Research proposal outlining the design of a qualitative study using semi-structured interviews

What do nurses at Castletown hospital think about current hand hygiene guidelines and their implementation within their clinical setting?

1 Hospital acquired infection damages patients, prolongs their length of stay and is costly, and therefore presents a major problem (Emmerson et al., 1996, as cited in Handwashing Liaison Group, 1999). A key way to prevent these problems is through hand washing which is a core aspect of infection control policy within hospitals, yet evidence shows that many healthcare workers do not wash their hands as often as they should (Emmerson et al., 1996, as cited in Kerr, 1998). This research aims to look at the nurses' opinion from Castletown Hospital regarding current guidelines and policies, the barriers to implementation and why some professionals follow the guidelines whilst others do not. Nurses were chosen to interview as there are specific guidelines in place for these professionals (see appendix 1) and they have more contact with patients than other health care professionals, thus are more likely to be in contact with hospital acquired infections. Castletown Hospital was chosen as in the summer of 2003 an audit of hand hygiene compliance was carried out by the Infection Control Nurses which showed a poor compliance level of 37% (Gear, 2003/2004). Therefore this research also aims to find out why the compliance levels are at this rate from the point of view of the nurses. Castletown Hospital will benefit from this research, as hopefully it will emphasise the need for improvement to their current infection control policies and aims to answers why some professionals follow the guidelines more closely than others. In addition the nurses will benefit by having their current views regarding hand washing questioned, and this will inevitably affect the patients who come into contact with the hospital and these staff.

2 To carry out the research questions and gain the greatest amount of data the most appropriate approach and methodology to use needed to be identified. Qualitative as opposed to quantitative research will be used as it examines the personal meanings of individuals' experiences and action (Polgar & Thomas, 2000). This is the most appropriate methodology as it is more concerned with personal meaning, occurs in a natural setting as well as being descriptive, which will provide more in-depth results. A non-experimental strategy will be used as this means the researcher will have "no active intervention in the situation" (Polgar & Thomas, 2000, p. 27). One of the disadvantages of strategy is that due to the detailed observations needed, the researcher being present could alter the behaviours of the participants being observed. One way to overcome this problem is by using more subtle measures of observation, for example, not using a video recorder which is intrusive.

Using observations are well as interviews will prove a more detailed portrait of the nurses in their natural setting. A complete observer who is also an outside will be used who will also be unaided. Important aspects of qualitative field research include detailed descriptions of what is said (through field notes), interaction with others and nonverbal communication (Polgar & Thomas, 2000). There are various approaches to qualitative field research and deciding which approach to use depends on the nature of the problem and what is already know about the phenomenon being researched (Morse & Field, 1995). A phenomenological approach will be used as it links closely to the principles of qualitative methodology, phenomenology "explores the meaning of individual lived experiences" (Rossman & Rallis, 2003, p. 97).

3 Semi-structured questions will be used in the interviews (see appendix 2) as they will provide the interviewer and the interviewee with some format and will help direct the responses; however there is room for the participant to elaborate. The interviewer can clarify responses and the interviewee can clarify questions, which is not possible with a questionnaire or a very structured interview. However, semi-structured are more time consuming not only in carrying out the interview, but also in analysing it. These interviews will be carried out on a one-to-one bases rather than a small group. Even though focus groups may provide greater interaction and discussion between nurses regarding hand hygiene issues, a focus group could sway the results and create a bias, as other's responses could be easily imposed. Also a nurse may wish to discuss others within their interview and may feel uncomfortable doing this in front of other colleagues. One-to-one face-to-face interviews will also be used as opposed to the interviews being carried out over the phone, for example, as non-verbal communication can be observed and a closer rapport can be developed. Even though this method will be more costly, richer information should be achieved as lots of information can be gained non-verbally.

4 Creswell (1998) recommends long interviews with up to ten people for a phenomenological study therefore a sample size of ten nurses will be selected. In order to select the appropriate participants a random sampling method will be used, where all the nurses have an equal chance of being selected. This will be more likely to be representative of the nursing population at Castletown Hospital than an incidental sample, as it is possible to approximate how representative the sample is as the size and population of the sample is known (Polgar & Thomas, 2000). To get participants posters and emails will be used to advertise the study. These will state the main research title and some of the research questions as well as ensuring the nurses their information will be kept confidential. To encourage responses a small incentive of free refreshments during the interview will be

offered. From the nurses who respond a random method such as a random number table will be used to select the ten final participants. Once the ten participants have been selected they will be sent via post or email more details, including information about the risks and benefits, and a letter asking for their informed consent which they will need to sign and send back. They will also be aware that they can drop out until the data begins to be analysed and if they do none of their information will be used.

5 Audio taping will be used during interviews to help prepare transcripts which will mean the interview will be accessible to independent analysis. One problem with audio taping is that it is quite invasive which may put some participants off; it is also quite costly, although both these issues are less than video recording. To ensure confidentiality, these recordings will need to be kept in a secure place and only listened to in private. From the transcripts a thematic approach will be used to analyse the data, where the initial themes will be identified which will build u p a framework as the themes are organised into broader categories. The data will then be labelled in reference to the themes and categories then similar content is placed together and a thematic matrix is created. Categories are refined with elements and dimensions being defined. The final process is searching through each category to look for links (Ritchie et al., 2003).

6 To ensure confidentiality throughout the process the nurses will be identified through numbers, nothing they discuss will be told to anyone other than the researcher and the interview will take place in a private quiet room away from any other professionals but still within the hospital setting. Once the data has been collected from the interview it will be transferred on to a computer and immediately the data will become confidential by using numbers to identify each individual, as well as all the documents being password protected.

7 There are many ethical issues that need to be taken into consideration including informed consent, the welfare, protection and privacy of the participants. As stated before all participants need to give informed consent before completing the research. Although this research will not have any intervention that appears to impact the nurses directly, the research needs to be prepared for any emotional consequences such as anxiety or distress; therefore counselling services should be available if necessary. Another ethical consideration in interview studies is that the aspects of good interviewing such as building trust and rapport might be the factors that make it hard for participants to refuse or to withdraw (Green & Thorogood, 2004).

8 The main economic issues that need to be considered are time in terms of the interview, as well as the availability of the nurses. The research needs to be carried out at an appropriate time for each nurse; therefore they may need to be conducted over a small series of time.

Possible problems also need to be taken into consideration when planning the interview as well as carrying out all the other aspects of the research such as coding and analysis. Also the cost of incentives needs to be calculated and taken into consideration.

9 To ensure rigour in the qualitative research there are a variety of aspects which can be used. Within this research these will be member checking, reflective journals and identification of possible bias throughout the process. Member checking will be carried out through all stages, including at the end of the interviews, informal conversations with participants and asking for any written or oral commentary and before the submission of a final report or publications. Reflective journals will be completed through the process and through all aspects ensure possible bias are identified and clearly documented.

10 All the components mentioned above are vital to ensure valid and reliable findings. It is hoped that sound results will be gained and clear analysis found, which can be published and used as a reference for others, but primarily impacting the current policies and guidelines at Castletown hospital and the practice of nurses to improve patient well-being.

Appendix 1

National Institute for Clinical Excellence Infection Control - Prevention of healthcare-associated infection in primary and community care

Clinical Guideline 2, June 2003
Developed by Thames Valley University under the auspices of the National Collaborating Centre for Nursing and Supportive Care.

1.1.1 General recommendations
1.1.1.1 Everyone involved in providing care in the community should be educated about standard principles and trained in hand decontamination, the use of protective clothing and the safe disposal of sharps. D

1.1.1.2 Adequate supplies of liquid soap, hand rub, towels and sharps containers should be made available wherever care is delivered. D

1.1.2 Hand hygiene

1.1.2.1 Hands must be decontaminated immediately before each and every episode of direct patient contact or care and after any activity or contact that could potentially result in hands becoming contaminated. B

1.1.2.2 Hands that are visibly soiled, or potentially grossly contaminated with dirt or organic material, must be washed with liquid soap and water. A

1.1.2.3 Hands must be decontaminated, preferably with an alcohol-based hand rub unless hands are visibly soiled, between caring for different patients and between different care activities for the same patient. A

1.1.2.4 Before regular hand decontamination begins, all wrist and ideally hand jewellery should be removed. Cuts and abrasions must be covered with waterproof dressings. Fingernails should be kept short, clean and free from nail polish. D

1.1.2.5 An effective hand washing technique involves three stages: preparation, washing and rinsing, and drying. Preparation requires wetting hands under tepid running water before applying liquid soap or an antimicrobial preparation. The hand wash solution must come into contact with all of the surfaces of the hand. The hands must be rubbed together vigorously for a minimum of 10-15 seconds, paying particular attention to the tips of the fingers, the thumbs and the areas between the fingers. Hands should be rinsed thoroughly before drying with good quality paper towels. D

1.1.2.6 When decontaminating hands using an alcohol hand rub, hands should be free from dirt and organic material. The hand rub solution must come into contact with all surfaces of the hand. The hands must be rubbed together vigorously, paying particular attention to the tips of the fingers, the thumbs and the areas between the fingers, until the solution has evaporated and the hands are dry. D

1.1.2.7 An emollient hand cream should be applied regularly to protect skin from the drying effects of regular hand decontamination. If a particular soap, anti microbial hand wash or alcohol product causes skin irritation an occupational health team should be consulted. D

Appendix 2 : Interview Questions

1) How many times a day do you wash your hands?

2) How do you feel about current hand washing guidelines?

3) What are you experiences of following these guidelines in your ward?

4) What do you think of your infection control training?

5) Why do you think some health care professionals do not follow current guidelines whilst others do?

6) What do you think the barriers are to complying with the current guidelines?

7) How important do you think the environment of the ward is in complying with the guidelines? Do you think there is enough hand washing facilities on the wards?

8) From your personal experience, do you think alcohol rubs are more/less affective as using soap and water? What is your preference?

9) Is there any affect on you from washing your hands regularly?

10) How do you think hand hygiene could be improved at Castletown Hospital?

References:

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. London: Sage.

Gear, J. (2003/2004). *Clinical Governance Annual Report. Castletown Hospital NHS Trust*. Retrieved November 8, 2005, from htt p://www.castletownhospital.nhs.uk/ downloads/0304v3.doc

Green, J., & Thorogood, N. (2004). *Doing Qualitative Health Research.* London: Sage.

Kerr, J. (September 9 1998) Hand washing. *Nursing Standard*. *(2* (51), 35-39.

Morse, J., & Field, P. (1995). *Qualitative Research Methods for Health Professionals.* (2nd ed.). London: Sage.

National Electronic Library for Health. (2005). Retrieved November 2, 2005 from htt p://www.nelh.nhs.uk/guidelinesdb/html/infection_Ncontrol/guidelines.as p

Polgar, S., Thomas, S. A. (2000). *Introduction to research in the health sciences*. (4th ed.). Philadelphia, USA: Elsevier Health Sciences .

Ritchie, J., Spencer, L., O'Connor, W. (2003). Carrying out Qualitative Analysis. In Ritchie, J., & Lewis, J. (Eds.). *Qualitative Research Practice: a guide for social science students and researchers.* London: Sage.

Rossman, G., & Rallis, S. (2003). *Learning in the Field.* (2nd ed.). London: Sage through the Google Print Publisher Program.