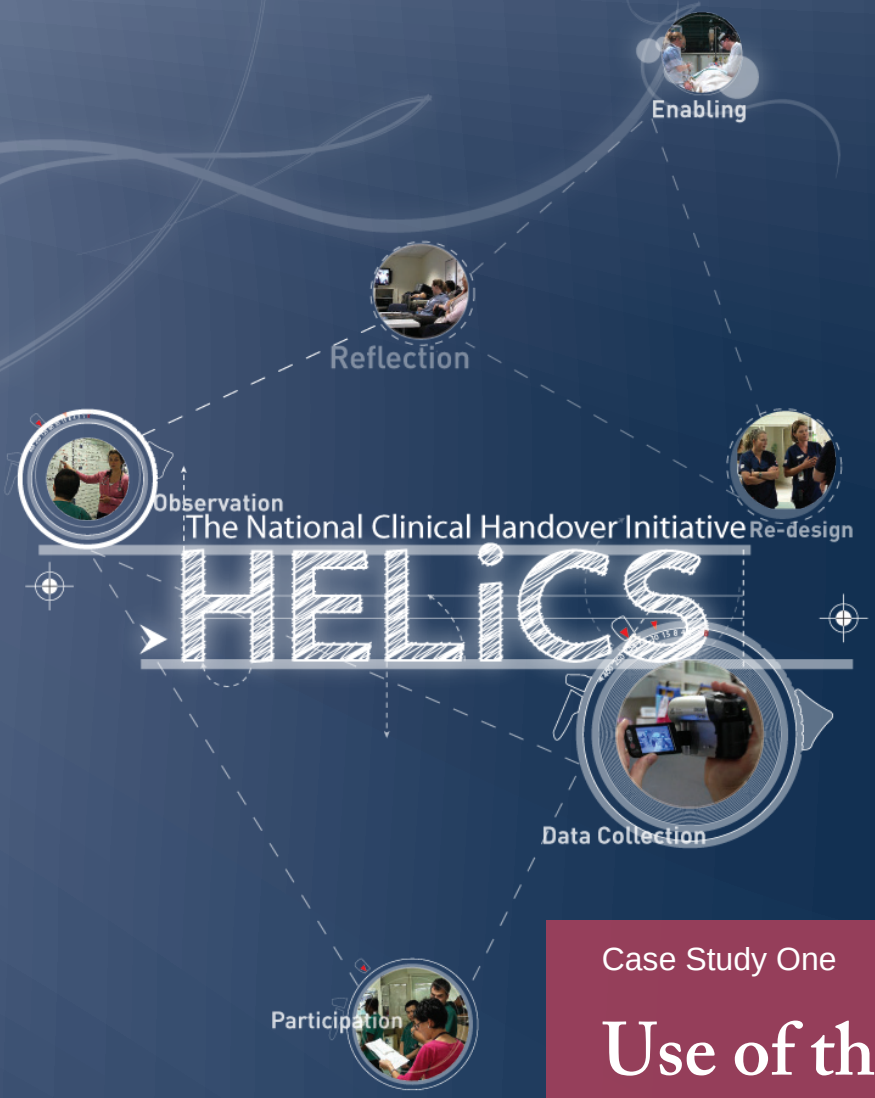


UNIVERSITY OF TECHNOLOGY SYDNEY
Centre for Health Communication

Case Study One

Use of the HELiCS Resource in an Emergency Department

The purpose of this case study is to present an example of the use of HELiCS in an emergency department setting.

It will become apparent throughout this case study, to be read in conjunction with the HELiCS DVD, how HELiCS enabled health care practitioners to find solutions to their communication needs that were context specific. These solutions addressed handover issues pertinent to the local context and sought to ensure the clear, concise, and timely communication of information and responsibility between health care practitioners, patients, family and caregivers.

Resulting handover redesign was aimed at improving the safety and quality of patient care and ensuring that all members of the health care team were able to critically engage in the evaluation and continual redesign of clinical practice.

Emergency Department

This case study presents the use of HELiCS in a large metropolitan and regional referral emergency department.

On average this emergency department has 4,750 patient encounters per month, of which an average of 1,305 patients will be admitted to inpatient services; including intensive care services, medical and surgical wards, and operating theatres. Attendances and admissions for a two-month period in 2007 and 2008 is shown in Figure 1.

The acuity of presentations in this department can range from immediately life threatening to minor consultations requiring treatment in primary care facilities[1]. Figure 2 presents the proportion of presentations to the emergency department seen within allocated triage times. For example, 100% of patients allocated within triage category one (a presentation categorised as immediately life threatening) were seen by medical personnel within two minutes of arrival at the emergency department.

Figure 1 Emergency Department Attendances & Admissions, January and February 2007 and 2008

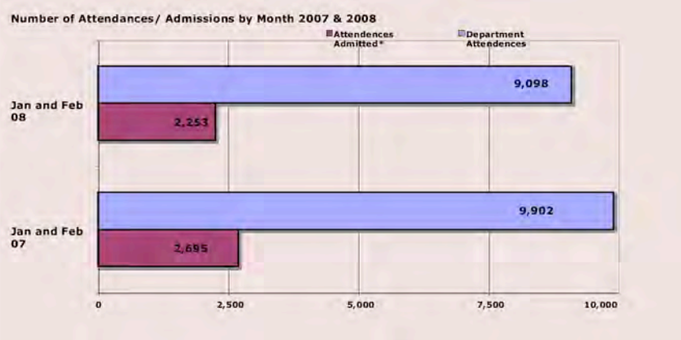
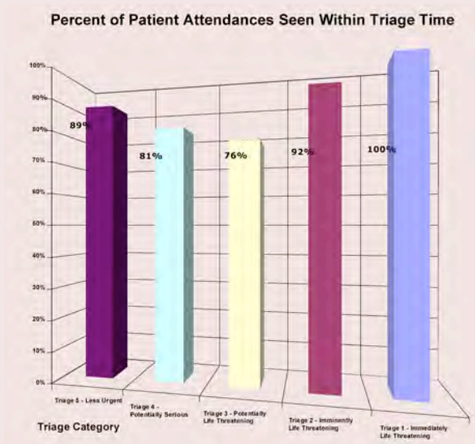
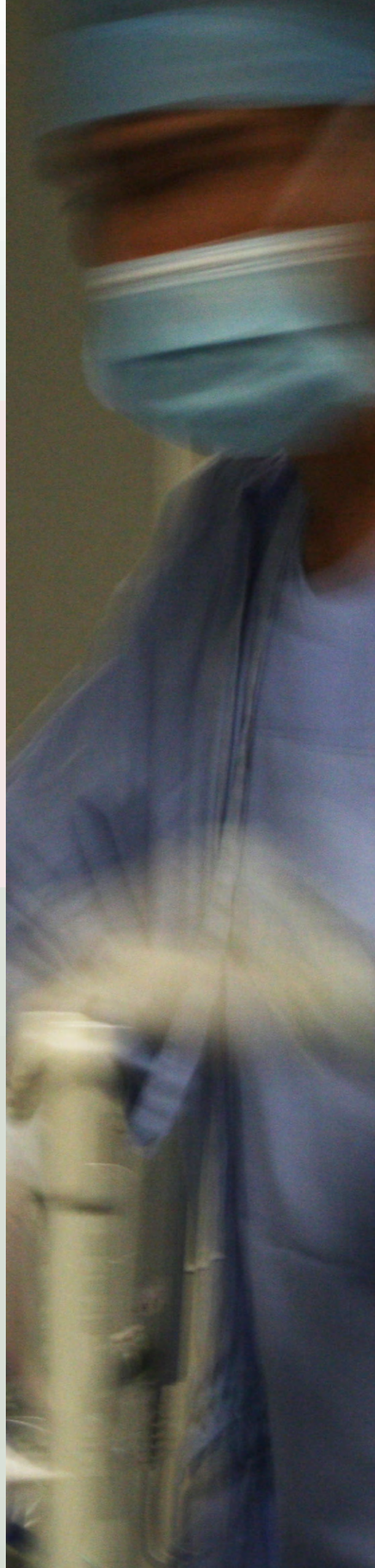


Figure 2 Percent of Patients Receiving Care Within Triage Times



The focus of clinical management within the emergency department is to provide time appropriate care. For this reason medical and nursing staff are required to closely collaborate with allied health professionals, medical and nursing teams from inpatient units and those from community settings. This collaboration includes close working relationships with a range of health care practitioners from surgical, general medical, primary health care and paramedical backgrounds.

[1] Patient attendances are given a recommended time to be seen based on the severity of the complaint, these triage times give an indication of what constitutes time appropriate care provided by the emergency department. For example: a category 1 attendance is considered immediately life threatening, and as such should receive medical care within the first 2 minutes after arrival; whereas a category five should receive care within 2 hours of arrival.



Participation

Working closely with senior medical and nursing staff the Centre for Health Communication sought to provide the opportunity for staff to participate in the Reflexive Redesign of clinical handover.

In February 2008, The Centre for Health Communication held three meetings with health care practitioners at the Emergency Department. These three meetings sought to establish clinicians' concerns regarding their own handover practices. Existing communication strengths, weaknesses and areas of potential improvement were identified:

Strengths:

- Strong clinical supervision existed for medical staff
- Enthusiastic clinical teams
- Strong community of care; there was a strong feeling of teamwork among doctors and nurses

Weaknesses:

- Large intakes of junior nursing staff, who lack comprehensive emergency nursing experience
- Complex, dynamic environment placed heavy physical and mental strain on staff
- No apparent informational structure to handovers
- Frequent, often non-productive interruptions to handover
- Uncertainty regarding the types of information required when handing over to inpatient wards or units

Areas of potential improvement:

- Shift change handovers, which occur at a white board where patient information was recorded and updated
- Inconsistencies in clinical information, lack of inter-professional communication
- Important information omitted or unavailable
- Uncertainty regarding what constitutes an appropriate depth and breadth of information for shift change handover
- Incoming or outgoing staff are not always available for handover

Ground rules[2] were established that would make health care practitioners feel comfortable about being filmed. It was expressed that the footage would be held in confidence, that consenting clinicians would be given the option of deleting the footage, and that all information that could potentially identify a patient would be omitted or removed in the editing process.

Further Information:

Refer to DVD Disk 2, 'Ethics and Governance Documentation'

[2] The ground rules for participation are explained in further detail in an interview with the Principle investigator Professor Rick Iedema in DVD 1.

Observation & Data Collection

Filming of handover in the Emergency Department occurred over four days and involved three researchers taking alternating and overlapping shifts.

In a single 24-hour period a researcher would observe communication processes and handover for approximately 12-14 hours at alternating intervals throughout the day. This duration allowed for a representative body of footage to be accumulated.

Initially filming concentrated on the issues and areas originally identified by the healthcare team, including:

- Handovers occurring at the change of shift
- Areas displaying inconsistencies of clinical information between health professionals or teams
- Areas or communication events where information had the potential to be omitted or unavailable

The comprehensive nature of the observation quickly made it apparent that handover in the emergency department was continuous, ongoing and dynamic. The high number of patient attendances necessitated continuing communication and exchange about clinical and organisational priorities to reflect the changing nature of patient care.

For this reason the scope of observation expanded from the identified areas for potential improvement to ongoing and continuous handovers. For example, due to the high through-put of patients in the emergency department, a significant proportion of relevant communication would occur during the work process, rather than at predesignated handover times. These corridor communications were observed to be of greater importance for time critical information and ensuring the continuity of patient management.

Reflection

Researchers from the Centre for Health Communication compiled the footage collected from the emergency department and developed a series of practice exemplars representing:

- Medical and Nursing handovers occurring at shift change
- Ongoing communications, or those handovers that could not be undertaken during the predesignated handover periods due to the rapid obsolescence of information generated by a high patient through-put
- Handovers to inpatient units occurring over the phone

For each situation three to five exemplars, about thirty seconds to one minute in length, were compiled. The objective of these exemplars was to provide examples of issues identified by clinicians during engagement, and of handover or communication issues that became apparent during observation and while compiling the collected footage.

In compiling the practice exemplars researchers from the Centre for Health Communication identified a number of characteristics that were evident throughout the footage. These included:

- A need to complement clinical information (e.g. patient acuity and treatment plan) with operational information (e.g. the coordination of staff to provide treatment). This was particularly the case at the senior levels of nursing and medicine:
  - The clinical acuity of new presentations would determine the deployment of staff skill mix within the emergency department, thereby ensuring that the most appropriately trained and experienced staff would be caring for patients of the highest acuity.

- A white board (where current patient information was recorded and continually updated) played a central coordinating role in interdisciplinary communication, synchronising activity between divergent professionals, and in some cases negating the need for verbal communications.

- The location of the white board in a busy thoroughfare often led to handover being interrupted by clinicians not involved in handover, and by non-clinical staff who may be involved in cleaning or clerical activities.
  - The location of the white board in a busy thoroughfare, as a central coordinating space for communications also raised issues regarding the protection of patient privacy and the protection of the confidentiality of patient information.

- Occasionally asynchronous behaviour and a lack of communication between different care teams would result in the duplication of activities:
  - As both nurses and doctors checked to confirm a procedure had been undertaken, this process may have occurred multiple times during a single shift.

- While medical handovers occurred at the central coordinating space (the white board), nursing handover tended to occur in 'huddles' or semi circles away from the central coordinating space of the white board. This highlighted different approaches to handover:
  - Nursing handovers tended to be more inter-personal, while medical handovers had a stronger sense of structured hierarchies and lines of reporting.

- Handovers between medical staff tended focus towards the 'big picture' plan of care, which was negotiated between medical staff based an agreed interpretation of patient information, observed symptoms, admitting diagnosis, prognosis, and patient disposition. In contrast nursing handover tended to be more task orientated, focussing on specific activities aimed towards facilitating the care needs of the patient. While both medical and nursing handovers addressed the psychosocial needs and requirements of patient management it was observed that this information was secondary to immediate physiological management.
  - It was observed that the primary focus on the physiological management of the patient resulted from the 'time appropriate' directive of clinical care in the emergency department, yet clinicians articulated they felt there was scope for greater integration of psychosocial information into the determined care of patients.

- It emerged from the footage that there were few points of cross fertilisation of the 'big picture' and task orientated handovers, suggesting potential points of inefficiency. Cross-fertilisation between professional groups (doctors and nurses) did occur, however this was observed to be of an informal nature and to be predominately occurring during work processes.

Researchers from the Centre for Health Communication subsequently convened three reflexive sessions coordinated over two days[3]. The meetings were structured to include:

- Senior nursing staff or Nurse Unit Managers
- Senior medical staff
- A mixed meeting of nursing and medical staff of all grades of seniority

The practice exemplars were shown to clinicians; generally discussion would occur with minimal prompting from the coordinating researcher. The discussions would develop based on clinician observations of what was occurring, who was involved and how the exemplar highlighted presented positive or negative aspects of handover.

Attention was paid to the organisational, professional, environmental, and informational aspects of handover. 'Table 1 Emergency Department: Clinicians Observations of Handover Exemplars' overviews the observations of clinicians based on communication issues identified, how these contribute to, or are created by, organisational problems within the emergency department, and the potential solutions proposed.

The discussions would develop based on clinician observations of what was occurring, who was involved and how the exemplar highlighted presented positive or negative aspects of handover.

[3] This structure emerged from operational constraints and requirement to maintain staff in the unit during the reflexive meetings.

Emergency Department: Clinicians Observations of Handover Exemplars TABLE 1

Issues Identified By Researchers During Observation and Filming	Problem Identification By Staff	Solutions
Organisational Handover involves the negotiation of both clinical and organisational information and priorities, but these are not well delineated. Efficient departmental operation requires communication that is inter-disciplinary, but this largely occurs informally only	There is a need to enhance organisational coordination and professional collaboration. Staff are often unsure about who is responsible and capable of performing activities or co-ordinating care. Staff are aware that vital educational opportunities are forfeited in favour of getting tasks done. Delays were likely to result from inefficiencies and duplication of clinical information.	**Solution a) Medical and Nursing team leader 'Ward Rounds'** Rounds involving the medical and nursing team leaders assessing the needs and plan of care for each patient within their responsibility of care. These ward rounds are to occur at the patient bedside, and where appropriate and possible should involve the patient and the nurses directly providing care. **Objectives:** » assess the base line clinical information (e.g. pulse, blood pressure, level of consciousness, and need for analgesia) » communicate the plan of care » communicate tasks to be completed to facilitate expedient patient care » respond to patient, family, and /or caregiver concerns and questions regarding care
Professional Clinical judgement plays a central role in determining the depth and type of information required during communication, but junior staff are challenged by combining their service roles with their training needs, jeopardising opportunities for enhancing their clinical judgment. There is greater scope for involving patients in clinical communication. There is a need to exercise clinical judgement in assessing the veracity of information provided by patients; to this end there is a need to maintain a separate space where clinicians can freely express views and interpretations of events.		
Environmental The white board is the central meeting place for the continual discussion, planning, and negotiation of both clinical information and of departmental resources and staffing. The whiteboard however is placed in the middle of a busy and noisy corridor.	The whiteboard is a central space for communication events, but the position of the whiteboard in a busy thoroughfare creates ongoing interruptions to communication and handover events. Staff recognise that these interruptions can provide emerging clinical and departmental information but that they can also interrupt the flow of clinical information. The position of the whiteboard allows senior members of the clinical team to be readily accessible if required.	**Solution b) Use of electronically linked white boards** A need was expressed for two white boards to operate simultaneously to take the pressure off the single white board. One whiteboard is to be located in the 'fish bowl' (a glass enclosed area located centrally in the department) and one located in the current corridor space. These could then be 'linked' i.e. as the information is updated or changed on one board the change would be reflected on the other **Objectives:** » To minimise non-critical interruptions to clinical handover » To provide 'time aside' for teaching and mentoring » Maintain the time appropriate communication function of the whiteboard

The solutions proposed by clinicians during the Reflexive sessions are outlined below.

Table 1 demonstrates how each component of the Reflexive session is integral to the others. Handover issues identified lead to the discussion of the potential problems associated with the issue and finally a solution is proposed that meets the context specific needs of clinicians within the unit or department. The solutions proposed by clinicians during the Reflexive sessions are outlined below.

Solution a)

The Medical/ Nursing Team Leader Rounds are structured to occur after both the nursing handovers and the medical handovers.

For example, the morning nursing handover occurs at 7am and runs for approximately 30mins; during this handover nursing personnel communicate relevant clinical and operational management issues. Immediately after nursing handover, nursing personnel familiarise themselves with the medical records, and update important clinical information e.g. the patients' blood pressure, pulse, level of consciousness; and address urgent patient requests.

At 8am the medical handover occurs and would generally run for 30 to 45 minutes.

Once both medical and nursing handovers are completed the nursing and medical team leaders of both the acute and subacute divisions of the emergency department would meet.

Together the nursing and medical team leaders move from patient to patient and assess critical clinical information. The medical team leader would have the opportunity to discuss the plan of care, and the nursing team leader presents potential problems or issues that may arise during the course of patient care.

The benefit of the round at the bedside is that both medical and nursing personnel have the opportunity to contemporaneously assess the patient's condition, assess whether important clinical activities are yet to be completed, and respond to patient or family questions regarding care.

Solution b)

The whiteboard functions as a central space for the coordination and communication of rapidly changing patient and departmental information. The disadvantage of the whiteboard being located in a busy thoroughfare is that handovers are often interrupted for non-critical events, disrupting communication and teaching opportunities. The advantages of the location of the whiteboard are that staff can always be accessed should a critical event occur, and altered or updated information is immediately accessible to all members of the clinical team.

The proposed solution of having two electronically linked white boards has the advantage of allowing all members of the clinical team to be aware of information changes. While providing a separate space for handover, this second space, located in a glass enclosed area centrally located in the department enables clinical staff to be visible if they are required; while reducing non-urgent and non-time critical interruptions. This increased visibility allows clinicians to have time to confidentiality engage in teaching and to freely express clinical ideas, decisions and diagnostic skills.

By allowing clinicians to see, hear and articulate the communication issues unique to their clinical setting, solutions can be found.

Solutions are context specific

By allowing clinicians to see, hear and articulate the communication issues unique to their clinical setting, solutions can be found that demonstrate both organisational fit and capitalise on the existing skills and expertise of clinicians within that clinical setting.

Redesign & Realisation

Consultation with clinical staff at the Emergency Department led to an agreement that there could be significant benefits to be gained from developing the Medical and Nursing team leader rounds (**Proposed Solution a**).

It was viewed by clinical staff that this approach to handover restructuring could result in the following outcomes:

1. Increased opportunities for dialogic teaching,
   - Evidence suggests that greater social and professional engagement in the workplace can counteract emotional exhaustion and lead to a higher sense of personal accomplishment[6].

2. Opportunities for enhanced coordination between disciplines, potentially leading to reduced repetition of information seeking,
   - Potentially increasing efficiency, coordination, and enhancing patient experience of continuity of care-factors linked to the incidence of error in health care.

3. Medical and Nursing team leader rounds would increase the availability of contemporaneous clinical information,
   - The organisation of 'information intensive' environments depends on the most contemporaneous information being available; where there are gaps in information these can be identified[7, 8].

4. Provide increased opportunities for patient, family, and/or care giver input into the care process,
   - Facilitating communication between the those receiving care and those providing care has the potential to both identify errors of communication and to enhance patient satisfaction with service.

5. Provide the opportunity for early insight in emerging or unrecognised clinical problems,
   - Developing organisational resilience, insight, or 'error wisdom' provides the opportunity for clinicians to identify when things are not as they should be, both clinically and organisationally [9][10].

6. Provide an opportunity for the negotiation of supervisory support,
   - Individuals who receive the 'right' level of supervisory support report higher levels of individual autonomy, taking on greater breadth of roles and becoming more adaptive to uncertain contingencies [11]. This supports the adaptive organisation thesis[4] that individuals with higher levels of autonomy take on a greater breadth of roles [12].

[4] For further information on the 'adaptive organization' thesis see Gummer B. *Authority, Control and Professionalism in the Post-Industrial Age*. Administration in Social Work 1996, 20.

Ongoing Redesign & Realisation

The process of developing an adaptable and resilient organisational culture requires an ongoing review of practice and process.

To facilitate the development of this culture the Centre for Health Communication has an ongoing relationship with the emergency department presented in this case study.

After the emergency department had established team leader rounds the Centre for Health Communication was engaged to interview staff and patients regarding their thoughts about the process and whether it had achieved the six objectives of providing:

1. Opportunities for dialogic teaching
2. Opportunities for enhanced coordination between disciplines, reducing repetition of information seeking
3. Increased availability of contemporaneous clinical information
4. Increased opportunities for patient, family, and/or care giver input into the care process
5. Opportunities for early insight in emerging or unrecognised clinical problems
6. Opportunities for the negotiation of supervisory support

Conclusion

The use of HELiCS in the emergency department enabled clinicians to engage with their practice. By doing so clinicians were able to identify the factors that affected communication in their context.

Clinicians from the emergency department recognised that communication is central to both the transfer of information and responsibility and to organisational culture.

By having the opportunity to find their own solutions it is expected that positive outcomes will result for the education of staff, operational efficiencies, patient satisfaction and the safety and quality of care, generating a resilient organisational culture.

HANDOVER ENABLING LEARNING in COMMUNICATION for SAFETY

HELICS

The National Clinical Handover Initiative

The kit was developed by

Centre for Health Communication

UNIVERSITY OF TECHNOLOGY SYDNEY

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AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE