Implementation of a Standardized OR to PACU Handover at an Urban Pediatric Tertiary Care Centre

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PERIOP, A CUT ABOVE

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Background

- Omission of important information during handover due to lack of standardization can lead to interruptions in PACU and OR to investigate questions and increase the risk of patient harm (Boat & Spaeth, 2013)
- PACU nurses expressed concerns regarding handover where nurses were expected to complete clinical tasks while simultaneously receiving complex patient information
- A review of patient safety events, decreased staff satisfaction, and increased length of stay were all observed to be linked to poor communication during handover
- Handover observation audits in 2019 revealed low rates (39%) of surgical staff presence during PACU handover resulting in poor communication

Objectives

This nurse-led project aimed to improve the OR to PACU handover process to facilitate stronger interprofessional communication and improve patient safety.

We intended to achieve this objective by:

1. Developing a standardized handover checklist and process informed by evidence-based research and clinical feedback
2. Sustaining the standardized handover practice and process for new staff and trainees across disciplines (anesthesia & surgical team, OR & PACU nursing) through the development of an educational video

Process of Implementation

2019 Needs Assessment

- Gathered patient safety report trends related to handover
- Conducted nursing focus groups to gather subjective data on OR to PACU handover experience
- Audited handovers from OR to PACU
- Completed literature review and benchmarked handover practice within the organization (completed by 2020)

2020 Implementation

- Established working group with key stakeholders from surgery, anesthesia, OR and PACU nursing
- Developed first draft of the handover checklist and process
- Launched 1-week pilot with 3 surgical services (ENT, Dentistry, General Surgery)
  - Observation data and feedback from interprofessional teams collected and incorporated into final checklist and process
- Provided physical resources (laminated checklist and process) and education and training through: Just In Time training, practice stations, and didactic teaching
- Go-live in all surgical services

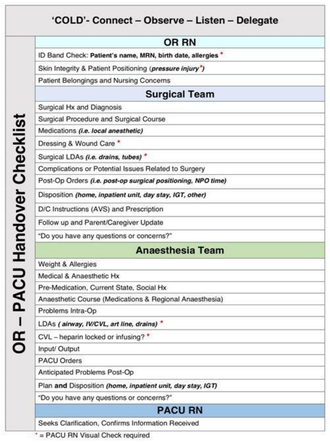
2021 Promoting Best Practice

- Recruited and trained PACU RNs to the Handover Champion Team
- Created and shared a scheduled Handover newsletter with the Perioperative Care team
  - Celebrations of best practice and compliance audit communicated
- PACU RN champions provided in-person education for anesthesia trainees

2022-2023 Sustainability

- To ensure adoption of practice and sustainability, an educational handover video was developed
  - Reduced human resources needed to provide education
- Approval from Perioperative Executive Committee and Medical Affairs Committee to mandate Handover education to perioperative staff

Handover Checklist and Process



'COLD'- Connect – Observe – Listen – Delegate

OR – PACU Handover Checklist

OR RN
ID Band Check: **Patient's name, MRN, birth date, allergies** *
Skin Integrity & Patient Positioning (***pressure injury***)
Patient Belongings and Nursing Concerns
Surgical Team
Surgical Hx and Diagnosis
Surgical Procedure and Surgical Course
Medications (***i.e. local anesthetic***)
Dressing & Wound Care *
Surgical LDAs (***i.e. drains, tubes***) *
Complications or Potential Issues Related to Surgery
Post-Op Orders (***i.e. post-op surgical positioning, NPO time***)
Disposition (***home, inpatient unit, day stay, IGT, other***)
D/C Instructions (AVS) and Prescription
Follow up and Parent/Caregiver Update
"Do you have any questions or concerns?"
Anaesthesia Team
Weight & Allergies
Medical & Anaesthetic Hx
Pre-Medication, Current State, Social Hx
Anaesthetic Course (Medications & Regional Anaesthesia)
Problems Intra-Op
LDAs (***airway, IV/CVL, art line, drains***) *
CVL – heparin locked or infusing? *
Input/ Output
PACU Orders
Anticipated Problems Post-Op
Plan **and** Disposition (***home, inpatient unit, day stay, IGT***)
"Do you have any questions or concerns?"
PACU RN
Seeks Clarification, Confirms Information Received

* = PACU RN Visual Check required

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OR-PACU Handover Process

A tool to improve quality, efficiency and safety during inter-professional clinical handover in PACU.

'COLD'

1. **C**onnect Equipment
   - OR RN assists PACU RN in connecting patient to devices, monitors and oxygen
   - Monitoring and therapeutic devices are safely positioned
2. **O**bserve Pt. Safety
   - **Immediate patient care needs are identified and actioned to ensure patient and staff safety before handover begins**
   - PACU RN completes initial patient assessment
   - Verbal handover might be delayed while team members respond to immediate patient needs
3. **L**isten to Handover
   - **PACU RN verbalizes readiness for report**
   - Cease all nonessential activities to deliver or listen to handover
   - All team members are present
   - Roles are clearly identified
   - Staff members speak clearly and pause if visual checks are required *
   - Items that are not applicable in the checklist can be skipped and don't require comment
4. **D**elegation of Responsibility
   - The final handover stage occurs as care is transferred from the anesthetist to the receiving RN
   - This process prompt nurses to fill information gaps, allows for clarification, confirmation and supports the completeness of handover

Statement of Successful Practice

- 90% of survey respondents reported satisfaction with the quality and efficiency of communication to deliver safe and effective patient care
- Ongoing surgical staff presence (~90% attendance) over the last 3 years reflects uptake of the handover process
- Leadership support and endorsement resulted in approval of mandatory handover education to onboard perioperative staff and trainees

Figure 1. First Handover Newsletter 2021

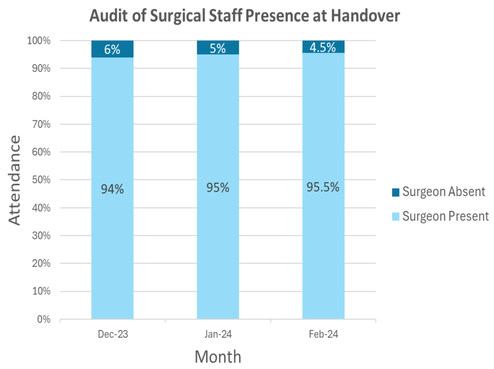

Figure 2. Current Handover Data

Limitations

- Compliance with the use of checklist
- Delayed onboarding education of new anesthesia, surgical staff and trainees
- Implementation excluded the department Image Guided Therapy (IGT) due to fewer number of radiologists and trainees

Next Steps

- Implement mandatory handover education
- Engage IGT team to assess readiness for implementation of the handover process

Scan the QR code below to watch the OR to PACU handover video:

References

Boat, A. C., & Spaeth, J. P. (2013). Handoff checklists improve the reliability of patient handoffs in the operating room and postanesthesia care unit. *Pediatric Anesthesia*, *23*(7), 647–654. https://doi.org/10.1111/pan.12199

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