Enabling

Reflection

Observation

The National Clinical Handover Initiative

HELiCS

Re-design

Data Collection

Participation

UNIVERSITY OF TECHNOLOGY SYDNEY

Centre for Health Communication

Case Study Two

Use of the HELiCS Resource in an Intensive Care Service

The purpose of this case study is to present an example of the use of the HELiCS Resource in an Intensive Care Service setting.

It will become apparent through this case study and in conjunction with the HELiCS DVD resource how clinicians were enabled to find solutions to their communication needs that were context specific. These solutions facilitated the development of a resilient organisational culture targeted towards the clear, concise and considered communication of information and responsibility between health care practitioners.

Changes to the organisation of communication within the Intensive Care Service improved patient safety and the quality of care delivered. It also provided additional opportunities for the development of professional expertise.

The ongoing use of the HELiCS Resource will continue to contribute to the building of organisational capacity in the Intensive Care Service.

Intensive Care Service

The Intensive Care Service has four clinical subdivisions; these are the General Intensive Care Unit (GICU), a Neurological Intensive Care Unit (NICU), a Cardiac Intensive Care Unit (CICU) and a High Dependency Unit (HDU).

The focus of clinical management in Intensive Care is to provide the expertise and equipment for the treatment of patients with life threatening or potentially life threatening conditions. The provision of these services requires that medical, nursing and allied health professionals closely coordinate and collaborate to provide quality care.

Participation

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

In early 2008, The Centre for Health Communication held three participation meetings with health care practitioners who work within the Intensive Care Service. These meetings sought to establish clinicians' concerns regarding their own handover practices. Existing communication strengths, challenges and areas of potential improvement were identified:

Strengths:

*   **Experienced and skilled staff.** The service employs experienced and highly skilled staff.
*   **A strong clinical focus.** Highly specific and individualised care is provided.
*   **Organisational culture.** Research and innovation in clinical care are embraced.
*   **A learning culture.** A strong culture of clinical supervision and clinical leadership.
*   **Integration of electronic information systems.** Extensive use of electronic systems for the organization and presentation of patient data (eg. notes, chemistry, radiology).

Challenges:

*   **Defined professional roles.** There was a perception that the roles of the different health professionals were segmented with little formal opportunities for inter-disciplinary interaction.
*   **Complex clinical environment.** High patient acuity requires that staff use complex technical and clinical knowledge, and integrate this into everyday clinical management decisions.
*   **Structure of communication.** No apparent informational structure to handovers, uncertainty exists as to how develop and bring to bear clinical expertise and judgement in making handover 'fit for purpose'.

Areas of potential improvement:

*   **Medical shift change handovers.** Uncertainty existed about how to ensure that the best opportunities are available for the clear and concise communication of information during predefined handover periods.
*   **Inconsistencies in clinical information.** A perceived lack of inter-professional communication meant that different professionals had different access to information and interpreted this information in different ways. There was a need to provide greater opportunities for the sharing of this knowledge.
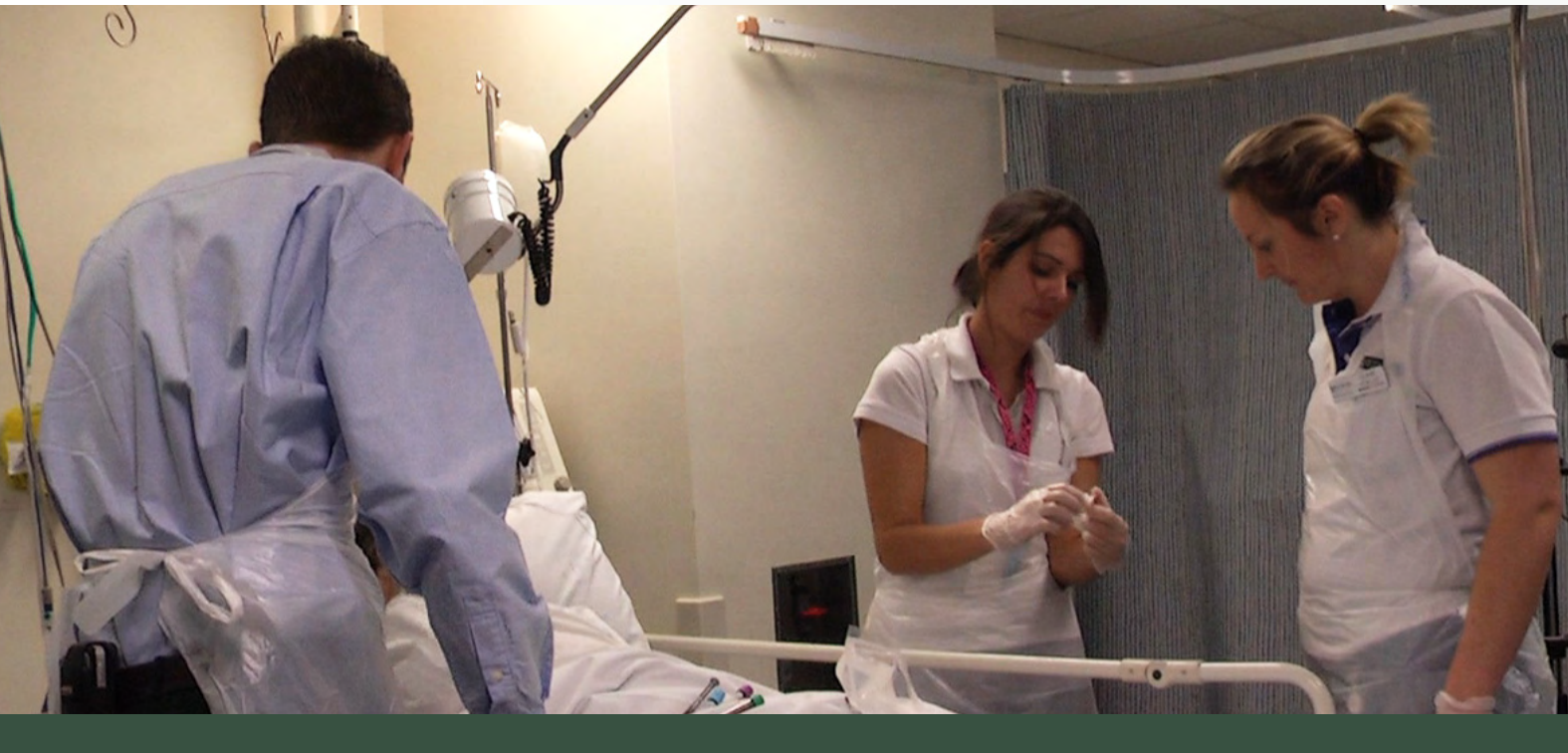*   **Uncertainty about the use of electronic resources.** Staff were uncertain about the best way of integrating and exploiting the potential of electronic resources (clinical information pertaining to chemistry, radiology) into interpersonal communications.
*   **Uncertainty about the synthesis of disparate knowledge.** The depth and breadth of clinical information available in the Intensive Care Service resulted in staff uncertainty as to the best way of selectively synthesising information into a meaningful narrative for handover.
*   **Duplication of communications.** Multiple handovers occurring in isolation from other professional groups and different care teams, who may have overlapping responsibilities, created the potential for duplication and inefficiencies of communication.

Ground rules were established that would make health care practitioners feel comfortable about being filmed:

*   Footage would be held in confidence
*   Clinicians would provide informed consent to participate
*   Clinicians being filmed would be given choice to delete the footage
*   Patient identifying information would be omitted or removed during the editing process

Video exemplars provided examples of handover issues identified during participation meetings and of issues that become apparent during the observation of practice.

Reflexive Sessions

Researchers from the Centre for Health Communication compiled the footage collected from the Intensive Care Service and developed a series of exemplars highlighting:
- Handovers occurring at medical shift changes
- Weekly Staff Specialist (Consultant Medical Officer) handovers
- Ongoing nursing handovers
- Handovers that had the potential for greater inter-disciplinary communication

For each situation three to five exemplars, about thirty seconds to one minute in length were compiled. The objective of these exemplars was to highlight issues identified during the initial participation meeting. The exemplars also highlighted handover issues that became apparent during observation and while compiling the 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:

■ Medical handovers occurred in a space removed from the immediate clinical area. These 'staff base' handovers were subsequently supplemented with a second handover at the patient bedside potentially resulting in the duplication of communication.

■ There was little to no interdisciplinary communication evident; communication between nurses, allied health, and medical professionals was limited. Where communication did occur it was largely one way:
- Medical staff would communicate instructions to nursing staff, ask if nursing staff had questions, concerns or input. There was little evidence of nursing or allied health engagement in the medical handovers. Equally it was the case that medical staff were not observed to be active participants in nursing or allied health communications.

Observation & Data Collection

Filming of handover in the Intensive Care Service occurred over ten days and involved a single researcher spending 2-3 hours per day observing handovers identified as having the potential for improvement. Filming coincided with the handover times of the Intensive Care Service; due to the 24 hour nature (two 12 hour shifts) of service provision, filming would occur in the morning and at night. Additionally filming occurred during weekly teaching sessions and ward rounds.

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

- Medical shift change handovers
- Areas of uncertainty regarding the use and integration of electronic resources into communication
- Areas of potential information duplication
- Communication events characterised by both senior and junior personnel involvement; examining how staff with different levels of experience and knowledge synthesise disparate clinical information

- The nurse in charge of the coordinating of the operational functioning of the unit (deployment of staff, bed management) often relied on second-hand information to coordinate activity within the department.

- Organisationally the Intensive Care Service has a strong sense of hierarchical reporting structures. It appeared that this was an attempt to predict uncertainties, and to have clear lines of reporting should a critical event occur:
  - Medical personnel had clear a line of reporting: junior medical staff would report to the senior registrar and in turn, the senior registrar would report to consultant medical officers (or staff specialists). Similarly nursing personnel would report to a Nurse Unit Manager, who in turn would report to a more senior Nurse Unit Manager.

- Handovers between senior medical staff tended to focus on the 'big picture': plan of care, prognosis and patient disposition. Junior medical staff tended to operationalise this information by blending the 'big picture' information with specifics about what tasks needed to be completed, how and when.

- There were few points of cross-fertilisation between the 'big picture' and task orientated handovers, suggesting potential points of inefficiency. This was particularly apparent across the professional boundaries of nursing and medicine.

Researchers from the Centre for Health Communication convened seven reflexive sessions coordinated over the course of five weeks[1]. The meetings were structured to include:
- Nursing staff, including Nurse Unit Managers and Nurse Educators
- Senior medical staff
- Junior medical staff
- A mixed meeting of nursing and medical staff of all grades of seniority

The practice exemplars were shown to clinicians and they were asked to comment on their thoughts about each exemplar. The discussion would develop based on clinician observations of what was occurring, who was involved, and how the exemplar highlighted perceived positive or negative aspects of handover.

Attention was paid to the organisational, professional, environmental and informational aspects of handover. 'Table 1 Intensive Care Service: Clinician Observations of Handover Exemplars' overviews the observations of clinicians based on the communication issues identified, how these contribute to or are created by organisational challenges within the Intensive Care Service, and the potential solutions proposed.

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

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

Intensive Care Service: Clinicians Observations of Handover Exemplars TABLE 1

Issues Identified By Researchers During Observation and Filming	Problem Identification By Staff
Organisational Effective handover requires the engagement of a number of different professionals from differing professional backgrounds (Medical, Nursing, and Allied Health). There is a need to provide communication opportunities that facilitate this sharing, and negotiation, of clinical knowledge. The organisation of these opportunities needs to take into account the conflicting time and resource constraints of the Intensive Care Service. The organisation of medical shift change handovers has the potential to lead to the duplication of information. For example medical shift change handovers occur initially away from the patient bedside, following this a round is conducting at the patient bedside in care teams. This is a time-consuming process and this process could be streamlined.	There is an identified need to enhance organisational coordination and professional collaboration. Opportunities need to be created for staff to develop their clinical expertise in relationships of pedagogy with other members of their discipline and other disciplines. A lack of inter-professional communication diminishes opportunities for the verification of clinical information and the negotiation of clinical management. Because appropriate clinical management is dependent on both the accuracy and relevance of clinical information there is a need to develop clinical judgement in junior staff. Additionally there is a need for a further examination of effectiveness of hierarchal reporting structures in ensuring information is communicated in a time appropriate manner to senior staff, and from senior staff to junior staff.
Professional Clinical judgement, based on experience and expertise needs to be brought to bear on the interpretation and synthesis of clinical information. This needs to occur to bring together often fragmented pieces of information into a coherent narrative of patient management. There is a need to coordinate and share information across inter-disciplinary boundaries. This sharing of perspectives should function to verify divergent interpretations of information.	
Environmental The physical layout of the Intensive Care Service can lead to individual clinicians feeling isolated from the wider care team. For example, certain patients are cared for in single rooms; these rooms are located out of the visual line of sight of other members of staff and often the doors to these rooms are closed.	Physical isolation of members of the health care team has the potential to restrict opportunities for supervisory support, education and socialisation. Clinicians suggested that there was an importance in ensuring all members of staff felt they belonged to a 'community of care' and that there are opportunities for clinical support should this be required.

Solutions

Solution a) The presentation of nursing 'head to toe' assessments during medical handovers.

Objectives:
The presentation of nursing 'head to toe' assessments during medical rounds seeks to provide greater opportunities for:

» **Dialogic teaching opportunities**
  Allowing all grades of nursing personnel to present their assessment of the patient in a forum of clinical expertise will assist staff to develop the ability to bring clinical expertise to bear on clinical management. This development of expertise will enhance the abilities of all members of staff to synthesize clinical information into a meaningful narrative. For junior members of nursing personnel this will be aided by the commitment of nurse educators to be present during medical rounds, providing important models of expertise and management.

» **Creation of opportunities for medical and allied health teams to verify emerging clinical information**
  Medical and allied health teams will be presented with the opportunity to verify documented progress notes (clinical records of clinical events throughout the patients stay in the Intensive Care Service) with first hand verbal information.

» **The opportunity for nursing staff to contribute to the 'big picture' of care planning**
  Throughout the reflexive sessions nurses expressed that they felt disengaged from 'big picture' decision-making regarding patient care and clinical management. Greater engagement in the medical and allied health rounds will provide greater opportunities to reconnect their knowledge of clinical management into the care planning process.

Solution b) Reorganising the medical shift change handovers from the staff desk area to the patient's bedside, and combining the separate care teams' handovers.

Objectives:
» Holding a single medical shift change handover at the patient's bedside, rather than the existing process of two separate teams handing over at the staff desk followed by a round at the bedside. This reduces the duplication of communication processes.
» Allowing all members of the medical team to identify and visually verify information complements the historical and written information provided by the outgoing shift.

Solution c) Strategies for handling difficulties posed by the physical environment.

Objectives:
» Senior nursing staff and nurse educators, through the discussion of practice, are made aware of the physical and social isolation encountered by staff caring for patients in single rooms. Senior staff made the commitment to provide greater support for these staff, and to be more aware of the appropriateness of clinical expertise of staff allocated to patients in single rooms.

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

Table 1 demonstrates how each component of the Reflexive sessions 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.

Proposed Solution a)

Solution a) The presentation of nursing 'head to toe' assessments during medical handovers.

During the Reflexive sessions nursing staff agreed that they felt there were issues in communicating their perception of clinical management needs to medical personnel. There was a feeling that "because we don't have a chance to communicate our needs, and our care of the patient… important information is missed".

Equally medical staff felt that the level of input they received from nursing staff was inadequate; that there was a culture of non-involvement.

When these issues were discussed in a joint Reflexive session, both medical and nursing staff agreed that this was an issue related to service culture, and that these communication issues contributed to staff feeling isolated from the larger community of care.

The proposed solution of the nursing 'head to toe' was viewed as a mean of addressing this issue. By giving nurses a greater opportunity to contribute to macro-level decision making, both nurses and medical staff could get to know each other better. Medical staff (particularly senior staff) committed to providing constructive feedback about the structure of nursing communication. Nursing personnel felt that this would assist them in developing the clinical expertise to recognise 'patterns' of clinical presentation, in other words to synthesise clinical information into a meaningful narrative of care.

Proposed Solution b)

Solution b) Reorganising the medical shift change handovers from the staff desk area to the patients bedside, and combining the separate care team's handovers'.

Medical shift change handovers were organised so that both medical teams (A and B were equally responsible for half the patients in the department) would handover initially at the staff desk. Following this the two teams would separate and perform a ward round for the patients that they were caring for. This structure evolved because it was recognised that both medical teams were required to understand the care needs of all the patients in the Intensive Care Service, however they would focus their work on patients allocated to their own team.

Combining the team A and B ward rounds negated the need for a separate handover at the staff desk.

It was viewed that this provided efficiencies of communication and assisted all members of medical staff to identify the patient, and to verify verbal information with contemporaneous information provided by patient proximity.

Proposed Solution c)

Solution c) A greater awareness of the difficulties posed by the physical environment

The discussion of clinical practice and communication that was generated from the Reflexive sessions revealed that staff, particularly junior staff, felt isolated in their environments; in part this was attributed to insufficient support and inappropriate allocation of junior staff to care for patients located in single rooms.

The Reflective sessions brought this issue to the attention of senior staff and nurse educators. The commitment was made that greater attention would be paid to ensuring that all staff felt like they belonged to a community of care; that staff would not be put in situations where they were caring for patients who were beyond the limits of their clinical expertise or experience.

Solutions are context specific

By allowing clinicians to see and hear their practice, local problems associated with clinical handover were identified and solutions were found that capitalised on local knowledge.
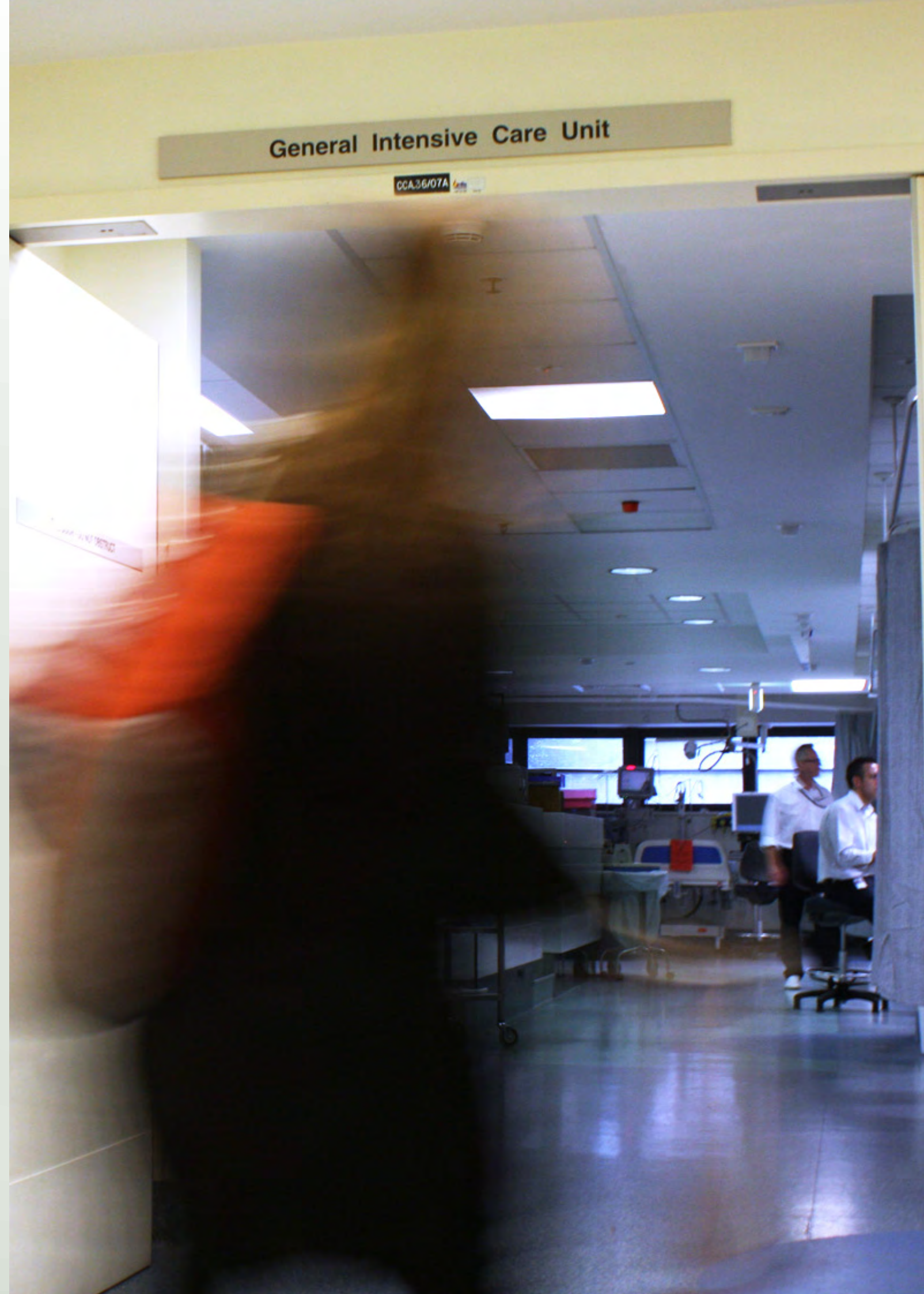
Redesign & Realisation

Consultation with clinical staff from the Intensive Care Service led to an agreement that significant benefits could be gained from the nursing 'head to toe' assessments, from reorganising the medical shift change handovers, and from providing greater support for junior staff in developing their clinical expertise.

It was viewed that alterations to current organisational and communication practice had the potential to yield benefits in the following areas:

- **Increased opportunities for dialogic teaching**
  - Greater social and professional engagement in the workplace can counteract emotional exhaustion and lead to higher perceptions of personal accomplishment.

- **Opportunities for enhanced coordination between disciplines, potentially leading to reduced repetition of information seeking**
  - Increasing efficiency, coordination and enhancing the patients' experience of continuity of care- factors linked to the incidence of error in health care.

- **Medical and Nursing team leader rounds would increase the availability 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.

- **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.

- **Provide an opportunity for the negotiation of supervisory support**
  - Individuals who receive the 'right' level of supervisory support report higher levels of individual autonomy. These individuals take on a greater breadth of roles and become more adaptive to uncertainty and contingencies of care.

Ongoing Redesign & Realisation

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

To facilitate the development of this culture the Centre for Health Communication has an ongoing relationship with this Intensive Care Service.

After the Intensive Care Service had established nursing 'head to toe' assessments as an extension of handover the Centre for Health Communication was engaged to interview staff and patients regarding their thoughts regarding the changes to handover. These interviews identified that there were:

• Greater opportunities for dialogic teaching
• Greater opportunities for enhanced coordination between disciplines, and hence reduced repetition of information seeking
• Increased availability of the most up-to-date clinical information
• Greater opportunities for early insight in emerging or unrecognised clinical problems
• Greater opportunities for the negotiation of supervisory support

Conclusion

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

Clinicians from the Intensive Care Service recognised that communication is central not only to the transfer of information and responsibility but affects the whole of organisational culture.

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

HANDOVER
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in
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HELiCS
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