




**Emergency Department/NICU CNS Collaboration:
Improving the Outcomes of Critically-Ill Infants Across
the Continuum**

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Reading Health System



- Main West Reading facility is located on a beautiful 36 acre suburban campus
- 700+ beds, 22 building complex
- Highly-ranked state-of-the-art Centers of Excellence:
 - McGlenn Cancer Institute
 - Miller Regional Heart Center
 - Methadone Treatment Program
- Reading HealthPlex for advanced surgical and patient care with 24 operating suites, including 6 hybrid-capable operating suites and 150 private rooms
- Academic teaching hospital with residencies in Family Medicine, Internal Medicine, OB/GYN, Osteopathy, Podiatry, and Pharmacy
- 44+ community locations across Berks County



Reading Health System

- Busiest ED in Pennsylvania with more than 131,000 visits annually
- Level 2 Trauma Center with 5 new state-of-the-art trauma bays
- 108 ED treatment beds



Reading Health System

- More than 3,500 births annually
- Advanced fertility and high-risk obstetrics care
- 30 bed Level 3 Neonatal Intensive Care Unit (NICU)



Objectives

1. Discuss gaps in providing optimal care for critically-ill infants presenting to the Emergency Department.
2. Identify the components of a process implemented to deliver safe, quality care to critically-ill infants in the emergency department setting.
3. Examine the process of staff debriefing.



Case Study

- 5 month old former 32 week preterm infant admitted to ED with severe respiratory distress and hypothermia
- Intubated by NICU team
- RRP subsequently positive for rhinovirus
- Transferred to tertiary care center for ongoing care after a several hour stay in the Emergency Department



Case Debriefing

Positive

- ED team felt well-supported by NICU team
- Both teams felt communication was strong and teamwork was evident
- Both teams expressed value in debriefing process

Improvement Needed

- ED staff unsure of when to activate of Neo Emergency alert
- ED staff uncomfortable with use of radiant warmer bed and neonatal equipment/supplies
- NICU staff unfamiliar with ED lay-out and location of neonatal equipment

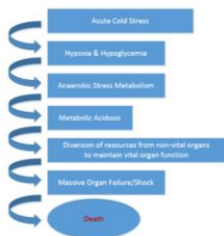


Intervention

- Equipment and supplies
- Staff education
 - Huddles and electronic communication
 - NICU staff tours of ED
 - ED Competency Days
- Enhancement of NICU Team notification system
- Case and code debriefings
- Simulations



Cold Stress Cascade



Simulation



Future Recommendations

- Annual competency
- Increase frequency and complexity of simulations
- Formalize debriefing process
- Transition to formal pediatric ED
- Expansion of work to inpatient pediatric unit