



**THE UNIVERSITY
OF QUEENSLAND**
A U S T R A L I A

**The University of Queensland
Centre for Health Innovation and Solutions
Queensland Health
Med-E-Serv Pty Ltd**

**Leading Clinical Handover
Public Report on Pilot Education Program**

Presented to:

**AUSTRALIAN COMMISSION ON
SAFETY AND QUALITY IN HEALTHCARE**

As part of the National Clinical Handover Initiative

June 2009

Leading Clinical Handover can be accessed through UQ Health Insitu, the University of Queensland's quality online continuing education provider for health professionals. The program was formally launched at 'Using Tools to Make Clinical Handover Safe: A Practical Workshop' hosted by ACSQHC in Brisbane on March 30, 2009.

Leading Clinical Handover is available free of charge to all Australian health care professionals under funding by ACSQHC. Participants can register online for the program at: www.uqhealthinsitu.com.au/clinicalhandover

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Disclaimer:

This online education program was funded by the Australian Commission on Safety and Quality in Health Care (ACSQHC) as part of the National Clinical Handover Initiative. Each project within the Initiative aimed to design transferable improvement tools and solutions for handover that could be localised to different contexts. This Public Report provides a summary of the education development project undertaken; for additional details please contact ACSQHC.

The Commission acknowledges that the information contained in this one-year pilot project presents initial developments in the area of clinical handover and supports longer-term research and evaluation. The information presented here does not necessarily reflect the views of ACSQHC, nor can its accuracy be guaranteed.

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1. ABSTRACT

The scope of the project 'Clinical Handover Education' was to create an online education program that provides clinical leaders with the evidence-based concepts that underpins effective clinical handover to improve patient safety. The education is designed to prepare and empower clinical leaders to critique existing and candidate clinical handover processes within their area of responsibility, and to positively influence clinical handover culture in the health care workforce. *Leading Clinical Handover* is aimed at health care professionals with managerial, team leader or advanced clinical responsibilities. It contains four 1.5 hour modules, accessible in smaller units suitable for an audience with a limited time budget.

The completed modules were piloted by a group of participants (n=10) representative of the target audience. The group average response for the program meeting the intended learning goals was 4.35 out of a possible 5 (where 1= unable to meet the learning goals and 5= can confidently meet the learning goals). Participants also rated the usefulness of the education's resources, activities, tools and course facilitator. 88% of participants said that they would either change or review their practice as a result of completing the online module. 100% of respondents reported that the online program was either moderately or very easy to navigate.

2. EXECUTIVE SUMMARY

The aim of the project was to develop and deliver an online educational program that enables clinical leaders to objectively critique, design and continuously improve clinical handover processes within their area of responsibility, using evidence-based principles, to support high standards of clinical care and patient safety. This education was intended to provide clinical leaders with the evidence-based concepts that underpin effective clinical handover. It was designed to prepare and empower clinical leaders to critique existing and candidate clinical handover processes within their area of responsibility, and to positively influence clinical handover culture in the healthcare workforce.

The education should not mandate specific clinical handover solutions, however participants will actively engage with a range of solutions. The objectives of the online education program were to:

- Position clinical handover within a quality and safety framework;
- Emphasise professional responsibility and accountability in clinical handover;
- Highlight the importance of good communication in effective clinical handover;
- Provide guidance on best practice in handover; and
- Provide models of good practice in handover

The four modules were directed to the needs of clinical leaders and/or managers who have influence over the design and implementation of clinical handover solutions. The modules were designed to address:

- Introducing clinical handover, including an explanation of the AMA's definition of clinical handover centred on the transfer of professional responsibility and accountability
- Current attitudes of clinical leaders towards clinical handover
- Current evidence for best practice in clinical handover, including recommendations from literature on enacting principles of teamwork, communication, patient centeredness, establishing supporting systems and protocols in clinical handover
- Barriers and misconceptions in applying and enacting current evidence for clinical handover
- Framework for translating principles that underpin continuity of care into the design and improvement of handover solutions
- How the themes of teamwork, communication, patient centeredness and supporting systems and policies are enacted, using specific examples from locally developed solutions.

A pilot of the completed modules was facilitated, in order to test the usability of the education modules. The pilot was undertaken by a group of 10 participants who were representative of the target audience. The group average response for the program meeting the intended learning goals was 4.35 out of a possible 5 (where a 1 rating means that the student is unable to meet the learning goals and a 5 rating means the student can confidently meet the learning goals). Participants also rated the usefulness of the education's resources, activities, tools and course facilitator. 88% of participants said that they would either change or review their practice as a result of completing the online module and 100% of respondents reported that the online program was either moderately or very easy to navigate. While UQ recommends a formal annual or biannual review of the project, these initial results are considered to be a desirable outcome, confirming that the intent and execution of the education program is a worthwhile and useful program for the intended audience participant.

3. DEFINING THE PROBLEM

Clinical handover is a high frequency event with high impact on patient outcomes and as such, is a risk point in patient safety. This is because:

- Patient handover happens more frequently^[1]
- The complexity of handover has increased as the complexity of care has increased^[1]
- Current culture assumes individuals are competent in performing handover
- There is a lack of awareness that this is high risk activity that has significant impact on patient outcomes.

Robust handover mechanisms are of the utmost importance in ensuring patient safety^[1]. We assume that many clinical leaders and managers do not have clinical handover high on their list of safety concerns i.e. there is a mismatch between the community of interested experts and the clinical leaders and influencers in the field in their perceptions about the risks of current practice. An educational intervention needs to answer the question “Is clinical handover a safety problem?” in the mindset of the target audience.

Evidence to underpin the educational intervention

Clinical handover is a safety problem still looking for solutions. That is, we are almost at the beginning of what is likely to be long period of cycles of development and testing of techniques and protocols, accompanied by a sustained system-wide, population-based cultural and organisational change.

While action research has started around specific techniques and processes, worldwide, there is a paucity of evidence to support that these are effective, transferable and sustainable^[2]. The project group’s scoping literature survey demonstrated a wide variety of techniques and tools which were the subject of descriptive or observational studies. However, while a body of literature about these techniques fit into the broad category of justification studies, few of them would meet rigorous requirements of ‘evidence’.

We concluded that there is a current gap in the scientific process used to develop safe handover techniques. The same criticism that can be levelled at other soft skills innovation research, for example educational innovation^[3], can be levelled at the research community working in health quality and safety systems - that the scientific process is not being completed. We have too many observational studies and justification studies, and not enough clarification studies. We need some design principles to be codified, as well as subsequent instances of designs instantiated and then subjected to action research and development cycles.

Designing the solution

To equip the clinical leaders who are observing and testing candidate handover solutions with a starting point for action research, the education program was designed to provide a design model or framework (or set of principles) which is based on: best evidence; being flexible enough to support local or contextual implementation; capable of being tested in the field; and capable of having solutions tested against it. This model, therefore, forms the basis of the evidence-based content of the educational program i.e. the knowledge component.

Clinical leaders are best placed to:

- identify specific clinical handover situations and decide whether there are opportunities to improve patient safety related to handover in their local context
- appropriate, adapt or design specific handover techniques and tools, drawing from best candidate solutions if available
- conduct action research to implement, evaluate and improve the solutions

As a result, the educational program was designed to call on these target learners to critically incorporate the design principles, plus relevant specific evidence into local solutions and action research. The education program offers case studies where this has occurred as a means of enabling the target learners to actively engage with the attitudes, knowledge and evidence base, and required actions to improve handover in their clinical settings.

Figure 1.0 (on the following page) shows the placement of the target audience and their level of influence within the context of the relationship between different levels of the health system and the community. The diagram illustrates the typical relationships that exist in our current healthcare system:

1. Clinician to patient: clinicians and healthcare professionals relate directly to the patient.
2. Clinical teams and clients: at the next level, clinicians form teams and patients form groups.
3. Service units and organisations and consumers: service units and health organisations are formed by multidisciplinary teams. These teams are accessed more widely by the consumer.
4. Health system and the community: the highest level of view of the healthcare system and its influence and impact within the community.

Defining the distinction between these relationships is an important part of the education methodology in determining the 'pitch' and context of educational design. For example, an education program pitched directly to the single clinician in the context of working with his or her patient may be very specific in its content. Education material should be evidence-based and may be quite instructional on outlining specific procedures or activities that are known to be widely endorsed by the health organization and/or clinical bodies to which the health professional belongs. The level of impact sought in changing clinician behaviour, attitude or skill is more directly experienced by the individual patient under his or her treatment. Conversely, education pitched to senior managers who have broader responsibility within the health system seeks to create positive impact at the level of the community, and may be more focused in areas such as policy development and planning.

Leading Clinical Handover is not designed as a tool for bedside clinicians working one-to-one with patients, but is aimed at clinical leaders within organisational units and clinical teams with relationships to the wider community and consumers, as described above. This audience represents those in a position to positively impact clinical teams, resulting in positive results for the consumer more widely. This program aims to support this by equipping the clinical leader with knowledge, tools and resources that would aide in the implementation of appropriate clinical handover procedures.

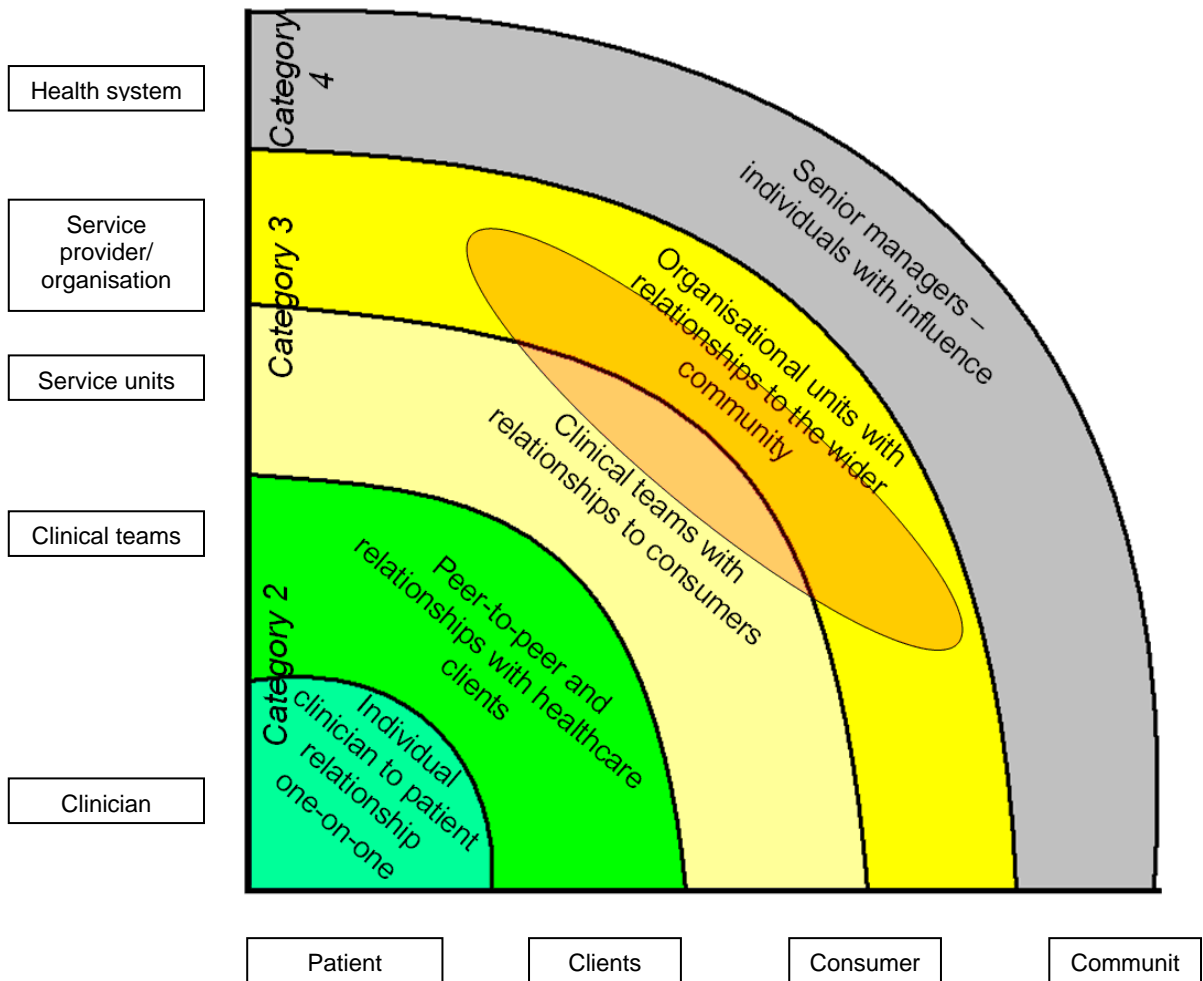


Fig 1.0 Placement of the target audience within the healthcare and community context.

4. LEARNING OBJECTIVES

Upon completion of the education modules, graduates should be able to:

- Identify the attitudes and beliefs they have about the effect of handover on safe patient care
- Identify the risks to patient safety that handover, within their area of responsibility, contributes
- Define clinical handover and explain the role that information transfer, responsibility and accountability play in handover
- Describe their role in leading and improving handover
- Describe the relationship between current evidence and good handover solutions
- Explain the role that communication, teamwork, the patient and systems play in clinical handover, within their area of responsibility
- Apply current evidence to handover processes, within their area of responsibility, and identify areas for improvement
- Critically assess existing handover solutions
- Identify good candidate solutions for improved handover techniques and systems using both design principles and best available evidence
- Identify their current barriers and enablers in leading and improving handover
- Formulate an action plan to influence and improve handover processes.

The education is not intended to recommend or specify specific handover procedures, but will allow the opportunity for learners to understand the evidence-based elements that should be incorporated into any clinical handover process that they will implement. Through this process, learners will have the opportunity to explore a range of clinical handover solutions. The education is ideally aimed at health care professionals with managerial, team leader or advanced clinical responsibilities^[4] who are seeking to improve or implement clinical handover processes within their area of responsibility.

5. LEADING CLINICAL HANDOVER: OVERVIEW OF THE EDUCATIONAL MODULES

The design of the modules meets the objectives of the online education program:

Positions clinical handover within a quality and safety framework:

Module 1 relates clinical handover to adverse events and safe patient care, and the relationship to patient safety in the workplace. All modules position clinical handover within a quality and safety framework, including the relationship to healthcare and human errors and the continuity of care.

Emphasises professional responsibility and accountability in clinical handover:

Module 1 explores the transfer of responsibility and accountability in clinical handover and asks participants to reflect on how well their handover practice achieves this.

Highlights the importance of good communication in effective clinical handover:

Module 3 centres around communication, teamwork and patient centredness, and reviews tools such as SBAR and Read back/check back. The module explores Ipswich Hospital's bedside handover case study.

Provides guidance on best practice in handover:

Module 2 explores the evidence supporting good practice in handover and addresses how to put this into practice. A framework checklist is provided that guides the design of handover solutions.

Provides models of good practice in handover:

Module 4 explores the systems and culture around clinical handover, including the definitions of barriers and enablers in leading and improving systems support. This module explores templates for standard operating protocols and guides for designing and evaluating electronic information tools.

An outline of each module is given below, with details on the learning goals associated with each unit. Resource lectures, case studies and activities are highlighted in each unit.

Module 1: Clinical handover – is it on my radar? (1.5 hours)

- Is it on your radar?
- What does it mean to you?
- How are you performing?

Unit type	Title	Learning goals
Interactions	Starting out on: clinical handover – is it on my radar? <i>(Introductory activity – may include research questions)</i>	Before starting this module: <ul style="list-style-type: none"> • Introduce yourself to the group you will be working with • Reflect on the role that clinical handover plays in your workday and the role that you play in leading and improving clinical handover • Identify your current attitudes and beliefs about clinical handover
Resource - lecture	What is clinical handover?	<ul style="list-style-type: none"> • Define clinical handover • Explain the role that information transfer, responsibility and accountability play in handover
Interaction	Accountability and responsibility: has the baton been passed? <i>(use GP to hospital case study highlighting handover of accountability and responsibility)</i>	Explore the transfer of responsibility and accountability in clinical handover Reflect on how well your handover practice achieves this
Interaction	What does clinical handover mean to me?	Reflect on your attitudes and beliefs about the relationship of clinical handover to adverse events and safe patient care
Resource - lecture	Why bother with clinical handover?	<ul style="list-style-type: none"> • Explain the relationship between effective clinical handover, adverse events and safe patient care • Describe the barriers to good clinical handover • Describe the enablers of good clinical handover • Explain the impact of human factors and complex systems on clinical handover
Case studies	Handing over: what happens when you drop the baton? <i>(multiple vignettes, include one from patient point of view involving multiple settings and people)</i>	<ul style="list-style-type: none"> • Explain the relationship between effective clinical handover, adverse events and safe patient care • Discuss your experience of clinical handover and its relationship to patient safety in your workplace • Describe the effect that human factors and complex systems have on the performance of clinical handover • Identify the factors that enable effective handover in the clinical environment • Suggest ways to implement the factors that contribute to effective handovers
Interaction	Wrapping up on: clinical handover – is it on my radar? <i>(Completion activity – may include research questions)</i>	After completing this module: <ul style="list-style-type: none"> • Reflect on the role that you now plan to play in leading and improving clinical handover • Reflect on your how your attitudes and beliefs about clinical handover have changed • Farewell the group you have been working with • Evaluate your experience of this education

Module 2: Clinical handover – what does the evidence say? (1.5 hours)

- What does the evidence say?
- How do you put it into practice?
- Is your current practice underpinned by the evidence?

Unit type	Title	Learning goals
Interactions	Starting out on: clinical handover – what does the evidence say? (<i>Introductory activity – may include research questions</i>)	Before starting this module: <ul style="list-style-type: none"> • Introduce yourself to the group you will be working with • Identify your attitudes and beliefs about the role of evidence in designing clinical handover • Reflect on your use of current literature in improving clinical handover in your workplace
Resource - lecture	What does the current evidence say about clinical handover?	<ul style="list-style-type: none"> • Explain the relationship between current evidence and good handover solutions • Describe a framework for applying the evidence when designing solutions for clinical handover
Interaction and text	A guide to designing handover solutions	Have a framework for applying the evidence when designing solutions for clinical handover
Activity	Clinical handover: putting the evidence into practice	<ul style="list-style-type: none"> • Find a clinical handover solution, in the current literature, relevant to your work situation • Critically appraise a clinical handover solution using a design framework • Suggest improvements to a clinical handover solution • Reflect on its transferability to your workplace
Interactions and text	Changing your handover practice (<i>includes questionnaire and brief information about change management principles</i>)	Consider the principles of change management when improving clinical handover in your workplace
Interactions	Wrapping up on: clinical handover – what does the evidence say? (<i>Completion activity – may include research questions</i>)	After completing this module: <ul style="list-style-type: none"> • Reflect on your how your attitudes and beliefs, about the role of evidence in clinical handover, have changed • Reflect on the changes that you now plan to make as a result of this learning • Farewell the group you have been working with • Evaluate your experience of this education

Note: Emphasise that evidence for the problem is clear, but evidence for the solution is not clear. The evidence for solutions is limited and one must be careful when taking it from one context and applying it to another.

Module 3: Leading clinical handover – communication, teamwork and the patient (1.5 hours)

- Communication
- Teamwork
- Patient-centeredness

Unit type	Title	Learning goals
Interactions	Starting out on: clinical handover – communication, teamwork and the patient <i>(Introductory activity – may include research questions)</i>	Before starting this module: <ul style="list-style-type: none"> • Introduce yourself to the group you will be working with • Identify an instance of effective clinical handover and describe what contributed to that effectiveness • Reflect on the role that communication, teamwork and the patient have in clinical handover in your workplace
Resource - lecture	Clinical handover: its all about teams and patients	<ul style="list-style-type: none"> • Describe the role that communication, teamwork and the patient have in clinical handover • List current strategies to improve communication, teamwork and patient-centredness in clinical handover
Cases	It's hypothetical: improving clinical handover <i>(multiple vignettes focusing on key aspects of communication, teamwork and patient-centredness in clinical handover)</i>	<ul style="list-style-type: none"> • Identify opportunities for improving communication, teamwork and patient-centredness in a handover • Identify good candidate solutions for improved teamwork, effective communication and patient-centredness using both design principles and best available evidence • Discuss the enablers and barriers to implementing specific handover solutions in the workplace
Interaction and text	Communication tools – ISOBAR/ S-BAR	Know how to use ISOBAR/ S-BAR as a standard communication tool that can be used to improve clinical handover
Interaction and text	Communication tools- Read-back/check-back	Know how to use Read-back/check-back as a standard communication tool that can be used to improve clinical handover
Activity	Improving handover at your workplace: communication, teamwork and patient-centredness <i>(possibly use ACSQHC projects with interviews with designers of handover solutions or summary e.g. ISOBAR)</i>	<ul style="list-style-type: none"> • Use design principles to critique candidate solutions for improving teamwork, communication and patient-centredness • Discuss its transferability to your workplace, including any barriers and enablers • Formulate an action plan to influence and improve handover processes
Interactions	Wrapping up on: clinical handover – communication, teamwork and the patient <i>(Completion activity – may include research questions)</i>	After completing this module: <ul style="list-style-type: none"> • Reflect on your how your attitudes and beliefs have changed about the role that communication, teamwork and patient-centeredness play in clinical handover • Farewell the group you have been working with • Evaluate your experience of this education

Module 4: Supporting clinical handover – systems and culture (1.5 hours)

- Standard operating protocols
- Information systems
- Organisational culture

Unit type	Title	Learning goals
Interactions	Starting out on: clinical handover – systems and culture (<i>Introductory activity – may include research questions</i>)	Before starting this module: <ul style="list-style-type: none"> • Introduce yourself to the group you will be working with • Reflect on the role that systems and organisational culture play in clinical handover in your workplace
Resource - lecture	Clinical handover: everybody needs some support	<ul style="list-style-type: none"> • Describe the role that organisational culture and systems, especially standard operating protocols and information systems, have in clinical handover • Relate current evidence on systems, particularly standard operating protocols and information systems to handover design
Interaction and text	Systems for clinical handover – standard operating protocols	Have a template of a standard operating protocol that can be used in clinical handover
Interaction and text	Systems for clinical handover – electronic information tools	Have a guide to designing and evaluating electronic information tools for clinical handover
Cases	Its hypothetical: supporting clinical handover (<i>multiple vignettes focusing on key aspects of culture and systems needed to support clinical handover</i>)	<ul style="list-style-type: none"> • Identify opportunities for improving the systems that support clinical handover • Identify good candidate solutions for improving the systems that support clinical handover using both design principles and best available evidence • Discuss the enablers and barriers to implementing specific handover solutions in the workplace
Activity	Improving handover at your workplace: communication, teamwork and patient-centredness (<i>possibly use ACSQHC projects with interviews with designers of handover solutions or summary e.g. electronic tools or SOPs</i>)	<ul style="list-style-type: none"> • Use design principles to critique candidate solutions for improving the systems that support clinical handover • Discuss its transferability to your workplace, including any barriers and enablers • Formulate an action plan to influence and improve handover processes
Interactions	Wrapping up on: clinical handover – systems and culture (<i>Completion activity – may include research questions</i>)	After completing this module: <ul style="list-style-type: none"> • Reflect on your how your attitudes and beliefs about the role that systems and organisational culture plays in clinical handover, have changed • Farewell the group you have been working with • Evaluate your experience of this education

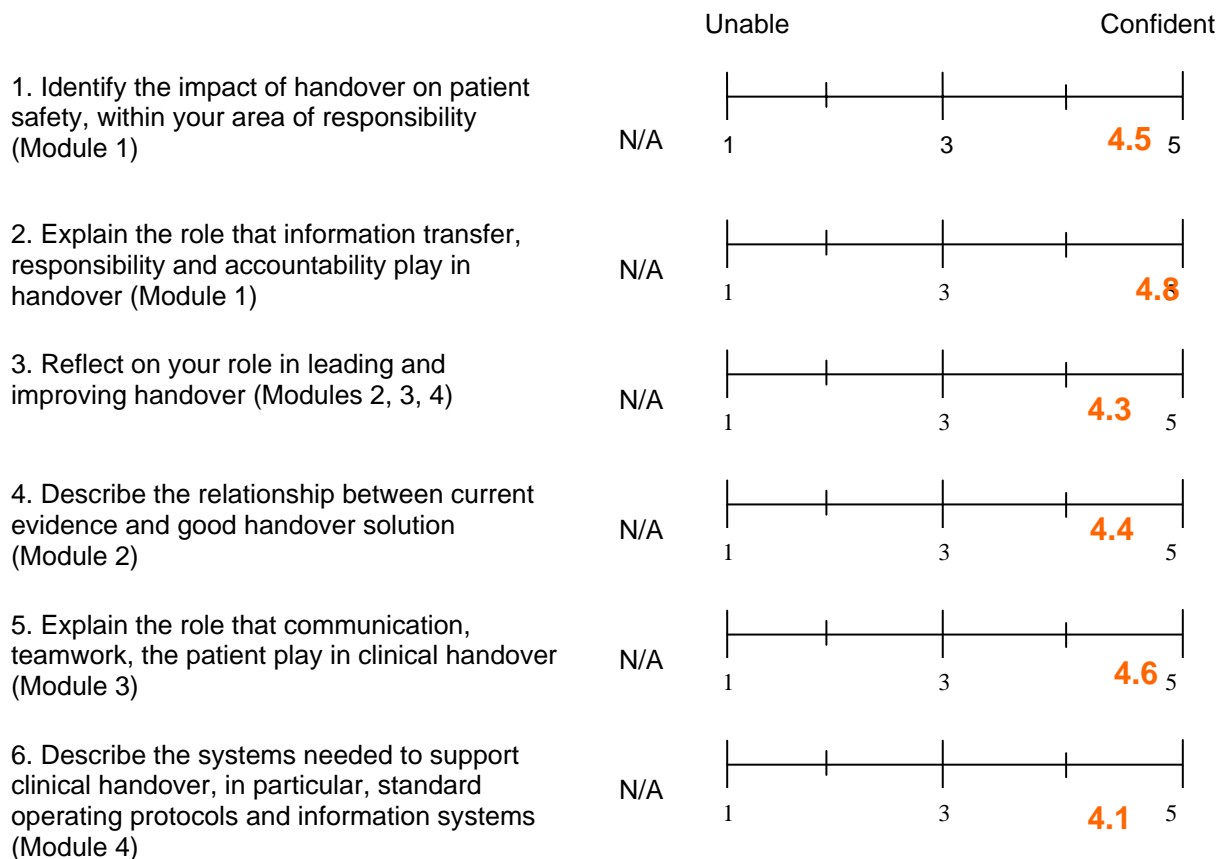
6. FEEDBACK AND EVALUATION

Leading Clinical Handover was made available to 10 participants who volunteered to participate in an online pilot of the learning modules between February 27 and March 6, 2009. Participants were nominated by Queensland Health Patient Safety Centre and coordinated by the University of Queensland. They included patient safety officers, clinical facilitators and educators, an intensive care specialist and a nurse unit manager. 7 out of 10 participants completed the entire course, with 3 participants completing one or a combination of the modules. Participants were asked to evaluate the program following completion of the modules and these results were provided to the expert working party for review prior to the release of the program.

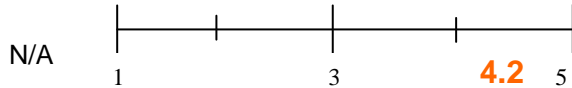
Meeting the Learning Objectives

A summary of the respondents' self-rating on meeting the learning objectives is outlined below, scaled between 1 and 5 (where 1 = unable to meet the learning goal and 5 = can confidently meet the learning goal). The average response for meeting each learning goal is marked below the scale.

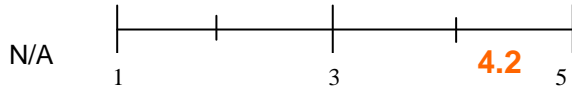
Across the 9 overarching learning goals, participants reported how well they felt the program allowed them to meet the learning goals. An average response of **4.35** out of a possible 5 was obtained across the learning goals.



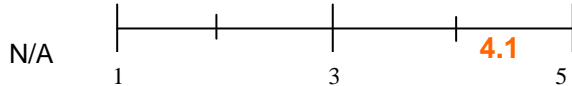
7. Apply current evidence to handover processes, within your area of responsibility, and identify areas for improvement (Modules 3, 4)



8. Critically assess existing handover solutions and identify good candidates for improving clinical handover (Modules 2, 3, 4)



9. Formulate an action plan to influence and improve handover processes (Modules 3, 4)



Summary of respondents' comments on meeting the learning objectives:

1. Major amount of information that could be adapted and used, program increasing staff awareness and compliance.
2. I believe that this is a program suited to senior managers. A commitment to positive change would be an important pre-requisite.

Key observations of the pilot study results are as follows:

Usefulness of education components

Usefulness of resources

- 100% of participants found the resources either 'all clear' or 'mostly clear' to understand
- 90% of participants reported that the resources helped them to meet the learning objectives (10% reported 'somewhat helped')
- 90% of participants reported that the resources helped them to complete the learning activities (10% reported 'somewhat helped')

Usefulness of activities

- 90% of participants reported that the case scenarios were 'fairly typical' or 'very typical' of those encountered in their own practice (10% reported them as 'not typical')
- 100% of participants found the activities and case scenarios as 'fairly' or 'very' useful

Usefulness of tools

- 100% participants reported that they 'may' or will 'definitely' use the tools provided in their practice

Course facilitators

- 78% of participants reported that the online facilitator enhanced their learning experience (22% reported that it did not, or they were unsure)
- 40% of participants reported that the online facilitator was 'somewhat' effective or 'very effective' in encouraging discussions (40% reported that they were unsure, or 'not effective').

Impact

Measuring change

- 88% of participants reported that they would change or review their practice after completing the online course (13% reported that their practice would remain unchanged). Of those who plan to implement changes, the types of changes included:
 - Introducing team work, evidence-based standard handover, leadership
 - Asking all of their staff to complete the modules
 - Implementing the clinical handover tools
 - Completing regular audits using defined guidelines
 - Changing how information is documented and communicated, using tools in the program for structure
 - Using the information available when developing clinical handover strategy options

Using the online program

User Experience

- 100% of participants reported that the education was 'moderately easy' or 'very easy' to navigate.

Positive comments regarding the modules from the participants included:

1. This course had the best resources I have ever seen to support the course content/objectives (on e-learning)
2. I understand the rationale for requiring participants to search literature, to encourage use of evidence based practice.
3. Thought provoking scenarios
4. My role of supporting clinical practice often leads to assisting managers with resources and sources. The program is an excellent source of information.
5. Very good tools and resources
6. All staff will be doing the module when it becomes available. There is always room for improvement.
7. I would certainly be prepared to support clinical managers through the change. As a quality and safety advocate I am well aware of the risks of poor communication to patient and staff.
8. I believe this is an extremely useful course for clinicians. Handover is one huge area of neglect for all disciplines. Thank you for asking me to participate.
9. Great learning experience, lots of information to process and put into practice.
10. Very comprehensive coverage of the subject, user friendly. I liked the program. It is very lengthy and I feel that a clinician would need to have a good understanding of the importance of clinical handover to commit the time - congratulations.
11. It is very comprehensive but may be too long for busy clinicians. It's a good reference tool.
12. I appreciated the resources that were readily available. When I was required to do my own search, I felt frustrated because my time was very limited and obviously a meta-analysis of the material had been already conducted.

Comments and suggestions for review of the modules included:

13. I was not particularly interested in group discussion.
14. 6 hours is a lot of time, though it should be worth it I am not sure how many middle managers will be able to complete it.
15. Would like resources/links available at end of modules to download for future references.
16. Audio quality not good in whiteboard example and GP and nurse interviews.

Upon review of this feedback, it was considered that there were no critical changes required prior to the program launch, with the exception of corrections to the audio quality as reported above. In response to other suggestions made:

- a. Participation in group discussions are optional for all participants, indicated by the fact that some participants value them greatly, whilst others prefer to utilise other interactive components of the program.
- b. The length of the program will be reviewed in light of further evaluation from participating students after the program is launched. It is expected that students will not complete all components of the program, but will engage in sections that is of most interest or relevance, or appeals to their particular learning style. A nominated minimum set of units must be completed for the program to be marked as 'complete' in the students' transcripts.
- c. Resources and links are available at the conclusion of relevant modules. This feedback will be reviewed again in light of any further comment by students.

Please note that each participant completing the live education program is asked to complete a program evaluation. Regular review of evaluation data is carried out to inform updates and improvements to the program. UQ recommends that a formal review of the education is undertaken on an annual or biannual basis and funding for program review will be sought at the appropriate intervals.

7. CONCLUSION

Leading Clinical Handover was made available to Australian healthcare professionals on March 30, 2009 and can be accessed at www.healthinsitu.com.au/clinicalhandover.

The four education modules of *Leading Clinical Handover* has incorporated:

- Evidence-based guidelines for clinical leaders to objectively critique, design and continuously improve clinical handover processes within their area of responsibility;
- Usable tools to empower clinical leaders to critique existing and candidate clinical handover processes; and
- Empowerment to clinical leaders to positively influence clinical handover culture in the healthcare workforce

Feedback from the pilot evaluation resulted in 88% of participants indicating that they would review or change their current practice in clinical handover. The tools, resources and activities presented in the education program were reported as being useful resources by the pilot participants.

All UQ Health Insitu education programs and evaluation data are reviewed to inform updates and improvements to the program, and measure the effectiveness of the program in assisting students to meet their learning goals.

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