Leveraging Inter-Professional Collaboration between Academia and Practice Settings to Impact a Pediatric Quality and Safety Improvement Imperative

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Presentation Objectives

1. Identify outcomes of a strong, collaborative inter-professional academia-practice partnership when addressing clinical and quality processes.
2. Apply strategies to improve communication standards that impact quality and safety measures within healthcare environments.
3. Recognize and apply safety culture principles as they are leveraged to promote clinical excellence.

Pediatric Early Detection and Intervention of Respiratory Distress

Interprofessional Partnership

- Helen DeVos Children's Hospital and Grand Valley State University collaboration (January 2016 – February 2017)
  - Large academic children's hospital with complex medical patients: 236 beds, 14 stories, Level One Trauma Center
  - GVSU: Over 25,000 students and 124 degrees with BSN, MSN, DNP programs
- Project purpose included multiple clinical and safety culture components
- A team of health care providers and leaders addressed quality-based processes and communication gaps in preparation of seasonal high patient volumes

Pediatric Early Detection and Intervention of Respiratory Distress

Project Design

- Included Clinical Practice Model framework, Agency for Healthcare Research and Quality (AHRQ) Patient Safety Culture Survey and organizational tools, including the Pediatric Early Warning System
- Two tiered simulation process designed with Plan-Do-Study-Act model
  - Nursing PEWS scoring tool simulations
  - 14 interdisciplinary respiratory simulations occurred over eight weeks
- Simulation participants: Resident Physicians, Staff Nurses, Respiratory Therapists
- Three clinical scenarios − asthma, pneumonia, RSV bronchiolitis
  - Underpinnings of Communication, Teamwork and Safety content
- Debriefs led by simulation/safety specialist, attending physician and nurse educator from clinical and safety perspectives

Project Outcomes: Simulation Questionnaire Results (Nursing)

Question	Pre-Simulation	Post-Simulation
Nursing ability to recognize patient deterioration	Very Confident = 33.33%	Very Confident = **42.86%**
Nursing ability to accurately use PEWS scoring tool	Very Confident = 71.43%	Very Confident = **90.48%**
Do you consider completing additional PEWS with changed condition?	Yes, always = 33.33%	Yes, always = **42.86%**
Have you ever been instructed not to call an AWARE?	No = 57.14%	No = **38.10%**
If you do not receive the response you are hoping for, do you feel comfortable using the Help Chain?	Yes = 57.14%	Yes = **76.19%**

Pediatric Early Detection and Intervention of Respiratory Distress

- Secondary gains
  - Physicians, nurses and respiratory therapists took time to teach each other during the clinical debrief
    - e.g. location of respiratory equipment, how to properly suction infants using bedside equipment, how to call for interdisciplinary rapid response team (AWARE)
  - Student observations
  - Nursing and Medicine leader presence
  - Debrief occurred naturally following cardiac arrest on unit following simulations (triggered and held by bedside providers)
- Design of clinical quality improvement with use of simulation inspired subsequent project to exceed national benchmark of treating neonatal sepsis in emergency departments in less than 60 minutes

Safety Culture Principles

1. Support the Team
   1. Peer Checking and Coaching
   2. 200% accountability
   3. Ask a Question, Make a Request, Voice a Concern, Use Help Chain
2. Pay Attention to Detail
   1. Stop, Think, Act, Review
3. Use a Questioning Attitude
   1. Validate and Verify
4. Communicate Clearly

   Three Way Repeat-back | Phonetic and Numeric Clarification

   Ask Clarifying Questions | SBAR

Comments and questions