The Impact of Anesthesia Handovers

Current Research and Possible Solutions

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2011 annual meeting of the society of cardiovascular Anesthesiologists

- "The Impact of Anesthetic Handover on Mortality and Morbity in Cardiac Surgery."

  Hudson c; Tran d; Dupuis J; McDonald B; Boodhwani M; Hudson J

  University of Owttawa Heart Institute, Ottawa, Ontario, Canada

Patients passed from one anesthesiologist to another during cardiac surgery had a 2.2 times higher risk of dying in the hospital

Patients who underwent handover also were 55% likelier to experience major morbidity, including heart attack and stroke

Recent Patient Safety Literature

- Shown increasing agreement that effective patient handover is critical to patient safety
- Patient handover has been defined a research priority
- Handovers in the field of anesthesia is particularly



3 Q's that need to be addressed

- What is the current handover practice?
- What constitutes a handover that contributes to the quality and safety of patient care?
- How can clinicians be trained for and effectively supported

Current Handover Practice

Variable, unstructured and error



Current Handover Practice

Environmental Factors causes









Study done by Anwari JS.

- looking at handoffs between the anesthesiologists and postoperative recovery nurses
  - 32.6% of anesthesiologists attained maximum scores for the quality of verbal information
  - 40% involved preoperative status
  - 36.6% involved premedication
  - 20.7% involved operative details
  - 15% involved intra-operative course and complications

Anwari JS. Quality of handover to the postanaesthesia care unit nurse. *Anaesthesia* 2002; 57(5); 535-542

Criteria for handovers that contributes to the quality and safety of patient care

- Literature review of 400 relevant articles, led to the identification of seven primary functions for patient handoffs
  1. Information processing
  2. Stereotypical narratives
  3. Resilience
  4. Accountability
  5. Social interaction
  6. Distributed cognition
  7. Cultural norms

Patterson ES & Wears RL. Patient handoffs: standardized and reliable measurement tools remain elusive. *Joint Commission Journal on Quality and Patient Safety* 2010; 36(2): 52-61

Criteria for handovers that contributes to the quality and safety of patient care

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Conclusion:

1. Diversity of handoff measurement approaches lack consensus about primary purpose of a handoff as well as promising interventions to improve handoff processes
2. Suggests that overall quality were predicted by 3 factors: Information transfer, shared understanding, and working atmosphere

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Clinician Training in Handovers

- Currently, 56% of departments provide guidelines for patient transfers to intensive therapy units, and only 14% for handover of anesthetized patients.

Horn J, Bell D & Moss E. Handover of responsibility for the anaesthetised patient-opinion and practice. Anaesthesia 2004;59: 658-663

Standardized Protocol: Two Methods

- First approach:

  defines specific information content and order and generates handover protocols that are specific to the clinical setting.

Standardized Protocol: Two Methods

- Second approach:

  general interaction structures that do not define the exact content, but the topics to be covered and their order

SBAR is a technique designed to communicate critical information succinctly and briefly.



S ituation

What's going on with the patient right now?
(Identify yourself. Identify the patient. State the problem concisely.)

B ackground

What's the background on this patient? How did we get to this point? *(Review the chart. Anticipate questions. State the relevant medical issues.)*

A ssessment

What do I think the issue is? Why am I concerned?
(Provide your observations and evaluations of the patient's current state.)

R ecommendation

What should we do to respond to the situation?
(Suggest what should be done to meet the patient's immediate needs.)

R esponse

Collaboration resulting in a plan of action. *(Listen for/seek feedback to ensure responder understands the issue.)*

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Team Approach

- Patient handover is not just a one-way transfer of information



Team Approach

- It’s involves shared cognition/shared decision making between health-care providers and an opportunity for collabo



Patterson E, Woods D, Cook R et al. Collaborative cross-checking to enhance resilience. *Cognition, Technology & Work* 2007; 9:155-162

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- “Pilot Implementation of a Perioperative protocol to Guide Operating Room-to-Cardiac ICU Patient Handoffs

  Petrovic M; Aboumatar H; Martinez E

  Massachusetts General Hospital, Boston, MA, USA; JohnHopkins University, Baltimore, MD, USA

1. Protocol introduced a Standardized, Structured, and reproducible approach
2. Key members of the team must be present during the handoff, including the surgeon, the anesthesiologist and the receiving nurse and clinician
3. Using discipline-specific checklists

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1. Percentage of missed information in the surgery reports decreased from 26% to 16% (p=0.03)
2. Percentage of missed information in the anesthesia reports showed no significant change 19% to 17% (p>0.05)
3. ICU nurse satisfaction scores increased from 61% to 81%
4. Overall: perioperative handoff changed from noisy, multitasking process to an orderly,

Conclusions

- Handovers have shown to have a negative impact on patient outcomes
- Lack of formal training and formal systems in handoff situations
- Overall quality of handovers predicted by 3 factors: Information transfer, shared understanding, and work atmosphere
- Evidence that team based approach shows promise