, the caller responds in overlap (line 330) with the nurse (line 329). The caller’s type-conforming response: [no:: no not really (line 333) is exquisitely timed to when she/he has heard enough of the utterance to know what it is doing and thereby avoiding a silence (Jefferson, 1973). Once again, if we turn to the Call Report (Box 4) the nurse was prompted by the CAS to ask the caller again about pain at this point of the consultation:

Box 4: NHS Direct Call Report

<table>
<thead>
<tr>
<th>NHS Direct Call Report page 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the area becoming increasingly painful or swollen?</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

What can be seen across these extracts is a series of questions relating to pain over the course of the consultation. Of note is that the nurse had already enquired about pain before the CAS prompted the question. When it did occur, the nurse was unable to modify the question to take account of the local circumstances of the call. It is notable also that the nurse enquired at the beginning of the call about how the caller could be helped. See Extract 32 below:

Extract 32
C17
2.08.00–2.12.30

1 Nur → right* o:kay .hh er: an how can we help you sir.
2 (0.6)
3 Cal her=I’ll tell, you what happened (.)
In extract 32, following the nurse’s question (line 1), the caller embarked on a lengthy narrative about how the injury was sustained, where on the body, when, bruising, pain, swelling, grazes, informing the nurse that his only concern was a lump the size of an egg. See Extract 33 below:

Extract 33

4.19.45-4.25.18

99 Cal → an it doesn’t hurt
100 it’s only at the point of impact
101 I feel there’s still a bit (0.2) lump
102 (0.2)
103 Cal if you like
104 (0.2)
105 Cal [the size of an egg.
106 Nur [right
107 (0.4)
108 Nur okay so you’ve got a lump now that’s [left behind?
109 Cal [yeah (0.2) yuuhº
110 (0.8
111 Cal an I’m just a bit worried about what that i[s.
112 Nur [yeah

In Extract 33 we can see the caller offer information about pain (line 99), to which subsequent nurse-initiated and CAS-prompted questions are ill-fitted. Questions which are ill-fitted to the local circumstances of the interaction risk displaying to the caller a level of inattentiveness, and make visible and interactionally relevant the machinery of the CAS. There is a logic to history-taking geared towards differential diagnosis, asking questions about past and current health history in order to arrive at a diagnosis (Boyd & Heritage, 2006). It is commonly taken to be the case that the history of an illness “in the patient’s own words” is a vital source of information (Cassell, 1985b). The imposition of the CAS on this process introduces a challenging dimension to a naturally evolving, yet complex activity. Arguably, it underplays and undervalues the role of both the caller in their own story-telling and the nurse in their sense-making practices, by constraining and straining the contribution of both. Heath (1983) also found that when using the computer to aid diagnosis, the ebb and flow of the interaction with the patient was disrupted, such that the doctor also asked questions that the caller had already answered.
Summary

To summarise, by examining the properties of question design, the structural organisation or the shape of questions, their sequential organisation or positioning, and the actions they perform, I have revealed a range of highly sophisticated interactional practices embodied in and accomplished by this form in the practical realisation of the CAS. In the first section I examined how questions were designed and responded to during the sequence in which the caller’s problem is identified. In the second section, I examined how questions are designed and responded to during the sequence in which information is gathered, commonly referred to as history-taking.

The in situ practical realisation of the CAS is not as unremarkable as might first appear. When identifying the caller’s concerns, I have shown that nurses regularly deviate from the CAS-prompted reason for calling question. Instead, the nurses typically construct alternative Type 1, Type 2 and Type 3 (Heritage, 2006) questions in the form of ‘Yes’/’No’ interrogatives (Raymond, 2003). These questions are implicated in what the caller can and indeed cannot contribute to the consultation in terms of problem identification.

Type 1 questions display that the nurse has no prior knowledge of the callers concern, and a deeply sloping epistemic gradient between an ‘unknowing nurse’ and ‘knowing caller’. This type of question invites the caller to present their concern in their own terms. This however is oriented to as somewhat problematic for the caller evidenced by silence on completion of the nurses turn. Silence holds the nurse accountable for inappropriately designing a turn which does not display their prior knowledge of the caller’s concern, a finding supported by Robinson (2006). This silence may be followed by expanded accounts of the callers concern, such that the nurse has to adopt a different device to acquire what the CAS requires.
Type 2 questions display the nurse as having some albeit limited knowledge of the callers concern, and a shallow epistemic gradient between an ‘unknowing nurse’ and ‘knowing caller’. They are oriented to by the caller as seeking confirmation, and thus limit what they can and cannot say about their concern. However typically the nurse treats this confirmation as being a less than satisfactory response to identifying the callers concern, and can be observed to shift to a Type 1 question; a tactic observed in doctor patient interactions Raymond (2003).

Type 3 questions (Heritage, 2006) display the nurse’s knowledge of the caller’s symptoms rather than a general knowledge of the callers concern, and a stronger epistemic stance between an ‘unknowing nurse’ and ‘knowing caller’. They are also oriented to by the caller as seeking confirmation, and again limit what they can and cannot say about their concern. On production by the caller, of a type-conforming response, the nurse typically moves to history-taking which treats the caller’s response as sufficient and complete. This question type arguably moves the call forward more quickly and attends to the organisations imperative to manage calls swiftly.

Type 3 questions however, in embodying presuppositions about the caller’s concern, can turn out to be problematic, producing non-conforming responses, challenges and expansions. Such expansions are typically not taken up by the nurse.

I have also shown that nurses already have at their disposal the caller’s already reported concern. Having sight of this information is consequential for the call, because the nurse must decide whether to reveal or conceal it; and in so doing, the caller must decide whether to conform to the preference response embodied within the nurse’s question, or expand their concern.
These findings suggest that the practical realisation of the CAS problem identification question is not unproblematic. It is deviated from, such that alternative question types are produced. Across these question types the nurses can be observed to reveal or conceal prior knowledge of the callers concern, which has interactional consequences for the nurse and caller in terms of what can and cannot be contributed, the trajectory of the call and also the organisation in terms of call duration.

I have also shown that at the outset of the history-taking of the caller’s current concern, nurses orient to the production and content of CAS questions as problematic and requiring what I have described as ‘cushioning’, which works to soften their force. This can be observed by the nurse preparing the caller to be asked several questions (Extract 21) and displaying prior to their commencement the likely topics and trajectory of those questions over sequences (Extract 22). In addition, the nurse can be heard using a range of interactional devices, in which the organisational imperative to ask questions is displayed (Extract 23). The nurse can also be observed conversing with the computer, almost remonstrating with it (extract 24), which labours to create distance between the CAS question and the nurse questioner. Additionally, the nurse can also be observed accounting for the questions (Extract 23) and heard judging the relevancy of the question to the local context (Extract 24). Rather like the ‘elephant in the room’, the CAS constitutes an ‘unmentionable’, or represents what Lepkowski refers to as the “third actor” (Lepkowski et al., 1998). As such, it makes demands on the interaction absorbing attention, for example when reading information or questions and inputting data, resulting in a contribution to and consequence for the interaction (Fuchs, 2002; Heath, 1983). Nurses were observed conversing with the computer, actively orienting to the computer’s requirements and outputs a phenomenon observed in police interrogations with suspects (Stoke 2008). Further, they modified questions (Ashmore et al., 2001), displaying difficulty in coping with the rigidity of the system, such that questions to which the nurse already had information were repeated (Heath, 1983). Callers also displayed disagreement or misalignment with the computer’s output. There is also evidence here of what Goode et al.
Frankel (1995) suggests that the activities which make up the clinical encounter are “nested”, insofar as the myriad activities that take place during a clinical encounter relate to one another and to the outcome of care. Taking this view, one might expect to observe the caller’s concern to be “nested” within the caller’s health history. I have revealed an occasional misfit between the CAS questions and the particular local interactional circumstances of the call. Envisaging ‘man-as-machine’, the nurse at times adopts a mechanised or standardised survey-type approach to taking the caller’s history, which falters when the path it has embarked upon reaches a blind alley in the form of the caller finding they are unable to answer the question, thus prompting a recalibration of the question and thereby displaying a tacit and commonsense application of the CAS. Nevertheless, we can observe the complexity of the literal and mechanical application of the interrogative design plan of the CAS; the tensions between the procedures embodied within it and the practices of talk-in-interaction. As an ersatz machine, the nurse is steered away from entering into the lifeworld concerns of the caller, as the CAS machine churns out questions disconnected from the context of the interaction. Consequently, a rupture between the CAS and the caller’s lifeworld develops. Despite this, the nurse displays a subtle resourcefulness, acting as a human sensor to detect moments of interactional insensitivity at the interface between the CAS and the caller. This works to steer the questions in their pursuit of CAS-relevant answers.
Chapter 4 examined how NHS Direct is talked into being, by using question-answer adjacency pairs as a vehicle to provide help. It revealed nurses regularly deviate from the CAS-prompted reason for calling question, typically inviting one response over another, and thus constraining the allowable contributions the caller can make. Nurses also work to ‘cushion’ the force of the Clinical Assessment System (CAS) and engage in a range of interactional devices to manage its demands.

On completion of the CAS questions a disposition or course of action the caller can take to manage their concern, appears on the computer screen for the nurse to relay to the caller. This chapter will examine the routine interactional accomplishment of the disposition. The chapter is organised as follows. The first section will move through a number of examples to exhibit the dimensions of the delivery of the disposition as the phenomena of interest. The following sections will have three related analytic foci.

I will show that although the name and strap line of NHS Direct: “NHS Direct, whenever you need health advice and information” provides the nurses with an institutional mandate for its enactment – the situated and practical accomplishment of the disposition as prompted by the CAS is not as unremarkable as it may first appear. I will argue that nurses take a stance towards the ‘expert system’s’ output, known as the disposition, routinely judging its relevancy. In so doing, they typically engage the weaving of the disposition, with accounting and diagnostic language that achieves two things: for those of us interested in how we get people to do what we want, it acts to shore up the disposition, arguably an otherwise disembodied crop produced by the CAS, by
providing reinforcing material and thereby the conditions for its uptake; and for those of us also interested in how machines and humans interact it goes some way to illuminating the embodied use of the CAS expert system: the literal and mechanical application and commonsense, in situ, in-the-field reasoning and action.

Nurses’ institutional mandate to address callers’ concerns as mediated by the CAS requires each to work in concert with the other. Following a series of moves, the CAS leads the nurse to the production of a disposition or relevant course of action for the caller to take regarding their concern, for example homecare or see a doctor or other professional, along with a time frame such as immediately or within 36 hours (Appendix 14). This is referred to as the ‘disposition’, and is defined by CAS as “the end result of a triage question or question set” (AXA Assistance, 2001a). Although help seeking in health care via the telephone is not new, and studies examining their use date back over 30 years, the use of computer programmes is still a relatively new phenomenon. Referred to as ‘expert systems’, computer programmes such as CAS are by their very nature designed to act as substitutes for the minds of experienced professionals. However, the in situ, in-the-field examination of how the user and system function together has received scant attention in the literature. We have yet to understand the embodied use of the CAS within NHS Direct, its literal and mechanical application and common sense reasoning and action. This chapter will examine the interactional practices, the situated and commonsense practices and reasoning embodied in the NHS Direct telephone consultation process.

Introduction

It is first necessary to recall that the disposition is a gross product of the CAS and particular managerial arrangements within NHS Direct. The structure of the

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3 See (Sacks et al., 1974) for a full explication of the systematics of turn taking in conversation.
call is procedural and made up of a series of actions (Table 5 p. 92), the order of which is ostensibly enforced. Thus, the production of the disposition is fitted to the purpose of NHS Direct, which is to direct callers to an appropriate level of care, and is occasioned by the predetermined plan or format of the CAS.

Marking the completion of the CAS assessment of the caller’s concern, the disposition is neither simply diagnosis as seen in medical consultations (Heath, 1992) nor advice as seen in health visitor-client encounters (Heritage & Sefi, 1992). Despite this, it forms a pivotal position in the call, located as it is on completion of the CAS assessment and prior to care advice. A cursory glance suggests that the disposition stands as a practical manifestation of the work of NHS Direct and as an assessment of the magnitude of the caller’s concern. As such, it works to legitimise the problem the caller has phoned NHS Direct with. Nevertheless, we know relatively little about its structure and sequential position. These are the empirical objects of this chapter.

**Delivering the disposition – some preliminary observations**

The following extracts (1-4) show canonical instances of the production of the disposition or course of action to be taken by the caller to manage their concern.

**Extract 1**

5.20.01-5.29.99

1 Nur Right okay. (1.3) .h Shirley for what you’re telling me
2 I-I can’t (0.3) pinpoint anything th-that’s worrying me here:,
3 (0.4)
4 → .hh so I think we’re okay to look after this at ho:me:. y:eh.°
5 Cal

**Extract 2**

4.13.72-4.33.11

1 Nur hhh. right okay..hh hh.
2 (4.4)
3 Nur War*-(0.3) I think >you know< from the sign-to-the symptoms you’re describing
4 Nur and they sound very much like they’re cardiac in origin
Chapter 5 The imposition of the disposition: how nurses manage call disposal

6  Cal (.)
7  Nur .hh I do think that it needs to be assessed fairly quickly=
8  Cal =and I think the most appropriate rou-er-way would be for you to actually call an ambulan[ce. [okay°.]

Extract 3
C52
5.39.34–5.47.96

1  Nur okay () .hh I think it will be best to
2  → take him up to ay an eee:. (0.3)
3  (one click of computer keyboard)
4  Cal [right°
5  Nur (cos I’m a little bit concer:ned about (0.2)
6  it could well be bru:ising (0.2)
7  Cal ri:gh[t°

Extract 4
C31
8.18.53–8.32.46

1  Nur → you need to: em: see the GP in the next thirty six hours=
2  =I mean if he’s feeling we:ll toda:y
3  Cal  MMM.
4  Cal and you’re not concerned about him then take him along to
5  see the GP in the mo:rnin,
6  Cal  Yeah

On first inspection these extracts illustrate the accomplishment of call ‘disposal’ in this setting. I make no observations about the receipt of the disposition at this point, but it is relevant and will be examined in Chapter 6. For now, of particular interest is the structural organisation or shape of the disposition as prompted by the CAS. As an initial observation it is notable in the extracts above that the disposition is made explicit. In each case, the course of action to be taken by the caller is apparently unambiguous. Closer examination of how the disposition is occasioned, the action being performed; how the disposition is designed (direct/indirect), and its lexical properties will reveal the complexities of its production. Indeed, as the following extracts show, these extracts do not cover every way in which the disposition is produced.

Extract 5
Chapter 5 The imposition of the disposition: how nurses manage call disposal

C2
2.55.70–3.09.51

1 Nur .hhh hhhhh. .hhh okay I think probably what we need to
2 → do::(.).
3 I don’t think you need to see anybody
4 at the moment (.).
5 = [okay,=
6 Cal [ (Mkay).°°
7 Nur = .h if you ha:ve erm:: .hhh
8 (.).
9 Nur her: fractured a rib at all
10 then there’s no not a lot they can do,
11 Nur [really(.).
12 Cal [right that's what I thought

Extract 6
C12
10.35.22–10.48.54

1 Nur [Oka:y (0.2) that’s goo:d .hh right I mean from what
2 → you’ve said I don’t think it’s anything serious and it
3 does sound as though it’s associated with the skin getting
4 Cal yeh
5 Nur hot .hh erm what I’d advise you to do today [is
6 Cal [mm°
7 Nur keep him as cool as you possibly [can
8 Cal [yeh

Extract 7
8.05.20–8.13.57

1 Nur er but at the moment what >we would say<
2 because he’s so well in himself
3 and there doesn’t seem to be any other symptoms
4 going on the:re
5 → .hh it’s a watch and wait really, (0.2)

Extract 8
C5
9.52.37–10.10.02

1 Nur [no okay.hh ri:ght .hh okay .h I mean I think really that
2 last erm remark about the caffeine is possible a little
3 bit a key to the problem(.)
4 Cal right okay
5 Nur → .h erm(.). if you: see how you go
6 now you’ve actually ss stopped drinking as much coffee(.)
7 Cal mm°

In the earlier extracts (1-4), the production of the disposition is apparently explicit; however, in these extracts we can see its production in a more mitigated or subtle form, which displays something about the CAS-prompted
Chapter 5 The imposition of the disposition: how nurses manage call disposal

disposition. In every instance so far, the production of the disposition is far more sophisticated than at first seems apparent.

Accounting for the disposition

By examining the organisation of sequences or series of moves through which the disposition is accomplished, it transpires that the disposition sequence canonically kicks off an elaborate interactional tactic, delicately designed to manage the CAS-imposed disposition. Consider again the following extracts (9-12):

Extract 9
C7
5.20.01-5.29.99

1 Nur → Right okay. (1.3).h Shirley for what you’re telling me
2 I-I can’t (0.3) pinpoint anything th-that’s worrying me
3 here;
4 (0.4)
5 .hh so I think we’re okay to look after this at home.
6 Cal y:eh.

Extract 10
C33
4.19.45-4.26.11

1 Nur War*(0.3) I think >you know<
2 from the sign-to-the symptoms you’re describing
3 and they sound very much like they’re cardiac in origin
4 (.)

Extract 11
C52
5.42.78-5.47.92

1 Nur → cos I’m a little bit concerned about (0.2)
2 it could well be bruising
3 (0.2)

Extract 12
C2
3.01.61-3.09.51

1 Nur → =.h if you ha:ve erm: .hhh (.)
2 her: fractured a rib at all
3 then there’s no not a lot they can do,
4 [really(.)]
It is curious here that the nurses, rather than just producing the disposition as prompted by the CAS and moving the call on, appear instead to offer a warrant or establish the grounds for the disposition in the form of an account. Of particular significance is that providing a warrant for the disposition is a canonical feature of these data. Detailed examination of how accounting is occasioned – the action being performed and the features of its design will reveal some understanding of the function of accounting in the production of the disposition.

There is, though, a secondary feature of accounting, which adds to the complexity of its production, worthy of scrutiny. Consider again the following extracts (13-16):

**Extract 13**
C2
3.01.61-3.09.51

1 Nur → =.h if you ha:ve erm:: .hhh
2 (.)
3 Nur → her: fractured a rib at all
4 then there's no not a lot they can do,
5 Nur [really(.)

**Extract 14**
C7
5.30.04-5.34.55

1 Nur → it sounds like you’ve got a bit of er er a temperature
2 there
3 (click of computer keyboard)
4 → a bit of erm you know may a bit of a virus=

**Extract 15**
C52
5.42.78-5.47.92

1 Nur [cos I’m a little bit concer:ned about (0.2)
2 → it could well be bru:ising
3 (0.2)

**Extract 16**
C33
4.19.45-4.26.11

1 Nur War+(0.3) I think >you know<
2 from the sign-to-the symptoms you’re describing
3 → and they sound very much like they’re cardiac in origin
4 (.)
In these extracts we can see that the launching of an account typically occasions the production of a diagnostic classification. This is particularly relevant because the organisational constraints within NHS Direct prohibit nurses from diagnosing callers’ concerns (Appendix 1 point 8). Although studies examining how displays of accountability relate to institutional policies and guidelines in health professional-patient interactions are limited, it is an emerging area of interest. For example calls to MIND helpline in England (Moore 2009), and Child Health Line in Australia (Butler 2009), have highlighted practices displayed by call-takers to manage the organisational constraints imposed on what can and cannot be said.

Moore (2009) showed that call-takers employ a range of practices to manage the constraint of being an information provider rather than an advisor when talking with callers to the MIND helpline. These include the use of modal verbs, ‘can’ ‘could’ and ‘would’; ‘if x then y’ turn constructions, and a passive organisational voice for example “the recommendation is for people to...” (p 82), rather than a personal voice “what I suggest is...” (p82) (Moore, J. 2009). In calls to Child Health Line, Butler (2009) showed that nurses manage calls seeking medical assessment by referring to the limits of their knowledge, privileging parental authority regarding decision making, and re-specifying a medical problem as a child development concern. These studies demonstrate the recurring practices through which organisational guidelines are ‘talked into being’ (Heritage 1984), whilst attending to the interactional contingencies of each call.

I will now move to illuminate how these organisational contingencies are managed in calls to NHS Direct. Consider the extracts (17-20) below:

**Extract 17**

C1
1.16.73-1.34.09

1 Nur .hh >now let< me just explain what we do then (.).hh erm
2 (.)n
3 → because were nurses and not doctors we don’t diagno:se=
Chapter 5 The imposition of the disposition: how nurses manage call disposal

Extract 18
C31
0.27.58-0.45.84

1 Nur o*kay=have you used, the service before,
(0.3)
2 Cal no (.)
3 Nur let me just explain to you what we do. here then=it’s a
4 nurse
5 → led assessment=we don’t diagnose.(.)
6 Cal (Hm hm)
7 Nur I’ll ask you some questions about Nicholas general he:alth
8 (.)
9 Cal brilliant,=ahâ,(.)
10 Nur .hh what the problem is today=an well go through some
11 questions about that and then I’ll offer you some
12 advice.=is that oka:y:=
13 Cal brilliant,=ahâ,(.)

Extract 19
C15
1.12.06-1.16.86

1 Nur what it is >we’re a nurse led< service so >what we do< is
2 go through an assessment with you on the phone(.)
3 Cal hmâ hmâ
4 Nur → .hh and then advise you on what to do=we can’t diagnose
5 cause w-we can’t see [you obviously w-we nurses
6 Cal [no you can’t see that’s that’s how I
7 understand mm
8 Nur .hh but we will advise you on what we fe[el you need to do
9 Cal [hmâ hmâ
10 Nur an if there’s >anything we can advise you to try: at ho:me
11 as we:ll. .hh

Extract 20
C19
0.44.74.56-1.00.00

1 Nur [No: (0.5) oka:y >n-lets just run through an assessment<
2 with you in order to give you some advice as to the best
3 thing to do=
4 → =I obviously can’t diagnose:[se,
5 Cal [no:::
6 Nur .h >an I need to ask quite a few questions in order to
7 make sure we’re being safe with the advice< [we give you
8 Cal [ri:ght okay.
9 Nur okay.
10 Nur .h now then Alison are you nor:mally fit and we:ll?
11 Cal Yeah.
In these extracts we can see a number of features illustrating nurses’ situated practical realisation of the procedural requirements of NHS Direct, which do not allow the nurses to diagnose. It is the obligation of this constraint which makes its very presence remarkable and, indeed, organisationally accountable. We can begin to observe the nurses demarcating ‘boundaries of expertise’ (Butler 2009) in the form of what can and cannot be done. Consider also the extracts (21 and 22) below:

**Extract 21**

C7  
5.30.04-5.37.30

1 Nur it sounds like you’ve got a bit of er er a
temperature there
2 (click of computer keyboard)
3 a bit of er you know may a bit of a virus=
4 \[-> but \textbf{obviously I can’t diagnose for you,}\]
5 (.)
6 Cal yeah.

**Extract 22**

C17  
15.45.51-16.03.25

1 Cal [I was worried basically really of the th-maybe the
2 formation of an abscess within-,
3 (0.4)]
4 Nur Right [uh huh okay. h I mean her it’s difficult to say
5 (is that the problem?)
6 Nur I mean erm without actually seeing=
7 =but I don’t think,
8 \[-> er: a: anyway er: a-as a nurse \textbf{I can’t diagnose}\n9 .h I don’t think it’s an abscess, (.)
10 however what I would say to you is, (.) t-keep an
11 eye on [it .h
12 Cal \[ri:::ght*\]

In each of these extracts the nurse states that diagnosis is not a product of the call. In C7 this is produced following the delivery of a diagnostic classification and in C17 prior to the delivery of the diagnostic classification. Although this formulation only occurs in two calls, the nurse observably informs the caller in twelve out of fifty-six calls that she/he cannot or does not diagnose, and of these, the nurse then goes on to produce a candidate diagnosis in nine calls including the two shown here. More generally in these data, the nurses do not
inform the callers that diagnosis cannot be provided, although fifty-seven diagnostic utterances were identified (Table 1-overleaf):

In-depth inspection of the sequential environment for the production of the candidate diagnoses – in particular how the hearably candidate diagnosis is occasioned, what is being accomplished through its production, how it is designed, and what its particular features are – will reveal the complex warp and weft of the sequential production of the disposition.

What I have shown so far is that on first inspection the production of the disposition is expectably commonplace and apparently unexceptional given that it is a predetermined phase of the CAS. However, on closer examination I reveal elaborate practices in its delivery which, in and of itself, occasion accounting and diagnostic classification.

To begin, though, I will examine in more detail the structural organisation or shape of the disposition and the observable features. Next, I will examine the organisation of the sequences or series of moves through which the disposition is accomplished.
Table 1: Instances of hearably candidate diagnostic utterances

<table>
<thead>
<tr>
<th>Hearably candidate diagnostic utterances</th>
<th>Number of instances</th>
<th>Example</th>
</tr>
</thead>
</table>
| Instances of disclaimer that diagnosis is not done | 12 | we don’t diagnose: se (C1)  
we can’t diagnose (C15)  
I can’t diagnose (C16)  
I obviously can’t diagnose (C19) |
| Instances of hearably candidate diagnosis following disclaimer near beginning of call | 7 | if it is a bug (C1)  
in case it is a kidney stone (C15)  
whether or not this is a drug rash it could be, it’s got all the signs of, Amoxicillin (C36)  
if the it’s chicken pox (C31) |
| Instance of hearably candidate diagnosis immediately following disclaimer | 1 | a-as a nurse I can’t diagnose .h I don’t think it’s an abscess, (.) (C17) |
| Instance of hearably candidate diagnosis prior to disclaimer | 1 | it sounds like you’ve got a bit of er er a temperature there a bit of erm you know may a bit of a virus=but obviously I can’t diagnose for you (C7) |
| Overall instances of hearably candidate diagnostic utterances | 57 | .h if you ha:ve erm:: .hhh (.) her: fractured a rib at all (C2)  
it could well be bru:ising (C52)  
it sounds like you have just done you know a sort of straight forwards .h twist or sprain really (.) (C6)  
I think, possibly what you’ve done is a little blood blister there something like that (C14) |
Analysis

Producing the disposition

Moving now to examine the form that the delivery of the disposition takes, I return to Extract 23 below, in which a 33-year-old woman (Cal) telephones the helpline in the evening with concerns about a headache. The extract is taken five minutes into an eight-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies, followed by more problem-specific questions. I am interested in how the disposition is occasioned, the action being performed by the disposition, how the disposition is designed, and its lexical properties.

Extract 23
C7
5.14.71–5.30.06

1 Nur  The headache y-is it over your forehead?
2 (0.7)
3 Cal  erm ↑no.: but my foreheads ( )
4 Nur  Right okay.
5 (.)
6 Nur  .h Shirley for what you’re telling me
7 I-I can’t (0.3) pinpoint anything th-that’s worrying me
8 Nur → here:,
9 (0.4)
10 .hh so  I think we’re okay to look after this at home:
11 Cal → y:eh°.

Before discussing the disposition, it is worth remembering how it is presented to the nurse by the CAS. When the nurse has finished asking the CAS-prompted triage questions and entering relevant responses on to the computer, a screen appears displaying the disposition, for example ‘Homecare’, ‘Contact Health Visitor’, ‘Attend Accident and Emergency’, or ‘Contact GP’ (see Figure 5 p88). This is relevant as we consider its vocalisation and delivery by the nurse.

Returning to Extract 23, following an inhalation of breath, the nurse produces the disposition: .hh so I think we’re okay to look after this at home:. (line 10). It is notable first that the disposition displays a course of action which explicitly states that the caller can look after ‘this’ at home as
opposed to elsewhere. Second, it displays an assessment of the status of the caller’s concerns indicated by the course of action proposed, and third it is designed to be heard as advice in the form of a course of action the caller can take to manage their concern.

I will take each of these propositions and examine them in more detail. Following an in-breath: . hh the disposition is prefaced with a turn initial ‘so’, which works to mark a transition between the prior and upcoming talk (Raymond, 2004). Here the ‘so’ preface implies that the nurse’s prior talk about the no problem status of the caller’s concern requires some additional work in order to accomplish a response from the caller, and in the following turn she delivers the disposition that the caller can manage their concern at home: . hh so I think we’re okay to look after this at home:. (line 10), which achieves an unmarked acknowledgement: y:eh°. (line 11). It is noteworthy here that the production of the disposition attends to the procedural requirement of the CAS, which is to inform the caller of a course of action. It also displays the nurse as orienting to the caller as requiring this kind of advice. On first inspection, the content is apparently unambiguous. The disposition, though, is not conveyed as a blunt product of the CAS, but designed to be heard as the nurse’s own idea, evidenced by the verb ‘think’, a phenomena also observed in a study examining the ways in which nurses interact with the computer decision support software (Greatbatch, 2005). This construction conveys the disposition as an idea or an opinion, and as such is arguably open to debate. Perhaps, therefore, although the course of action displayed by the disposition is explicitly stated as ‘homecare’, its delivery is softened and designed to be heard as open to discussion rather than as a necessity.

The disposition does double duty in that it is also delivered as an assessment of the status of the caller’s concern, and as such marks the possible completion of information gathering. The term ‘assessment’ is described as “a product of participation in social activities” (Pomerantz, 1984). In this extract the nurse proposes that the caller can look after the problem at home, inferring that there
is a range of other places it could be managed, which is indeed the case. If that were not the case, the nurse might just have said ‘you can manage this'. Constructing the disposition as homecare not only displays the no problem status of the situation, but also the possibility of other alternatives, for example accident and emergency or general practitioner. However, each of these categories carries with it a shared understanding of the level of urgency associated with it. Thus, the disposition as an assessment sequentially positioned on the possible completion of information gathering is part and parcel of the consultation with the nurse. Thus, I argue that taking part in the consultation and producing a judgment or opinion based on its content in the form of the disposition are considered related enterprises. Consequently, the disposition as an assessment is based not only on the information entered into the CAS by the nurse, but also on the nurse’s knowledge of what she/he has assessed. As such, it is a product or an upshot of the “occasioned conversational event” (ibid).

The disposition is also designed to be heard as advice because it “describes, recommends, or otherwise forwards a preferred course of future action” (Heritage & Sefi, 1992). The course of action displayed by the disposition is that the caller can manage the situation at home. In its production, the nurse displays her epistemic right and entitlement to propose advice relating to such matters. In contrast, it also displays the caller’s assumed ignorance in matters raised during the consultation.

One final observation is that the design of the disposition skilfully preserves the no problem status of the caller’s concern, whilst simultaneously maintaining a problem amenable to a solution. Why this is necessary is unclear. It is arguable that, by telephoning NHS Direct, the caller is seeking to justify or legitimise their concern; a no problem formulation frustrates this project. The consequences of this are that the caller risks losing face and the nurse risks losing the caller. A course of action which attends to this risk would head off this situation. Thus, the nurse in this extract cleverly displays that it is because the nurse is not
worried (not that there is anything to worry about) that the caller’s concern can be looked after at home, which suggests that if he/she were worried, the problem would need looking after in a different way. Viewed in this way cleverly displays the nurse-as-expert, monitoring the CAS-as-expert output for its relevance to the situation, and tailors it to suit the local environment of the call. This neat interactional performance works to forestall interactional trouble on receipt of the disposition. Receipts will be examined in more detail in Chapter 6.

In the following (extract 24), a 61-year-old woman (Cal) telephones the helpline in the morning concerned about chest pain. The extract is taken three minutes into a five-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies, followed by more problem-specific questions.

Extract 24
Case 33
4.13.78–4.21.65

5 Nur hhh. right okay..hh hh.
6 (4.0)
7 Nur War*–(0.3) I think >you know< from the sign-to-the symptoms you’re describing
8 and they sound very much like they’re cardiac in origin
9 (.)
10 Cal Mmm.
11 Nur .hh I do think that it needs to be assessed
12 → fairly quickly=
13 =and I think the most appropriate rou-er-way
14 would be for you to actually call an ambulan[ce.
15 Cal [okay*.=

We can see here interactional features similar to those in the previous extract. In lines 14-15 the nurse produces the disposition: I think the most appropriate rou-er-way would be for you to actually call an ambulan[ce. Again, we can see that the disposition attends to the procedural requirement of the CAS and that it displays the nurse as orienting to the caller as requiring this kind of advice. On first inspection, the content is apparently explicitly stated and unambiguous insofar as the course of action is to call an ambulance. However, on closer examination, the lexical properties of the disposition, as seen in the previous extract, design it to be heard as the
nurse’s own idea, which is once more possibly open to debate. It is also hearable as an assessment of the emergency status of the caller’s concern. We see again that the lexical choices made by the nurse display the disposition as one of a range of possibilities. This is evidenced by the use of the item ‘most’, which indicates a degree of fit or suitability between the concern and calling for an ambulance. In addition, the nurse begins to describe the course of action as a: ‘route’ rou-er- but repairs this to state: -way (end line 14), which again displays the possibility of an alternative course. Although I argue that in being designed as a thought, the disposition is displayed as possibly open to discussion, the nurse in contrast to this, by using the item ‘actually’ (line 15), goes on to place some emphasis on the fact that it really is the case that calling an ambulance is the proposed course of action to be taken, thus upgrading her upcoming assessment. It also works to upgrade the status of the disposition-as-advice and the nurse’s assertion of knowledge in these matters, and presumes the caller as having doubtful knowledge or competence.

We have seen here that the production of the disposition is, to all intents and purposes, a straightforward phenomena; however, it cleverly embodies more than one action (Schegloff, 2007). First, it displays an apparently explicit course of action for the caller to take. Second, it provides a vehicle for launching an assessment of the status of the caller’s concerns. Third, the disposition is designed to be heard as advice. Although this is the more general format of the disposition, its production is more complicated still.

Consider the extract below (Extract 25) in which a mother (Cal) telephones the helpline in the early evening with concerns about her 3½-year-old son, who has a ‘pinky rash’. The extract is taken seven minutes into a nine-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies, followed by more problem-specific questions. The child in question can be heard squealing in the background throughout the call.
Chapter 5 The imposition of the disposition: how nurses manage call disposal

Extract 25

8.05.20-8.17.53

1 Nur er but at the moment what we would say
2 because he’s so well in himself
3 and there doesn’t seem to be any other symptoms going on there
4
5 → .hh it’s a watch and wait really, (0.2)
6 carry on with the Calpo::l, (0.3)
7 and generally try and keep him cooler
8 (.)

In line 5, following an in-breath, the nurse produces the disposition, which is displayed as a course of action for the caller to take. As seen previously, it displays the nurse as orienting to the caller as requiring this kind of advice. What is noticeable about this extract is that the course of action is more abstract than those seen previously. Whilst the disposition attends to the procedural requirement of the CAS to produce a course of action, the nurse’s utterance neither fits any of the outputs produced by the CAS dispositions (Appendix 14) nor does it invoke the nurse, the organisation or the caller in the course of action. This suggests that the activity of watchful waiting is something that is no one person’s responsibility. Interestingly, the phrase ‘watch and wait’ relies on a shared understanding between the nurse and caller of what this means. Typically, it is a phrase used in health care to convey close monitoring or observation of a situation until symptoms appear or change. Temporally unbounded, time is allowed to pass before an intervention is initiated. Nevertheless, it does represent a course of action, which does not rule out further courses of action. Although not necessary for understanding the disposition, the increment: really, (line 5) works to add emphasis to what is being said.

As seen previously, the disposition is doing double duty as an assessment of and advice for the caller’s concern. Sequentially positioned as it is, on possible completion of information gathering the disposition as assessment is based on the nurse’s knowledge of what she/he has so far assessed during the call, and thus represents an upshot or end result. Here ‘watch and wait’ conveys an ‘as
yet no problem’ situation and judges the status of the caller’s concern as something that does not require any other kind of help or assistance. The disposition-as-advice again displays the caller’s assumed ignorance in matters arising during the consultation and the nurse’s epistemic right and entitlement to propose advice relating to such matters.

So, although the construction of this disposition is unlike those seen previously, it nonetheless displays similar features that can also be seen in other data. Consider Extract 26 below in which a male (Cal) telephones the helpline in the early morning with concerns about poor sleep. The extract is taken ten minutes into a fourteen-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies, followed by more problem-specific questions.

**Extract 26**

**C5**

10.03.55-10.10.02

1    Nur → .h erm(.) **if you: see how you go**
2         now you’ve actually ss stopped drinking as much coffee(.)
3    Cal    mm³

Following a moment of inhalation and hesitation: .h erm(.) and the conditional proposition: *if* (line 1), the nurse produces the disposition. Similar to previous extracts, it displays a course of action for the caller to take, again displaying the nurse as orienting to the caller as requiring this kind of advice. However, as in the extract above, the course of action is somewhat oblique. Rather than the caller managing the concern at home, the nurse instead opts to use a colloquialism often used in conversation to suggest close monitoring or observation of the situation. As such, although the disposition attends to the procedural requirement of the CAS, and it does not fit any of the outputs produced by the CAS, it nevertheless conveys to the caller a course of action.

The disposition also assesses the status of the caller’s concern. What is interesting here is that, as in the previous extract, rather than committing to a
problem or no problem situation, it appears to hold off both pending further monitoring, in this case by the caller. All the same, the caller's concern is assessed as something that, although not requiring any other kind of help or assistance at this time, does require some action, which is monitoring. As the disposition recommends a future course of future action, it also represents advice which privileges the knowledge of the nurse.

So far I have examined the structural organisation or shape of the disposition as prompted by the CAS. In this and the previous extract we have seen the nurse produce a disposition, during which, whilst attending to the procedural requirement of the CAS to produce a course of action, the nurse’s utterance does not fit any of the outputs produced by it. Moreover, although the course of action is more oblique than those seen previously, it is designed to be heard as a course of action for the caller to take to manage their concern. Additionally, in common with earlier extracts of more explicit courses of action, the disposition embodies more than one action (Schegloff, 2007). First, it displays an apparently explicit course of action for the caller to take. I say ‘apparently’ because, as I have shown in these extracts, the degrees of explicitness vary between calls. Second, it provides a vehicle for launching an assessment of the status of the caller’s concerns, not only in cases where the course of action is to contact another health care provider, but also when a no problem situation is displayed. Third, the disposition is designed to be heard as advice, as it projects a course of action for the caller to take.

Collectively, these observations suggest that what appears to be a straightforward phenomenon is observably a more complex activity than reading the output of the CAS. This complexity is further revealed as I now begin to examine the organisation of sequences or series of moves through which the disposition is accomplished.
Accounting for the disposition

Previously, I noted that a feature of these data is that the nurses appear to offer a warrant or establish the grounds for the disposition in the form of an account. John Austin (1961) first made a distinction between two species of accounts – justification and excuses – both of which are interactional resources open to a person. He argues that excuses are accounts which deny responsibility, but claim the performance was influenced or caused by some external agency. Justification, however, does not involve this denial; rather, it claims certain actions are good, sensible or permissible. Erving Goffman, in his work on the presentation of self (Goffman, 1959), postulated that interactional disturbances are softened by practices designed to preserve face. These practices include apologies or excuses, which act retrospectively; others act prospectively, for example warnings. Scott and Lyman (1968) distinguish between excuses that claim that the disturbance or offence occurred accidentally or was ‘biologically driven’, as well as excuses of ‘defeasibility’ and ‘scapegoating’ (Antaki, 1994). Justifications, on the other hand, concerned denial or an appeal to higher loyalties – ‘it had to be done’ (ibid p47-8). Hewitt and Stokes (1975) added ‘disclaimers’ to the armoury, which work to repair something before it has happened, and Schonbach (1980) and later Tedeschi and Reiss (1981) assembled the growing taxonomy into groups. Whilst many writers have merely added to the list of exonerations (Antaki, 1994), Semin and Manstead (1983) have not only developed a typology of accounts, but also returned to the origins of this work as located in an interest in exonerations as providing an insight into social action and that they occur in sequences of action (Antaki, 1994).

For conversation analysts, accounts need to be examined in relation to their sequential position in talk (ibid) and indexicality to determine how they work (Heritage, 1984). Analysts study instances of accounting and try to illuminate its systematic properties. For example, Heritage (1984) suggests that accounts are dependent upon the context of their production, and are a design feature of non-affiliative (‘dis-preferred’) second actions to invitations, requests and the
like. In this section I will return to earlier extracts in an attempt to disentangle the complexity of the disposition and the work of accounts in its production. A detailed examination of the action being performed, how it is used (excuse, justification, rationale, explanation) and the features of its design (evidence, downplaying, conditional proposition) will reveal some understanding of how accounts are used in this setting, i.e. the function of accounting and sense-making practices, in their sequential production, and show that nurses accounting practices are one of a series of incremental actions produced before disposition sequences come to completion. Consider again the extract below:

Extract 27
C7
5.20.01-5.29.90

4 Nur Right okay.
5 (.)
6 →.h Shirley for what you’re telling me
7 → I-I can’t (0.3) pinpoint anything th-that’s worrying me here:,
8 → here:,
9 (0.4)
10.hh so I think we’re okay to look after this at ho:me:.
11 Cal y:eh.°

Following an in-breath and person reference, the nurse embarks on producing an account: .h Shirley for what you’re telling me I-I can’t (0.3) pinpoint anything th-that’s worrying me here:,. (lines 6-8). The first challenge here is to disentangle this utterance’s type of account. Garfinkel (1967) suggests that the sense of a descriptive term is influenced by the context in which it occurs. Thus, its sequential positioning may hold a clue here. Prominent within this extract is that the account is produced prior to the disposition (line 10). On first inspection, the nurse’s utterance makes inexplicit reference to the evidence, and using the verb ‘tell’ marks out the upcoming disposition as arising from the information provided by the caller and a shared understanding of what is being referred to. This works to index the upcoming disposition, to the information provided by the caller: for what you’re telling me (line 6), and exhibits the contextual nature of the account. Whilst the nurse does not specify the details of what she has been told, the design of her turn firmly places the upcoming disposition as being based on the caller’s accounts – not on the nurse’s assumptions – and thus allows for what has not
been ‘told’ during the consultation, which might be a cause of worry, thus introducing an element of uncertainty. This achieves two things: first it spreads responsibility for the upcoming disposition, and second it provides an externalised account for the disposition.

The second component of this turn: I-I can’t (0.3) pinpoint anything th-that’s worrying me here; (lines 7-8) is designed to display the no problem status of the caller’s concern, and thereby works to shape the caller’s expectations in relation to a possible course of action that can be taken to manage the problem and projects the commonsense of the upcoming disposition in these circumstances. Rather than being a second position account, as seen in response to invitations, requests and the like, (Heritage, 1984) it appears to work prospectively, acting in anticipation and defence of a dis-preferred turn. Consequently, the account-as-justification works to build a case for a possible dis-preferred disposition, fulfilling Austin’s criteria for a justification (Potter & Wetherell, 1999). The nurse’s account would appear to be what Potter (1996, p. 63) describes as reflexive. Although the account is undoubtedly about the caller’s concern and history so far and about the assessed status of the caller’s concerns, what is more interesting is what these particulars are specifically formulated to do. In this extract the account is precisely designed and used to perform a justification suited to the production of the disposition.

It may also be in the employment of another agenda. I have mentioned briefly that justification appears to work prospectively, acting in anticipation and defence of a dis-preferred turn. Indeed, this proposal is supported by the literature, which suggests that accounts are routinely provided or demanded in context where projected or required behaviour does not occur (Heritage, 1988). If we take the view that by contacting NHS Direct the caller is seeking help, and that the decision to seek help from this particular source has been taken from a range of possible alternatives, for example general practitioner or accident and emergency, and displays to some degree agency on the part of the caller, how might a no problem assessment be oriented to by the caller and how might the
nurse design her turn so as to avoid a disagreement? I propose that the nurse is using what Maynard describes as *forecasting* (Maynard, 1996) as a strategy for delivering bad news. Viewed in this way, the nurse may be anticipating that the caller is expecting something different to the proposed course of action. This becomes evident in line 4 whereby on possible completion of her turn construction\(^4\) unit and at a transition relevance place\(^5\) (end of line 5), where a receipt of the nurse’s assessment of the situation might expectably be produced, the caller stays silent (0.4) (line 9), thus signifying a problem with the nurse’s assessment (Pomerantz, 1984).

To call NHS Direct for help about a concern, and for an assessment to be made that the caller needs to make contact with another health care professional for example a doctor, works to legitimise the caller’s concern. A no problem assessment, whereby the caller can manage their concern at home on one level falls short of legitimising it, which may make relevant a dis-preferred response by the caller. One way of managing this is for the nurse to design a disposition to be heard as preserving the problem status of the concern, and ward off a dis-preferred response. Consider again the following extract, which has similar features but additional complexity:

**Extract 28**

C33  
4.19.50-4.33.46

7 Nur War+(0.3) I think >you know<  
8 → from the sign-to-the symptoms you’re describing  
9 → and they sound very much like they’re cardiac in origin  
10 (.)  
11 Cal Mmm.  
12 Nur hh I do think that it needs to be assessed  
13 fairly quickly=  
14 =and I think the most appropriate rou-er-way would  
15 be for you to actually [call] an ambulan[ce.  
16 Cal [okay°.=

\(^4\)Turns at talk are constructed out of units, for example sentences, single words, clauses or phrases.  
\(^5\)A transition relevant space occurs at the end of a turn construction unit creating the possibility for ‘legitimate transition’ between speakers (Hutchby & Wooffitt, 1998)
Following an abandoned start and pause: War*-0.3, the nurse restarts her turn using the verb ‘think’: I think (line 7), which constructs the upcoming material as her own thought. The nurse then uses the item: >you know< which is often used in interactions and appears to allude to a shared understanding of something. Next, the nurse embarks on producing an account: from the sign-to-the symptoms you’re describing and they sound very much like they’re cardiac in origin.(lines 8-9). Again, the initial challenge here is to disentangle the type of account for this utterance. It is worthwhile noting that the account is produced prior to the disposition (line 8).

We can see here, as in the previous extract, that the nurse makes implicit reference to the evidence: from the sign-to-the symptoms you’re describing (line 8), which projects the upcoming final turn component as arising from the information provided by the caller. Moreover, whilst at first avoiding any form of specificity, the initial component of this turn exhibits a shared understanding of what the term ‘signs and symptoms’ generally means, if not what is being referred to particularly. Nevertheless, the design of her turn, as in the previous extract, builds in a degree of uncertainty, which is routed in the caller’s descriptions and again spreads responsibility for the upcoming course of action and provides an externalised account for the disposition. Collectively, this turn works to display the contextual nature of the account as embedded in prior talk.

The nurse then proceeds to add information locating the signs and symptoms more specifically within the body: and they sound very much like they’re cardiac in origin.(line 9). What is interesting here is that, although in contrast to the previous extract the nurse produces more specific information that is notably unnecessary for the project of the call, it is doing something by proffering a ‘candidate assessment’ of the caller’s concern, designed to be heard as belonging to a class of medical classifications related to the heart. This construction classifies the caller’s descriptions as arising from
an organ commonly understood to be vital for life as opposed to the stomach, and which if it is not working properly warrants medical attention. It therefore appears to *forecast* the upcoming ‘disposition’ as bad news (Maynard, 1996). Viewed in this way, the nurse may be anticipating that the caller is pre-empting something different to what is about to be proposed, and is thus oriented to trouble, not because the caller’s concern does not warrant medical attention, but because it does and is potentially serious. This is evidenced by referring to the cardiac nature of the descriptions.

I proposed previously that callers appear to seek legitimisation of their concern when they call NHS Direct. In contrast to the previous extract, the nurse is not building this call to have a no problem outcome. Rather, it is being built to be heard as an emergency. In the previous extract I argue a no problem outcome is dis-preferred because the caller has already made a decision that their concern could not be managed at home, otherwise they would never have called NHS Direct and thus the nurse has to work to preserve the problem status of the concern; however, in this extract the nurse has legitimised the caller’s concern by locating the signs and symptoms arising from the heart. Typically, though, concerns about the heart invoke much anxiety, and candidate assessment such as this is likely to be dis-preferred. This is evidenced following a beat of silence – the caller’s minimal response on receipt of the nurse’s candidate assessment: *Mmm.* (line 11). In response to this, following an intake of breath, the nurse adds to her account: *I do think that it needs to be assessed fairly quickly*=(lines 12-13), with prosodic emphasis on the verb ‘do’, which, coupled with the addition of a temporal dimension: *fairly quickly*=(line 13), works to not only upgrade the nurse’s concern, but also project a likely course of action. At possible completion of the nurse’s turn, at a possible transition relevant place (end line 13), the caller avoids receipting the nurse’s prior turn, again displaying a dis-preference. In response to this, in the nurse’s next turn she/he embarks on producing the disposition: *=and I think the most appropriate rou-er-way would be for you to actually call an ambulan[ce.* (lines 14-15), which is receipted with a
quiet ‘okay’: [okay°.] = (line 16) in overlap with the nurse, suggesting the
caller’s quiet acquiescence (Skelton et al., 2002). Nevertheless, the nurse goes
on to pursue a stronger acceptance by asking the caller if they are okay to call
an ambulance (data not shown).

What I am proposing here is that the nurse appears to be sensitive to the
alarmingly and possible dis-preferred assessment of the call. Calling NHS Direct
for help about a concern and for an assessment to be made that the caller
needs to make contact with another health care professional, for example a
doctor, works to legitimise the caller’s concern. Nonetheless, to call NHS Direct
and be advised about the urgent nature of your concern, because it relates to a
vital organ, is not an unsurprisingly anxious experience for the caller, such that
her responses are either minimal or absent. One way of managing this is for the
nurse to produce an account for the upcoming course of action, which infers the
assessed status of the caller’s concern in such a way that it projects an
expectable course of action – in this case to call an ambulance – and delicately
heads off escalating the caller’s alarm by softening an otherwise blunt CAS-
produced disposition.

I now return to the following extract, where we can see similar practices being
exhibited:

Extract 29
C52
5.39.34–5.47.96

1 Nur okay () .hh I think it will be best to
take him up to ay an eee::::.
2 (0.3)
3 (one click of computer keyboard)
4 Cal [right°]
5 Nur --> [cos I’m a little bit concer:ned about (0.2)
it could well be bru:ising
6 (0.2)
7 Cal ri:[ght

Although the order of this extract is different to those seen previously, it
nevertheless exhibits similar interactional features. We can see here that the
disposition is produced on line 2: take him up to ay an eee. which advises attending accident and emergency as a course of action. Following a silence (line 3), which displays trouble with the disposition – the sounds of the clicking of a computer keyboard in the background – the caller produces a quiet acknowledgment token: [right°] (line 5). Although I will be examining receipts in more detail in Chapter 6, it is helpful here to digress in order to illuminate a point. Gardner (2007) argues that the meaning of response tokens is derived from the emerging talk and displays something about the stance being taken by the participant to the prior talk (Gardner, 2007). Beach (1993) suggests that ‘alright’ is similar to ‘okay’ and marks a major transition or topic shift, or what Stenström (1987) refers to as a “let’s move on” or “switch-off signal”. Their significance, though, is contingent upon their sequential position and prosodic features (Gardner, 2007). With these points in mind, the caller’s delay and the soft, prosodic delivery is oriented to as trouble by the nurse and requiring ‘convincing work’, or what Maynard and Frankel (2003) describe as “remedial action”. Moreover, and in overlap, she/he produces an account designed to be heard as concern: [cos I’m a little bit concer:ned about (0.2) it could well be bru:ising (lines 6-7 ), which, using the conjunction ‘because’ [cos (line 6), projects ‘for the following reason’ and works to make sense of and justify the disposition as a course of action first by displaying the nurse’s concern and second proffering a candidate diagnosis (an observation I will be examining in more detail in the next section). However, this does not quite do the job in eliciting acceptance, and following a silence and delayed acknowledgement from the caller: ri:ght [t (line 9), the nurse continues to develop a justification. See below (Extract 30) for the continuation of the sequence:

Extract 30
C52
5.47.42–6.06.05

10 Cal  ri:ght
11 Nur →  [erm:: (. ) but the fact that he ca:n’t stand on it
12 and the swellings .hh a fa:ir, way u:p
13 (0.4)
14 Nur  the le:g hh.
15 (0.2)
16 Cal  ye:ah
Over a multi-unit turn (line 11-18), beginning with some hesitancy: [erm:: (. ) (line 11), the nurse elaborates her account but the fact that he ca:n’t stand on it and the swellings .hh a fair, way u:p (lines 11-12). This begins with the preface ‘but’, which projects what follows as initially running against the nurse’s own initial proposition about bruising, yet actually works to build the case for the disposition by citing more explicit and factual evidence relating to the swelling and the child’s ability to stand, and provides a warrant for the course of action. Following further silence (line 13), an increment (line 14), which works to locate the source of the swelling, further silence (line 15) and an unmarked acknowledgment token (line 16), the nurse continues the pursuit of the disposition: so:: I do feel-it m:ost probably will turn out-hopefully just to be an ordinary sprai:n (. ) (lines 17-18). What is interesting here is that the nurse moves from citing the evidence to making a judgment about what the cause of the problem might be: an ordinary sprai:n (. ). However, in referring to the possibility of a sprain, which was initially proposed by the caller, in her account for the call (data not shown) the nurse using probabilistic language: m:ost probably is also cleverly alluding to the possibility of the problem being due to something other than a sprain, thereby introducing some uncertainty to the initial proposition by the caller. By doing this, the nurse acknowledges the caller’s proposition that the swelling is due to a sprain, but privileges her own epistemic authority that it could be something else not referred to. The point here is that a sprain can be managed at home; something else such as a fracture would need to be seen by a doctor, which suggests that this is a hidden hypothesis that the nurse is working with. This is further reinforced when the issue of risk is introduced: erm but I think to be on the safe side (line 20) and a turn designed to issue a safety warning, thus introducing the notion of the disposition being one of managing the safety and wellbeing of the
child. Finally, the nurse reiterates the course of action, but this time it is couched as getting it: checked over (line 21), which works to soften and downplay the force of the disposition to attend accident and emergency, and as such receives a stronger acknowledgement.

In summary, we can see here that nurses typically produce an account or, indeed, extended accounts. These accounts, judging by their sequential location and action, appear to relate to the disposition or course of action produced by the CAS. What I am proposing is that accounting practices are one of a series of incremental actions produced before disposition sequences come to completion. The nurse not only considers herself as accountable for the grounds of the disposition, but also appears to be sensitive to a difference in perspective between herself and the caller in relation to the ‘expected’ call outcome. This apparent misalignment may be responsible for the caller’s displays of dis-preference. One way of explaining this is to consider that, to call NHS Direct for help about a concern and for an assessment to be made that the caller needs to make contact with another health care professional, for example a doctor, works to legitimise the caller’s concern as the need to be ‘seen’, but not by anybody – by the ‘right’ person. If a call to NHS Direct results in a course of action at odds with caller expectation, misalignment between expectation and outcome occurs and not unsurprisingly invokes less than outright acknowledgement or acceptance by the caller, evidenced in this extract by delayed and quiet responses. One way of managing this is for the nurse to produce an account for the course of action. This is routed in the nurse’s professional concern that the problem may well be due to bruising, but it could be something else. Thus, accounting, which displays explicit evidence, diagnostic classification and alludes to something more sinister that is not named, works to build the case for and justify the course of action, and bring into realignment the disposition to attend accident and emergency in line with the caller’s perceived expected course of action (stay at home). This whole enterprise skilfully works to arbitrate an otherwise blunt CAS-produced disposition and thereby wards off a disagreement.
Chapter 5 The imposition of the disposition: how nurses manage call disposal

Dilemmas of diagnosis

As mentioned previously, the organisational constraints within NHS Direct prohibit the nurse from producing a diagnosis. Nevertheless, the following extracts illustrate highly sophisticated practices of carrying out, and at the same time collaboratively hiding, diagnostic work. They reveal that proffering a candidate diagnosis is an artful and persuasive device in the accomplishment of coherence and acceptance of the disposition. As such candidate diagnosis is a second example of incremental actions produced before disposition sequences come to completion. I will argue that this is an example of the situated accomplishment of the planned (Suchman, 2007) activity of computer-mediated telephone consultation in this setting. To begin, consider again Extracts 31 and 32 below:

Extract 31
C1
1.16.70-1.23.51

1 Nur  .hh >now let< me just explain what we d:o then (.).hh erm
2 (.)n because we’re nurses and not doctors
3 we don’t diagnose=
4 =what we d:o, Instead is we assess his symptom:s=
5 =we go through a pro:per, assess,ment. .hh and then at the
6 end of it we: we: erm:(.) then:(.5) then:: (.1) erdvise
7 you what to do ne:xt
8 Cal  _oka:y=

Extract 32
C19
0.50.56-0.52.75

1 Nur  >I’ll just run through an assessment with you in order to
2 give you some advice as the best thing to do=<
3 Nur  =I obviously can’t diagnose:
4 Cal [no:::

In these extracts we can see a number of features which illustrate the situated practical realisation of the CAS and the procedural requirements of NHS Direct, which do not allow the nurses to diagnose. To begin we can observe nurses moving to align NHS Direct aims as a service provider, with caller expectation. Whilst this might seem anomalous, it displays an orientation to the potential for
what Jefferson (1981) describes as “interactional asynchrony” whereby “interactants are improperly aligned.... [for] the orderly progression of the sequence” (p. 402); and Drew (2006) describes as “misalignment” or “asymmetry of perspective” between the doctor and patient (p. 423) in out of hours telephone calls to British GP’s (Drew, 2006). Thus we can observe the nurse neatly working to align caller expectations with the aims of NHS Direct, by displaying a public service frame (Tracey, 1997 p. 319), which works to make explicit the kind of service being provided thus avoiding a mismatch of expectations (Whalen et al., 1988), about the kind of service beign provided. In Extract 31 the nurse informs the caller that she/he can’t diagnose (line 3), ahead of informing the caller what they can expect (line 4). In Extract 32, again, the nurse informs the caller that she/he can’t diagnose (line 3), immediately after informing the caller what they can expect. Both of these extracts are located near the beginning of the call. It appears then that in each case the nurse is motivated to produce a disclaimer quite early in the call. This may be prompted by the nurse’s previous experience of callers seeking to elicit a diagnosis. Interestingly, although nurses are not taught to explicitly inform the caller that they will not receive a diagnosis, we can see here two examples of the nurse designing a turn to be heard as a disclaimer. A disclaimer is described as “a class of verbal aligning actions targeted toward problematic situations” (Hopper et al., 1995). Disclaimers are typically employed when a speaker is faced with an event which threatens to disrupt the accomplishment of a particular action or “ward off defeat in advance of doubts” (Hewitt & Stokes, 1975, p. 3). It has been argued that to use a disclaimer risks the user’s social image, and thus may damage their identity (Bell et al., 1984). Questionably, by producing a disclaimer, the nurse in this situation may discredit her ability to ‘help’ the caller, simply because the caller’s concern cannot be named or diagnostically categorised. Hopper identifies two types of disclaimer. ‘Early disclaimers’ consist of stock phrases and occur near the beginning of an encounter, typically eliciting minimal uptake. ‘Embedded disclaimers’ (Hopper et al., 1995) generally elicit a response. In these two extracts the disclaimer occurs early in the call, and is thereby an ‘early disclaimer’. 
Characteristically, the nurse informs the caller that she/he cannot diagnose early on in the call following the greeting, confirmation of demographic information including name, date of birth and address, and the presenting problem (see extract 2 p. 95, Line 23). Of particular note here are the lexical features of this disclaimer. Hopper (1995) suggests that early disclaimers use the pronoun ‘we’; however, in these data, the nurses can be observed using either ‘we’ or ‘I’. In Extract 31 the nurse uses the transitive verb ‘do’: *we don’t* (line 2), which conveys to the caller that an expectable ‘product’ of the consultation is not a diagnosis. The verb ‘do’ seems to infer a ‘procedural’ limitation on what the NHS Direct will provide. On the other hand, in Extract 32 the nurse uses the auxiliary verb ‘can’: *I obviously can’t* (line 1), which works to suggest denied ability or permission to diagnose; something that it is not possible to do. This seems to do quite a different job to the previous extract in that it infers a lack of authorisation on the part of the nurse to diagnose, and may work to establish what Butler (2007) describes as ‘boundaries of expertise’, whereby the nurse invokes her category membership to demarcate her entitlement to diagnose. Nevertheless, accounting for not doing diagnosis appears to attend to two things: first, what the caller cannot expect from the nurse during the consultation, which by doing so heads off problems related to the caller seeking a diagnostic judgment. Second, it makes explicit the adaptation of the organisational denial of diagnosis to the situated environment of the telephone consultation, and makes it relevant to the business at hand. Such practices realise the ‘rules of engagement’ for NHS Direct, but, as the following extracts will show, diagnosis does indeed take place.

As an illustration, consider the following Extract (33) in which a middle-aged male patient caller (Call) telephones the helpline in the evening, concerned about painful ribs after slipping and falling on some wooden garden furniture. The extract is taken two minutes into a four-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies followed by more problem-specific questions.
I will spend some time analysing this extract in order to illustrate the sequential environment for the production of diagnosis. I will bring together some observations made so far in my analysis in order to situate its sequential production. I will also begin to reiterate the relevance of the caller’s receipt to the trajectory of the call, a topic which will be examined in more detail in Chapter 6.

The first observation to note is that the nurse produces a candidate diagnosis: 
\[ .h \text{ if you have }\text{erm:} .hhh (.\text{) her: fractured a rib at all (lines 12-13), which is designed to be heard as belonging to a class of medical diagnoses, in this case fractures, and relies on a shared understanding of what this means. However, diagnostic utterances do not just happen ‘out of the blue’ – they are delicately positioned in response to the local interactional environment. To make sense of the sequential production of a candidate diagnosis, it is useful to examine in some detail the particular design features of the sequence in which it occurs.} \]
By using the conditional proposition ‘if’ (line 12), the nurse hypothesises the situation. Such ‘hypothetical diagnostic sequences’ allow the nurse to make suggestions without risking explicit diagnosis or, indeed, a challenge by the caller or the organisation as the overhearing audience (Heritage, 1985). Similar observation have been made by Moore (2009) in calls to MIND Infoline where call-takers using if ‘x then y’ hypothetical constructions work to avoid being heard as advice-giving (p. 99). In calls to NHS Direct however, it is, though, not unproblematic, as the caller has the opportunity to accept or reject the hypothetical candidate diagnosis and, consequently, the basis on which the disposition is being produced (Kinnell & Maynard, 1996, p. 418). Next, the delivery of the disposition: I don’t think you need to see anybody at the moment (.)= [okay, = (line 8-10) displays a no problem outcome. As we have seen in earlier extracts, it is designed to be heard as the nurse’s own idea, rather than a product of the CAS. In addition, it is temporally bounded: at the moment, which leaves open the possibility of change over time. This may be relevant inasmuch as it protects the nurse against any change which does require the caller to see somebody. Nevertheless, it is designed by the nurse to be heard and treated by the caller as requiring some kind of response. This response is signalled by the nurse latching the disposition with an upwardly intoned: = [okay, (line 10), directly seeking alignment or agreement with the proposition from the caller (Stivers, 2006). The caller receipts the disposition with a quiet ‘okay’: [ (Mkay.)° (line 11). The nurse orient to the caller’s response to the disposition, not as a strong agreement but as requiring further ‘convincing work’. Indeed, what follows is just that as the nurse produces an account for the disposition (line 14), which acts as a vehicle for a candidate diagnosis. So here we can see that the production of a candidate diagnosis is part and parcel of the nurse’s sensitivity to the moment-by-moment context of the production of the disposition. However, the quiet response by the caller puts in jeopardy the basis for the disposition, and thus the disposition itself.
It is notable also that the production of the diagnosis is not unproblematic. The lexical features of its delivery display it as cautious and as a hearably candidate diagnosis. This is evidenced by the conditional proposition ‘if’: *if you have* (line 12), which leaves open the possibility of other interpretations, and a good deal of hesitancy: *erm:: hhh (*) her: fractured a rib at all* (lines 12-13), which appears to display its production as troublesome. The final turn component:*then there's no not a lot they can do,* (line 14), and increment *[really(.)* (line 15) is designed to be heard as information about what can’t be done about the callers’ concern. This turn is not designed to convince the caller to follow a particular course of action because he has a particular medical condition. Rather, it is designed to appeal to the caller’s unspoken concern about a fracture and reassure him that, even if it is the case, there is no treatment. This becomes evident, as in overlap with the nurse the caller displays alignment: *[right that's what I thought* (line 16), and over a series of turns the caller displays his knowledge in such matters (lines 17, 19 and 21). This works to exhibit the caller as seeking to legitimise his concern prior to seeking help from another source. Arguably, a display of knowledge in this way could be considered to make redundant the nurse’s candidate diagnosis in much the same way as described by Heritage and Sefi (1992, p. 397). However, in this extract, it seems to imply that the caller is either seeking confirmation of his own diagnosis or a diagnosis from the nurse, and that there is no treatment. Taking this view, accounting for the disposition makes it more acceptable; the force of which can be considered further if we imagine its absence. Just being informed you don’t need to see anybody about a concern feels like only half the story. However, coupling it with an account appears to strengthen its force.

In summary, in Extract 33 I have illustrated the sequential production of a candidate diagnosis, sequentially located with an account for the disposition, which is oriented to by the nurse as requiring some form of ‘convincing work’ or explanation prior to moving on to providing the caller with specific care advice. It is evident in this extract that the nurse does not doggedly reproduce the disposition, but rather remains sensitive to the turn-by-turn context of its
production and receipt. It is with sensitivity to this context that the nurse makes practical real world sense of the disposition. This has interesting consequences for the trajectory of the call. Whilst the CAS leads the nurse and caller to a logical ‘disposal’ point at which the caller is advised about what to do to manage the problem they have called NHS Direct with, the nurse is sensitive to the CAS’s inability to deal with other contingencies such as the caller’s potential resistance, as this is not made available to the CAS ‘expert system’. It is therefore for the nurse to reason with and persuade the caller to accept the disposition by accounting for it, via which the production of a candidate diagnosis is a key feature. It is not until the caller displays acceptance that the call moves to the next phase of the consultation – that of the delivery of care advice – thus displaying the nurse’s orientation to the relevance of caller acceptance (Stivers, 2005).

Consider again Extract 34 below, which is a further example of the production and accounting for the disposition using diagnostic categories, but this time the order is different to that of the previous extract. Here we can see that the nurse embarks on an account prior to the production of the disposition. In the following fragment, a 61-year-old woman (Cal) telephones the helpline in the morning concerned about chest pain. The extract is taken three minutes into a five-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies, followed by more problem-specific questions.

**Extract 34**

C33
4.08.16-4.33.46

1  Nur  Any-any sort of-pressure sensation underneath your
2    breastbone?
3   (2.0)
4  Cal  Yea:s
5  Nur  hhh. right okay..hh hh.
6   (4.0)
7  Nur  War*- (0.3) I think >you know<
8    from the sign-to-the symptoms you’:re describing
9   → and they sound very much like they’re cardiac in origin
10  (.)
11  Cal  Mmm.
12  Nur  .hh I do think that it needs to be assessed
13  fairly quickly=
After making inexplicit reference to the evidence: from the sign-to-the symptoms you’re describing (line 8) (Peräkyla, 2006), rather than producing the disposition as seen later in lines 14-15, the nurse shifts tack and first produces an account which proffers a candidate diagnosis of the caller’s concern. Unlike the previous extract, the nurse refrains from making specific claims about the cause of the caller’s concern. Rather, more general terms are used to locate the caller’s symptoms to an organ commonly understood to be vital for life, as opposed to the stomach, and which if it is not working properly warrants medical attention: they sound very much like they’re cardiac in origin (line 19). It therefore appears to forecast the upcoming ‘disposition’ as bad news (Maynard, 1996). Again, the lexical features of the production of the candidate diagnosis are of interest. In line 9 the nurse prefaced the candidate diagnosis with the evidential verb ‘sound’. This works to index sensory evidence generated from the prior history-taking, and thereby embeds the candidate diagnosis in prior talk. It also avoids the plain assertion of the condition (Peräkyla, 1998), thereby displaying the candidate diagnosis as uncertain or cautious. In addition, the nurse then describes the symptoms as most likely originating from the heart. This delicately works to imply the seriousness of the caller’s symptoms, whilst at the same time avoids undertaking overt diagnosis such as ‘heart attack’ or ‘angina’. The use of the evidential verb ‘sound’ appears to work similarly to the conditional proposition ‘if’, in which the nurse hypothesises the situation. As such, ‘hypothetical diagnostic sequences’ allow the nurse to make suggestions without risking explicit diagnosis or, indeed, a challenge by the caller or the organisation as the overhearing audience (Heritage, 1985). Again, it is not unproblematic, as the caller has the opportunity to accept or reject it and, consequently, the basis on which the disposition is being produced (Kinnell & Maynard, 1996, p. 418). Without a doubt, the caller produces an unmarked acknowledgement (line 13), which is oriented to as somewhat problematic by the nurse, who embarks on further accounting ahead of the upcoming disposition (lines 14-15).
Although the order in which a candidate diagnosis is produced may differ before or after the disposition, this extract exemplifies the interactional practices involved in the production of the ‘disposition’, and is represented schematically below:

In each of these extracts the production of hearably candidate diagnoses works incrementally to bring the disposition sequences towards completion by ‘building the case’ for the disposition. In the first extract this is in response to the caller’s quiet acknowledgement of the disposition and in the second it works to lay the foundations for the disposition, such that it projects an expectable course of action – in this case to call an ambulance – and delicately heads off escalating the caller’s alarm by softening an otherwise blunt CAS-produced disposition. In each case, it acts as a ‘persuasive’ resource not programmed into the CAS but available to the nurses as ‘experts’ in their field of work.

Significantly, although diagnostic categorisation is a practical resource clearly in evidence in these interactions, nurses and callers labour to deny its very existence.

The tacit production and simultaneous evasion of diagnosis

Consider the following Extract 35, in which a 33-year-old woman (Cal) telephones the helpline in the evening with concerns about a headache. The extract is taken five minutes into an eight-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies, followed by more problem-specific questions.
In this extract the caller is informed that she can look after her problem at home (line 10). As seen in Extract 34, a number of patterns emerge. First, the caller displays the right to accept or reject the nurse’s proposal and produces an unmarked acknowledgement: y:eh.° (line 11), which neither displays agreement nor resistance (Stivers, 2005) of the nurse’s authority. Second, the nurse orients to the caller’s response as requiring further ‘convincing work’, and following a silence (line 12) embarks on an account for the disposition by proposing a candidate diagnosis: it sounds like you’ve got a bit of er er a tempera[ture there a bit of erm you know may a bit of a virus= (lines 13-16). Third, the account is hearable as a rationale in pursuit of a fuller acceptance by the caller, of the assertion that she can look after her headache at home and also as “remedial action” orienting as it does to the ‘disposition’ as requiring some form of explanation (Maynard & Frankel, 2003). In sum, the account treats the disposition as warranting an explanation.
which is accomplished using diagnostic categories, classifying the caller’s concern as potentially indicating a temperature and/or virus.

Having proposed a candidate diagnosis, however: a bit of erm you know may a bit of a virus= (line 16), the nurse swiftly produces a disclaimer designed to appeal to the caller not to hear her turn as a diagnosis: =but obviously I can’t diagnose for you, (line 17). The disclaimer is an example of what Hopper describes as an “embedded disclaimer” (Hopper et al., 1995) and attends to the constraints imposed by the organisation, which forbids the use of diagnostic categories to be produced as part of the consultation. However, this extract differs from Extracts 31 and 32, in that rather than the disclaimer being produced to ward off trouble, it responds to a problematic component in the talk, namely the production of a candidate diagnosis which is organisationally forbidden (line 16). Notably, therefore, the disclaimer occurs precisely at a moment of concern and is occasioned to fit this situation. The concern would appear to be the production of a candidate diagnosis by the nurse, working to draw a veil over the candidate diagnosis for the benefit of this overhearing audience (Heritage, 1984). On first inspection it would appear to be a similar device available to a judge when directing a jury to disregard evidence produced in court. It also works to demarcate ‘boundaries of expertise’ observed in the work of nurses in calls to Child Health Line (Butler 2009), and is a further example of the production of an incremental action which works towards bringing the disposition sequence to completion.

Below is another example of this feature (extract 36). Of note is how the nurse employs diagnostic categories to frame the caller’s concern in terms of what it is not, rather than what it is. In this extract a 32-year-old man (Cal) telephones the helpline in the afternoon concerned about a lump about the size of an egg (see Extract 33 p. 150, lines 101-105) on his leg, which developed when he fell through a floorboard two weeks earlier. The extract is taken fifteen minutes into a sixteen-minute call, during which time the nurse (Nur) confirms
routine demographic information and asks general questions about medical history, medicines and allergies, followed by more problem-specific questions.

Extract 36
C17
15.27.52-16.03.25

1 Nur .hhhm if: you’re finding it painful:1(.)
2 [I would suggest
3 Cal [yeh
4 Nur you take some painkillers like [Paracetamol or Ibuprofen,
5 Cal [yeh°
6 (0.3)
7 Cal yea:h°
8 (0.4)
9 Nur tch okay you can alternate them every three hours if need be, (.). okay? but only do that for the first sor-of
10 twenty four hour[s,
11 Cal [right-I-[I-I don’t need that at the
12 Nur [make sure you-
13 Nur moment.yu-you don’t need >that [okay<,
14 Cal [yea:h°°
15 (0.3)
16 Nur but if you do dec[ide ( )
17 Cal [I was worried basically really of th th-maybe the formation of an abscess within-,
18 (0.4)
19 Nur [uh°hu° oka:y .h I mean her it’s difficult to say
20 (is that the problem?°)
21 Nur I mean erm without actually seeing=
22 =but I don’t think,
23 er: a: anyway er: a-as a nurse I can’t diagnose
24 .h I don’t think it’s an abscess, (.)
25 however what I would say to you is, (.). t-keep an
26 eye on [it .h
27 Cal [rri:::ght

This extract differs from those shown previously in that rather than the nurse proposing a candidate diagnosis, it is the caller. Notable here are the consequences of this activity for the trajectory of the call. Just prior to this fragment, the nurse has informed the caller that he can look after the problem at home, and has begun to provide advice about taking painkillers (lines 1-11). The first observation is that the caller receipts the nurse’s advice with the acknowledgement token ‘yeh’ (lines 5, 7 and 15). This is of relevance here because in health care interactions treatment recommendations are typically oriented to as requiring acceptance before closure of the activity at hand (Stivers, 2005). Thus, before the nurse can move from giving care advice to the next activity, for example closure of the call, some form of acknowledgement of
the care advice is due. Although acknowledgement tokens\textsuperscript{6} such as ‘yeah’ may have a number of functions depending on intonation, for example claiming attention to preceding talk and being “continuitive” in character (Scheglof, 1982), in advice-giving they do not acknowledge or accept that talk as advice (Heritage & Sefi, 1992), and over the course of an advice-giving sequence, may adumbrate a form of passive resistance (ibid). Furthermore, Jefferson (1983b) asserts that the acknowledgement token ‘yeah’ works to signal “imminent speakership”, and thus constitutes a “pre-[topic] shift object”. In other words, ‘yeah’ is canonically associated with a shift in the topic of talk. Taking this view in lines 5, 7 and 15 the caller is not accepting what would appear to be redundant advice and is incrementally working towards speakership and a shift in the focus of the consultation.

This shift occurs in overlap with the nurse (line 17) when the caller restates his ‘basic’ worry. Such an incursion into the nurse’s talk is exquisitely timed to respond to what the nurse has said. By reissuing his ‘basic’ worry, the caller displays that this has yet to be attended to. Paying close attention to the course and content of the nurse’s turn, which relates to the use of painkillers, the caller attempts to refocus the nurse to deal with his concern about a swelling on his leg, and using diagnostic categories he reclassifies his worry from: a lump the size of an egg (see Extract 33, p. 150, lines 101-105) to worry about the formation of an abscess (line 18). This throws the nurse off course in terms of giving pain relief advice and shifts the focus of the interaction towards the caller’s proposed candidate diagnosis. Through the display of the right to accept or reject advice, the caller is attempting to negotiate a treatment outcome in line with his own expectations (Stivers, 2005).

The nurse orients to the caller’s candidate diagnosis as obligating confirmation or otherwise, but conveys this as problematic: I mean her it’s difficult to say (line 20) because the problem cannot be seen: I mean erm without actually seeing (line 22). What follows is a complex

account in which the nurse begins to construct a turn designed to refute the caller’s proposition: but I don’t think, (line 23), which is abandoned before its completion, instead invoking the limitations of the role of the nurse which prohibit diagnosis: er: a: anyway er: a-as a nurse I can’t diagnose (line 24). This extract is also an example of an embedded disclaimer (Hopper et al., 1995), beautifully designed to occur precisely at a moment of concern, and is thus occasioned to fit this situation. However, it differs subtly from the previous extract (35) in that it is responsive not to the nurse’s production of a diagnosis, but the caller’s. It works to release the nurse of the expectation to diagnose due to professional proscription, but the nurse then restarts her earlier turn (line 23) in which she does not accept the caller’s candidate diagnosis, and in so doing proposes a candidate diagnosis of what the swelling is not: . h I don’t think it’s an abscess, (.) (line 25).

In this extract the caller, being closely attentive to the substance of the course of action, which does not appear to be in line with his expectations, shifts the topic of talk from one of advice-giving to one of diagnosis, which is oriented to by the nurse as requiring some form of response. This is problematic for the nurse because she/he is prohibited from diagnosing, and agreeing or disagreeing with the caller’s candidate diagnosis constitutes a diagnosis. By this I mean she/he will not be evaluating what the problem might be but evaluating what it might not be. There are two observations to be made about the caller’s move to proffer a candidate diagnosis. The first concerns the caller’s pursuit of an explanation for a health concern. Cassell (1985b) suggests that uncertainty arises when events occur that do not fit with a person’s experience. In response to this, people are driven to learn about the cause of events or seek an explanation. In interactions between doctors and patients, if questions about the cause of an illness are not raised directly, they occur in some other way. And it is not until an event has been assigned a cause or explanation that it can be ‘put out of mind’. Heath (1992) concurs with this observation and also suggests that in cases where diagnosis is not forthcoming it may be elicited by the patient; indeed, Robinson (2003) argues that its absence is treated as accountable. This extract illustrates the contingent accomplishment of diagnosis.
and reflects these earlier findings. It is important to understand this process if we are to make sense of diagnostic practices in this setting and begin to know more about the power and the politics of language use.

The second observation concerns the strategic denial of diagnosis. Calls are circumscribed by institutional arrangements that do not authorise nurses to diagnose. In practice, this makes both the absence and the presence of diagnosis complexly accountable. To manage this, in this extract the nurse exhibits typical and highly sophisticated practices of carrying out, and at the same time collaboratively hiding, diagnostic work as professionally vetoed.

**Summary**

In summary, this chapter has captured the rational practice of managing the delivery of the disposition or course of action. It has examined the structural design and sequential organisation for the production of the disposition or course of action. I have shown that on first inspection its production is expectably commonplace and apparently unremarkable, given that it is a predetermined phase of the CAS. However, on closer examination I reveal in its design and delivery artful interactional practices, such that nurses routinely take a stance towards the ‘expert system’s’ output, known as the disposition, judging its relevancy and adequacy. Typically, the disposition embodies more than one action (Schegloff, 2007). First, it displays a course of action for the caller to take. Second, it provides a vehicle for launching an assessment of the status of the caller’s concerns exhibited by the level of urgency inferred by the course of action. Third, the disposition is designed to be heard as advice, as it projects a course of action for the caller to take. Collectively, these observations suggest that what appears to be a straightforward phenomenon is observably a more complex activity than simply reading the output of the CAS. In addition, nurses routinely produce accounts for the disposition or extended accounts. These accounts, judging by their sequential location, relate to the disposition or course of action proposed by the CAS. What I am suggesting is that nurses not only
consider themselves accountable for the grounds of the disposition, a finding which echoes that of Peräkyla (1998), but also they display sensitivity to a difference in perspective and potential misalignment between the CAS disposition and the caller’s expected call outcome.

Finally, although nurses can be observed producing ‘early’ and ‘embedded’ (Hopper et al., 1995) disclaimers about not issuing a diagnosis, they do in fact produce a candidate diagnosis as a means of accounting for the disposition. However, rather than privileging their own expertise (Greatbatch, 2005; Hanlon et al., 2005) or functioning as “medical oracles” (Tjora, 2000), the positioning of candidate diagnoses is an interactional resource which demonstrates the nurses’ deep understanding of the function and limitations of the CAS, their expert knowledge of the field, and exquisite interactional moment-by-moment problem solving capabilities, which exceed the abstract analysis of the expert system. Furthermore, the use of this resource illustrates nurses’ resistance to what Crawford, Brown and Nolan (1998) describe as ‘linguistic entrapment’, which restricts how they define their work and reveals that diagnosis is an artful and persuasive device in the accomplishment of coherence and acceptance of the disposition. It is also evidence of nurses doing ‘candidate medical diagnosis’ despite the prevailing notion that nurses only make ‘nursing diagnosis’ and rhetoric that nurses only make ‘medical diagnosis’ in exceptional circumstances, for example in emergency situations where they may identify a cardiac arrest (Lloyd et al., 2007, pp. 43-46). Collectively, accounting, producing and concealing hearably candidate diagnoses, display nurses designing incremental actions in the pursuit of the completion of disposition sequences. I have shown that this whole enterprise works skilfully to arbitrate the abstract universalism of the CAS-produced disposition, which heads off a disagreement and promotes uptake. It is the reconciliation of the CAS output with the moment-by-moment contingencies of the call that the nurse and caller attempt to understand and make practical sense of. When the output of the CAS does not make practical sense for the nurse or the caller, they display highly sophisticated interactional resources to account for the system’s output. Although the positioning of this interactional resource may vary, it nevertheless
demonstrates nurses’ deep understanding of the function and limitations of the CAS, their expert knowledge of the field and exquisite interactional problem solving capabilities which exceed the abstract analysis of the expert system.
The previous analytic chapter explored how nurses manage the delivery of the disposition. I have shown that in the production of the disposition, using a range of interactional resources, nurses skilfully work to arbitrate an otherwise blunt and disembodied Clinical Assessment System (CAS) disposition in an attempt to accomplish coherence.

The disposition performs a number of actions. It displays a course of action for the caller to take, which is simultaneously hearable not only as an assessment of the status of the caller’s concerns, but also as advice as it projects a course of action for the caller to take. Furthermore, the disposition is canonically cloaked in epistemic accounting practices which accomplish two things: first, accounting makes explicit the grounds for the production of the disposition. Second, it works to display sensitivity to a difference in perspective and potential misalignment between the CAS disposition and the caller’s expected call outcome. An observable feature of accounting is diagnostic classification, which although variable in its sequential location, displays nurses’ deep understanding and expert knowledge of matters pertaining to health. Collectively, these practices are woven together to manage the abstract CAS expert system – both its function and limitations – and to accomplish the logic and coherence of the disposition.

An outstanding inquiry for this study concerns how the disposition, having been delivered, is responded to by the caller. At first glance, whether or how the caller responds to what the nurse has to say might not seem important; however, it is highly relevant for the trajectory of the call. It seemed to me from analysing the data that callers were less than enthusiastic about the production of the disposition. With this in mind, I decided to investigate the sequences in
which receipts were produced to find out what was going on. The focus of this chapter is therefore an examination of the practices used by the caller for receipting the disposition. By turning the analysis inside out and examining the callers’ receipt of the disposition, I will illustrate some highly sophisticated interactional practices, which will help us to understand not only the situated accomplishment by the nurse of the disposition as mediated by the CAS (Ch 5), but also the situated receipt of the disposition. Collectively, these two perspectives will illuminate the features and practical achievement of the planned activity (Suchman, 2007) of computer-mediated telephone help in this setting.

The chapter is organised as follows. Initially I will examine in detail the structural organisation or the shape of disposition receipts and their sequential organisation or positioning. Next, I will move through a number of examples to exhibit the dimensions of receiving the disposition as the phenomena of interest. The following sections will have three related analytic foci.

I will reveal that receipts have a unique capacity to display the caller’s orientation to the CAS output, and their active participation in and impact on the work of the nurse and the trajectory of the call. I have shown that callers do not respond to the disposition with acceptance or agreement, with something like ‘thank you’ or ‘that’s great’. Rather, callers produce a limited range of other types of responses, the single most frequent being silence followed by isolated, unmarked acknowledgements ‘yeah’ and okay’ and ‘right’ responses.

Introduction

I will now revisit turn taking in talk-in-interaction, in order to make clear the phenomena under investigation. The normative character of the turn-taking machinery of conversation provides for the location of speaker change at and initial transition relevance place (Sacks et al., 1974, p. 704). So, for example, in
these data two people are engaged in talk: the nurse and the caller. Typically, one of them speaks at a time, and when that person has possibly completed speaking, the hearer responds. For a recipient of talk, knowing when to speak is a finely tuned movement; it does not just happen anywhere within the conversation. Jefferson argues that participants in talk routinely and closely monitor one another’s contributions and have the technical capacity to time talking at the precise moment there is a reason to do so (Jefferson, 1973). The ways in which speakers change is varied: it can occur on possible completion of a prior turn, in overlap with the last item in the talk when the recipient has heard enough of the utterance to know what it is doing, or on possible completion of a two or three-part list that is being monitored for when and how it will be completed (ibid).

In mundane conversation, acknowledgement tokens (Jefferson, 1983b) such as Yeah, Oh, Mm, Okay, Right, Alright are often employed to receipt information, and although typically grouped together as responses to an utterance by another speaker, they do have distinct uses (Gardner, 2007). The main methods of receipt identified by Heritage and Sefi (1992) are (i) marked acknowledgements, for example ‘oh right’, the ‘oh’ of which works to display the prior turn as newsworthy (Heritage & Atkinson, 1984), (ii) unmarked acknowledgements, such as ‘mm’, ‘yeah’ ‘hm’ or ‘that’s right’, which exhibit the unremarkable nature of the prior turn, and (iii) and/or partial repeats of the prior turn (Schegloff, 1996), which performs confirmation and asserts epistemic authority. Whichever method of receipt is being employed, Gardner (1998, 2007) argues that it displays something about the stance being taken by the participant to the prior talk; their meaning is derived from the emerging talk and crucially can display the listener in a variety of ways. Receipts are particularly salient in NHS Direct, the raison d’être of which is to provide information and advice to callers. Providing advice or information makes it sequentially possible for the caller as the hearer to produce an acceptance or a rejection (Heritage & Sefi, 1992). Moreover, there is evidence to suggest that the producers of such objects, both in ordinary conversation and in institutional talk-in-interaction, appreciate the gravity of their action and monitor responses for how it is
displaying rejection or acceptance (Davidson, 1984; Heritage, 1984; Peräkyla, 2006; Pomerantz, 1984; Stivers, 2005, 2006). At this time there is no literature examining callers’ in situ responses to the disposition. I will now move to illuminate and examine these responses.

**Typical response types: preliminary observations**

It is first necessary to recall that callers telephone NHS Direct because they want something. What they get following a series of questions and answers (Ch 4) is a CAS-produced disposition or course of action (Ch 5), which they can take in order to manage their concern, and for which the callers have at their disposal a range of responses for ‘thank you’ or ‘that’s great’. But that is not what we hear in these data.

I will reiterate, for the sake of clarity, that the disposition can be explicitly and inexplicitly stated (Ch 5 p. 157-160). In the course of this analysis I have examined both explicitly and inexplicitly stated dispositions for their responses. Below I have represented the types of responses observable in these data. This is merely a heuristic device to illustrate the range of responses and by no means engages with the current methodological debate (Heritage, 2007) about the purpose of quantification in conversation analysis (Schegloff, 1993; Zimmerman, 1993). For an example see Drummond and Heritage (1993a) and Heritage, Robinson and Elliott (2007). Table 1 (overleaf) illustrates the range of responses and their frequency within these data.

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**Table 1: Response Types**
Although we can see in Table 1 a range of other receipts to the disposition, I cannot give a thorough account of them all. However, I will make a number of prominent observations here. Taking the work of Heritage and Sefi (1992), Kinnell and Maynard (1996) and Silverman (1997) as a point of departure, the first observation to make is that on no occasion in these data do callers receipt the disposition with the news marker ‘oh’. In reality there was only one example of the news receipt ‘oh’, which was not produced in response to the disposition but to information about penicillin causing skin rash. Thus, we can speculate that callers in these data extracts assess the disposition as containing no new information. The second crucial observation is that, as pointed out previously, although in mundane conversation the recipients of talk often employ acknowledgement tokens to receipt information, in these data the callers commonly do not respond at all to the production of the disposition – they remain silent. This is quite a striking feature when you consider that people phone NHS Direct for help, advice or information, and this is manifested in the form of the CAS disposition or course of action, to which callers typically withhold a response. Why would callers not acknowledge the production of the disposition? What is the meaning of non-response, what action is this phenomenon performing, and what are the consequences of its production? An analysis of these data will seek to shed some light on these questions.

The third notable observation is that when callers do receipt the disposition, they commonly do so with the isolated, unmarked response tokens ‘yeah’ or
‘okay’, a finding which echoes that of Mycroft (2007) who examined receipts of weight management advice across a range of outcome including weight loss, gain or maintenance. Having said this, when callers use the response token ‘right’, it may stand alone or be turn initial and lead on to a second turn construction unit. If callers, rather than opting to remain silent instead choose to respond, what meaning can be derived from their response, what does it accomplish in its production and what are the consequences? An analysis of these data will also seek to shed some light on these questions.

My analysis will therefore be confined to a detailed examination of silence as the most prevalent response to the disposition, the stand alone acknowledgement tokens ‘yeah’ and ‘okay’ as the next most common occurrence, and finally the response token ‘right’, which cropped up as an isolated response and as a preface to a second TCU. First, I will exhibit examples to illustrate the dimensions of the phenomena of interest. In the following section of this chapter I will provide more detailed analyses of these phenomena. Throughout, I will be distinguishing not only between types of response utterances, but also intonation, grammar and pragmatics (Gardner, 1997). I will examine the sequential organisation that is the positioning of the non-response or response and observable implications to the ongoing talk. I will conclude with a summary of how callers square or harmonise the CAS-produced disposition or course of action with their lifeworld concerns, and how this displays the caller not as a passive beneficiary of the CAS output, but rather as a powerful hearer and co-creator of the consultation.

Consider extracts 1 and 2. In the first instance I will merely be making some initial observations. This will be followed in the next section by a more detailed analysis.

**Extract 1**
C32
5.20.93–5.46.68
On first inspection these extracts might appear unremarkable; however it is notable that the delivery of the disposition in each case is receipted by the caller with silence. In Extract 1 following the production of the disposition by the nurse have a word with a chemist. (line 2) the caller responds with
silence (1.0) (line 3), and in Extract 2 following the production of the disposition by the nurse, take him up to ay an eee::. (line 2) the caller responds with silence (0.3) (line 3). However this is not the only phenomena observable. Consider Extracts 3 and 4 below:

**Extract 3**  
C43  
7.46.08-8.15.03  
1 Nur Erm .h we would suggest though that i-if he’s getting any symptoms like itching: .h erm or it’s irritating him at all to pop along to the pharmacist tomarro:wx, and just to see whether they .h can suggest any[thing,=]  
2 Cal [uhoo]  
3 Nur =an antihistamine or any sort of crea:m. (.)  
4 Nur but obviously .hh ber* er-eh-it would be a pharmacist and not their assistant because you can tell them about the ecze[ma and they can (find) some advice with that.  
5 Cal [yehoo]  
6 Nur (0.5)  
7 Nur er but at the moment what >we would say< because he’s so well in himself and there doesn’t seem to be any othe:r symptoms going on the:re .hh it’s a watch and wait reall:y.  
8 (0.2)  
9 Cal carry on with the calpo:ll,  
10 (0.3)

**Extract 4**  
C50  
6.44.20-7.26.61  
1 Nur I think we ought to just get her checked over,  
2 at the >hospital< .h only because of that short episode she ha:d.  
3 (0.3)  
4 Nur tch o:ka:y. just to be double sur-= I mean she sounds fi:ne .h doesn’t seem to be any problem whatsoever, (.)  
5 Nur .hh but she’s only two:::  
6 (0.2)  
7 Nur and generally with children it’s (.) difficult to: you know erm,  
8 (0.7)  
9 Nu tch .hh sor-you know-t-thoroughly assess them, I’m just sliightly concerned, .hhh that initially a little bit of floppiness she ha:d,  
10 (0.3)  
11 Nur .h immediately afterwards=okay but erm it may only have lasted for a couple of seco:nds .hh o:ka:y but erm .h I- I’d feel happier if you just got her checked over up at the at ay an ee:. .hh >okay< I me-I’m sure they’ll just check her over and they’ll give you probably a liittle card,
In extracts 3 and 4 a notable observation is that at a possible transition relevance places, on completion of the production of the disposition, callers can be observed to ‘pass up’ the opportunity to speak, even in overlap with the nurse. In Extract 3 the nurse produces the disposition pop along to the pharmacist tomorrow, (line 3). On possible completion of the turn construction unit ending with ‘pharmacist’ (line 3), although grammatically complete, the caller refrains from producing an acknowledgement of any sort, quietly, or in overlap with the nurse, similarly following the increment ‘tomorrow’. We can observe the same phenomenon in Extract 4 whereby the nurse produces the disposition to attend the hospital get her checked over, at the >hospital< (lines 1-2). On possible completion of the turn construction unit ending with ‘over’ (line 1) and following the increment ‘at the hospital’ (line 2), again although grammatically complete, the caller refrains from producing an acknowledgement of any sort, quietly, or in overlap with the nurse.

Another notable feature is that nurses can be observed to design the delivery of the disposition sequence to ‘skate-over’ possible transition relevance places, thus reducing the opportunity for the caller to respond. By ‘skate-over’ I mean that turns can be designed to lengthen an utterance past possible completion thus ‘skating-over’ the possible transition relevance place and avoiding a silence. For example in Extract 3 the nurse can be observed ‘skating-over’ the transition relevance place on possible completion of pharmacist (line 3) and also following tomorrow, (line 3), thereby compressing the space for the caller to respond. And in Extract 4 we can observe the nurse again ‘skating-over’ the transition relevance place on completion of over, (line 1) and
Conversely at a possible transition relevance place, nurses can also be observed to ‘stretch’ a final turn component, which seems to work to expand the opportunity for the caller to respond. For example in Extract 1 the nurse can be observed ‘stretching’ the final turn component chemiːst. (line 2); in Extract 2 the nurse can be heard ‘stretching’ the final turn component aːy an eːː. (line 2); in Extract 3 the nurse can be observed ‘stretching’ the final turn component tomorroːw, (line 3) and in Extract 4 the ‘stretching’ of the final turn component haːd. (line 3).

To summarise so far I have exhibited that receipting the disposition is not unproblematic. Callers can be observed regularly to receipt the disposition with silence. In addition callers observably ‘pass-up’ the opportunity to respond the production of the disposition. Furthermore nurses orient to the disposition as potentially problematic by ‘skating-over’ the transition relevance place on possible completion of the turn thereby compressing the space for the caller to respond. Alternatively nurses ‘stretch’ the final turn component of the disposition thereby expanding the opportunity for the caller to respond. As illustrated earlier (Table 1), silence represents canonical responses to the production of the disposition or course of action in these data. However, callers have at their disposal other forms of receipt. Consider Extracts 5 and 6 below:

**Extract 5**
C7
5.19.92–5.30.0

1 Nur Right okay. (1.3) .h Shirley for what you’re telling me,
2 I-I can’t (0.3) pinpoint anything th–that’s worrying me
3 here:.
4 (0.4)
5 .hh so I think we’re okay to look after this at home:
6 Cal → yːeh.°

**Extract 6**
C2
2.59.0–3.02.0

1 Nur I don’t think you need to see anybody=
These extracts differ from those shown earlier, in that they illustrate the participant’s orientation to the disposition as requiring some form of response utterance. In Extract 5 the caller receipts the disposition with ‘yeh’ (line 6). In Extract 6 the disposition is receipted in overlap with the nurse’s prior turn with ‘okay’ (line 4), thus displaying two forms of receipt utterance typically observable in these data. In addition to these receipt forms, callers also have available another response token. Consider Extracts 7, 8 and 9 below:

**Extract 7**
C38
7.29.00-7.36.82

1 Nur .hh what↑ I think you need to do: the:n Cal
2 >if I can call you Ca[rl<
3 Cal [yes
4 Nur .h I think you need to make a routine appointment
5 with your gee pee.
6 Cal → rиght.

**Extract 8**
C10
3.26.44-3.32.20

1 Nur basically if yu-if the stinger was still in there
2 then you’d need to remove it,
3 Cal → rиght, [I’ll have a] good look at it in the minute then.

**Extract 9**
C47
2.28.49-2.31.01

1 Nur phone up the doctor on call now.
2 (.)
3 Cal → rиght[t, okay.

These extracts again illustrate the caller’s orientation to the production of the disposition as requiring a response utterance of some form. In Extract 7 on completion of the disposition the caller immediately produces a stand alone ‘right’ (line 6); in Extract 8, again on completion of the disposition, the caller produces ‘right’ (line 3), added to which is a further turn at talk, which relates directly to the nurse’s prior turn; and in Extract 9, following completion of the disposition and a micro pause, the caller produces ‘right’ (line 3) to which is
added ‘okay’. Whilst each of these turns begins with ‘right’, in Extracts 8 and 9 the caller does more with their turn.

I will now move to examine the structural organisation or shape and the sequential organisation or position of these phenomena in more detail to reveal why callers regularly do not acknowledge the production of the disposition, the meaning of non-response, what action is this phenomenon performing, and what are the consequences of its production.

Analysis

“Best to take him up to ay an ee:. (0.3)”: When silence isn’t golden
Silence is not a simple phenomenon. Sacks distinguishes between three types of silence – pauses, gaps and lapses – whose treatment is contingent on its placement in the talk (Sacks et al., 1974). Earlier in this chapter I provided examples of silence. Now I will examine their shape and sequential position in more detail.

Before embarking on an analytic interpretation of silences in this setting, I will provide a brief orientation to some aspects of the turn taking system, exemplified by Sacks et al. in their seminal paper (Sacks et al., 1974), and its relevance to this analysis. Participants in conversation routinely monitor one another’s talk for possible points of completion (Jefferson, 1973). It is at this point that transition from one speaker to the next becomes relevant and where, overwhelmingly, full turns and response tokens are placed. These points are referred to as ‘possible transition relevance places’ (TRP), ‘possible’ because listeners try to predict where a turn might end, and it only becomes an actual transition if the listener takes up speaking.

The concept of a place or point of transition conjures up the notion of a ‘space’ for transition. In conversation, these ‘spaces’ are routinely kept to a minimum or eliminated. Where these ‘spaces’ persist, their treatment is contingent on placement, which defines the descriptor. Briefly, an intra-turn silence becomes a pause, initially not to be talked in by others; a silence after possible completion of a turn is initially a gap and to be minimised; and an extended silence at possible turn completion may become a lapse. Gaps and lapses can be transformed into pauses by talk from the same person (creating an intra-turn pause), thus minimising the gap. Depending on phonetic structure, some ‘silences’ hold the speaker’s turn, whilst others are ‘trail-offs’ and open to turn transition (Local & Kelly, 1986). So, having illuminated the heterogeneous quality of silence, how is it made sense of by interactants? Well, first of all, for conversation analysts the meaning of ‘silences’ is derived from the emerging talk. In the following few paragraphs, drawing on the work of Davidson (1984) and Heritage (1984), I will show how hearers of silence typically treat its presence. This is most clearly demonstrated by examining responses to invitations/offers/requests and the like, which typically engender acceptance or
rejection. Pomerantz (1984) suggests there is an overwhelming preference for acceptance. Affiliative responses commonly occur ‘early’, i.e. immediately on completion or in slight overlap with the prior talk (Heritage, 1984, p. 273). See the extract below (Davidson, 1984, p. 116):

(20) [SBL, Tape 1, Conv. 5, p.2]
A: Well, will you help me [ou:t.
B: → [I certainly wi:ll.

In this extract A makes a request. Hearing possible completion after ‘me’, recipient B responds in the affirmative in overlap, thus minimising the transition ‘space’.

An acceptance not undertaken at possible turn completion or in overlap with any component which occurs after this point, or indeed ‘late’, is prefatory to rejection. See the extract below (Heritage, 1984, p. 274):

(20) (Her:O11:2:4:ST:detail)
H: I mean can we do any shopping for her or something like that?
→ (0.7)
S: Well that’s most ki:nd Heatherton .hhh At the Moment no:. because we’ve still got two bo:ys at home.

In this extract we can see an example of a disaffiliating response occurring ‘late’ following a silence. Not only are silences prefatory to rejection, but also they are treated by the first speaker as foreshadowing some difficulty. See the next extract below (Heritage, 1984, p. 273):

(22) (Levinson, 1983: 320)
C: So I was wondering would you be in your office On Monday (.) by any chance?
→ (2.0)
C: Probably not

In this extract we can see that the first speaker hearing silence as foreshadowing some difficulty produces a negative response. Thus, speakers
can be shown analysing a silence as prefatory to rejection (Heritage (1984) and can do something to revise or modify their first utterance to attract acceptance.

In summary, actioning an object such as an offer, request or a proposal, makes it sequentially possible for an acceptance or rejection (Davidson, 1984). Acceptance typically comes ‘early’, that is immediately on possible completion of the prior turn, or in overlap at possible completion of the prior talk. In contrast, rejection commonly occurs ‘late’ following a delay. So we can see here that silence is significant. Moreover, as prefatory to rejection, silence is attributable to someone, is meaningful for the interactants and has implications for ongoing talk.

I now move on to apply these observations to my central concern: receipting the disposition. The production of the disposition by the nurse represents a proposed course of action, and as such is an assessable object that requires uptake in the form of assent or acknowledgement (Pomerantz, 1984). Not doing this sounds like dissent, disagreement or rejection (ibid). I have shown that, typically in these data, the production of the disposition is followed by silence. This silence is not attributable to background noise or an inability to hear, but is attributable to the person whose next turn is projected – the caller. Furthermore, the nurse takes steps to prevent it happening, which not only illustrates how attributable it is, but also its meaning for the participants. Consider Extract 10 below in which 25-year-old woman (Call) telephones the helpline in the late morning concerned about a vaginal discharge. The extract is taken five minutes into a nine-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies followed by more problem-specific questions.

**Extract 10**

C32

5.20.93–5.46.68

1    Nur    Right so what I think you could actually do: then is to
2                        go and have a word with a chemist.
In Extract 10, following the production of the disposition which is grammatically and prosodically complete, have a word with a chemi::st. (line 2), silence ensues (1.0) (line 3). Chapter 5 showed how the disposition as well as hearable as a course of action, can also be heard as an assessment of the status of the caller’s concerns (Ch 5 p. 168). Taking this view, on possible completion, at a transition relevance place, a response might expectably be due (Pomerantz, 1984). However this is not what can be observed here. Rather the caller remains silent. Pomerantz argues that no “immediately forthcoming talk”, suggests a dis-preference towards the status of the disposition (Pomerantz, 1984). The action performed by the caller’s silence is displayed by the nurse’s next turn. Indeed it is oriented to as problematic by the nurse, and is consequential for the trajectory of the call.

On line 4 the caller produces in overlap with the nurse a minimal response token: ri:[ght. (I shall be examining in more detail such tokens later in the analysis). This suggests that both the caller and the nurse orient to the ‘space’ occupied by silence as something to be to be compressed, rather than loom large between them. Having gained the floor, the nurse proceeds to paraphrase the proposed course of action in the form of an increment: [just have a word with him=, (line 5), which seems to reinforce the disposition and introduce an element of informality to the proposed course of action. Added to this is a further increment, =an see if there’s anything he could suggest you could try:::. (lines 5-6) which is designed to elaborate that the purpose of the course of action is to determine whether the chemist has any
ideas about what the caller can do to manage their concern. We can observe here that the nurse is motivated to attend to the caller’s non-response, and to this end embarks on what Maynard and Frankel (2003) describe as “remedial action” which provides for a “subsequent version” Davidson (1984) of the course of action or disposition in the pursuit of acceptance. Faced with a further silence (0.4) (line 7), the nurse embarks on a complex multi-unit turn (lines 8-11), which seems to be attempting to deal with the inadequacy of the disposition whilst simultaneously appealing to an unspoken expectation of a diagnosis (see also Ch 5) difficult to know what it is (line 8) which is again receipted by the caller with silence (0.6) (line 12), following which the nurse first launches into care advice I think it might also be advisable f-yu- (line 14) which is then abandoned in favour of pursuing a history-taking question. This is notable given that for the disposition to be produced by the CAS, all the CAS prompted questions must have been completed, and suggests some difficulty with progressing the call swiftly to the next phase in the call, that of care-advice. Over the course of a series of turns responded to by the caller with silence, the nurse seems to attempt to deal with the inadequacy or problem with the formulation of the disposition. In an attempt to manage this, the nurse produces what Davidson (1984) describes as “subsequent versions” of the disposition or “chaining” a series of recommendations (Kinnell & Maynard, 1996), which provide for the next transition relevance place for the caller to make a response.

This extract illustrates silence is consequential for what gets talked about and the trajectory of the call. Where a response might be due by the caller on possible completion of the disposition, there is no “immediately forthcoming talk”, which suggests a dis-preference towards the status of the disposition (Pomerantz, 1984; Heritage 1984). The nurse is observably motivated to attend to the caller’s non-response and remedy it by producing an account for the disposition.

We can see similar features in Extract 11 in which a mother (Call) telephones the helpline in the late evening concerned about her 9-year-old who has a
swollen ankle. The extract is taken five minutes into a seven-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies followed by more problem-specific questions.

**Extract 11**
C52
5.38.61-6.14.

1. Nur okay () .hh I think it will be best to
2. take him up to ay an eee::.
3. → (0.3)
4. (one click of computer keyboard)
5. Cal [right°
6. Nur [cos I’m a little bit concer:ned about (0.2)
7. it could well be bru:ising.
8. → (0.2)
9. Cal ri:[ght°
10. Nur [erm:: (. but the fact that he ca:n’t stand on it,=
11. =and the swellings .hh a fair, way up,
12. → (0.4)
13. Nur the le:g hh.
14. → (0.2)
15. Cal ye:ah
16. Nur so:: I do feel-it m:ost probably will turn out-hopefully
17. just to be an ordinary sprai:n.
18. → (0.2)
19. Cal ri:ght
20. Nur erm but I think to be on the safe side
21. it would be best to get it checked over.
22. Cal ri:ght ok:
y.
23. Nur a:nd erm (0.2) they’ll most probably give you advice up
24. there but .h (0.2) what you can actually do is to help
25. with the swelling is to put something cold on it,
26. Cal yeah

In Extract 11 following production of the disposition which is grammatically and prosodically complete, take him up to ay an eee::.. (line 2), as seen in Extract 1 the caller can be observed to respond with silence (0.3) (line 3). Such a move by the caller, again rather than displaying acceptance or acknowledgement, of the disposition, instead exhibits rejection or disagreement (Pomerantz, 1984; Heritage 1984). The action performed by the caller’s silence is revealed by the nurse’s next turn, where it is oriented to as problematic by the nurse.
Following the caller’s silence (0.3) (line 3), the caller produces a softly uttered minimal response token: [right° (line 5) (I shall be examining in more detail such tokens later in the analysis) in overlap with the nurse. As seen in Extract 1 this suggests that both the caller and the nurse orient to this interactional ‘space’ as something to be reduced, and having gained the floor, the nurse proceeds to produce an elaborate multi-unit turn accounting for the disposition [cos I’m a little bit concer:ned about (0.2) it could well be bru:ising. (lines 6-7), which orients to the caller’s silence not as acceptance of the disposition, but as displaying trouble with it. As such the nurse can be observed orienting to it as requiring some form of “remedial action” (Maynard & Frankel, 2003), producing a “subsequent version” (Davidson 1984), which works to account for the proposed course of action and is specifically designed to deal with the prior announced disposition, in some way reinforcing it. Hearably grammatically and prosodically complete, this account is also receipted by the caller with silence (0.2) (line 8). Again the nurse orients to the silence as problematic, and in overlap with the caller’s quiet ‘right’ response, continues to provide an account for the disposition [erm:: (. ) but the fact that he ca:n’t sta:nd on it,=and the swellings .hh a fair, way u:p, (lines 10-11). Again although grammatically complete, the caller can be observed to respond with silence (0.4) (line 12). The nurse continues to orient to the caller’s silence as signalling trouble with the disposition and continues to account for it adding an increment the le:g hh. (line 13) which on completion is once more receipted with silence (0.2) (line 14). Following the caller’s minimal acknowledgement ye:ah (line 15), oriented to as insufficient for moving to the next phase in the call namely care advice, the nurse continues to produce a further account for the disposition which includes a hearably candidate diagnosis it m:ost probably will turn out-hopefully just to be an ordinary sprai:n. (lines 16-17), to which again the caller responds with silence (0.2) (line 18). On production of the acknowledgement token ‘right’ (line 19), ‘(right’ acknowledgements are examined later in this chapter), the nurse reiterates the disposition which is again receipted with ‘right’ and works to progress the call to care-advice and the nurse can be observed to
advise the caller what they can do to help the swelling (lines 24-25). In this extract as in Extract 10 the caller can be observed to receipt the disposition with silence, not only that, the nurses attempts to account for it over a series of turns, producing “subsequent versions” (Davidson 1984) which are also repeatedly responded to with silence.

To summarise, first callers can regularly be observed responding to the disposition with silence. That is where a response might be due by the caller on possible completion of the disposition, there is no “immediately forthcoming talk”, which suggests a dis-preference towards the status of the disposition (Pomerantz, 1984; Heritage 1984). Second it would appear that silence is remarkably consequential for what gets talked about and the trajectory of the call. It would appear that the nurse is motivated to attend to the caller’s non-response and remedy it by producing an extended explanation for the disposition (this topic is examined in more detail in Ch 5). Over the course of a series of turns responded to by the caller with silence, we can observe the nurse attempt to deal with the inadequacy of the disposition by producing what Davidson (1984) describes as “subsequent versions” of the disposition or “chaining” a series of recommendations (Kinnell & Maynard, 1996), which provide for the next transition relevance place for the caller to produce an acceptance. Notably these “subsequent versions” are also punctuated with further silences, and it is only when the caller produces the minimal acknowledgement ‘right’, that the nurse progresses the call to the next phase, that of care-advice.

Although in these data, silence is a more regular response by the caller to the disposition, there are features of the production of the disposition which attend to the caller’s possible response. Consider again Extract 12 in which a mother (Call) telephones the helpline in the early evening concerned about her 3½-year-old child’s rash. The extract is taken seven minutes into a nine-minute call, during which time the nurse (Nur) confirms routine demographic information
and asks general questions about medical history, medicines and allergies followed by more problem-specific questions.

**Extract 12**

C43  
7.46.08-8.15.03

1  Nur  Erm .h we would suggest though that i-if he’s getting any symptoms like itchi:ng: .h erm or it’s irritating him at a:ll to pop along to the pharmacist tomarro:w, and just to see whether they .h can suggest any[thing,= uho°°

2  Cal  =an antihistamine or any sort of crea:m.

3  (.)

4  Nur  but obviou:ly .hh be*r* er-eh-it would be a pharmacist and not their assistant because you can tell them about the ecze[ma and they can (find) some advice with tha::t.

5  Cal  [yeh°°

6  (0.5)

7  Nur  er but at the moment what >we would say<- because he’s so well in himself and there doesn’t seem to be any other:symptoms goi:ng on the:re .hh it’s a watch and wait re:ally.

8  (0.2)

9  Cal  carry on with the calpo::l,

10  (0.3)

What is interesting in Extract 12 is that on possible completion of the nurse’s turn construction unit (TCU) following pharmacist (line 3), and again following the increment tomarro:w, (line 3), where a response might expectably be due (Pomerantz, 1984), the caller ‘passes-up’ the opportunity to respond even quietly or in overlap with the nurse. This silence may seem somewhat innocuous; however, it is attributable and has meaning for the nurse and caller. Typically, silences are oriented to as rejection implicative (Heritage 1984; Davidson, 1984), by which I mean that the hearer by responding with no speech is displaying that something about the prior turn-at-talk is in some way an unstated or as yet unstated disagreement (Pomerantz, 1984). One might argue that in this extract the caller was not given the interactional ‘space’ to respond. This is entirely relevant. Properties of a turn may be designed to anticipate the recipient’s silence (Jefferson, 1973). As such, additional items of talk not necessary for the understanding of the turn may occur after the production of the problematic component, with the effect of lengthening the turn past possible completion and avoiding a silence (ibid).
This is cleverly accomplished here by the nurse, who in the production of the turn final component: pharmacist, (line 3), which is grammatically complete, displays the turn as incomplete, exhibited by the upward intonation of the final item. Indeed, the nurse swiftly adds a temporal dimension not necessary for the understanding of the course of action, with the post-completion increment: tomorrow (line 3), and then quickly goes on to produce more detail about what the caller should do on seeing the pharmacist: just to see whether they can suggest anything, (line 4). It would appear that the nurse oriented to the production of the disposition as potentially problematic and built her turn to ‘skate-over’ the transition relevance place, producing a “tag positioned component” (Jefferson 1973 p. 73), thereby avoiding a response from the caller and minimising disruption anticipated by rejection.

In summary, two phenomena can be observed in this extract. First, the caller rather than producing an acknowledgment token even in overlap with the nurse on possible completion of the disposition, ‘passes-up’ the opportunity to respond, thereby remaining silent, and displaying an orientation to the disposition as somehow problematic (Pomerantz, 1984). Second the nurse orients to the disposition as possibly problematic. Faced with this predicament, the nurse designs the disposition to ‘skate-over’ the possible transition relevance place, using “tag-positioned components” (Jefferson, 1973; Davidson, 1984) thereby minimising the opportunity for the caller to respond and, more importantly, avoiding explicit rejection in the form of a silence. Davidson (1984) suggests that components occurring after possible completion of a turn may be providing a “monitor space” (p. 117), which can be examined for its acceptance/rejection implicativeness, and given the absence of a response immediately following possible completion and in the “monitor space”, then the speaker may take this to be “rejection implicative” (p. 117). Such displays of the recipient having trouble with the utterance so far, may cause the speaker to attempt to deal with the “possibility of rejection” (p. 117), and latch onto the components of the monitor space a “subsequent version” of the utterance. We can observe similar phenomena here as nurses not only
compress the transition relevance place but also provide “subsequent versions” or additional information in what appears to be anticipation of rejection.

Consider again Extract 13 in which a mother (Call) telephones the helpline in the late evening concerned about her 2-year-old who has fallen off the sofa. The extract is taken six minutes into a ten-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies followed by more problem-specific questions.

**Extract 13**

C50

6.44.20-7.26.61

1  Nur I think we ought to just get her checked over,
2    at the >hospital< only because of that short episode
3    she ha:d.
4 (0.3)
5  Nur tch o:ka:y. just to be double sur-= I mean she sounds
6    fi:ne .h doesn’t seem to be any problem whatsoever, (.)
7 (0.2)
8  Nur .hh but she’s only two::.
9 (0.2)
10 Nur and generally with children it’s (. ) difficult to:
11    you know erm,
12 (0.7)
13 Nur tch .hh sor-you know-t-thoroughly assess them,
14    I’m just slightly concerned,
15    .hhh that initially a little bit of floppiness she ha:d,
16 (0.3)
17 Nur .h immediately afterwards=okay but erm it may only have
18    lasted for a couple of sec:nds .hh o:ka:y but erm .h I-
19    I’d feel happier if you just got her checked over up at
20    the at an ee:.hh >okay< I me-I’m sure they’ll just
21    check her over and they’ll give you probably a l_little
22    card,
23 (0.3)
24 Nur .h just to be watching her,
25 (0.2)
26 Nur overni:ght,
27 (.)
28 Nur o:ka:y.
29 (0.2)
30 Nur → .hhh and that what it is they advise you=just she needs
31    closer observation for twenty: four hours, (0.5)
In Extract 13 we can observe again that on possible completion of the nurse’s turn construction unit (TCU) following over, (line 1), and again following the increment at the >hospital< (line 3), where a response might expectably be due (Pomerantz, 1984; Heritage, 1984), the caller ‘passes-up’ the opportunity to respond even quietly or in overlap with the nurse.

Once more the properties of the nurses turn work to anticipate the caller’s silence (Jefferson, 1973), ‘skating-over’ the possible TRP following over, (line 1), and again following the increment at the >hospital< (line 3). This is accomplished by the nurse, who produces additional items of talk or “tag-positioned components” (Jefferson 1973 p. 73) as seen here. Because of that short episode she had (lines 2-3) which occurred after the production of the problematic component, and are arguably not necessary for the understanding of the prior turn, but have the effect of lengthening the turn past possible completion or ‘skating-over’ the possible transition relevance place and avoiding a silence (ibid). Jefferson (1973) suggests that “tag-positioned components” can lengthen an on-going utterance, even though a possible complete utterance has been produced, where if were it to have stopped, a silence might have occurred. Taking this view, arguably “tag-positioned components” work to avoid silence whilst simultaneously providing a “monitor space” which can be observed for acceptance/rejection, and where rejection is heard, a subsequent version can be produced. In these data we can observe nurses similarly designing the disposition turn with “tag-positioned components” as a skilful technique for avoiding rejection.

To summarise, extracts 10 and 11 reveal that callers regularly ‘pass-up’ the opportunity to respond to the production of the disposition, quietly or even in overlap with the nurse, thereby remaining silent. In addition nurses observably design the disposition with “tag-positioned components” which work to ‘skate-over’ transition relevance places thus compressing the space for the caller to respond and avoiding rejection. ‘Skating-over’ the transition relevance place on possible completion of the disposition turn, seems to attend to the potential for
a dis-preferred response from the caller, at that point, and enables the nurse to produce accounts or “subsequent versions” for the disposition before the caller is almost ‘invited’ to respond. The notion of turns being reciprocally designed to invite callers to respond can be observed when we reconsider these extracts.

I have already highlighted that nurses can be observed ‘stretching’ final turn components. Jefferson (1974) suggests that speakers have the capacity to inspect and respond not only to whole words, but also incomplete utterances and initial sounds. Taking this view, Davidson (1984) argues that ‘stretches’ of final turn components at a possible transition relevance place, provide for another type of “monitor space” (p. 119) which can be scrutinised for a response, and on its absence, provides for a “subsequent version”. See fragment below:

*SBL, Tape 3, Conv. 4, p.3
Cookout 14
Davidson (1984 p. 120)

1 FIRST VERSION A: Why don’t we get together ↑Fri:dee
2 MONITOR SPACE ni:ght,=
3 SUBS. VERSION =an’ have a cookout er sumin
4 (.)
5 RESPONSE B: F:ridden ni:ght. [hh
6 A: [see see (watch) up
7 on yer schedule
8 (0.5)
9 B: Fri::day ni::ght.
10 A: [(Ya:h) we thought thad
11 be °a good (night.° Euh
12 do tha:t).°
13 B: °Friday night.°

In this fragment in line 1 A proposes to B that they get together. Davidson (1984) suggests the final turn component at possible completion, ni:ght, (line 2), represents a “monitor space” which can be observed for a response. Absence of a response is oriented to as rejection-implicative, and upon completion of this stretched component A latches a “subsequent version” of the offer (line 3), and as such displays that acceptance is preferred. Stretched final components can also be followed by a micro pause or silence.
Similar features to those exhibited by Davidson can be observed in these data, whereby the nurse stretches the final turn component in the delivery of the disposition at a possible transition relevance place. This begs the question about what stretching the last item accomplishes in this setting.

Consider again extract 14:

**Extract 14**

C32
5.20.93-5.46.68

1    Nur   Right so what I think you could actually do: then is to
2       go and have a word with a chemist.
3       (1.0)
4    Cal   right
5    Nur   ]just have a word with him=an see if there’s anything
6        he could suggest you could try:

In Extract 14 on possible completion of the disposition a stretched final component can be seen at a possible transition relevance place chemist. (end of line 2). On first inspection this might seem unremarkable however stretching the final component of the disposition operates on a number of levels. First Jefferson (1973) suggests that the properties of a turn may be designed to anticipate that the recipient might not speak. Thus “tag-positioned components” work to elongate an utterance, which were it to have stopped a silence might have occurred (ibid). Taking this view, stretching the final component of a turn displays the nurse as orienting to the disposition as potentially receiving a dis-preferred response. By stretching the final component, the nurse attempts to forestall the dis-preferred response by lengthening the turn, she anticipates or projects the caller to be on the way to producing.

In addition stretching the final turn component provides a “monitor space” (Davidson 1984), for the observation of a response, whilst simultaneously expanding the space for a response by the caller, even in overlap with the nurse. In this instance however, the caller refrains from speaking and a silence
ensues (line 3). This is oriented to by the nurse as displaying trouble with the disposition who initially overlap with the caller, embarks upon an elaborate multi-unit turn or “subsequent version” of the disposition (lines 5-6). What this illustrates is that by stretching the final turn component, the nurse skillfully designs the disposition final turn component in anticipation of the caller’s rejection.

This is of interest here because it displays the nurse’s sensitivity to the possibility of the disposition being responded to by the caller with silence and thereby rejected.

These phenomena can also be observed in extracts 15 ans 16:

**Extract 15**
C52
5.38.61-6.14.

1 Nur okay () .hh I think it will be best to
2 → take him up to ay an eee::.
3 (0.3)
4 (one click of computer keyboard)
5 Cal [right°]
6 Nur [cos I’m a little bit concer:ned about_ (0.2)
7 it could well be bru:ising.

**Extract 16**
C43
7.46.08-8.15.03

1 Nur Erm .h we would suggest though that i-if he’s getting any
2 symptoms like itchi:ng: .h erm or it’s irritating him at
3 → all to pop along to the pharmacist tomorrow:W,
4 and just to see whether they .h can suggest anything= 
5 Cal [uh°°]
6 Nur =an antihistamine or any sort of crea:m.

In Extract 15 the nurse stretches the final turn component of the disposition ay an eee::. (line 2) and in Extract 16 the nurse ‘stretches’ the final turn component tomorrow:W, (line 3). Again this practice works to create what Davidson (1984) refers to as a “monitor space” which first expands the space in which the caller might respond and second can be inspected for acceptance.

When this is not forthcoming, the nurse can be observed producing a
“subsequent version” or “chain” of recommendations (Kinnell & Maynard 1996) in the pursuit of acceptance. These data exhibit the caller as an ‘active’ recipient of the CAS output. By deftly remaining silent or passing-up the opportunity to respond, at precisely the moment of possible speaker transition, the caller displays a commanding posture capable of influencing the work of the nurse and thereby the trajectory of the call.

In summary, I have established that silence, in no small way, is one means by which the caller responds to the disposition. I argue that responding to the disposition is far from a straightforward matter; rather displays of understanding or acceptance is a delicate, collaborative and mutable creation. Remarkably, callers can regularly be observed responding to the disposition with silence, and ‘pass-up’ the opportunity to speak, thereby orienting to it as problematic. This is somewhat troublesome for a telephone helpline, the chief output of which is the disposition or course of action the caller may take to manage their concern. The disposition, as produced by the nurse, is an assessable object, and as such is response implicative by the caller (Pomerantz, 1984). No uptake or response is therefore attributable to the caller as the relevant next speaker. Refraining from producing an acknowledgement token is subtly consequential for the trajectory of the call, insofar as it engenders grand accounting by the nurse for the disposition, which infers that it needs some ‘convincing work’ in the pursuit of acceptance. Caller’s adroit handling of silence exhibits their unique capacity to display misalignment, rejection or disagreement with the disposition, the force of which has complex consequences for the work of the nurse and trajectory of the call. As such, silence is a dynamic ‘power pack’ oriented to by the nurse as displays of misalignment, rejection or disagreement.

Not only do callers regularly respond to the disposition with silence and pass-up the opportunity to speak, but nurses can be observed to design the disposition turn to anticipate and head-off rejection. This is evidence in the use of “tag-positioned components” which work to ‘skate-over’ transition relevance places thus compressing the space for the caller to respond. ‘Skating-over’ the transition relevance place, on possible completion of the disposition turn,
seems to attend to the potential for a dis-preferred response from the caller, at that point, and enables the nurse to produce accounts for the disposition in the run-up to the caller being 'invited' to respond.

The notion of 'inviting' the caller to respond was explored through the use of stretched disposition final turn components which rather than compressing the space for the caller to respond, works to open it up whilst simultaneously providing a “monitor space” (Davidson 1984) which can be inspected by the nurse for acceptance or rejection.

Silence is an influential ally for the caller which is delicately positioned and is observably consequential for the trajectory of the call and the work of the nurse. Its dominance not only on production of the disposition but following “subsequent versions” (Davidson, 1984) of the disposition or “chaining” of recommendations (Kinnell & Maynard, 1996), suggests that there is a misalignment between the CAS output and caller expectation.

Having established that the disposition is regularly responded to with silence, which is attributable to the caller and is meaningful to both the nurse and caller, I will move in the following two sections to examine what happens when callers do not remain silent. The next section will examine the acknowledgement tokens ‘yeah’ and ‘okay’, and the final section will examine the token ‘right’. I will not be examining the tokens ‘Mm’ or ‘No’, because they are so rare in these data.

“Yeh” and “okay”: harmony or discord?

Possible completion of a turn opens up a ‘space’ for speaker transition (Sacks et al., 1974). This may be in the form of a response which may comprise a single utterance or a series of utterances. Speakers may, in fact, produce cues as to the possible locations of such utterances (K. Drummond & R. Hopper, 1993b). At what Drummond describes as a “relevancy rich” moment, speakers may select from a number of response tokens. As mentioned at the beginning
of this chapter, normatively a single utterance may be an unmarked response token such as *Mm hm, yeah, right and okay* (Gardner, 2007; Heritage & Sefi, 1992), which are characteristically continuative (Jefferson, 1983b; Schegloff, 1982) or can acknowledge the speaker's right to hold the floor, implying that the respondent is waiting for the speaker to finish (Kinnell & Maynard, 1996; D. Silverman & Peräkyla, 1990). Alternatively, speakers may select a marked response token such as *‘oh right’* (Heritage & Atkinson, 1984; Heritage & Sefi, 1992), which treats the prior talk as new, or a *partial repeat* of the prior turn (Schegloff, 1996), which conveys confirmation of the prior talk and asserts the speaker as having epistemic authority over the matter. Responses therefore perform a number of complex actions: they display something about the stance being taken by the participant to the prior talk (Jefferson, 1973) and their meaning is derived from the emerging talk (Gardner, 1998, 2007) and can forecast subsequent actions (K. Drummond & R. Hopper, 1993b). However, they do not indicate how the recipient is accepting the prior talk, and in particular, for this study, whether receipts of the disposition demonstrate if what is being heard is usable and informative and is thus fitted to the needs of the caller and that the caller will act on the advice.

This section will examine the sequential location of response tokens, their intonation, action, and the consequences of their production for the trajectory of the call. Consider again Extract 16 in which a 33-year-old woman (Cal) telephones the helpline in the evening with concerns about a headache. The extract is taken five minutes into an ten-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions asked about medical history, medicines and allergies, followed by more problem-specific questions.

**Extract 16**  
C7  
5.19.92–5.30.01  
1  Nur  Right okay. (1.3) .h Shirley for what you’re telling me  
2  I–I can’t (0.3) pinpoint anything th–that’s worrying me
On line 5 the nurse produces the disposition: .hh so I think we’re okay to look after this at home:. Orienting to the nurses turn as intonationally and grammatically complete, the caller treats the disposition as requiring a response. This is produced on possible completion of the nurse’s turn at a possible transition relevance place (end of line 5) in the form of a downwardly intoned response: y:eh.º (line 9). Gardner (1997) suggests that ‘yeah’ claims unproblematic understanding of the prior talk. In fact, there is no indication of a lack of understanding in this extract. However, in relation to acceptance of the nurse’s proposal, Stivers (2005) argues that response tokens such as ‘yeah’ display neither agreement nor resistance to the prior turn, but work instead as a weak acceptance (Stivers, 2005) and as such are rejection-implicative (Davidson, 1984).

Taking the view that the action of the response is derived from emerging talk, it is interesting to note here the nurse’s orientation to the caller’s response and its consequences for the interaction. Consider again Extract 17 below:

**Extract 17**

C7
5.30.01-5.42.27

7 → (.)
8 Nur it sounds like you’ve got a bit of er er a temperature
9 [click
10 of computer keyboard
11 Nur there a bit of erm you know may a bit of a virus=
12 =but obviously I can’t diagnose for you,
13 (.)
14 Cal yea:h.
15 (.2)
16 Nur but if I run through some homecare advice for you=
17 =see if we can look after this, at home,†
18 Cal yea:h.
In Extract 16 the caller’s response (line 6) is followed by a silence (seen in Extract 17, (line 7), suggesting that the nurse is orienting to it as a source of trouble (Davidson, 1984; Heritage, 1984; Pomerantz, 1984). This becomes apparent as the nurse embarks on an elaborate account and diagnostic classification (lines 8-11) by way of an explanation for the disposition.

To summarise this extract, it is noticeable that the caller’s receipt of the disposition (Extract 16, line 6) is observably monitored by the nurse for acceptance, which is not displayed by the caller. Rather, the caller responds with ‘yeh’, which is oriented to by the nurse as a weak acceptance. The utilisation of such devices reflects that of Mycroft (2007) who examined receipts of weight management advice across a range of outcome including weight loss, gain or maintenance, and works to set up a “subsequent version” (Davidson, 1984) of the assessment or, as seen here, an account for it over a series of turns. This not only displays the nurse’s attention to the caller’s receipt, but also over a series of turns she/he pursues acceptance and illustrates how receipts in this setting are uniquely consequential for the trajectory of the consultation. However, ‘yeh’ receipts are not the only response tokens typically produced in this setting. Consider again Extract 18 below:

Extract 18
C2
2.58.99.-3.02.05

1   Nur  I don’t think you need to see anybody
2   at the moment (.)=
3   Nur  ={okay?=}=
4   Cal → [(Mkay.)°°

In this extract the nurse produces the disposition: I don’t think you need to see anybody (line 1), to which, in a rush, is added an increment: at the moment (.)= (line 2). The first observation to note is that on possible completion of each of these turns (end of line 1, end of line 2) the caller does not, even in overlap, acknowledge the disposition or its temporal character. The
nurse latches the increment (line 2) with a tag-positioned, upwardly intoned: 
= [okay, (line 3), which works to directly seek alignment or agreement with the 
nurse’s proposition (Stivers, 2006), while in overlap the caller produces a 
downwardly intoned ‘okay’: [(Mkay.)° (line 4). The item ‘okay’, not unlike 
‘right’ responses, operates on a number of levels: it can display the caller’s right 
to accept or reject [the disposition] and might conceivably appear to display 
acceptance and acquiescence (Skelton et al., 2002). However, Stivers (2005) 
suggests that it is a weak form of acceptance and may indeed only be offering 
acknowledgement. It can also be used to constrain client talk in institutional 
settings, bring back talk to the topic at hand and signal a topic shift (Beach, 
1995). In addition, ‘okay’ can be used to disattend to talk which might be off 
topic, in favour of moving on to official business (ibid). Schegloff (2007) argues 
that ‘okay’ can serve as possible closure where the previous speaker’s turn is 
dis-preferred. Aligned with this and Gardner’s view that the meaning of 
response tokens is derived from the emerging talk (Gardner, 2007), it is 
reasonable to assert that in this extract the nurse orients to: [(Mkay.)° (line 4) 
as a weak response to the ‘disposition’. Again, if we take the view that that the 
action of the response is derived from emerging talk, consider Extract 19 
(continued from the prior extract):

Extract 19
C2
3.02.05-3.08.77

5  Nur → =.h if you ha:ve erm:: .hhh (0.1
6  Nur → her: fractured a rib at all
7  then there's no not a lot they can do,
8  Nur  [really(.)

Here we can observe the nurse’s orientation to the caller’s weak response 
(Extract 18, line 4). The nurse, rather than moving to provide the caller with 
advice and information about how to care for the injury themselves (Ch 5 
extract 33 p 185 line 20), instead produces an account for the disposition (lines 
5-7), which acts as a vehicle for a candidate diagnosis (Ch 5 p 162). Thus, the
caller’s weak acceptance of the disposition has derailed the plan, and thus the trajectory of the call as set out by the CAS, a feature seen in other calls.

In summary, it is noticeable that the caller has at their disposal a range of response tokens to display their orientation towards the disposition. Unmarked acknowledgements, although able to operate on a number of levels in the data seen here, typically do not display acceptance or concordance and lead to accounts, which work to temporarily close off a topic shift from the production of the disposition to the production of care advice.

However, as we have seen previously, unmarked acknowledgements are not the only responses available to the caller.

“Right” of passage or do not pass ‘go’

So far I have shown that callers to NHS Direct respond to the production of the disposition with silences and unmarked acknowledgements. In this section I will examine ‘right’ responses. ‘Right’ responses also come under the rubric of unmarked acknowledgements. However, I am examining them separately because in contrast to other unmarked acknowledgments, they do not only occur as isolated or stand alone receipts, but may preface an expanded turn by the caller, which has interesting consequences for the shape of the call. 'Right' responses have received a good deal of attention in the literature. 'Right' has what Gardner (2007) describes as “rich semantic content”, in that it has fifty-three entries in the Shorter Oxford English Dictionary (Gardner, 2007) and is typically used to mean that that something is ‘correct’ or ‘true’.

With regard to the sequential positioning of ‘right’, it is typically located in response to a prior turn, and in terms of analytic interpretation, McCarthy (2003) proposes that ‘right’ receipts can simultaneously operate on more than one plane – confirming receipt of prior information; signalling pre-closure or a change of activity; a ‘let’s move on’ or ‘switch-off signal’ Stenström (1987); a
‘back channel’, (Yngve, 1970) or ‘continuer’, (Schegloff, 1982), often placed at a particular point in the course of an ongoing turn. As such, it displays hearership, and even though a transition relevance place has been reached, does not require the prior speaker to relinquish their turn. Furthermore, ‘right’ can work to confirm the correctness of the prior talk, or display to the prior speaker recognition that what has just been said is linked to talk elsewhere and is thus an “epistemic dependency marker” (Gardner, 2007), a phenomenon also observable in the work of Heritage and Sefi (1992), who also describe ‘oh right’ as a marked acknowledgement that conveys acceptance. As I have stressed previously, for conversation analysts the meaning of responses such as ‘right’ is derived from the emerging talk. With this in mind, this section will examine the sequential location of ‘right’ responses, intonational contour, the action being performed, and the consequences of its production. In have provided three extracts containing ‘right’ responses, each one of which is slightly different.

To begin, consider Extract 20 below in which a 69-year-old male (Cal) telephones the helpline in the morning with concerns about blood in his semen. The extract is taken seven minutes into an eight-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies, followed by more problem-specific questions.

Extract 20
C38
7.28.99-7.36.66

1 Nur   .hh what↑ I think you need to do: the:n Cal >if I can
2 call you Cal<rʌl<
3 Cal   [yes
4 Nur   .h I think you need to make a routi:ne appointment with
5 your gee pee::.
6 Cal → ri:gh[t.

On line 4 the nurse produces the disposition: I think you need to make a routi:ne appointment with your gee pee::: Grammatically and intonationally complete, the caller treats the nurse’s turn as requiring a response, and at a possible transition relevance place (end line 5) the caller
produces an upwardly intoned: *right* (line 6), which works to confirm and accept receipt of the prior information. Indeed, in Extract 21 below, which continues on from Extract 20, the caller’s response is treated as acceptance of the proposed course of action by the nurse, who swiftly reinforces it (line 8) as something that needs to be checked out routinely (line 11), as opposed to as an emergency.

**Extract 21**

7 Nur → [it’s *definitely* something that you need
to get checked out,]
9 Cal ye:h.
10 Nur → .h okay .h but I would say a routine
appointment
(0.2)
13 Cal *right.*
14 Nur → so:.h erm er* (0.7) er* just get on the
phone I-I wouldn’t-the Monday would be [the
16 Cal [ye:h. Sure
17 Nur nearest wouldn’t it=because here we
18 Nur are Saturday af[ternoon=
19 Cal [.hh that’s ri:ght (. ) ye:h, 
20 =but if the symptoms worsen persist worsen or
21 any new ones
22 Nur deve:lo:p .h then either give us a ring back
(0.3)
24 Nur or contact the out of hours surgery for your gee
pee::;
26 Cal ri:ght=
27 Nur =and erm (0.2)
28 Cal ye:h
(0.2)
30 Nur er* a-you know an act accordi[ng to whatever message
31 Cal [yeh
32 Nur [they they leave on there=is [that alri:::gght?
33 Cal [okay [ye:h [yeah that’s okay
34 Nur → Okay [thanks for that then,
35 Cal [(ss very much)
36 Cal Take care
37 Nur Thank you bye bye
38 Cal bye bye

What is interesting in this extract, unlike those seen previously, is that following ‘right’ (Extract 20 line 6) rather than embarking on an elaborate account for the disposition, the nurse produces a turn designed to reinforce the disposition by proceeding to tell the caller how and when to contact his GP (lines 14-17) and what to do if the symptoms get worse in the meantime (lines 22-32), before
proceeding towards the closure of the call (lines 34). In this extract ‘right’ seems to obviate the need for complex accounting for the disposition and works instead to truncate the call.

Consider also Extract 22 in which the wife of a 60-year-old male (Call) telephones the helpline in the late afternoon concerned that her husband has been stung by a bee on the back of the neck. The extract is taken three minutes into a five-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies, followed by more problem-specific questions.

**Extract 22**

C10
3.26.46-3.32.31

1 Nur basically if yu-if the stinger was still in there
2 then you’d need to remove it,
3 Cal → ri:ght,
4 [I’ll have a] good look at it in the minute then.

In Extract 22 the nurse embarks on producing a course of action: you’d need to remove it (line 2), which is hearable as conditional upon the presence of a sting, marked by the use of the proposition ‘if’: if the stinger was still in there (line 1). Although the nurse does not explicitly inform the caller she can manage the problem at home, implicit in the design of the turn, signalled by the pronoun ‘you’: you’d (line 2) is something that the caller can do for themselves, as opposed to any other person, for example a doctor: you’d need to remove it, (line 2). Grammatically complete, but intonationally incomplete, the caller nevertheless treats the nurse’s turn as requiring a response, and at a possible transition relevant place (end line 2) the caller produces a marked upwardly intoned acknowledgement ri:ght. (line 3).

Here ‘right’ works to confirm receipt of the information provided by the nurse, but also marks transactional or topical boundaries, where the nurse and caller
coordinate to agree a course of action (McCarthy, 2003). This is reinforced by the caller producing an emphatic confirmation of convergence (ibid), designed to be heard as a tagged pledge to have a ‘good look’: [I’ll have a] good look at it in the minute then (line 4). The extra material, though not necessary for understanding, appears to strengthen and support the force of the response token: ri:ght. (line 3). Collectively, these two TCUs work to convey agreement with the proposed course of action. The force of the standalone item: ri:ght. (line 3), although complex in its interpretation, can be considered in relation to its absence, which would make more ambiguous the caller’s pledge and thereby acceptance. Nonetheless, the action of the ‘right’ and tag utterance is revealed by the emerging talk of the nurse. Consider Extract 23 (continued from Extract 22):

Extract 23
C10
3.32.31-4.28.82

5 Nur → [oka:y ]
6 (.)
7 Nur → an if it- (0.2) if there is a little bit of black in-still
8 in there:
9 Cal ye[s
10 Nur ] just scrape it with the area of a firm object=
11 =not a .h twee:zers or any[thin
12 Cal ] no
13 Nur .h because if you squee:ze it then: more sting will be
14 released
15 Cal right
16 Nur .h oka:y
17 Cal oka[y
18 Nur ] [erm thi-they can actually cause a local pain the
19 redness and the swelling for at least forty eight hour:
20 Cal yeah
21 Nur .h oka:y .h er:m:
22 (0.9)
23 Nur .h you know you ca:n sort of apply: crushed ice to take
24 swelling do:wn:
25 Cal any yeah
26 Nur .h er but just be a bit cautious about that cause
27 sometimes it can be a numb area and you might not realise
28 what damage you’re doin
29 Cal yeah
30 Nur .h (0.4) oka[y erm:
31 Cal okay
32 (.)
33 Nur → .h an if it gets really swollen and it gets >really red<
34 → then you can take er an antihistamine,
35 Cal oka:y I think he’s already-I’ve just got back-I think
36 he’s actually already taken one=
37 Nur =oh that’s fi:[ne=
Chapter 6 Assent or dissent: receipting the disposition

In Extract 23, line 5 the nurse produces ‘okay’: [oka:y in overlap with the caller’s pledge (Extract 22, line 4). Although the use of ‘okay’ by the nurse is not the focus of this analysis, it is worth drawing attention to its use here. As I have stated previously, ‘okays’ are typically adaptable and can variously be used to constrain client talk in institutional settings, bring back talk to the topic at hand, and signal a topic shift (Beach, 1995). In addition, ‘okay’ can be used to avoid talk which might be off topic, in favour of moving on to official business (ibid). Taking this view, the nurse can be observed constraining and avoiding the caller’s pledge, by talking over it and signalling a topic shift. This is realised over a series of turns as the nurse expands on the course of action (lines 7-26) before embarking on care advice (line 34) and the closure of the call (lines 44-48). Again in this extract, we can see that the caller’s ‘right’ response seems to obviate the need for complex accounting for the disposition and works instead to truncate the call.

This extract illustrates how this caller’s response (Extract 22, line 3) is more than a back channel acknowledgement (Yngve, 1970) or continuer (Schegloff, 1982). As McCarthy (2003) suggests, such responses are “indexes of engaged listenership”. Here we can see the caller signal to the nurse attentiveness and “affective convergence” (ibid). In other words, the caller’s ‘right’ acknowledgement works to keep the disposition or course of action channel open. By adding additional components that display a commitment to the course of action, the caller advances the sequence in which it participates whilst simultaneously having the capacity to contract the consultation by keeping it on topic. Not only is this is a very neat piece of footwork in accomplishing the progression of the call, but also it is the caller’s footwork.
In the final extract in this section, a 20-year-old female (Call) telephones the helpline in the late evening concerned about stomach cramps. The extract is taken 2 ½ minutes into a three-minute call, during which time the nurse (Nur) confirms routine demographic information and asks general questions about medical history, medicines and allergies, followed by more problem-specific questions. Again, we can see that the caller produces a marked acknowledgement of the disposition (line 3).

**Extract 24**

C47  
2.28.49-2.31.01

1 Nur phone↑ up the doctor on call now
2 (.)
3 Cal → riːght, okay.

As seen in the previous extract, in Extract 24, the caller treats the production of the disposition (line 1) as making a response relevant and delivers on possible completion of the nurse’s turn with a minimal upwardly intoned response: riːght. (line 3) accompanied this time by: okay.= (line 3). As mentioned earlier, ‘right’ receipts can simultaneously operate on more than one plane (McCarthy, 2003). In this extract ‘right’ is designed to be heard as not only receipting the disposition or course of action, but also displaying acceptance (Heritage & Sefi, 1992), and ‘okay’ works to reinforce this acknowledgement by signalling relevance to next position matters (Beach, 1993). Indeed, Beach (1993) suggests that ‘okay’ has projective consequences and displays that the way is open to what is deemed relevant through subsequent turns. ‘Okay’, therefore, is pivotal in the progressivity of the talk, and thus shapes next-positioned activities. With this in mind, consider Extract 25 (continued from Extract 24):

**Extract 25**

C47  
2.30.01-3.04.29

4 Cal → riːght, okay.
In Extract 25, in overlap with the caller’s: right, okay. (line 4), the nurse treats the caller’s response as sanctioning the course of action to call a doctor, and swiftly embarks in overlap (line 5) to detail how this might be accomplished by the caller (lines 5-11) before proceeding to inform the caller about what to do if there is a problem accessing the doctor (lines 16-24) and moving towards closing the call (line 34-39). The force of ‘right’ may also be considered by its absence. I have previously shown the interactional consequences of standalone ‘okay’ responses to the disposition and subsequent accounting practices. In this extract, however, we can observe the nurse reinforcing the disposition, rather than accounting for it. Thus, ‘right’ has a different set of implications for the course of the call.
In summary, in these data, acknowledgements such as those seen here work typically to foster the progressivity of the call, by signalling attentiveness, “affective convergence” and “engaged listenership” (McCarthy, 2003). In other words, the caller’s ‘right’ acknowledgement works to keep the course of action channel open, whilst simultaneously having the capacity to contract the consultation by keeping it on topic, by obviating the need for accounting.

So far I have shown that callers to NHS Direct respond to the production of the disposition with silences in the form of silences which signal trouble with the prior talk (Atkinson & Heritage, 1984; Davidson, 1984; Heritage, 1984; Pomerantz, 1984), and unmarked acknowledgements, a finding revealed by Mycroft (2007) who examined receipts of weight management advice across a range of outcome including weight loss, gain or maintenance, and which signal weak acknowledgement (Stivers, 2005). Both are typically followed by explanations in the form of accounts for the disposition, which may include diagnostic classification (see also Ch. 5 p. 160-164). In contrast, ‘right’ responses characteristically signal a topic shift (Gardner, 2007) or ‘let’s move on’ (Stenström, 1987), a consequence of which is the reinforcement of the disposition or augmented care advice by the nurse, which by avoiding the need to account works to truncate the call.

In an examination of troubles talk, Jefferson and Lee (1981) suggest that “asynchrony” between the troubles teller and the recipient – and the “sequential prematurity” of the production of advice, brought about by the absence of a “work-up” component – might account for resistance to advice. Cameron Moreover, Silverman (1997, p. 125) proposes that clients’ reception of advice is affected by the conversational environment in which it is delivered, and that marked acknowledgements by the client are strongly correlated with attempts to elicit the perspective of the client prior to the delivery of advice; in contrast, minimal or unmarked acknowledgements are typically produced when there has been no attempt to elicit the concerns of the client. Across the NHS Direct data, the callers’ concerns were always elicited prior to the production of the
disposition-as-advice. Nevertheless, the data show canonical responses to the disposition-as-advice as silence and the unmarked acknowledgements ‘yeh’ and ‘okay’ and right responses. A question arising from this observation is whether callers’ receipts are affected by the inferred urgency or status of their concern.

Big sick, little sick: when no news is bad news

As mentioned previously, there is a wide range of possible CAS dispositions that are not confined to accident and emergency, a GP or home care, but includes speaking to a chemist, midwife, health visitor, social worker, police officer, or dentist to name a few. I have shown the ways in which callers typically receive the disposition. Here, prompted by the work of Silverman (1997), I will examine whether the callers’ responses vary depending on the essential meaning of the disposition and the urgency inferred by it. To begin I have outlined in Table 2 the frequency of response types in relation to the disposition. However, again, I will stress that this is purely illustrative and by no means engages with the current discussion about combining conversation analytic findings with quantification (see p. 205).

Table 2: Disposition and Receipts

<table>
<thead>
<tr>
<th>Disposition</th>
<th>Silence</th>
<th>Yeh/Okay</th>
<th>Right</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Care</td>
<td>10 (42%)</td>
<td>12 (50%)</td>
<td>2 (8%)</td>
<td>24 (43%)</td>
</tr>
<tr>
<td>GP</td>
<td>7 (50%)</td>
<td>3 (21%)</td>
<td>4 (29%)</td>
<td>14 (25%)</td>
</tr>
<tr>
<td>A&amp;E</td>
<td>6 (75%)</td>
<td>1 (12.5%)</td>
<td>1 (12.5%)</td>
<td>8 (14.3%)</td>
</tr>
<tr>
<td>Dentist</td>
<td>2 (67%)</td>
<td>1 (33%)</td>
<td>0</td>
<td>3 (5.3%)</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>2 (67%)</td>
<td>1 (33%)</td>
<td>0</td>
<td>3 (5.3%)</td>
</tr>
<tr>
<td>No/Mm hm/Missing data x 4 (7%)</td>
<td>4 (7%)</td>
<td></td>
<td></td>
<td>Total 56 (100%)</td>
</tr>
</tbody>
</table>
In addition, a word of caution is necessary in the interpretation of these data. This illustration is not representative of the disposition profile of calls to NHS Direct. However, in 2007-8, 41% of all callers to NHS Direct were advised to treat themselves at home, 28% referred to their GP, and 11% referred to accident and emergency (NHS Direct, 2009e).

Table 2 does illustrate that, in these data, accident and emergency dispositions are more likely to be receipted by silence (75%). This is followed by pharmacist (67%), dentist (67%), GP (50%), and home care (42%). In contrast, unmarked acknowledgements such as ‘yeh’ and ‘okay’ are more likely to be produced in response to home care (50%). This is followed by dentist (33%), pharmacist (33%), GP (21%), and accident and emergency (12.5%) dispositions. Notably, ‘right’ responses are more likely in GP dispositions (29%), are equivalent in relation to ‘yeah’ and ‘okay’ accident and emergency receipts (12.5%), and represent 8% of responses to home care.

I have shown that these responses are subtly consequential for the course of the call, insofar as silence and unmarked acknowledgements such as ‘yeh’ and ‘okay’ engender grand accounting for the disposition by the nurse, and work to temporarily close off a topic shift from the production of the disposition to the production of care advice. This suggests that, although the CAS disposition has been delivered by the nurse, the local trajectory of the call is nevertheless treated as incomplete by the caller, and invites additional information from the nurse. ‘Right’ responses, on the other hand, signal the progressivity of the call, avoid accounting and thereby have the capacity to contract the consultation by keeping it on topic.

It is not the purpose of this analysis to attempt to get inside the head of callers to understand why they respond in the way they do. It is for the participants to discern the import of the response and the consequences for the interaction. Below, however, is a selection of extracts illustrating callers’ responses to varied dispositions, namely silence, unmarked acknowledgements and ‘right’ responses, on which a number of observations are notable. I have drawn on
earlier extracts and others from the data to illustrate the breadth of dispositions and limited response types. Consider Extracts 26-30 below:

**Extract 26**
C52
5.38.61-5.42.79

1 Nur okay () .hh I think it will be best to
2 take him up to ay an eee::.
3 → (0.3)

**Extract 27**
C32
5.18.15-5.26.72

1 Nur Ri:ght so what I think you could actually do: then
2 is to go and have a word with a chemi::st,
3 → (1.0)

**Extract 28**
C28
5.35.75-5.40.72

1 Nur Okay well the only thing that I can suggest that you do=is
2 you have to ring your er erm your docto:r.
3 → (.)

**Extract 29**
C46
9.08.11-9.12.43

1 Nur what you’re gonna-I mean you are you are going to have to
2 contact the dentist or a denti::st. .hhh,
3 → (0.8)

**Extract 30**
C22
2.14.82-2.20.85

1 Nur .h >now< I think (0.4) ee;uh:::* we can try and erm:::
2 m::anage this at ho:m::e to begin with.
3 → (0.3)

Extracts 26-30 are examples of a variety of dispositions receipted by a silence. From these extracts it is evident that callers do respond with silence, whether the disposition indicates that the caller should be seen by someone or to speak with someone. Likewise, this applies if the disposition infers an emergency or,
conversely, no emergency. The following extracts (31-33) will exhibit unmarked acknowledgements in relation to the disposition.

**Extract 31**
C7
5.27.21—5.30.0

1 Nur I think we’re okay to look after this at home:
2 Cal → y:eh.

**Extract 32**
C39
5.00.57—5.05.78

1 Nur Okay well the symptoms give me do suggest you need to find
2 a dentist= =ideally within twenty four hours [.h
3 Cal → [yeh

**Extract 33**
C2
2.59—3.02.0

1 Nur I don’t think you need to see anybody=
2 =at the moment (.)=
3 Nur =[okay?= —
4 Cal → [(Mkay.)ºº

Extracts 31 to 33 are examples of dispositions received by ‘yeh’ and ‘okay’. It is notable here that, regardless of whether the disposition is home care or seeing somebody, the callers can be observed receipting the disposition minimally.

Finally, consider Extracts 34-36:

**Extract 34**
C38
7.32.85—7.36.67

1 Nur .h I think you need to make a routi:ne appointment with
2 your gee pee::.
3 Cal → ri:gh[t.

**Extract 36**
C34
6.32.40—6.35.16

1 Nur [you are gonna need to take him up to casualty::
3 Cal [mm:
3 Nur let—[let them have a look at it
4 Cal → [right
Extract 36
C10
3.26.46-3.32.31

1 Nur basically if yu-if the stinger was still in there
2 then you’d need to remove it,
3 Cal → right,
4 [I’ll have a] good look at it in the minute then.

Extracts 34-36 are examples of dispositions where the caller can be observed producing ‘right’ responses to a range of dispositions, for example see the GP, attend accident and emergency or homecare.

In summary, callers can be witnessed exhibiting a narrow repertoire of responses to the disposition, insofar as they are limited to silence and unmarked acknowledgements ‘yeh’ and ‘okay’, and ‘right’ responses, regardless of the disposition and inferred level of urgency. These findings echo those of Mycroft (2007) who examined receipts of weight management advice across a range of outcomes including weight loss, gain and maintenance. However, callers to NHS Direct are more likely to respond with silence in calls where the disposition or call outcome is accident and emergency, pharmacy or GP dispositions. And they are more likely to respond with the unmarked acknowledgements ‘yeh’ and ‘okay’ in calls where the disposition is home care, dentist or pharmacy. In addition, GP dispositions are more likely to receive ‘right’ responses. There were no instances in these data of news responses, to the disposition or post completion repeats of components of the disposition. Furthermore, there were no instances of partial repeats of the disposition by the caller.

There are many reasons why callers respond in the way they do. One may speculate that the disposition does not match their expectations, or the problem is not possible to follow due to transport difficulties, or there is no service due to bank holiday or weekend. My task here has been not to second guess these reasons but to examine how callers manage locally their response to the
disposition, its structure or shape and the sequential organisation or position and the consequences of its production. Nevertheless, although callers' responses to the disposition typically signal disagreement, a misalignment of some sort, or weak acknowledgement, there are occasions when their response more overtly displays dissonance or, in contrast, accords stronger with the nurses' proposals. I have provided just two examples of each phenomenon here. Consider Extracts 37 and 38 below:

**Extract 37**  
C55  
10.23.66-10.34.20

1 Nur what you’re to have to do: is in the mo:rnin:g, (.) when-
2 the dentist opens is phone up for an emergency
3 [appointment.
4 Cal → [tomorrow?
5 (.)
6 Nur yea: ::h
7 Cal hh tomorrow Tuesday bank holiday.
8 (0.5)

**Extract 38**  
C28  
5.34.49-5.44.97

1 Nur Okay=well the only thing that I can suggest that you do=is
2 you have to ring your er erm your docto:r.
3 → (.)
4 .hh the out of hours doctor,=and have a chat with them:,
5 → (.)
6 Nur .hhh
7 Cal What now?
8 (0.2)

We can observe in Extracts 37 and 38 a display of interactional dissonance between the nurse and caller. In Extract 37, in overlap with the nurse’s production of the disposition (lines 2-3), the caller questions the temporal dimension of the course of action to phone the dentist: [tomorrow? (line 4). It is possible to speculate that producing a single-word question is enough to cause the nurse to reflect on when the caller is being asked to contact the dentist. For example, the caller may expect to be advised to contact the dentist today, rather than wait until tomorrow, and may be seeking an explanation for why this is not the case. However, following a silence (line 5), which displays
the caller’s question as problematic, the nurse produces a stretched: yea::h (line 6), which orients to the caller’s question as seeking confirmation rather than explanation. Following an intake of breath, the caller then provides more detail about the timing of the course of action, explaining that the following day is a bank holiday, which appeals to a common understanding that many services are not available on such days, in response to which the nurse remains silent. We can observe here that callers can and do produce more than silence and unmarked acknowledgements in response to the disposition. Indeed, callers may dispute the course of action where it is not fitted to the caller’s concern.

In Extract 38, following the production of the disposition (line 2), the caller responds with silence in the form of a silence (line 3), which is oriented to by the nurse as requiring further information and produced in the form of a clarification (line 4). Again, the caller withholds a response (line 5) and finally produces a question (line 7), which directly challenges the timing of the disposition, thereby making more explicit its problematic nature. Whilst it is not the purpose of this analysis to second guess the thoughts of the caller or the reason for the dispute with the disposition, it might be worth considering that the call was made at 03.30h by a 71-year-old female concerned about a painful ear. Older people commonly do not use health services without good reason. To be advised to call a doctor in the middle of the night for ear pain may well illustrate a disposition not fitted to the caller’s concern. Indeed, the caller in somewhat muffled tones goes on to challenge the idea further (data not shown). In each of these extracts the caller can be observed orienting to the disposition as not fitting to their concern. It would appear that the disposition has not been locally processed to promote acceptance. However, callers do accord more strongly with the nurse, but not following the production of the disposition. Consider Extracts 39 and 40 below:

**Extract 39**
C12
12.57.46-13.03.31
Chapter 6 Assent or dissent: receipting the disposition

In Extract 39, in response to the nurse’s invitation to the caller to phone back if necessary, the caller’s response is lexically, intonationally and grammatically stronger than responses seen previously. In Extract 40, following an announcement about the 24-hour availability of the service, the caller responds with a stand alone, high grade assessment (Antaki, 2002) (line 3). In each of these extracts such strong affiliation with the nurses’ prior turns seems to offer the chance to embark on a line which will lead to closure. Indeed, one might ask what it takes to bring the call to a close. As observed here, a strong alignment with the nurse is one tactic, as immediately following these extracts the nurse and caller enter into bye-byes.

Having noted that callers can and do produce strong affiliations with the nurses’ turns, it is also worth noting that re-presentations of the disposition later in the call, where previously responded to with silence, may be responded to again with silence or a minimal acknowledgement. Consider again Extract 41 below:

Extract 41
C52
6.37.25–6.43.30

Extract 41 is taken from later in the C52 call. In this extract, as I have shown previously (see Extract 11 p. 219), on possible completion of the nurse’s sentential turn construction unit (TCU) (end of line 2) where a response might expectably be due (Pomerantz, 1984), the caller passes up the opportunity to respond and remains silent (Sacks et al., 1974). Further, the properties of the
nurse’s turn are designed to anticipate the recipient’s silence (Jefferson, 1973). As such, additional items of talk not necessary for the understanding of the turn now and get it checked out– (line 3) are produced following problematic component (lines 1 and 2), with the effect of lengthening the turn past possible completion and avoiding a silence (ibid). It would appear that the nurse orients to the production of the disposition as potentially still problematic and builds her turn to skate over the TRP, thereby avoiding a response from the caller and minimising disruption as depicted by anticipated rejection. In the following extract (42), taken from later in the C50 call (p. 209), we can observe a similar pattern.

Extract 42
C50
8.15.92–8.22.89

1 Nur just because of that very slight episode she had .h take
2 her to get her checked,=
3 =is that okay=  
4 =can you-got a car to pop up there have you::?

In Extract 42 we can observe similar features to Extract 41, whereby the caller remains silent (Sacks et al., 1974) on possible completion of the nurses turn (line 2). Again, the properties of the turn are designed to anticipate the recipient’s silence (Jefferson, 1973), and additional items of talk =is that okay= (line 3), not necessary for the understanding of the turn occur after the production of the problematic component (line 2) with the effect of lengthening the turn past possible completion and avoiding a silence (ibid). Again we can observe the nurse orienting to the production of the disposition as still potentially problematic, and works to avoid a response from the caller by building her turn to skate over the TRP, thereby minimising disruption anticipated by rejection.

Extracts 41 and 42 both illustrate that even when a disposition received with silence by the caller is re-presented or reinforced later in the call, the nurse orients to it as possibly problematic and skates over possible TRP, thereby avoiding another rejection. Moreover, both callers continue to orient to the disposition as problematic, responding at possible TRP with silence.
Initial dispositions receipted with unmarked acknowledgements such as ‘yeh’ or ‘okay’, if re-presented later in the call, yield again unmarked acknowledgements. Consider Extract 43 below:

Extract 43
C49
6.52.46-7.01.15

1 Nur .hh hh. a* (0.9) >I think in all honesty< w* (0.9) what
2 you’re telling me-as it stands at the moment it would be
3 worth making an appointment with your doctor.
4 Cal → .hh yea:h

(Further talk approx. 1.22 mins)

8.23.83-8.28.56

100 Nur I think the advice that we should give you is
101 cer-certainly get it checked out .h [with the doctor,
102 Cal → [yeahº
103 if things don’t change an and=

In Extract 43 the nurse can observed delivering the disposition (line 3), to which the caller responds with an unmarked acknowledgement: .hh yea:h (line 4). Later in the call, the nurse re-presents the disposition (line 101), to which the caller again responds with a soft, unmarked acknowledgement: [yeahº (line 102), in overlap with the nurses prior turn (line 101).

Finally, initial dispositions receipted with ‘right’, (Extract 24, C47, p. 241, line 3), if re-presented later in the call, may be received with no more than unmarked acknowledgements such as ‘okay’ (Extract 25, C47, p. 242 lines 12 and 25). This suggests that the production of the disposition over the course of the call is oriented to as problematic.

Summary

In summary, callers telephone NHS Direct because they want something. What they get following a series of questions and answers (Ch 4) is a CAS-produced disposition or course of action (Ch 5) they can take in order to manage their
concern. Taking this view, on production of the disposition one might expect the callers’ response to display acceptance or agreement, with something like ‘thank you’ or ‘that’s great’. But in these data they don’t do this. Rather, the callers produce a limited range of other types of responses. The single, most frequent of these is silence, followed by isolated unmarked acknowledgements and ‘right’ responses. It is these responses that have been the focus of this chapter.

The disposition is an assessable object, and as such is response implicative by the caller (Pomerantz, 1984). No uptake or response is therefore attributable to the caller as the relevant next speaker. I have shown that callers regularly respond to the disposition with silence. However, silence is not an unremarkable phenomenon; it has discernable features and does things. For example where a response might be due by the caller on possible completion of the disposition, there is no “immediately forthcoming talk”, and suggests a dis-preference towards the status of the disposition (Pomerantz, 1984; Heritage 1984). Further it would appear that the nurse is motivated to attend to the caller’s non-response and remedy it, taking what Maynard describes as “remedial action” (Maynard and Frankel 2003) by producing an extended explanation for the disposition (this topic is examined in more detail in Ch 5.

Over the course of a series of turns responded to by the caller with silence, we can observe the nurse attempt to deal with the inadequacy of the disposition by producing what Davidson (1984) describes as “subsequent versions” of the disposition or “chaining” a series of recommendations (Kinnell & Maynard, 1996), which provide for the next transition relevance place for the caller to produce an acceptance. Notably these “subsequent versions” are also punctuated with further silences, and it is only when the caller produces the minimal acknowledgement ‘right’, that the nurse progresses the call to the next phase, that of care-advice. With a particular shape and sequential position, silence is attributable to someone, namely the caller, and is meaningful to both the nurse and caller, such that it has implications. Adroit handling of silence by the caller exhibits its unique capacity to display misalignment, rejection or disagreement, the force of which has complex consequences for the work of
the nurse and trajectory of the call, such that the nurse embarks on grand accounting for the disposition.

A second delicate phenomenon is also observable in these data. On possible completion of the disposition turn, at a transition relevance place, callers can be observed to, ‘pass-up’ the opportunity to respond, even minimally in overlap with the nurse, thereby displaying the features of silence, and an orientation to the disposition as somehow problematic. Whilst this might seem unremarkable, its sequential position reveals that callers opt to withhold a response, at precisely the place where nurses can be observably orienting to the disposition as possibly problematic. Faced with this predicament, the nurse designs the disposition to skate-over the possible transition relevance place, using “tag-positioned components” (Jefferson, 1973; Davidson, 1984) thereby minimising the opportunity for the caller to respond and, more importantly, avoiding explicit rejection in the form of a silence. Davidson (1984) suggests that components occurring after possible completion of a turn may be providing a “monitor space” (p. 117), which can be examined for acceptance/rejection implicativeness, and given the absence of a response immediately following possible completion and in the “monitor space”, then the speaker may take this to be “rejection implicative” (p. 117). In these data callers can be seen to pass-up the opportunity to respond in these “monitor spaces”. Such displays of the caller having trouble with the utterance so far, may cause the nurse to attempt to deal with the “possibility of rejection” (p. 117), by compressing or ‘skating-over’ the transition relevance place and latching, a “subsequent version” of the disposition, in what appears to be anticipation of rejection.

A further notable observation is that nurses can be observed extending or ‘stretching’ the final turn component of the disposition past possible completion, Jefferson (1973) suggests that speakers have the capacity to inspect and respond not only to whole words, but also incomplete utterances and initial sounds. Taking this view, Davidson (1984) argues that stretches of final turn components at a possible transition relevance place, works to lengthen the opportunity for the caller to respond and provides for another type of “monitor
space” (p. 119) which can be scrutinised for a response, and on its absence, provides for a “subsequent version”.

The disposition, as produced by the nurse, is an assessable object, and as such is response implicative by the caller (Pomerantz, 1984). No uptake or response is therefore attributable to the caller as the relevant next speaker. No “immediately forthcoming talk”, suggests a dis-preference towards the status of the disposition (Pomerantz, 1984; Heritage 1984). Silence therefore is a dynamic ‘power pack’, oriented to by the nurse as displays of rejection or disagreement. Refraining from producing an acknowledgement token is subtly consequential for the trajectory of the call, insofar as it prompts the nurse to take what Maynard and Frankel (2003) describe as “remedial action” and thereby engenders grand accounting by the nurse in the form of “subsequent versions” (Davidson, 1984) of the disposition, which infers that it needs some ‘convincing work’ in the pursuit of acceptance.

Callers do not always respond to the disposition with silence. Where they orient to the disposition as requiring a response, these are typically in the form of the unmarked acknowledgment tokens (Heritage & Sefi, 1992) ‘yeh’ and ‘okay’ and ‘right’ responses (Mycroft 2007). Although ‘yeh’ and ‘okay’ responses can operate on more than one plane simultaneously (McCarthy, 2003), it is interesting to note in these data that they typically do not exhibit acceptance or concordance. Rather, they display weak acceptance (Stivers, 2005), and as such are rejection-implicative (Davidson, 1984). This is confirmed when on completion of the caller’s response the nurse embarks on an account for the disposition, thus orienting to it as requiring ‘convincing work’. In contrast, the consequence of a ‘right’ response by the caller to the disposition is that the nurse treats it as complete and as sanctioning movement to providing care advice, thereby circumventing the need for accounting.

Accounting has been found to be a design feature of non-affiliative or dis-preferred second actions to, for example, an invitation or request (Heritage,
1984, p. 272). In this setting, accounting is a first position action employed by the nurse to head off a non-affiliative next action by the caller. These accounts work to avoid conflict between the nurse and caller and accomplish social solidarity (ibid), by which I mean an acceptance of, or agreement with, the disposition.

I have shown that callers can be witnessed exhibiting a narrow repertoire of responses to the disposition, insofar as they are limited to silence, unmarked acknowledgements ‘yeh’ and ‘okay’, and ‘right’ responses, regardless of the disposition a finding supported by Mycroft (2007). Two further prominent observations can be made in these data. The first is that silence is the overwhelming response to accident and emergency, pharmacy and GP dispositions; unmarked acknowledgements ‘yeh’ and ‘okay’ are typically the callers’ response to the home care disposition, and ‘right’ responses are more likely when the disposition is to contact the GP. It is not the purpose of this analysis, nor is it possible to explicate, why this is the case. However, attributable as it is to callers, silence, far from displaying agreement and concordance, displays misalignment, rejection or disagreement with the disposition (Davidson, 1984; Heritage & Atkinson, 1984; Pomerantz, 1984) and unmarked acknowledgements treated as weak acceptance (Stivers, 2005) are rejection implicative (Davidson, 1984; Heritage 1984), the force of which has complex consequences for the work of the nurse and the trajectory of the call. Moreover, callers’ responses co-determine the topic trajectory of the call and shape the delivery of the course of action that the CAS and nurse advocate, a finding echoed by (Maynard & Frankel, 2003). The second point is that callers can and do display a stronger accord with the nurse, specifically in response to advice about the availability of the service. However, where a disposition receipted with silence and the unmarked acknowledgement or a ‘right’ response is re-presented later in the call, it continues to be oriented to as problematic by the nurse and caller.

Previous research examining clinical encounters suggests they are not unproblematic and littered with potential for misalignment (Drew, 2006;
Jefferson & Lee 1981; Tracey, 1997; West and Frankel 1991; Whalen & Zimmerman 1988). Patients routinely receipt doctors’ diagnostic classifications, with silence or minimal responses (Heath, 1992; Maynard et al., 1991; Maynard & Frankel, 2003; Peräkyla, 1998, 2002, 2006; Stivers, 2005). On the other hand, treatment recommendations are oriented to as requiring a verbal response (Stivers, 2006). Other studies have shown that advice which is negotiated, “worked up” (Jefferson & Lee, 1981), or preceded by a “stepwise entry” (Heritage & Sefi, 1992) encounters less resistance than advice which is merely given without clearly specifying the problem (D. Silverman, 1997).

Across the NHS Direct data, the callers’ concerns were always elicited prior to the production of the disposition-as-advice. Nevertheless, the data show canonical responses as silence and the unmarked acknowledgements ‘yeh’ and ‘okay’ and ‘right’ responses, which are consequential for the trajectory of the call.

The non-acceptance of the disposition in the ways exhibited here is a powerful interactional practice, in a setting (the provision of health care) that rests historically on the asymmetrical relationships (Parsons, 1975) and “competence gap” between professional and patient (Heath, 1992), which assumes the patient is ignorant about their health care problem. The popular view that doctors and, indeed, other health professionals can by virtue of their perceived ‘expert knowledge’ and professional authority simply assert diagnoses, treatment recommendations and advice, in the expectation that they will be followed, has been revealed to be much more complex (Heritage & Sefi, 1992; Hopper, 1992; Jefferson & Lee, 1981; Maynard, 1996, 1997; Maynard & Frankel, 2003; D. Silverman, 1997). Likewise, as observed in these data, nurses do not unilaterally determine how the disposition and receipt will work out. The CAS may present it as an objective-fixed output, arguably tailored to the needs of the caller; however, its accomplishment is a collaborative endeavour between the nurse and caller, which relies on a taken-for-granted tacit skill in telephone consultation.
CHAPTER 7

Conclusion

This thesis investigated how help is socially accomplished, turn by turn in telephone and computer-mediated calls to NHS Direct, a telephone health helpline in England.

Previous research on the provision of help over the telephone has pointed to a dearth of information about how this activity is mediated by not only the telephone, but also computer decision support software. My research has sought to examine the interactional methods or the procedures that nurses and callers use to realise help through talk in telephone calls to NHS Direct, as mediated by computer decision support software.

In this concluding chapter, I summarise the main findings of this study by providing a review of each analytic chapter, before exploring what contribution my research has made, if any, to addressing the gap in the exiting literature. Finally, I reflect on the methodological approach used in this study; further research and implications for practice.

Chapter Two detailed how this study was designed through the research methods and methodology. The data were made up of fifty-six routinely recorded telephone calls to one NHS Direct call centre, which were transcribed verbatim using the Jefferson notation system (Jefferson, 2004). I discussed how two theoretical traditions – ethnomethodology and conversation analysis – formed the philosophical foundation of this study. The data were analysed using conversation analysis, which conceptualises communication as a source for examining how participants, in this case nurses and callers, accomplish their
interactional activities, which in this study is to seek and provide help as mediated by the telephone and computer decision support software.

Chapter Three described the environment within which calls to NHS Direct are managed. The first section described the work of NHS Direct, the setting in which data were collected, the work of the call handlers in prioritising calls, and the work of the nurse advisors in triaging calls, as mediated by clinical decision support software. The second section described a typical telephone call, set against the backdrop of the clinical decision support software. I illuminated what Drew and Heritage (Drew & Heritage, 1992b) describe as the “functionally oriented to phases” of the interaction between the nurse and caller to NHS Direct. This is summarised in Table 1 below:

**Table 1: Oriented to phases/stages or patterns**

| 1. Opening:                         | Identification, recognition and confirmation of call participants |
| 2. Boundary setting:                | Establishing the caller’s expectations of the service |
| 3. History-taking:                  | Problem identification – an account of the current problem  
|                                     | General health history – historical context for the problem |
|                                     | Problem-specific history – current presenting problem |
| 4. Disposition:                     | The outcome of the call, for example contact your GP; attend accident and emergency, or homecare |
| 5. Advice-giving:                   | The nurse provides additional self-care information about the management of the presenting concern |
| 6. Closure:                         | The call is concluded |

Table 1 makes visible a trajectory aimed at moving the call forward from the opening to closure by means of a number of phases, which involve identifying the caller’s concern or problem, finding out more information about it, advising the caller about a course of action, and expanding this to provide self-care advice. Apparently unremarkable, these phases have yet to be examined as interactional accomplishments within calls to NHS Direct. In this chapter
illustrated that calls to NHS Direct are highly organised through the use of clinical decision support software known as the Primary Prioritisation Process (PPP) and the Clinical Assessment System (CAS). Health Advisors routinely answer initial calls to NHS Direct, and using the PPP record the reason for the call, the caller’s demographic details, and assess the urgency of the call and assign a priority. At this point, emergencies are transferred to the ambulance service and less urgent calls are typically placed in an electronic call queue. From here, nurses select callers to call back in order of priority, and using the predetermined questions set by the CAS they assess callers’ concerns. This chapter has revealed the overall structural organisation of these calls as realised through talk and the moment-by-moment materialisation of the interrogative design plan of the CAS may not as ordered as it might first appear. Further, its situated completion may not be realised in such an apparently effortless procedural manner, requiring the nurse and caller to engage in an elaborate “choreography” (Thompson, 2005) in an attempt to make sense of the situation. From this point it can be observed that help, as mediated by the telephone and clinical decision support system, is not unremarkable.

In Chapters Four, Five and Six I examined in detail three features of particular analytic interest. Chapter Four examined the situated practical realisation of the CAS questions – the literal and mechanical application of the interrogative design plan of the CAS. Examining the properties of question design, the structural organisation or the shape of questions, their sequential organisation or positioning and the actions they perform, I revealed the range of activities accomplished by this form. In the first section I examined how questions were designed and responded to during the sequence in which the caller’s problem is identified. In the second section, I examined how questions are designed and responded to during the sequence in which information is gathered, commonly referred to as history-taking.

Whilst the CAS prescribes the questions the nurse must ask the caller, I have shown that at the beginning of the call nurses regularly deviate from the CAS-prompted reason for calling question. Instead, nurses typically construct
alternative Type 1 (general enquiry questions), Type 2 (gloss for confirmation questions) and Type 3 (symptom(s) for confirmation) questions (Heritage, 2006) in the form of ‘Yes’/’No’ interrogatives (Raymond, 2003). These questions are implicated in what the caller can and indeed cannot contribute to the consultation in terms of problem identification. These findings align with M. R. Whalen & Zimmerman (1992), who suggest that interactional practices work to constrain the focus of the talk between the caller and call-taker.

Callers typically respond to Type 1 questions (Heritage, 2006), initially with silence, which signals trouble (Heritage, 1984). This is possibly due to a quandary about whether or how much information to repeat, which has already been given to the call-taker. By withholding an immediate response the caller is holding the nurse accountable (J. D. Robinson, 2006) for not revealing information already known to be held. Notwithstanding this, callers may nevertheless move to embark on expanded accounts of their concern, such that the nurse needs to use a different device to get at what he or she wants. Type 2 and 3 questions (Heritage, 2006) are typically oriented to by the caller as requiring a type-conforming response (Raymond, 2003), but this is in turn oriented to by the nurse as being insufficient in soliciting the caller’s concern, and the nurse resorts to either a Type 1 question or a history-taking question. Furthermore, Type 3 questions, in embodying presuppositions about the caller’s concern, can turn out to be problematic, producing non-conforming responses, challenges and expansions. Such expansions are typically not taken up by the nurse.

Of particular interest in these data is the call back, which represents the majority of calls. I have shown that nurses already have sight of the caller’s already reported concern. This presents a complex dilemma for the nurse as she/he decides what to do with information: should it be revealed to the caller or not. Both decisions are consequential for the call because in mobilising this knowledge, the caller must decide whether and how much information about their concern to repeat; if the nurse opts to reveal prior knowledge, the caller
must decide whether to conform with the preferred response embodied within the nurse’s question, or expand and elaborate on their concern.

I have also shown that at the outset of history-taking of the caller’s current concern, nurses orient to the production and content of CAS questions as problematic and requiring what I have described as ‘cushioning’, which works to soften their force. This can be observed by the nurse preparing the caller to be asked several questions and displaying prior to their commencement the likely topics and trajectory of those questions over sequences. In addition, the nurse can be heard using a range of interactional devices in which the organisational imperative to ask questions is displayed, a similar phenomenon observed in police interrogation of suspects (Stokoe 2008), and can be observed conversing with the computer and almost remonstrating with it, which labours to create distance between the question and the questioner, observed accounting for the questions, and, lastly, heard judging the relevancy of the question to the local context.

Lepkowski refers to the computer used in telephone interviews as the “third actor” (Lepkowski et al., 1998). As such, it makes demands on the interaction absorbing attention, for example when reading information or questions and inputting data, thereby contributing to and consequential for the interaction (Fuchs, 2002). Moreover, its inflexibility produces unscripted behaviours, whereby interviewers deviate from the question wording presented by the CAI, thus making the conversation run smoother. In my research, nurses were also observed to converse with the computer, actively orienting to the computer’s requirements and outputs – they modified questions, displayed difficult with the rigidity of the system, such that questions to which the nurse already had information were repeated, and callers displayed disagreement or misalignment with the computer’s output.

Frankel (1995) suggests that the activities which make up the clinical encounter are “nested” insofar as they relate to one another and to the outcome of care. Adopting this view, one might expect to observe the caller’s concern to be
“nested” within the caller’s health history. However, I have revealed an occasional misfit between the CAS questions and the local interactional circumstances of the call. I have shown an at times mechanised or standardised survey-type approach to taking the caller’s history, which becomes problematic when the caller is unable to answer the question, prompting a recalculation of the questions, or when the nurse is presented by the CAS, with questions to ask the caller to which she/he already has the answer. In the former the nurse is prompted to recalibrate the question thereby displaying a tacit and common sense application of the CAS. In the latter, where the nurse is unable to adapt to the local contingencies of the call, there develops a rupture between the CAS and the caller’s lifeworld. Nevertheless, nurses can be observed to display a subtle resourcefulness sensing moments of interactional insensitivity at the interface between the CAS and the caller, which works to steer the CAS questions in their pursuit of CAS relevant answers.

Devoid of context sensitivity, the arbitration and reconciliation of the interrogative design plan of the CAS, with real world concerns, necessitates the ‘hidden labour’ of NHS Direct. These challenges conspire to weave a number of complex interactional dilemmas, which are consequential for identifying the caller’s concern and may have implications for the outcome of the call. Nurses also orient to the output of the CAS as requiring preparation, cushioning, accounting for, and displaying distance between the CAS as question dispatcher and themselves as question messenger.

This thesis advances research in a number of ways. It demonstrates that the practical realisation of the CAS output in the form of prescribed questions is not unproblematic. Nurses regularly orient to its output as potentially troublesome, skilfully engaging a variety of interactional practices to manage its contingencies. First, nurses regularly deviate from the CAS-prompted reason for calling question. Second, how the nurse designs the problem identification question is implicated in what the caller can and indeed cannot contribute to the consultation in terms of constructing their concern. Third, although in call backs
the nurse has at her disposal the reason why the caller has contacted NHS Direct, she/he can be observed either mobilising this information in the course of soliciting the caller’s concern or, in contrast, adopting an alternative strategy, acting as though she/he does not have it. Either of these actions has interactional consequences for the caller’s contribution. Fourth, nurses regularly orient to the production and content of CAS questions as requiring ‘cushioning’, which works to soften their force. This can be observed by the nurse preparing the caller to be asked several questions and displaying prior to their commencement the likely topics and trajectory of those questions over sequences. In addition, the nurse can be heard to employ a range of devices to display distance between the CAS as question dispatcher and themselves as question messenger.

Chapter Five captured the rational practice of managing the delivery of the disposition or course of action that the caller may take to manage their problem. The first section moved through a number of examples to exhibit the dimensions of the delivery of the disposition. The following sections had three related analytic foci: the form of the disposition, accounting for the disposition and diagnosis.

I have shown that on first inspection the production of the disposition is expectably commonplace and apparently unremarkable, given that it is a predetermined phase of the CAS. Typically, the disposition embodies more than one action (Schegloff, 2007). First it displays a course of action for the caller to take. The disposition is, however, not conveyed as a blunt product of the CAS,’ but is typically designed to be heard as the nurse’s own idea, which conveys the disposition as an idea or an opinion and as such is arguably open to debate. Furthermore, it works to soften its delivery and is designed to be heard as open to discussion rather than as a necessity, a phenomenon observed in a study examining the ways in which nurses interact with the computer decision support software Greatbatch (2005). Alternatively, the disposition is stated more obliquely, which works to avoid committing to a
problem or no problem situation, holding off either pending or further monitoring by the caller.

Second, the disposition provides a vehicle for launching an assessment of the status of the caller’s concerns, exhibited by the level of urgency inferred by the course of action. Whether it is home care or accident and emergency, the disposition carries with it a shared understanding of the level of urgency with which it is associated. I argue that gathering information about the caller’s concern and producing a judgment or opinion based on its content can be considered related enterprises. Thus, the disposition as an assessment sequentially positioned on possible completion of information gathering attends to the task of providing help, and as such is part and parcel of the consultation with the nurse. The disposition as an assessment, therefore, is based on the nurse’s knowledge of what she/he has assessed, and is a *product* or an *upshot* of the “occasioned conversational event” (ibid) (Pomerantz, 1984).

Third, the disposition is designed to be heard as advice because it “describes, recommends, or otherwise forwards a preferred course of future action” (Heritage & Sefi, 1992), for example that the caller can manage their concern at home or should contact their general practitioner. The production of the disposition as advice is a predominantly unilateral activity, in which the nurse displays her epistemic right and entitlement to propose advice relating to the matters in hand, a finding echoed by Heritage and Sefi (1992). In contrast, it also displays the caller’s assumed ignorance in matters raised during the consultation.

Collectively, these observations suggest that what appears to be a straightforward phenomenon is observably a more complex activity than simply reading the output of the CAS. In contrast to the findings of Heritage and Sefi (1992), which suggest that little effort was made by health visitors to accommodate advice-giving for the circumstances of the interaction, and Kinnell and Maynard (1996), who found that counsellors had a tendency to
Chapter 7 Conclusion

relay information to clients, I reveal how in the design and delivery of the disposition, nurses display artful interactional practices routinely taking a stance towards the ‘expert system’s’ output, sensitively judging its in situ relevancy and adequacy. This is exhibited by the nurses orienting to the disposition as potentially dis-preferred by the caller, and thereby requiring explanation. Routinely turning out epistemic accounts or extended accounts for its production, nurses can be observed treating themselves as accountable for the evidential basis of the disposition, a finding echoed by Peräkylä (1998). What I am suggesting is that nurses not only consider themselves accountable for the grounds of the disposition, but also that these accounts display sensitivity to a difference in perspective and potential misalignment (Drew, 2006) between the CAS disposition and the caller’s ‘expected’ call outcome. This is not to say that nurses display an interest in whether what the caller is hearing is helpful to them; rather, that they are sensitive to the disposition as a blunt output of the CAS and work to soften its impact. Neglecting to check the helpfulness of the disposition as advice arguably displays the nurse’s orientation to the ‘institutional mandate’ of NHS Direct to provide a disposition or course of action for the caller to take, rather than a diagnosis. Thus, the disposition is sold as the only help available, even though it may not be relevant to the caller.

Nurses were also observed cleverly working to align caller expectations with the aims of NHS Direct, by producing a turn designed to inform callers that they don’t diagnose and thereby displaying a public service frame (Tracey, 1997 p. 319), which works to make explicit the kind of service being provided. This works to avoid a mismatch of expectations (Whalen et al., 1988), or what Jefferson (1981) describes as “interactional asynchrony” whereby “interactants are improperly aligned.... [for] the orderly progression of the sequence” (p. 402); and Drew (2006) describes as “misalignment” or “asymmetry of perspective” (p. 423).

Finally, nurses observably produce a candidate diagnosis as a means of accounting for the disposition. Rather like producing a ‘rabbit out of a hat’, diagnosis appears to function as a ‘pièce de résistance’ in the force of the
delivery of the disposition. Although the positioning of this interactional resource may vary, it nevertheless demonstrates nurses’ deep understanding of the function and limitations of the CAS as a somewhat blunt instrument for delivering help. By invoking their expert knowledge of the field, and exquisite interactional problem solving capabilities, the nurses not only manage the moment-by-moment contingencies of the call, but also offset the abstract analysis and universalism of the CAS expert system. Furthermore, it illustrates nurses’ resistance to what Crawford, Brown and Nolan (1998) describe as “linguistic entrapment”, which restricts how they define their work and reveals that diagnosis is an artful and persuasive device in the accomplishment of the coherence and acceptance of a potentially dis-preferred disposition.

Not only do nurses display highly sophisticated practices in undertaking diagnosis, but also they simultaneously hide or deny diagnostic work and establish what Butler (2009) describes as the “boundaries of expertise”. Accounting for not carrying out diagnosis appears to attend to two things – first, what the caller cannot expect from the nurse during the consultation, which by doing so heads off problems related to the caller seeking a diagnostic judgment. Second, it makes explicit the adaptation of the organisational prohibition of diagnosis to the situated environment of the telephone consultation and makes it relevant to the business at hand. Such practices realise the ‘rules of engagement’ with NHS Direct, and I argue that this is an example of the situated accomplishment of the planned (Suchman, 2007) activity of computer-mediated telephone help in this setting.

I suggest that the entire enterprise skilfully works to arbitrate an otherwise blunt and disembodied CAS-produced disposition, and works to head-off a potential disagreement and promote uptake of the disposition. This analysis resonates with Jarrett, who found that “comfortable conversation” avoids difficulty (Jarrett, 1996). Taking this view, setting boundaries, accounting for the disposition, and simultaneously producing and denying diagnosis work in three ways. First by heading off difficulty or problems related to the caller seeking a diagnostic judgment. Second, it situates the organisational denial of diagnosis within the

268
environment of the telephone consultation and makes it relevant to the business at hand. Third, it mitigates the output of the CAS in the form of the disposition. It is the sense-making practices of the nurse and caller that reconcile the CAS output with the moment-by-moment contingencies of the call. When the output of the CAS does not make practical sense for the nurse or the caller, they display highly sophisticated interactional resources to make sense of the system’s output.

Previous call centre research suggests that nurses are keen to resist the managerial control that they see as potentially preventing them from developing a sincere relationship with their customers (Mueller et al., 2008). Professional values are prioritised over quantitative targets and what nurses and managers constitute as ‘good customer service’ differs – the managers favour adherence to clinical protocols, whilst the nurses favour a more holistic approach. Further, it is believed that nurses perform tasks of screening, evaluating or diagnosing via the phone autonomously (Tjora, 2000) and that they privilege their own expertise to provide individualised care (Greatbatch, 2005). The findings of my research suggest that nurses orient to the CAS output as requiring interactional work. This can be observed in the structural organisation of the disposition and the complex sequential organisation of its production, which provide some interesting interactional moments between the nurse, the caller and the CAS. In these moments, nurses engage weaving of the disposition, with accounting and diagnostic language.

In contrast to previous studies, rather than label these practices as somehow rebellious or resistant to organisational constraints and the CAS output, I argue that these practices, or ethnomethods, skilfully work to tailor and fashion ‘embodied help’ from an otherwise disembodied technical system. Furthermore, rather than diagnosing autonomously and privileging their own expertise as random manifestations of resistance to CAS standardisation, I suggest that these are interactional resources invoked to ‘make shared sense’ of the local circumstances of the CAS output. This interpretation accords with Garfinkel, who believes that social or interaction order, indeed human actions, rest on the
fact that individuals are able to ‘make shared sense’ of their circumstances (Heritage, 2001), arguing that “shared sense-making is a primordial feature of the social world” (ibid). Taking this view, nurses competently invoke diagnosis as a contingent interactional practice in the pursuit of the acceptance of the disposition by the caller, and as such they function as “competent suppliers of advice” or “medical oracles” (Tjora, 2000). As such, they display what Mueller et al. (2008) describe as “situational solutions” to manage the potentially contradictory demands of call centre values, which prioritise adherence to protocols over professional autonomy and the local interactional circumstances of the call.

Thus, we can observe the nurses artfully displaying through talk the ordinary practical methods for accomplishing help as mediated by the CAS. In this respect the nurse, the CAS and the caller, rather than being uneasy bedfellows, benefit from a mutually advantageous association or symbiosis such that the whole is greater than the sum of its parts; they are not disconnected parts, but function holistically together in the pursuit and production of help.

This thesis advances research in a number of ways. It demonstrates that the practical realisation of the CAS output in the form of the disposition or course of action is not unproblematic. Nurses and callers regularly orient to its output as potentially troublesome, skilfully engaging a variety of interactional practices to manage its contingencies. I argue that, devoid of context sensitivity, the arbitration and reconciliation of the CAS disposition with the local in situ circumstances of the interaction engenders a symbiotic relationship between the nurse, callers and the CAS, which represents the ‘hidden labour’ and artful accomplishment of help within NHS Direct.

Chapter Six examines more closely the nurses’ concern with how callers respond to the disposition or course of action as produced by the Clinical Assessment System (CAS), and the consequences of this for the trajectory of the call. The first section moved through a number of examples to exhibit the dimensions of receipting the disposition. The following sections examined three
phenomena of interest, namely silence, the response tokens ‘yeah’ and ‘okay’, and lastly ‘right’ responses.

I have shown that callers do not respond to the disposition with acceptance or agreement, with something like ‘thank you’ or ‘that’s great’. Rather, callers produce a limited range of other types of response, the single, most frequent being silence, followed by the isolated, unmarked acknowledgements ‘yeah’ and okay’, and ‘right’ responses, a finding which echoes that of Mycroft (2007). If we consider the disposition as advice, these findings are in contrast to those of Heritage and Sefi (1992), who found that the most frequent responses to advice were “marked acknowledgements” such as ‘oh right’, which treats the advice as news (Heritage & Atkinson, 1984), followed by unmarked acknowledgements such as ‘mm hm’ and ‘yeah’, and assertions of knowledge or competence in which the mother indicated that the health visitor’s advice was redundant. Nonetheless, they are in accord with Kinnell and Maynard (1996), who found that the most frequent way that clients responded to safer sex advice was through unmarked acknowledgements or silence; Pudlinski (2002), who found that the most common initial response to advice by callers to a consumer-run warm line were minimal acknowledgement ‘yeah’ and Heath (1992) who examined patient’s responses to diagnosis and found that despite having the opportunity to respond, patients either withheld a response of produced a very minimal acknowledgement.

With regard to silence, I established that it is not an unremarkable phenomenon; it has discernable features and does things. I revealed that silence is not just a conceptual label; it has a particular shape, sequential position, is attributable to someone, namely the caller, is meaningful to both the nurse and caller, and has implications.

Crucially, in these data, the disposition is an assessable object, and as such is response implicative by the caller (Pomerantz, 1984). No uptake or response is
therefore attributable to the caller as the relevant next speaker. I have shown that callers regularly respond to the disposition with silence. Furthermore, silence is consequential. For example no “immediately forthcoming talk”, on possible completion of the disposition, suggests a dis-preference towards the status of the disposition (Pomerantz, 1984; Heritage 1984). A response to which can be observed by nurses motivation to attend to the caller’s non-response and remedy it, taking what Maynard describes as “remedial action” (Maynard and Frankel 2003). This is accomplished by producing an extended account or explanation for the disposition (this topic was examined in more detail in Ch 5). Thus over the course of a series of turns responded to by the caller with silence, we observed the nurse attempt to deal with the inadequacy of the disposition by producing what Davidson (1984) describes as “subsequent versions” of the disposition or “chaining” a series of recommendations (Kinnell & Maynard, 1996), which provide for the next transition relevance place for the caller to produce an acceptance. Notably these “subsequent versions” are also punctuated with further silences, and it is only when the caller produces the minimal acknowledgement ‘right’, that the nurse progresses the call to the next phase, that of care-advice. Evidentially silence on possible completion of the disposition, is attributable to the caller, and is meaningful to both the nurse and caller, such that it has implications.

A further somewhat delicate phenomenon can also be detected at precisely the place where nurses can be observed orienting to the disposition as possibly problematic. By designing the possible completion of the disposition turn to ‘skate-over’ the transition relevance place, using “tag-positioned components” (Jefferson, 1973; Davidson, 1984), nurses compress or minimise the opportunity for the caller to respond whilst simultaneously creating a “monitor space” (Davidson, 1984) which can be examined for acceptance or rejection and, more importantly here, works to avoid explicit rejection in the form of a silence. In concert with this project then, callers can be observed to regularly ‘pass-up’ the opportunity to speak, even in overlap with the nurses turn. This practice has been observed in safer sex advice, whereby the counsellor produces long stretches of talk, during which turns are designed to skate over
possible transition relevance places and the client collaborates with this by passing up the opportunity to talk, even in overlap (Kinnell & Maynard, 1996).

Jefferson (1974) suggests that speakers have the capacity to inspect and respond not only to whole words, but also incomplete utterances and initial sounds. Taking this view, a further notable observation is that nurses can be observed extending or ‘stretching’ the final turn component of the disposition past possible completion. Davidson (1984) argues that stretches of final turn components at a possible transition relevance place, works to lengthen the opportunity for the caller to respond and provides for another type of “monitor space” (p. 119) which can be scrutinised for a response, and on its absence, provides for a “subsequent version”. Again we can observe callers refraining from responding even in overlap with the ‘stretched’ final turn component.

Competent usage of silence by the caller exhibits a unique capacity to display misalignment, rejection or disagreement, the force of which has complex consequences for the work of the nurse and trajectory of the call, such that the nurse embarks on ‘grand accounting’ for the disposition.

I have also shown that callers do not always respond to the disposition with silence. Where they orient to the disposition as requiring a response, these are typically in the form of the unmarked acknowledgment tokens (Heritage & Sefi, 1992) ‘yeh’ and ‘okay’, and ‘right’ responses, a finding echoed by Mycroft (2007) who examined responses to weight loss, gain and maintenance in weight management clinics, and Heath (1992) in his examination of responses to diagnosis. Although ‘yeh’ and ‘okay’ responses can operate on more than one plane simultaneously (McCarthy, 2003), it is interesting to note in these data that they typically do not exhibit acceptance or concordance, or display that the caller will act on the advice. Rather, they display weak acceptance (Stivers, 2005) and as such are rejection-implicative (Davidson, 1984). This is confirmed when on completion of the caller’s response the nurse embarks on an account for the disposition, thus orienting to it as requiring ‘convincing work’. This feature has been observed in safer sex advice, whereby the counsellor orients to the client’s minimal acknowledgements as requiring expansion of
advice (Kinnell & Maynard, 1996). In contrast, the consequence of a ‘right’ response by the caller to the disposition is that the nurse treats it as complete and as sanctioning movement to providing care advice, thereby circumventing the need for accounting. Accounting has been found to be a design feature of non-affiliative or dis-preferred second actions to, for example, an invitation or request (Heritage, 1984, p. 272). In this setting, accounting can be seen to be an action employed by the nurse to head off a non-affiliative next action by the caller. These accounts work to avoid conflict between the nurse and caller and accomplish social solidarity (ibid). By this I mean an acceptance of, or agreement with, the disposition.

In summary, I have shown that receipting the disposition is interactionally complex and consequential. Callers are observed to have a narrow repertoire of responses to the disposition, insofar as they are confined to silence in the form and the unmarked acknowledgements ‘yeh’ and ‘okay’, and ‘right’ responses, regardless of the disposition. Moreover in these data, callers’ response to accident and emergency, pharmacy and GP dispositions is typically silence; whilst unmarked acknowledgements ‘yeh’ and ‘okay’, are their favoured response to the home care disposition, and ‘right’ responses are more likely when the disposition is to contact the GP. It is not the purpose of this analysis to explicate why this is the case, though one might speculate that the types of receipt reflect the fit of the disposition to caller expectation. Further, attributable as it is to callers, far from displaying agreement and concordance or that the caller will act on the advice, silence exhibits misalignment, rejection or disagreement with the disposition (Davidson, 1984; Heritage & Atkinson, 1984; Pomerantz, 1984) and unmarked acknowledgements are treated as a weak acceptance (Stivers, 2005), and as such are rejection implicative (Davidson, 1984). The force of this rejection has complex consequences for the work of the nurse and trajectory of the call. Indeed, callers’ responses co-determine the topic trajectory of the call and shape the delivery of the course of action, a finding echoed by Maynard & Frankel (2003). Finally, whilst callers can and do display a stronger accord with the nurse, specifically in response to advice about the availability of the service where a disposition initially receipted with
silence or an unmarked acknowledgement or a ‘right’ response is re-presented later in the call, it continues to be oriented to as problematic by the nurse and caller.

Previous research examining clinical encounters is largely confined to medical or typically doctor-patient interaction; nevertheless, it provides a useful starting point for the analysis of these data. This research indicates that patients routinely accept doctors’ diagnostic classifications, using silences or minimal responses (Heath, 1992; Maynard et al., 1991; Maynard & Frankel, 2003; Peräkyla, 1998, 2002, 2006; Stivers, 2005). On the other hand, treatment recommendations are oriented to as requiring a response and may be resisted (Stivers, 2006). By contrast, in these data, the CAS-imposed disposition or course of action is not routinely accepted, the significance of which is played out in the subsequent trajectory of the call, whereby nurses treat it as resistive, and rather than backing off, go on to produce explanations and accounts, a feature observed by Kinnell and Maynard (1996).

This thesis advances research in a number of ways. It demonstrates that the practical realisation of the CAS output in the form of the disposition or course of action is not unproblematic. Nurses and callers regularly orient to its output as troublesome, the former by skating over the transition relevance place on possible completion of the disposition, thus creating a gap which works to avoid uptake by the caller. Callers, on the other hand, adroitly engage silence and unmarked acknowledgements to arbitrate the CAS output. Whilst the CAS is specific about what should be relayed to the caller in the form of the disposition, it is not sensitive to the here and now difficulties of the task. The nurses’ noble attempts to process locally the disposition as advice, in such a way as to foster acceptance, is nevertheless rejected by the caller, thereby displaying that the delivery of the disposition and a demonstration of understanding and/or acceptance is a delicate undertaking requiring the tacit interactional skills of the nurse and the caller.
My research has drawn on what we currently know about telephone help in health care settings – the growth of helplines and call centres as sources of help, the emergence of computer decision support software to aid this task, nurse-patient communication, traditional approaches to examining communication, and conversation analytic theory, method and research as an alternative analytic approach to analysing talk.

**Contribution to Research**

My research contributes to previous works, but is also different in many respects. The first of these differences relates to the topic of interest. NHS Direct has received a great deal of attention in the form of comment, opinion, reports, evaluations, and studies. However, much of it focuses on and examines past and future investment, capacity and the impact of the service on other parts of the NHS. Although studies have begun to examine nurses’ perceptions and use of the computer decision support software, they are limited in their exploration of the situated practical actions through which nurses and callers coordinate the parallel activities of computer-based activity and talk in the accomplishment of help. My research attends to this absence.

The second difference is that traditional approaches to examining how nurses and patients talk to together have largely employed the use of rating scales, observation and self-reports, neglecting to engage with conversation analysis as a way of analysing talk-in-interaction. My research reveals the opportunities afforded by such analysis.

The third difference is that whilst call centres have attracted attention in the literature, these works have largely focused on call centre characteristics, management and control, worker competence and worker resistance. Although research is beginning to examine the extension of the call centre to professional fields of work such as nursing, it has so far received limited attention in the literature. That which does exist focuses largely on management and control and professional autonomy. My research seeks to extend the enquiry into how
nurses reconcile the dual demands of the organisation and the contingencies of individual calls and professional accountability in the call centre environment. Helpline research using conversation analysis is an enduring area of academic interest, to which my research will hopefully contribute, but with a slight twist in that my research is also interested in examining not just telephone help, but telephone- and computer-mediated help.

This leads on to my final contribution to research. I hope my research will add to a small but growing interest in how nurses and callers reconcile the demands of computer decision support software with the interactional contingencies and peculiar circumstances of each call, and how these are brought into alignment.

This thesis has shown that the accomplishment of help as mediated by the telephone and computer decision support software is not unremarkable. Indeed, its situated achievement may not be realised in such an apparently effortless procedural manner as set out by the CAS computer decision support software. I argue that, devoid of context sensitivity, the arbitration and reconciliation of the CAS with the local in situ circumstances of the interaction invite the nurse and caller to engage in an elaborate “choreography” (Thompson, 2005) in an attempt to ‘make sense’ of the situation, thereby engendering a symbiotic relationship between the nurse, caller and the CAS, which represents the ‘hidden labour’ and ‘artful accomplishment’ of calls to NHS Direct.

**Reflections on the methodological approach**

Conversation analysis enables a close examination of how NHS Direct, a telephone health helpline mediated by computer decision support software, is evoked and managed in interaction between nurse and callers. The advantage of this approach is that it does not rely on what people say they do in interactions, but on audio recordings of real time interactions, the analysis of the moment-by-moment construction of talk, and what the participants make contextually relevant. Moreover, the reliance on the use of recorded data, which
is transcribed in great detail and subjected to fine grained analysis, provides for
the trustworthiness of the data and findings, because readers can examine the
data for themselves. Conversation analysis creates the opportunity to bring new
insights to traditional analyses of helpline talk using a systematic technique.

The journey to conversation analysis was a lengthy and tortuous one. I came
from a professional background strongly wedded to qualitative methodology
and thematic analysis. Having chosen to examine how nurses and callers do
things through talk in calls to a national telephone helpline, I laboured to make
the case for an analytic method that would move away from describing what
people do in their interactions to how they do it. For example, studies have
routinely neglected to consider nurse-patient interaction as a collaborative
achievement. Limited by this stance, although the research has focused on
what nurses do and shows us that they regularly control interactions with
patients, we have yet to understand turn-by-turn the interactional practices
employed by both nurses and patients in its accomplishment.

By examining the structural organisation and sequential positioning of turns at
talk, conversation analysis provides an insight into the practical methods nurses
and patients use to get their talk-in-interaction done. It is not merely the
essence of talk, but the lexical features; design and positioning which by close
analysis show us what is contextually relevant for nurses and patients. This was
my starting point, and from there the analysis of talk between nurses and
patients became more complex as I began to explore the notion of remote talk,
i.e. helpline talk, and then telephone- and computer-mediated talk. I tried to
piece together existing research on helplines, call centres nurse-patient
communication and relevant material examining human-machine interaction. In
health care, doctor-patient interaction has received much attention both face-to-
face and by telephone, and latterly using the computer face-to-face. Nurse-
patient interaction has also received attention, focusing largely on
communication or consultation skills, though some studies have begun to
explore consultations guided by computers. All of this research contributed to
my thinking and analysis of my data. Collectively, however, it is limited in its examination of the micro-interactional practice of talk, which is mediated by a computer over the telephone. My research provides what I think is a much needed venture into not only the micro-analysis of talk between nurses and patients, but also, more specifically, talk in a setting where nurses and patients cannot see one another and where the computer is co-present, not in a latent sense but as a “third party” co-participant, (Lepkowski et al., 1998).

I discussed the criticisms and limitations of conversation analysis in Chapter two. My argument for collecting only audio recordings of calls is that I wanted to analyse talk and other sounds that were available to both participants that were made relevant in the interaction. They did not have sight of the computer, one another’s settings, mannerisms or gestures. They may, however, have heard background noises such as the sound of the computer keyboard or a child crying. What were of interest to me were talk and any other paralinguistic features and ambient sounds made relevant to the participants in their interaction and evident in subsequent turn design. Thus, I decided not to video record the nurse at the computer terminal. This is not to say that the physical activity of the nurse whilst working on the computer is not of analytic interest, but merely that the focus of this study was talk. I was also uninterested in exploring nurses’ or callers’ perceptions of their interactions. Previously, I conducted interviews with callers to NHS Direct and found that by the time I had fulfilled consent procedures, it was a number of weeks before being able to interview the caller, by which time the level of decay in the recollection of the call was great and the data unhelpful in understanding perceptions. Moreover, if callers rang NHS Direct often, they became confused about what was said in each call. Furthermore, studies in other settings have used the playback of calls during which nurses are asked for their ideas about particular aspects. Both of these approaches do not advance our understanding of how things are accomplished in situ through talk.
My selection of calls was influenced by my analytic interest, inasmuch that I requested from NHS Direct only calls managed by nurses. I was not concerned with talk between callers and call-takers. The focus of my analysis emerged through listening repeatedly to calls. As I became interested in examining how problem identification questions were designed, I began to reflect on my call sampling decisions. The decision to limit my data to nurse-managed calls meant I did not have access to the initial calls made by callers and answered by call-takers. So I did not know how problem presentation had been initially elicited by the call-taker and designed by the caller. I did not know whether the caller had provided a lengthy problem description or merely a symptom or diagnosis. All I had access to was a call-taker typed and printed summary contained in the Call Report. The same information would have been available to the nurse at the time of the call.

The decision to limit calls to those managed by nurses meant that I was unable to piece together problem presentation as a sequence across both parts of the call to NHS Direct. This only became relevant when I discovered how question design limited what the callers could say about their problem, and that question design was in part a consequence of the prior information provided by the call-taker. This is because in having the caller’s reason for calling in front of them on the computer screen, nurses had a decision to make about whether to reveal this information to the caller or conceal it. This became apparent in how they designed their questions and the contribution the caller could make. This is of itself an important observation, because arguably if the reason for calling is not identified clearly, the nurse may end up choosing an algorithm which is inappropriate to the problem and risk rejection of the disposition or course of action by the caller. Further research might also examine both parts of the call, though this might be procedurally difficult for NHS Direct because, although sampling calls is relatively straightforward, locating the matching first part of the call on the system might be quite time-consuming.
It could also be argued that fifty-six calls is not a large enough sample for the findings to be representative of and generalised to the wider population. Although I discussed the philosophical assumptions underpinning this study in Chapter 2, this might be problematic if this research were attempting to assess the frequency or distribution of the activities going on in these calls. However, the task of this research has been to examine how telephone- and computer-mediated calls to NHS Direct are socially organised, and to suggest the interactional practices displayed by nurses and callers in the accomplishment of such calls. The data are adequate for this purpose, and I make no pretence to claim that these practices are exhaustive.

The interactional work of NHS Direct is a ripe area for further research. In the course of my study I discovered many avenues of potentially fruitful enquiry. These fall into discrete areas, but concern the notion of help. The first relates to the lifeworld concerns of the caller. A pervasive concern that emerged during the course of this study is what Mishler (1984) describes as “humane practice” and how current forms of nurse-caller interaction in this setting are consistent with respect for the caller as a person and recognise their problems within the context of their lifeworlds of meaning. How do callers construct their concerns and how are responses to their attempts to construct meaningful accounts of their problems built across sequences?

A second area of enquiry relates to the problem of providing relevant help; the literature suggests that advice is rarely accepted outright, even when sought in situations such as phoning a helpline. There is, in this setting, scope for further enquiry, which seeks to examine the caller’s lifeworld concerns with relevant help, even if it is just listening. It was beyond the scope of this study to examine advice-giving as help, though it did represent a substantial part of the interaction. I have already shown how providing the disposition as advice is challenging in its production and receipt. Further work could examine how advice is given and receipted.
A third area of enquiry might examine epistemological concerns – callers are not empty vessels, yet appear to be treated as having no prior knowledge about their concern. Assertions of epistemological authority were live concerns for both the caller and nurse. A close examination of the displays of knowledge might reveal how these concerns are consequential for the call and stimulate a discussion about how capitalising on callers’ knowledge might provide a stepping stone to relevant help.

A fourth area of enquiry concerns the use of ‘expert systems’ to guide calls for help. Highly prescriptive, the CAS constrains what can and cannot be said in the interaction, yet I have shown that the nurse and caller show remarkable resourcefulness in fulfilling their roles in the seeking and providing of help. Further examination of the gains and losses of such prescription might facilitate a new view of, for example, diagnostic work in this setting. A final area of potential enquiry advances the work of Suchman (2007) and a call for a new appreciation of the relationship between technology and communication (Hutchby, 2001). Thus, further research might examine the disjuncture between what the nurse is supposed to do at any point in the call and what the nurses actually do as a result of their situated interpretations of the CAS instructions and social processes involved in its materialisation.

**Implications**

The implications of this study for practitioners lie in what Silverman suggests is the “practical pay-off” (D. Silverman, 1997, p. 130) of nurse-patient communication research, which has typically framed the nurse as a poor communicator, instead reframing their interaction with patients/callers as uniquely suited to the institutional context within which it takes place. Silverman (1997, p. 131) suggests that practitioners respond well to research that seeks to document the fine detail of their practice, whilst at the same time acknowledging the structural constraints within which they work. Thus, we as researchers should find ways to identify the interactional skills of the participants as opposed to their failings. Understanding the intended and
unintended consequences of interaction can encourage dialogue and insight. My research has revealed some challenges faced by the nurse and caller in managing the constraints imposed on calls to NHS Direct, which are mediated not only by the telephone, but also the CAS and the organisational imperatives that limit what can and cannot be said. In the accomplishment of the clinical assessment, we observed nurses skilfully attempting to weave the requirements of the CAS and the organisation into the local circumstances of each call. With varying degrees of accomplishment and difficulty, the nurse gathered information and produced the disposition whilst dealing with interactional contingencies such as resistance. Devoid of contextual sensitivity, the nurse laboured to accomplish a ‘best fit’ between the output of the CAS and caller expectations. The enduring challenge was to find a way to work in concert with the blunt and disembodied CAS technology, the lifeworld concerns of the caller and the moment-by-moment contingencies of the call. There are no easy answers to this dilemma for those who work in this setting. Frankel’s (1995) suggestion that the activities which make up the clinical encounter are “nested may be an ideological position, but by encouraging callers to participate and collaborate in the consultation, in such a way that goes beyond the instrumentality of providing answers to questions, the situated practical accomplishment of the fit or “nesting” (Frankel, 1995) between the procedural requirements of the CAS and the organisation can possibly be realised with one caveat. We have yet to illuminate what collaboration and participation look like in such a prescribed setting as NHS Direct.

People ring NHS Direct with a health concern such as a headache or swelling. The CAS is designed to gather information via the nurse about the concern, on completion of which it produces a disposition directing the caller to a particular course of action such as contact your GP, attend accident and emergency or homecare. Never in these data do callers state their reason for calling as who they should be directed to see about their concern, yet this is what they get. Indeed, following the production of the disposition, callers can be observed seeking something entirely different: a diagnosis. It is possible from these data to speculate that a fundamental misunderstanding or misalignment (Drew,
exists between the expressed concerns or needs of the caller and how the CAS and, by default, the nurse can meet this need in the form of the disposition. Consequently, it may be difficult to set up a disposition or course of action that is accepted when it has not been specifically requested, and thereby collaboratively “worked-up”. Furthermore, the implicit assumption that the caller needs to be told who to see treats the caller as somehow lacking the knowledge to make a decision for themselves about the most appropriate person to see about a problem. The institutional mandate of NHS Direct removes the responsibility for decision making away from the caller to the CAS, which decides unilaterally who they can legitimately contact about their health concern. As a result of this, the disposition is arguably not necessarily based on its relevance to the caller. It is based on the premise that the CAS and therefore the nurse are accommodating the institutional mandate of NHS Direct to guide callers to appropriate levels of care. Arguably, this mandate “works-up” and relays the disposition in such a way as to be at the expense of the local circumstances of the call, such that the nurses and callers are caught in the imposition of the disposition dilemma, to which callers appear largely resistive. The CAS is specific about what should be relayed, but not how. This is the work of the nurse. Nevertheless, in these data, even when the disposition is locally processed to promote acceptance, as we can see in this study, it is still resisted.

Cameron (1997) suggests that individuals in this case the nurse and caller, bring different “frames” or expectations to the interaction and that “frame mismatch” (p. 338) is a good way to explain routine interactional trouble. One way of managing this in practice might be to improve caller’s expectations of NHS Direct, to the extent that callers will routinely be informed that NHS Direct will only advise them about what to do next. This might be achieved by redesigning the service announcement at the beginning of the call; information online and in PR material to socialise callers that NHS Direct’s aim is to facilitate access to other services not to diagnose conditions. In addition in these data, nurses appear to skilfully anticipate where caller’s expectations may not match the outputs of the CAS and by default NHS Direct. Taking a lead
from Tracey (1997), creating an opportunity to reflect on calls in order to identify these “mismatches” or misalignments might be one way of building this subtle interactional skill to refine the nurses ability to first spot them, and then respond appropriately. Already nurse’s can be observed to do disclaimers, accounts, or explanations. Treating these practices as Tracey (1997) suggests as part of the practical skills involved in and “styling” (Cameron 2000 p. 86) or embodiment of the call as a service encounter and thus part of the training may minimise such “mismatches”.

Debatably, the acceptance of the CAS’s “worked up” disposition, designed as it is to limit the caller’s contribution through the use of ‘Yes’/’No’ interrogatives, its relevance for the caller, and display of an intention to use it, has less to do with the systematic properties of the CAS and more to do with the interactional environment of the production of the disposition itself by the nurse. If the goal is to foster caller acceptance, compliance and concordance, then an appreciation of the social organisation of the discourse of help in this setting needs to be reconsidered.

This research has illuminated the complexities of communication mediated by the telephone and computer, revealing how nurses and callers employ a range of interactional devices and seek to make sense of and derive meaning from the CAS output, as well as the organisational constraints which govern the interaction between them. Rather than label these practices as somehow rebellious or resistant, I argue that these practices, or ethnomethods, skilfully work to tailor and fashion ‘embodied help’ from an otherwise disembodied technical system. Thus, we can observe the nurses and callers artfully displaying through talk the ordinary yet uniquely suited practical methods for accomplishing telephone and computer-mediated help in this setting.
Appendix 1 – Call Review Tool

Improving Quality Of Nurse Advice Calls

Call Review Tool

To be used in conjunction with Improving quality of Nurse Advice Calls - Guidance Notes

The Performance framework 2003/4
Version 1.1 September 2003
## Orientation and Identification Phase

**Patient/Caller Focused Outcome**
There is a relationship established between caller and nurse that facilitates the development of a partnership and patients are empowered to make safe and appropriate healthcare decisions.

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<tbody>
<tr>
<td>1.</td>
<td>Greets caller appropriately, confirming the need for emergency intervention or the absence of active symptoms.</td>
<td>Yes (4)</td>
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<td></td>
<td></td>
<td>No (0)</td>
<td>Comments</td>
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<td>2.</td>
<td>Searches for previous charts / opens up new charts (confirming demographic data whilst maintaining confidentiality) or selects call from the 'First Advice Queue', confirming details with the caller.</td>
<td>Yes (2)</td>
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<td>Partially (1)</td>
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<td></td>
<td>No (0)</td>
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<td>3.</td>
<td>Establishes a communication dialogue and gathers information from the caller to determine / confirm the exact reason for calling.</td>
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<td>Partially (1)</td>
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<td></td>
<td>No (0)</td>
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<td>4.</td>
<td>Explains the service and agrees a plan for assisting the caller.</td>
<td>Yes (2)</td>
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<td>Partially (1)</td>
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<td></td>
<td>No (0)</td>
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<td>5.</td>
<td>Controls and focuses the calls without leading the caller, demonstrating the focussing principles of the 'SCAN' model.</td>
<td>Yes (2)</td>
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<td></td>
<td>Partially (1)</td>
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<td></td>
<td>No (0)</td>
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<td>6.</td>
<td>Reviews the callers history as appropriate</td>
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<td></td>
<td>No (0)</td>
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<td>7.</td>
<td>Completes all initial fields in a logical order.</td>
<td>Yes (2)</td>
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<td>Partially (1)</td>
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<td></td>
<td>No (0)</td>
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<td>8.</td>
<td>Without verbally diagnosing, selects the most appropriate algorithm for the caller's presenting symptom or provides a clear documented clinical rationale for non usage.</td>
<td>Yes (4)</td>
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<td></td>
<td>No (0)</td>
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<td>9.</td>
<td>Reinforces positive caller behaviour and where appropriate educates on perceived inappropriate behaviour.</td>
<td>Yes (2)</td>
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<td>Partially (1)</td>
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<td></td>
<td>No (0)</td>
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**Breakdown of Score for this phase**

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<th>Total</th>
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Patient/Callers are offered resources to meet their needs and the nurse exploits their knowledge skills and experiences to improve outcomes.

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<th></th>
<th>Uses the decision support software to support clinical knowledge and critical thinking throughout the assessment requesting guidance as appropriate</th>
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<td></td>
<td>Yes (4)</td>
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<td></td>
<td>No (0)</td>
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<td>11.</td>
<td>Is able to multi task throughout, maintaining call flow and control and where relevant using call back or call hold appropriately and in negotiation with the caller</td>
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<td></td>
<td>Yes (2)</td>
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<td></td>
<td>Partially (1)</td>
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<td></td>
<td>No (0)</td>
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<td>12.</td>
<td>The assessment takes account of current health status and where relevant past medical history, medication and co-morbidities</td>
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<td>Yes (4)</td>
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<td>13.</td>
<td>Uses appropriate questioning skills throughout that elicits information appropriate to the caller.</td>
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<td>Yes (4)</td>
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<td></td>
<td>No (0)</td>
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<td>14.</td>
<td>Demonstrates active listening by using paralanguage and reflective statements</td>
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<td>Yes (2)</td>
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<td>Partially (1)</td>
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<td></td>
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<td>15.</td>
<td>Reflects back to caller to ensure understanding throughout assessment</td>
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<td>Yes (2)</td>
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<td>Partially (1)</td>
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<td></td>
<td>No (0)</td>
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<td>16.</td>
<td>Documents only pertinent information gained during the assessment and adheres to documentation guidelines.</td>
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<td></td>
<td>Yes (4)</td>
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<td></td>
<td>No (0)</td>
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<td>17.</td>
<td>Maintains professionalism throughout the call, showing an appropriate balance of empathy and friendliness</td>
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<td>Yes (2)</td>
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<td></td>
<td>Partially (1)</td>
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Breakdown of Score for this phase

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<th>Total</th>
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The caller is informed, reassured and clear about the problem and how to manage potential risks and the call is closed assertively.

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| 18. Selects an appropriate disposition based upon presenting symptoms. | Yes (4) | No (0) |
| 19. Communicates disposition clearly and confidently, checking understanding and where necessary recording rationale for callers having alternative intentions to the recommended level of care. | Yes (2) | Partially (1) | No (0) |
| 20. The clinical record supports the disposition reached and where necessary records a clear clinical rationale for altered disposition. | Yes (4) | No (0) |
| 21. Uses care advice appropriate to the caller and disposition and ensures caller understanding. | Yes (2) | Partially (1) | No (0) |
| 22. Empowers the caller to ring back if symptoms change, worsen or they are unable to carry out the recommended level of care. | Yes (4) | No (0) |
| 23. Clearly and effectively communicates all information given and verifies patient understanding | Yes (2) | Partially (1) | No (0) |
| 24. Demonstrates effective call closure and Where appropriate records caller feedback, and/or completes referral and safe information transfer to OOH, HIS or other agency | Yes (2) | Partially (1) | No (0) |
| 25. The call was timely and managed appropriately to the clinical risk presented. | Yes (4) | No (0) |

**Breakdown of Score for this phase**

| Total |  |  |

290
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Call Review Record

Name of Nurse: ________________________________ CAS Id. No: ________________________________

Name of Reviewer: ________________________________ Recorder/Channel: ________________________________

Date of Call: __/__/____ Date of Review: __/__/____

Percentages of each Phase
O&I: % E: % R: %

Total Percentage: %

Were Essential criteria met?
YES/NO

If not, please list the criteria not met by number below:

______________________________

Type of call
(0845) [ ] (COH GP) [ ]

(Dental) [ ] (Other) [ ]

Type of Review: taped/live

Areas of good practice from the call

Points for reflection and development

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<th>Timoscale</th>
<th>Evidence</th>
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(Please use additional paper and attach as necessary)

STATEMENT OF AGREEMENT
The outcomes of the Call Review have been agreed between reviewer and reviewer and both are satisfied with the outcome.

Reviewer: ________________________________ Date: ________________ Signature: ________________

Reviewer: ________________________________ Date: ________________ Signature: ________________
Appendix 2 – Ethics Approval

SOUTHAMPTON & SOUTH WEST HANTS
LOCAL RESEARCH ETHICS COMMITTEE

Chairman: [Name]

Ref CPW

5 March 2002

Ms J Locke
School of Nursing & Midwifery Student
University of Southampton
Highfield
Southampton

Dear Ms Locke:

REF: 049/02 – An analysis of how the style and skills of verbal interaction impact on caregivers’ subsequent health-related behaviour.

The Ethics Committee considered your application for the above study at its recent meeting and I am pleased to inform you that approval was given. Please ensure that measures are in place for protecting the safety of the researcher during home visits.

May I draw your attention to the attached conditions of approval which must be complied with. In particular it is mandatory that all correspondence, information sheets, consent forms, adverts etc. carry the LREC submission number. You should be aware that a substantial random proportion of research projects are audited annually.

If you have not already done so, the Caldicott Guardian/Data Protection Officer for the Trust and the University (if applicable) must be notified of the project. Health Authority employees should notify their Caldicott Guardian.

This committee is compliant with the International Committee on Harmonisation/Good Clinical Practice (ICH) Guidelines for the Conduct of Trials involving the participation of human subjects as they relate to the responsibilities, composition, function, operations and records of an Independent Ethics Committee/Independent Review Board. To this end it undertakes to adhere as far as is consistent with its Constitution, to the relevant source of the ICH Harmonised Tripartite Guideline for Good Clinical Practice, adopted by the Commission of the European Union on 17 January 1997.

The composition of the committee is enclosed for your files and confirms which members were present at the meeting. Most pharmaceutical companies request this information and we would be grateful if you could forward this to them if appropriate.

Should any unforeseen problem or ethical or procedural nature arise during the course of this research and you feel the Joint Ethics Committee may be of assistance, please do not hesitate to contact us.

Yours sincerely,

[Signature]

[Name, Manager]
Appendix 2a

SOUTHAMPTON & SOUTH WEST HANTS LOCAL RESEARCH ETHICS COMMITTEE

Chairman: [Name]
Manager: [Name]

1st Floor
Regents Park Surgery
Park Street
Shirley
Southampton
SO16 4RU

Tel: (023) 81 [Redacted]
Fax: (023) 81 [Redacted]

Ref: CPW/CA

24 May 2002

Ms J Locke
School of Nursing & Midwifery Student
University of Southampton
Highfield
SOUTHAMPTON

Dear Ms Locke

Submission No: 049/02 - An analysis of how the style and skills of verbal interaction impact on callers' subsequent health related behaviour

In response to your letter dated 15th May 2002, I am pleased to confirm ethical approval for the Protocol amendment.

The following documents were reviewed:-

- Amended Research Protocol

This approval has been granted under Chairman's action by the Vice-Chairman Dr [Redacted] and will be recorded at the Committee meeting in June.

Yours sincerely,

[Signature]

Mrs [Redacted]
Research Ethics Manager
Appendix 2b

Hampshire and Isle of Wight
Strategic Health Authority

Ref: O’Whin

19 May 2003
Ms J. Locke
School of Nursing and Midwifery Student
University of Southampton
Highfield
Southampton

Dear Ms Locke,

Submission No. 04902/01 – An analysis of how the style and skills of verbal interaction impact on callers’ subsequent health-related behaviour.

In response to your letter dated 29th April 2003, I am pleased to confirm ethical approval for protocol amendment for the above study.

The following documents were reviewed:
- Letter 29th April 2003
- Amendments to Research Protocol dated April 2003
- National Confidentiality Policy (Protecting and using patient information), Version 4 dated April 2003
- NHSD letter dated April 2003
- NHSD Direct Intranet Information dated April 2003
- NHSD Consent for Removal of Audio Tapes/April 2003

This approval has been granted under Chairman’s action by the Vice Chairman: and will be recorded at the committee meeting in June.

Yours sincerely,

[Signature]
Research Ethics Manager

[Signature]
Chairman

[Signature]
Manager
Appendix 3 – NHS Direct Consent to take part in the Research

Ref. CLS/sc

31 January 2002

Jill Locke
Post Graduate Research Student
University of Southampton
Highfield
Southampton
SO17 1BJ

Dear Jill

Thank you for your letter dated 17 January 2002, regarding your PhD study ‘Nurse-caller interaction during telephone consultation – an analysis of the verbal interaction between the nurse and caller, caller participation and subsequent health related behaviour’

I would be delighted for NHS Direct [signature] to assist you with your study. I understand you have liaised with [signature] and I am very happy for [signature] to be your key contact at NHS Direct.

I wish you well with the study and look forward to your evaluation.

Yours sincerely

[Signature]

NHS Direct
Appendix 4 – University Indemnity

Memorandum

From: [Redacted] 
To: Ms Jillian Locke

Ext: [Redacted] 
Dept: School of Nursing and Midwifery

E-mail: [Redacted] 
Date: 3 April 2002

Reference: CLINTRL/HRM/GFT

Professional Indemnity Insurance

Project No: 049/02

An Analysis of How the Style and Skills of Verbal Interaction Impact on Callers’ Subsequent Health Related Behaviour

Thank you for forwarding the completed questionnaire and attached papers.

Having taken note of the information provided, I can confirm that this project will be covered under the terms and conditions of the above policy, subject to written consent being obtained from the participating volunteers.

[Signature]

Ruth McManus

Insurance Administrator
7th February 2002

Dear

Re: Data Protection

Further to our conversation on 17th August, during which I informed you of my proposed doctoral research, and subsequent letter of 31st October 2001. Thank you for your subsequent email of a summary of the provisions of the Data Protection Act 1998, highlighting the implications for those setting up research projects in the University.

I am writing to notify you that I plan to commence the study subject to Ethics Committee approval, which has been sought from Southampton and South West Hampshire Joint Local Research Ethics Committee.

Should you require a copy of the research protocol, please do not hesitate to contact me.

Yours sincerely,

Jill Locke
Post Graduate Research Student
Information Sheet for Staff at NHS Direct

Nurse caller interaction during telephone consultation -
A Qualitative Study

Who I am
My name is Jill Locke. I am a PhD Student at the University of Southampton interested in the interaction between the nurse and the caller during telephone consultations. My background is in nursing and more recently NHS Direct.

Aim of the study:
To explore the processes of verbal communication between the nurse and caller during telephone calls to NHS Direct.

Design and Method
Qualitative analysis of fifty-six transcribed telephone calls to NHS Direct in Hampshire & IOW.

Duration of the Study
The main study began in June 2003 for 12 months.
Data transcription and analysis 2004 to date
An update is available on the NHS Direct Intranet.

If you would like any more information, my telephone number is: Email:
A study of nurse-caller interaction during telephone consultation

Who I am

I am a PhD student at the University of Southampton interested in the interaction between the nurse and the caller during telephone consultations.

My background is in nursing, midwifery and health visiting and I recently worked at NHS Direct. Having listened to many calls, I began to observe how nurses and callers communicate with each other. Whilst previous studies have provided us with information about how nurses and patients talk to each other, for example on the wards, I want to explore the interaction on the telephone.

NHS Direct has kindly agreed to take part in the study.

What is your involvement?
The study will involve randomly sampling calls to NHS Direct. Each call recruited to the study will be retrieved, transcribed verbatim and analysed. All data will be anonymised and remain confidential in accordance with the Data Protection Act 1998, the Nursing and Midwifery Council Code of Professional Conduct and the NHS Direct National Confidentiality Policy: Protecting and Using Patient Information (April 2003). If you are concerned about taking part, please contact me (details below).

What is the caller's involvement?

The caller will not be directly involved in the study. However, I will be examining all callers’ verbal contributions to their consultations with the nurses. All data will be anonymised and remain confidential in accordance with the Data Protection Act 1998, the Nursing and Midwifery Council Code of Professional Conduct and the NHS Direct National Confidentiality Policy: Protecting and Using Patient Information (April 2003).

What else does the study involve?

The study involves analysing the verbal processes involved in communication between the nurse and caller. This will be done using an approach called ‘conversation analysis’ and the study of institutional interaction.

The duration of data collection will be for 1 year starting in June 2003.

I would like to take this opportunity to say thank you for all the help and support you have shown me over the last year whilst I have been designing my study, and I look forward to working with you.

If you would like any further information, please do not hesitate to contact me on Work Tel: Email:
who I am

I am a PhD student at the University of Southampton interested in the interaction between the nurse and the caller during telephone consultations.

My background is in nursing, midwifery and health visiting and I recently worked at NHS Direct. Having listened to many calls, I began to observe how nurses and callers communicate with each other. Whilst previous studies have provided us with information about how nurses and patients talk to each other, for example on the wards, I want to explore the interaction on the telephone.

NHS Direct kindly agreed to take part in the study and data collection was completed in July 2004.

what is your involvement?
The study has involved randomly sampling calls to NHS Direct. Each call recruited to the study has been retrieved, transcribed verbatim and is in the process of being analysed. I am examining how nurses and callers talk to one another over the phone. All data will be anonymised and remain confidential in accordance with the Data Protection Act 1998, the Nursing and Midwifery Council Code of Professional Conduct and the NHS Direct National Confidentiality Policy: Protecting and Using Patient Information (April 2003). If you are concerned about taking part, please contact me (details below).

What is the caller's involvement?

The caller has not been directly involved in the study. However, I am examining all callers’ verbal contributions to their consultations with the nurses. All data will be anonymised and remain confidential in accordance with the Data Protection Act 1998, the Nursing and Midwifery Council Code of Professional Conduct and the NHS Direct National Confidentiality Policy: Protecting and Using Patient Information (April 2003).

What else does the study involve?

The study involves analysing the verbal processes involved in the communication between the nurse and caller. This is achieved using an approach called ‘conversation analysis’ and the study of institutional interaction. The method involves conducting a very detailed transcription of the call and a close analysis of turns taken by the nurse and caller. It is a very time-consuming process, and over the last year all the calls (fifty-six in total) have been subjected to a straight transcription which reads like any text. My task now is to subject the calls to more detailed transcription, which involves noting things like laughter and silences.

I would like to take this opportunity to say thank you for all the help and support that you have shown me since I began this study.

If you would like any further information, please do not hesitate to contact me
Tel: Email:
Appendix 8 – Extracts from NHS Direct National Confidentiality Policy

3. Informing Patients of data uses

3.1 The principle is to inform patients of the uses to which data would be put before it is collected. In the context of NHS Direct, this must be done with the minimum interruption to the consultation.

3.2 In order to satisfy this principle, a short message must be given to the caller before any data is collected, indicating in general the uses for the data and telling the caller how to obtain more information [see Appendix 9].

3.3 All advertising should contain some reference to the use of patient/client data, which should be varied from time to time to build up public awareness of the procedures.

10. Research and Audit

10.1 The general statement regarding the uses of patient data is sufficient for audit and research into records, providing only anonymised data is used.

10.2 If the research affects the way individual patients are treated, then specific consent must be sought. This does not apply to a change in clinical practice.

Source: NHS Direct National Confidentiality Policy (2003 version 4 p.3 and 7)
Appendix 9 – Use of Patient Data: Recorded Message

Thank you for calling NHS Direct. Your call will be answered as quickly as possible. When your call is answered, you will be asked for some information so that we can help you. Some of the information you provide may be used by the NHS in trying to improve health care and in managing the service. Everyone who sees it for these reasons has a legal duty to keep it confidential. If you would like to receive a leaflet, which outlines the use of patient information within NHS Direct, please let us know when your call is answered. Or if you do not want to disclose any personal information, please tell us.

20 SECONDS OF MUSIC TO FOLLOW

COMFORT MESSAGE 1

"Thank you for your patience. Please Hold the line until your call can be transferred to someone who can help. We are sorry to keep you waiting”

30 SECONDS OF MUSIC TO FOLLOW

COMFORT MESSAGE 2

"Thank you for your patience. We are aware you are waiting and your call will be answered as quickly as possible”

30 SECONDS LOOP WITH MUSIC AND REPEAT COMFORT MESSAGE 2

Thank you for calling you GP out of hours service. Your call will be answered as quickly as possible. When your call is answered, you will be asked for some information so that we can help you. Some of the information you provide may be used by the NHS in trying to improve health care and in managing the service. Everyone who sees it for these reasons has a legal duty to keep it confidential. If you would like to receive a leaflet, which outlines the use of patient information within NHS Direct, please let us know when your call is answered. Or if you do not want to disclose any personal information, please tell us.

Source: (NHS Direct, 2003b, p. 10)
Appendix 10

NHS Direct Patient Data Information Leaflet

What you need to know about the information recorded

Direct on 0845 464 4647.

Your own interests or other reasons. Your information is collected for a copy of your records in English.

You should also make sure there are changes or mistakes.

Further information:

Contact NHS Direct on 0845 4647.
Appendix 10 continued

307
Appendix 11 – Copy of Emails to and from Clinical Solutions

From: [deleted]
Sent: 26 May 2009 10:26
To: [deleted]
Cc: [deleted]
Subject: RE: CAS Training Manual for NHS Nurses version 9.3.2/1

Hi Jill

We're happy for you to use the screenshots providing you cite us as the source, and include the version number in your reference.

Good luck with the dissertation, and I'd be interested to hear how your work is received.

Regards

[deleted]
E-learning Coordinator

Clinical Solutions
Scott House
Alencon Link
Basingstoke, Hampshire
RG21 7PP
UK

T: +44 (0)1256337379
F: +44 (0)1256337398
M: +44 (0)7962686599
E: helen.tyson@csdss.com
W: www.csdss.com

CAS Services Ltd. trading as Clinical Solutions is a private company registered in England, No. 4394761. Registered office Scott House, Alencon Link, Basingstoke, Hampshire, RG21 7PP.

-----Original Message-----
From: [deleted]
Sent: 21 May 2009 15:36
To: [deleted]
Subject: FW: CAS Training Manual for NHS Nurses version 9.3.2/1

Hi [deleted]

Please see comments from Jill below. This is for her dissertation.
Please could you confirm it is definitely ok for her to use the literature as she advise?

Many thanks

[deleted]
Sales and Marketing Assistant

Clinical Solutions
Scott House
Alencon Link
Basingstoke, Hampshire
RG21 7PP
UK

T: +44 (0) 1256 337541
F: +44 (0) 1256 337399
M: +44 (0) 7962610503
E: [deleted]
W: www.csdss.com

CAS Services Ltd. trading as Clinical Solutions is a private company registered in England, No. 4394761. Registered office Scott House, Alencon Link, Basingstoke, Hampshire, RG21 7PP.

-----Original Message-----
From: Jill Pooler [deleted]
Sent: 21 May 2009 15:31
To: [deleted]
Subject: RE: CAS Training Manual for NHS Nurses version 9.3.2/1

Dear [deleted],

Perfect! Thank you so much for taking the time to help me and sending this material.

Can I be absolutely sure that Clinical Solutions agrees to me using screenshots in my dissertation and any professional publications that might arise from it?

I will of course cite Clinical Solutions as the source and owner of the material.

With kind regards
Jill
Appendix 12 – Audiotape Removal Form

University of Southampton | School of Nursing and Midwifery

University of Southampton
Highfield
Southampton
SO17 1BJ
United Kingdom
Telephone 023 80
Fax 023 80
Email

NHS Direct Removal of audiotapes of consultations for the purpose of research

Ethics Submission Number: 049/02

<Insert date>

Title of Project ‘Nurse caller interaction during telephone consultation.’

Name of Researcher: Jillian Locke

In accordance with the Caldicott Report, in order to ensure confidentiality and safeguard participants against unwanted exposure, data collected will have all patient/participant identifiable features removed. Audiotapes of the consultations will be transported securely, kept in a locked cupboard throughout the period of research and will be returned to NHS Direct at the end. Names and other identifying information will be replaced with pseudonyms after the initial transcribing. At this point, initial transcripts, any records, computers or manuals with the name of the participants will be destroyed. Prior to being destroyed, this information will be stored in a locked cupboard and/or password protected.

Number of Audiotapes removed _____

Individual Identifier Tape Number 1 _____ Tape Number 3 _____
      Tape Number 2 _____ Tape Number 4 _____
      Tape Number 5 _____

Name of NHS Direct Manager Date Signature

Name of Researcher Date Signature
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<tr>
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<th>Date</th>
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Appendix 13 – The Jefferson transcription system

Nur  Nurse
Cal  Caller

[ Square brackets mark the start of overlapping speech. They are aligned to mark the precise position of overlapping talk.

↑↓ Vertical arrows indicate especially high or low pitch and precede marked pitch movement, over and above normal rhythms of speech.

→ Side arrows are used to draw attention to features of talk that are relevant to the current analysis.

Underlining Indicates emphasis; the extent of underlining within individual words locates emphasis and also indicates how heavy it is.

Underlining Indicates the emphasis of a whole word.

CAPITALS Mark speech that is audibly louder than surrounding speech. This is beyond the increase in volume that comes as a by product of emphasis.

°↑° I know it.° ‘Degree’ signs enclose audibly quieter speech.

°°help°° Whispering – enclosed by double degree signs.

that’s r*ight. Asterisks precede a ‘squeaky’ vocal delivery.

(0.4) Numbers in round brackets measure silences in tenths of a second (in this case, 4 tenths of a second).

(.) A micro pause, audible but too short to measure.

she wa::nted Colons show degrees of elongation of the prior sound; the more colons, the more elongation.

hhh Aspiration (out-breaths); proportionally as for colons.

.hhh Inspiration (in-breaths); proportionally as for colons.

Yeh, ‘Continuation’ marker, speaker has not finished; marked by fall-rise or weak rising intonation, as when delivering a list.
y’know? Question marks signal stronger, ‘questioning’ intonation, irrespective of grammar.

Yeh. Full stops mark falling, stopping intonation (‘final contour’), irrespective of grammar, and not necessarily followed by a pause.

bu-u- Hyphens mark a cut-off of the preceding sound.

>he said< ‘Greater than’ signs enclose speeded-up talk.

<he said> ‘Lesser than’ signs enclose slower talk.

solid.= =We had ‘Equals’ signs mark the immediate ‘latching’ of successive talk, whether of one or more speakers, with no interval.

heh heh Voiced laughter. Can have other symbols added, such as underlinings, pitch movement, extra aspiration, etc.

sto(h)p i(h)t Laughter within speech is signalled by h’s in round brackets.

Wo:rd If a letter preceding a colon is underscored, the letter is “punched up” thus indicating an ‘up-to-down’ contour.

Wo:rd If the colon is underscored, then the colon is ‘punched up’ thus indicating a ‘down-to-up’ contour.

( ) Empty parentheses indicate that the transcriber was unable to hear what was said.

(word) Parenthesised talk indicates dubious hearing.

Based on Jefferson (Jefferson, 1983a, 2004).
See also Hepburn and Potter (2009)
Appendix 14 – NHS Direct Clinical Assessment System Call Dispositions

List of dispositions:

999
Accident and Emergency (Now)
Accident and Emergency within 4 hours
See GP within 4 hours (as soon as possible)
See GP within 12 hours (same day)
See GP within 36 hours (next day appointment)
Routine appointment with GP
Home Care
Call Dentist urgently
Call Dentist for routine appointment
Nurse to call poison control
Contact Mental Healthcare team
Call Midwife
Call Health Visitor
Call Social Worker
Call District Nurse
Visit Gastro-urinary medicine clinic
Visit family planning clinic
Visit Walk-in-centre
Go to specific algorithm
Call local law enforcement

The following dispositions can only be found outside the triage system in “Add Disposition”

Poison centre advice given
Information provided
Follow-up
Follow-up cancelled
Advice Nurse will call back
Left message
No answer/no contact
Follow-up completed
Line busy
Other

AXA Assistance NHS CAS System Training NHS Direct Nurse Manual 09.08.01 (AXA Assistance, 2001b)


References


References


References


References


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