Innovation for Quality and Safety: Minimizing Misconnection, an Ongoing Patient Safety Issue
Paula S. Forte, PhD, RN, CWCN
Gillette Children's Specialty Healthcare

Problem: 2006 Joint Commission alerts received about sentinel events regarding lethal misconnections. We committed to assess our level of risk and identify priorities for change.

Evidence: External evidence demonstrated lethal injuries to patients due to the mistaken connection of one device to another. Dreadful errors drew national attention to the problem. We had few internal events to study but the mandate for change was clear.

Strategy: Five Strategic Elements
1. Chartering the Connectivity Committee in 2006 with annual reports to QI.
2. Using HFMEA to assess potential for patient harm from tubing misconnections, we examined all our patient care apparatus. We identified high-risk to determine which devices could connect to others and the measure of danger such connections might present.
3. Identifying high priority apparatus to either remove from inventory or limit use.
4. Identifying arenas for immediate nursing action:
   - Handoffs & Communications
   - Lines & Labels
   - Deterrents & Distractions
5. Utilization of Nursing Governance Committees for education dissemination and policy development.

Practice Change: Several practice changes evolved from our endeavors over the years including:
   - Line tracing at each handoff (shift change; care-site change; care-giver change)
   - “Connectivity” audits throughout facility to check progress
   - “Quiet Zones” around medication preparation areas
   - “Independent Verification” to prevent mistakes
   - Parents engaged in “Misconnection Safety”

Evaluation: Audits of line tracing during handoffs enhanced enculturation.

Results: Overall, compliance averaged 66% in the first year. On most units auditing was discontinued as nurses began to remind each other of the practice expectation if it was overlooked.

Recommendations: Our Connectivity Committee continues to take the lead for practice changes involving any apparatus that connects to the patient and poses a risk to his safety. Currently they are reviewing and revising both peripheral and central line policies and practices.

Lessons Learned: Engaging frontline staff is essential. Our own stories are the most poignant. Vigilance is the essential ingredient in patient safety.
Bibliography:

2003

2004

2006

2007

2008

2009