Background
• Errors in hand-offs prior to and after the procedure increases risk of harm to critically ill patients in PICU and NICU.
• Patient handoffs can account for high-risk, error-prone patient episodes and the transfer of care after surgery presents special challenges to providers on both the delivering and receiving teams.
• This risk is increased in the perioperative period, in which multiple handoffs occur across multiple disciplines within a short period of time.
• An association between poor quality handoffs and adverse events has been demonstrated, including technical and communication errors. Several studies have found an association between failed handoffs and poor patient outcomes.
• Miscommunication is responsible for 85% of hospital sentinel events by a report of Joint Commission on the Accreditation of Healthcare Organizations.
• Several recommendations in a systematic review of the literature are supported:
  1. Standardizing processes (checklists or protocols)
  2. Completing urgent tasks before the transfer of information
  3. Requiring presence of all team members
  4. Providing training in team skills and/or communication

Objective
• To reduce the risk associated with perioperative patient handoffs by establishing and implementing a multi-disciplinary standardized perioperative handoff protocol.

Methods
• A team of attending and fellow physicians from the pediatric and neonatal intensive care units and anesthesiology developed a tool to standardize pre- and post-procedure handoffs. The handoff form was implemented in July 2013.
• Providers are prompted to relay pertinent clinical data including: airway issues, total fluids and sedatives/analgesics, laboratory data, intravascular access, surgical/anesthetic details, critical intra-operative events.
• A needs assessment survey was performed to evaluate perception of handoffs and identify barriers to effective communication.

Results

Discussion
• Current rates of pre-procedural handoff are low based on survey data, and this represents an important area for future work.
• Post-procedural handoff has variable participants, with anesthesiology present more often than surgery based on survey data. Standardizing the participants will be an important goal moving forward.
• Adherence rates dropped initially as the inertia of the original project launch faded, illustrating the challenges of sustained culture change and an important area for future work.
• Adherence rates have improved in recent months due to efforts directed at addressing barriers to the utilization of the form.

Next Steps
• Close tracking of tool utilization. Monthly data analysis and timely feedback regarding utilization will be given to the providers.
• Integrate handoff tools into EPIC and add reminders in EPIC to increase compliance.
• Establishing measurable patient outcomes, though it poses a substantial challenge due to rarity of adverse events.
• Expand to PACU, floors, medical center at large.

References