EXAMINING THE PROPERTIES OF A HANDOVER OBSERVATION AUDIT TOOL

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> Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand." - Confucius, 450 BC





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OVERVIEW

- Examining quality of clinical handover
- Why observation audit?
- Challenges of audit of clinical handover
- Observation audit tool development
- Case studies
 - Anaesthetist to nurse in PACU
 - ICU-Ward handover of cardiac surgical patients
 - Nurse-nurse bedside handover



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CLINICAL HANDOVER

NSQHSS (2011) Standard 6

"the transfer of professional <u>responsibility</u> and a<u>ccountability</u> for <u>some or all</u> aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis" (<u>p. 8</u>).

- Literature
 - Handover miscommunication significant contributor to preventable harm
 - Complex clinical activity with multiple dimensions
 - Broad guidance about reducing handover risk: focus on content
 - Emerging literature recognises human and environmental factors
 - Tools, Mnemonics, Checklists, Reminders
 - Features of effective handovers are; two way face-to-face communication, written support tools and content that captures intention.
 - Research focus on contributors to harm, what NOT to do...!

Handover provides a key audit point in transfer of care

(ACSQHC, 2011; Hill & Nyce 2010;)





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Resilience

how individuals, teams and organisations monitor, adapt to and act on failures in high-risk situations (Jeffcott et al 2009)

Positive deviance

Identify individuals that consistently demonstrate high performance in the same context and with the same resources (Bradley et al. 2009; Lawton et al. 2014)





WHY OBSERVATION AUDIT?





OBSERVATION AUDIT

"Gold Standard" in quality assurance

- Overcome limitations of other methods
 - Self-report
 - Quality of documentation in care records
 - Rely on self-recognition e.g. conscious vs unconscious competencerepetitive activity
 - People do not always do what they 'think' they do
 - Incident data can be misleading
 - Reporting is variable

Complement other methods e.g. Staff perceptions

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OBSERVATION AUDIT PURPOSE

Purpose

- Collect evidence about performance
- Examine compliance with expected or 'good practice'
- Make judgements on whether standards are achieved
- Guide individual(s) about performing to the standard required
- Identify performance gaps
- Inform improvement activities





CHALLENGES OF HANDOVER AUDIT

- Capture variability and complexity in 'real' world
- Variability in context, content and processes
- Multiple interrelated influences
- Link between processes and outcome?
- Benchmark standards
 - Local policy vs Best practice
 - standardised vs flexible
 - generic vs specific
- Immediate coaching / feedback opportunity
- Avoid bias: sampling, data collection, "Hawthorne effect"

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OBSERVATION ASSESSMENT TOOL DEVELOPMENT





STEPS

- Planning
 - Define what good practice looks like: policy, procedures, guidelines
 - Context and conditions
 - What are the standards
- Design and development
 - Components of the tool and how they fit together
 - Order of items, visual layout
 - Pilot test
- Quality checks
 - How well does the tool perform?

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QUALITY OF HANDOVER AUDIT TOOLS

Properties and quality: analysis of tools often not achieved

- Validity: measures what is intended
 - Face, content, construct, concurrent, predictive
 - Literature, policy, procedure, expert, practice
- **Reliability:** Consistent and accurate results
 - Inter-rater, inter-item, inter-test
 - Observation decision-making rules
 - Experts, Intended users
- Usability
 - Practical for users in everyday practice
 - Intended users
 - Data is useful for the intended purpose

Collect useful data

(Burns & Grove, 1993; Ahmed et al. 2011)



QPS

CASE STUDY 1

Anaesthetist-nurse handover in PACU

• Mixed Methods: Non-participant practice observation & Focus groups

- Setting: 3 PACU's, public and private
- Participants: 185 handover, 62 staff

• Results: Characteristics of good handover practice, verified in focus groups with clinicians.

- Overall Process
- Verbal communication tool
- Information checklist
- Matrix of patient safety risks
- High face validity with anaesthetists and nurses

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CASE STUDY 1 (CONT)



CASE STUDY 1 (CONT)

• Follow up study to test quality of tools: 3 sites, <900 handovers



CASE STUDY 1 (CONT)

Observation audit pre and post implementation of tools





*114-155

*35.8%

*3.2%

CASE STUDY 2

ICU-ward handover of cardiac surgical patients

Objectives: Adapt existing tools to standardise nursing handover from the intensive care unit (ICU) to the cardiac ward and assess patient safety risks before and after pilot implementation

Method: A three-stage, pre-post interrupted time-series

Setting: ICU large private hospital

Participants: 40 handovers, 16 nurses

Results:

- Context specific handover tools
- Good content and face validity, feasibility and usability of tools
- Patient safety risks at handover
- Pre-post reduction in patient safety risks

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8	Any specific patient preferences
- 53 - 52	Chinicing factors (e.g. cognitive impairment, communication of sen-care problem)
	ranniyanu social situation
	Confirm name with patient and on ID band
1	Allergy hand
10	Patient labels on all charts
1	
	Clinical deterioration or escalation criteria (e.g. vitals, pain, other)
1	• Who to contact, when and how?
í	Vedication safety
1	• New, ceased or changed medication orders
1	• When to cease or recommence usual medications
,	• Check medication chart/s up to date
2	Identify any high risk medications (e.g. Anticoagulants, strong opioids, antipsychotic, hypoglycaemic, antidepressant, antibiotics)
,	Restate any medication allergies or sensitivities
1	Avoid harms of hospitalisation
1	• All invasive lines (e.g. IV, ICC, IDC, Pacing) have insertion date, care instructions and removal date
	V I E prophylaxis
	Respiratory management
1	 Specific post-operative care instructions and Wound care
1	• Pain management
	afe blood or blood products transfusion
	Previous or expected transfusion
	Prevent pressure injurv
1	Pressure injury risks
	Preventive interventions
l	Prevent harm from falls
į	• Mobility risks
	Preventive interventions

CASE STUDY 2 (CONT)

Pre and post implementation patient risk measures

(20 observations)

- ward readiness to receive patients (10% vs 95%)
- checking patient identity (0% vs 100%)
- delivery of handover at the bedside (25% vs 100%)
- communication of complete information (40% vs 100%)





CASE STUDY 3

Nurse-Nurse bedside handover Observation audit tool

Objective: Examine the reliability, validity and usability of a multi-purpose tool: training, coaching, audit: evaluate handover quality

Methods: 3-stage sequential mixed method

- Stage 1: content & face validity using literature and experts
- Stage 2: Revise and pilot test
- Stage 3: Non-participant practice observation audit with independent clinician observers

Setting: 5 inpatient wards at one site of health service

Tool comprised of 3 concepts (process, content, environmental safety) represented by 24 Criterion and 52 illustrative behaviours

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CASE STUDY 3 (CONT)

- Audit of 199 'real' handover events across 5 wards
 - 72 had an independent second observer
 - field notes captured data on tool usability
- Organisation set benchmark was behaviours to be observed in 80% of handovers
 - 11.7% (n=2) content
 - 17.6% (n=3) process
 - None related to environment





CASE STUDY 3 (CONT)



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	Карра	
	Measure of	
	Agreement	% Observed
Exemplar Behaviour	N=72	N=199
3.2 States principal problem and other problems		
influencing care (Content)	0.33	82.3
3.4 States presence or absence of allergies		
(Content)	0.38	3.3
3.6 states management strategies requiring		
implementation (e.g. bed alarms, walking aids), and		
plans for removal of any invasive devices (content)	0.36	19.4
3.1 At least three approved patient identifiers are		
used to confirm patient identity (ID band, label on		
care records and verbally with the patient) (process)	n/a	1.6
1.4 Preferences for involvement in handover (e.g.		
prefers to sleep)	0.24	9.9
4.1 Both nurses visually inspect the patient	0.26	29.5
4.2 Check that the call bell is within reach.	0.21	16.4
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SUMMARY

• Examining quality of complex clinical activities like clinical handover is challenging

- Observation audit is one useful way to examine 'real' practice
- Consider examining the properties of your observation audit tools

• Use complementary methods to understand data

Observation has a key role in quality improvement



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REFERENCES

Ahmed, K., Miskovic, D., Darzi, A., Athanasiou, T., & Hanna, G. B. (2011). Observational tools for assessment of procedural skills: a systematic review. *Am J Surg, 202*(4), 469-480 e466. doi:S0002-9610(11)00206-6 [pii] 10.1016/j.amjsurg.2010.10.020

Australian Skills Quality Authority (ASQA). (2015). *Guide to developing assessment tools*. Retrieved from http://www.asqa.gov.au/verve/_resources/Guide_to_developing_assessment_tools.pdf

Bradley, E., Curry, L., Krumholz, H., Nembhard, I. M., Ramanadhan, S., & Rowe, L. (2009). Research in action: using positive deviance to improve quality of health care. *Implementation Science*, 4(25). doi:10.1186/1748-5908-4-25 Burns, N., & Grove, S. K. (1993). *The practice of Nursing Research: Conduct, Critique and Utilization*. (2nd ed.). Philadelphia: W.B. Sanders.

Ganz, F. D., Endacott, R., Chaboyer, W., Benbinishty, J., Ben Nun, M., Ryan, H., . . . Spooner, A. (2015). The quality of intensive care unit nurse handover related to end of life: a descriptive comparative international study. *Int J Nurs Stud, 52*(1), 49-56. doi:10.1016/j.ijnurstu.2014.07.009

Graan, S. M., Botti, M., Wood, B., & Redley, B. (2015). Nursing handover from ICU to cardiac ward: Standardised tools to reduce safety risks. *Aust Crit Care*. doi:10.1016/j.aucc.2015.09.002

Hill, W., & Nyce, J. (2010). Human factors in clinical shift handover communication: review of reliability and resilience principles applied to Change of Shift Report. *Canadian Journal of Respiratory Therapy*, 46(1), 44-51.

Horwitz, L. I., Dombroski, J., Murphy, T. E., Farnan, J. M., Johnson, J. K., & Arora, V. M. (2012). Validation of a handoff assessment tool: the Handoff CEX. J Clin Nurs. doi:10.1111/j.1365-2702.2012.04131.x

Jeffcott, S. A., Ibrahim, J. E., & Cameron, P. A. (2009). Resilience in healthcare and clinical handover. *Qual Saf Health Care, 18*(4), 256-260. doi:18/4/256 [pii] 10.1136/qshc.2008.030163

Jones, T. L., Hamilton, P., & Murry, N. (2015). Unfinished nursing care, missed care, and implicitly rationed care: State of the science review. *International Journal of Nursing Studies, 52*(6), 1121-1137

Lawton, R., Taylor, N., Clay-Williams, R., & Braithwaite, J. (2014). Positive deviance: a different approach to achieving patient safety. *BMJ Qual Saf, 23*, 880-883. doi:10.1136/bmjqs-2014-003115

Westbrook, J. I., Li, L., Lehnbom, E. C., Baysari, M. T., Braithwaite, J., Burke, R., . . . Day, R. O. (2015). What are incident reports telling us? A comparative study at two Australian hospitals of medication errors identified at audit, detected by staff and reported to an incident system. *Int J Qual Health Care*, *27*(1), 1-9. doi:10.1093/intqhc/mzu098





