Using tools to evaluate the quality of interprofessional clinical handover in complex settings

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Supported by
Purpose

Present a range of practical tools and strategies to examine complex clinical handover situations and inform viable improvement solutions.
Objectives

• Select and use different methods

• Identify advantages and disadvantages of methods

• Develop a strategy specific to your clinical environment
Workshop Outline

• Introduction and Overview
• Methods
  – Critical incidents
  – Survey
  – Group discussion
  – Observation
• Handover tools developed
• Experiences and lessons learned
Introduction and Overview

Professor Mari Botti
Evaluating quality of handover

- Complex
  - Interdisciplinary
  - Context
  - Public vs private sector
- Multiple dimensions
- Strategy for improvement
- Principles
Clinical Governance
- An environment that maintains quality and standards of care

Clinician engagement
- Participation
- Local ownership and endorsement

Sustainability
- Improvements embedded in structures, processes and quality assessment

Safety and quality of clinical handover

Team climate and safety culture
- Attitudes and behaviours that influence group performance

Clinical engagement
- Participation
- Ownership
Interprofessional Communication in PACU

• Aims
  – Identify local handover patterns and processes
  – Identify the content, behavioural and professional issues that affect quality and safety
  – Measure team performance and safety culture
  – Inform the development of improvement tools and strategies
Methods

Handover in PACU

– Critical incident analysis
  • 141 incidents extracted from 6463 events

– Observation of practice
  • 314 handover events observed across 3 sites

– Team climate and safety culture surveys
  • 166 survey responses across 3 sites

– Focus group discussions
  • 62 staff (15 anaesthetists & 47 nurses) in 8 groups
Transfer of care at handover

System & Context
- Teamwork & team climate
- Leadership
- Trust
- Safety culture

Information
- Verbal
- Written
- Minimum checklist
- Information systems

Accountability and responsibility
- Escalation plan
- Supervision
- Temporary/permanent

MONASH University
Analysis of Incident Reports

Dr Bernice Redley
Clinical incident analysis

What is an incident?
Who should report?
How do I report?
What are they used for?
How to identify incidents associated with handover?
How to analyse them?
Classification of incident reports

Incidents associated with handover

- Attributed to handover process
- Detected by handover process

Type of error
- Slip/lapse
- Rule-based
- Knowledge-based
- Violation

Outcome/consequence

Contributing factors
- Institutional context
- Organisational and management
- Work environment
- Team factors
- Individual factors
- Task factors
- Patient factors

(Vincent et al. 2000)
### PACU handover related Critical Incidents

<table>
<thead>
<tr>
<th>Incidents</th>
<th>Site 1</th>
<th>Site 2</th>
<th>Site 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL (patient related &amp; clinical area only)</td>
<td>2699</td>
<td>2973</td>
<td>791</td>
</tr>
<tr>
<td>Related to PACU handover</td>
<td>46 (1.6%)</td>
<td>81 (2.7%)</td>
<td>14 (1.8%)</td>
</tr>
<tr>
<td>Nurse</td>
<td>45 (97%)</td>
<td>80 (98.8%)</td>
<td>14 (100%)</td>
</tr>
<tr>
<td>Anaesthetist</td>
<td>16 (35%)</td>
<td>32 (39.5%)</td>
<td>9 (64.3%)</td>
</tr>
<tr>
<td>Surgeon</td>
<td>10 (22%)</td>
<td>13 (16%)</td>
<td>1 (7.1%)</td>
</tr>
</tbody>
</table>
Detected by Handover

- Example of medication error
  - “...patient returned from theatre with another pt’s drug chart, incorrect bradma, medication was given”

- Example of intra-operative injury
  - “…Painful abrasion on right buttock. On examination patient found to have excoriated area of 8 x 4 cm diameter – ? Diathermy burn”
Attributed to Handover

- “No medical handover from anaesthetist. Patient was haemodynamically unstable on arrival to unit-epidrine administered immediately prior to transfer. No half hour call re patient...on arrival in RR patient was noted to be hypotensive with BP 72mmHg systolic” (ICU reported incident regarding patient arrival from PACU)

- “ward nurse collected pt from theatre, she asked theatre staff where post op orders were, was told they would send them up to ward when they found them”
Example 1

• “Pt returned from recovery with transport nurse with no Anaesthetic record sheet. Recovery contacted regarding missing record told they could not find it and the anaesthetist would not write a new record. Verbally told that the patient had a local anaesthetic and was given IV Keflin intra op. No Anaesthetic record or drug chart.”

(Case 23)
Example 2

- Ketamine infusion (was) double strength. In theatre with Anaesthetist, Nurse checked ketamine flask. He was aware that it was a 50ml bag N/Saline with 200mg of ketamine. On arrival in PACU the post operative order for the infusion was 200mg ketamine in 100ml N/Saline. New bag was put up. So pt received double dose initially but rectified in PACU.

(Case 37)
Example 3

- Returned (to ward) post op with no dressings applied to abdo and chest. Appears to be full and superficial wounds.

(Case 111)
Discussion
Findings

- Variability in reporting practices
- Common contributors
  - Organisational and management
  - System factors
  - Team factors
- Poor communication
- Prevention and identification of error
Limitations

- Incident report analyses
  - Clinician perception and recognition
  - Database classification system
  - Reporting culture
  - Alternatives available
Survey

Dr Bernice Redley
Utility of Survey Data

- Climate is context
  - Team
  - Work environment
  - Organisation

- Benchmark against similar populations
  - Workers perceptions of their workplace
  - % agreement = positive safety culture
  - Detect differences

- Information for improvement
  - Local unit
  - Organisational
  - Interventions to improve climate
Team Climate & Safety Culture

- Characteristic of successful teams
- Positive safety culture
  - increased incident reporting
  - better risk management
  - team functioning
  - organisational readiness for change
  - job satisfaction
  - patient care outcomes
  - patient evaluations of their care

(Hutchinson et al., 2009; Sharma et al, 2006; Hamilton et al, 2007; Gosling et al., 2003; Harris et al., 2007; Bower et al., 2003)
Team culture surveys

Safety Attitudes Questionnaire (sub-scales)
- Teamwork climate
- Perceptions of management
- Safety climate
- Stress recognition
- Job satisfaction
- Work environment

Team Climate Inventory (sub-scales)
- Vision
- Participative safety
- Task orientation
- Support for innovation
- Social desirability
Example
(SAQ-Safety Climate subscale)

• I would feel safe being treated here as a patient.
• Medical errors* are handled appropriately in this hospital.
• I receive appropriate feedback about my performance.
• In the (my department), it is difficult to discuss errors.(r)
• I am encouraged by my colleagues to report any patient safety concerns I may have.
• The culture in (my department) makes it easy to learn from the errors of others.
• I know the proper channels to direct questions regarding patient safety.

Use worksheet 1
Survey data quality

- Staff perceptions “sell in”
- Anonymity vs response rate
- Enhance response
  - Organisational/manager support
  - Clinical champions
  - Distribution (meeting, hand, timing)
  - Professional endorsement
Focus Group

Professor Tracey Bucknall
Focus Groups

- Balance qualitative with quantitative
- Complexities of culture
- Occupation specific vs multidisciplinary
- Engagement
- Iterative
Focus Groups

• Round 1
  – Occupations differ, 3 components
  – Time poor, efficient
  – Multiple tasks, distractions
  – Environment, interpersonal familiarity
  – Information transfer
  – Transfer of responsibility

• Round 2
  – Confirmed preliminary findings
  – Agreement to test tools
  – Strategies for implementation
Observation

Professor Mari Botti
Naturalistic Observation

- Advantages and disadvantages
- Methodological rigour
- Training clinicians to use this method in practice
Discussion

• Observe
  – procedures (tasks e.g. checking)/
  – behaviours (e.g. verbal and non-verbal)

  – Procedures / behaviours associated with any clinical incident(s)
Example 1

Example video 1

Bodies series. Copyright permission provided by Hat trick productions
Example video 2

Bodies series. Copyright permission provided by Hat trick productions
Discussion

• Observe
  – procedures (tasks e.g. checking)/
  – behaviours (e.g. verbal and non-verbal)

  – Procedures / behaviours associated with any clinical incident(s)
Tools for PACU Handover

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Identify Handover Risk

- **All**
  - Minimum patient information
  - Use a checklist

- **Alert**
  - Increased patient risk
  - Busy environment

- **Alarm**
  - Complex patient
  - Stressful environment
Handover process

1. Connect
   - Prepare a safe environment
   - Connect monitoring

2. Observe
   - Assess patient safety
   - Meet immediate care needs

3. Listen
   - Stop to listen
   - Anaesthetic handover: ISoBAR

4. Delegate
   - Documents checked using checklist
   - Discuss questions, confirm information
Handover process

**Anaesthetic handover iSoBAR**

- **Identify:** Introduce self and patient, Important information
- **Situation:** Operation, anaesthetic
- **Observations:** Vital signs
- **Background:** Relevant history, Allergies
- **Assessment:** Patient progress & status
- **Recommendation:** What needs to be done, how, when and by whom?

**Checklist for every patient**

- Identity band
- Equipment
- Anaesthetic chart
- Specific pathway/protocol
- Surgical report
- Escalation plan
- Postoperative care instructions
- Who to contact
- When and how
- Medication chart
- Infusion orders
## Handover checklist

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identity band</strong></td>
<td>Identify the patient (e.g. wrist or ankle band with hospital label and associated clinical notes)</td>
</tr>
<tr>
<td><strong>Anaesthetic chart</strong></td>
<td>Details of anaesthetic, medication and vital signs during the surgical procedure</td>
</tr>
<tr>
<td><strong>Surgical report</strong></td>
<td>Details of the operation including drain tubes, surgical wound dressing</td>
</tr>
<tr>
<td><strong>Postoperative care instructions</strong></td>
<td>General and specific postoperative care: surgical, post-anaesthetic and nursing management</td>
</tr>
<tr>
<td><strong>Medication chart</strong></td>
<td>Orders for all pre and postoperative medications (e.g. antibiotics, usual medications)</td>
</tr>
<tr>
<td><strong>Infusion orders</strong></td>
<td>Orders for intravenous fluid administration</td>
</tr>
<tr>
<td><strong>Equipment</strong></td>
<td>Equipment required to deliver patient care is available and functioning properly (e.g. oxygen, infusion pumps, drains, suction)</td>
</tr>
<tr>
<td><strong>Specific pathway/protocol</strong></td>
<td>Details of specific care pathway, guidelines and goals of care</td>
</tr>
<tr>
<td><strong>Escalation plan</strong></td>
<td>Detail responsibility for when and how to respond to a problem</td>
</tr>
<tr>
<td><strong>Who to contact, when &amp; how</strong></td>
<td>Identify the person accountable for patient care, when and how to make contact</td>
</tr>
</tbody>
</table>
Personal Experiences

Manager
Clinician
Researcher
Manager

Ms Louise Alexander
Anaesthetics/ PACU Nurse Manager
Cabrini Health
Key learnings

• Clinical champions

• Quality improvement in busy unit

• Strategies to engage staff

• Link with other hospital departments
Insights

• Inter-disciplinary approach is crucial

• Advice for other Managers planning quality improvement
Clinician

Ms Agnetha Clarke
Clinical Nurse Specialist
Recovery and Anaesthetics
Alfred Health
Key learnings

• Understanding the process of quality improvement
  – Local department
  – Clinical governance unit
  – Organisation

• Data collection
  – Incident reporting (Riskman)
  – Focus groups
  – Art of observation
Insights

• Largest quality improvement project in the operating suite at The Alfred
  – Multi-disciplinary
  – Nursing role/ leadership

• A new perspective and understanding of quality improvement in the acute care setting
Advice for other clinicians

• Be organised
• Ensure you have department and organisation support
• Listen to people and keep them informed
• Working on quality improvement
Researcher

Dr Andrew NcNess
Research Fellow
Deakin University
Key learnings

– Observing behaviours during handover
  • Not as easy as it sounds

– What was commonly observed
  • Pace
  • Interactions
  • Manner

– Observing as a non-clinician
  • See the invisible
  • Learn the culture
  • Effects of familiarity
• **Insights**
  – Staff initially wary
  – Expectations of others

• **Advice to others**
  – Observe without being distracted
  – Contextualise the behaviours
  – Complementary data builds the bigger picture
Summary

• Handover processes play critical role in patient safety

• Communication errors common:
  • types and patterns of incidents
  • factors contributing to errors
  • patients compromised in 33% cases (incidents)

• Systems to improve error detection

• Local context critical to successful and sustainable implementation of local solutions for improving processes

• Potential for improvement
  – Process
  – Content
  – Monitoring
Further information

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- MJA Handover supplement 2009