Implementing an Electronic Perioperative Handoff Tool

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Introduction

- Hand-off between healthcare providers impacts patient safety and increases risk for medical errors
- Structured hand-off improves patient outcomes, teamwork, and organizational performance

Identification of the Problem

- No standardized Pre-op to OR hand-off existed in our pediatric perioperative department
- Gallup survey revealed lowest scores related to care team communication
- Risk for wrong-site/procedure events; limited patient and family safety verification at bedside

EBP Question / PICO

P: Pre-op and OR RNs without a standardized handoff
I: Standardized Electronic Health Record (EHR) based Pre-op to OR hand-off
C: No standardized hand-off process
O: Improved staff perception of patient safety

- PubMed/CINAHL review: best-practice hand-off must be standardized, allow bidirectional caregiver communication, and incorporate technology when possible

Methods/Evidence

Team Formation & Tool Development

- Strong leadership support; staff champions (OR RN + Pre/PACU RN) engaged via Clinical Ladder
- Epic Clinical Informatics team built compliance-tracking tool; 2-month trial period prior to go-live
- Workflow refined continuously based on direct staff feedback

Staff Education & Engagement

- Multifaceted approach: daily huddles, scripted role-play at staff meetings, and email communications
- A scripted hand-off video included patient/family introduction and bedside consent review
- Visible leadership support throughout; peer champions in OR and Pre-Op/PACU from planning to launch

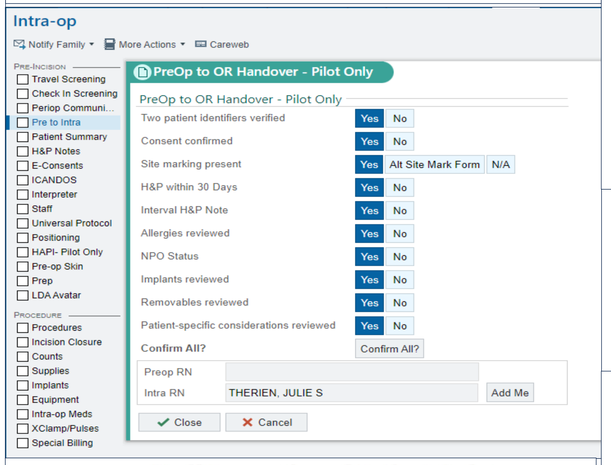
Implementation & Measurement

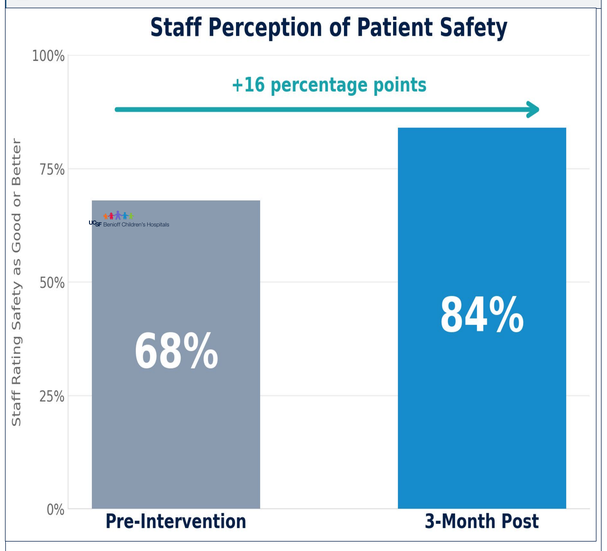
- 5-point Likert scale survey: pre-intervention and 3-month post-intervention survey on staff perception of safety
- Compliance = Pre-Op hand-off completed and signed by BOTH RNs in EHR
- EHR-generated monthly compliance reports shared with staff and leadership

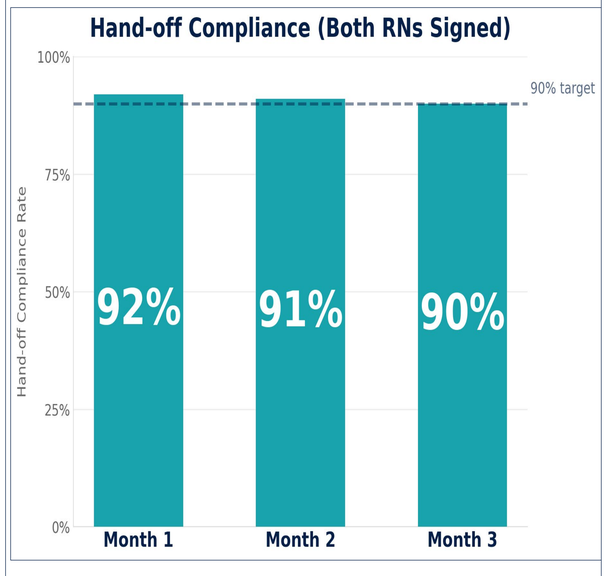
Hand-off Workflow

1. Pre-op RN posts phone number on board; completes patient pre-op assessment
2. OR RN reviews chart; contacts Pre-Op RN via phone when ready
3. Both RNs meet at bedside; Pre-Op RN introduces OR RN to patient and family
4. Both RNs complete and electronically sign hand-off in APeX EHR
5. OR RN completes additional patient interview; patient proceeds to OR

Electronic Hand-off Tool (APeX EHR)







Significance of Findings

- EHR-based hand-off improved staff perception of safety and reinforced accountability
- Electronic compliance tracking enables objective, ongoing quality monitoring
- Staff shifted toward a team mindset — more actively escalating concerns at bedside

68→84%	90%+	ZERO
Staff safety perception improvement	Hand-off compliance sustained 3 months	Wrong-site surgeries since implementation

Conclusions

- Successful implementation relied on interdepartmental teamwork, visible leadership, and continuous improvement
- Resistance to change was overcome through early engagement, peer champions, and real-time adjustments
- EBP-driven perioperative practice change is feasible — measurable improvement within 3 months

Lessons Learned

- Involve staff early — peer champions in each department were essential to adoption
- Hands-on leadership during rollout; regular re-education sustains long-term compliance
- Real-time feedback loops were critical — workflow refined throughout trial from direct staff input
- Anticipate EHR constraints — dual sign-off limitation required creative workarounds

Implications for Perianesthesia Nurses

- Perianesthesia nurses are uniquely positioned to champion EBP-driven hand-off as a safety initiative
- Goal: expand to all UCSF Health Perioperative Services
- Future research: patient outcomes, FCOTS rates, patient/family satisfaction scores

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