

Golden Hour Initiative



AIM

By December 2017:

- Delivery room team communication: Increase use of prebriefing, debriefing, and delivery room checklist prior to delivery to 80% or greater.
- Delivery room clinical practice: Increase use of delivery room continuous positive airway pressure (CPAP) trial to 70% or greater, timely administration of surfactant to 80% or greater, and utilization of delayed cord clamping to 80% or greater.
- Family engagement: Increase pre-delivery family contact, family presence during resuscitation, and family presence during neonatal intensive care unit (NICU) admission to 90% or greater.
- Neonatal intensive care unit (NICU) admission: Increase administration of intravenous glucose and antibiotics to within one hour of birth to 80% or greater and increase number of infants with a normothermic admission temperature between 36.5 - 37.5 degrees Celsius.

PROBLEM

The smallest and most immature of infants have unique requirements to ensure an effective transition from fetal to extra-uterine life. These infants have underdeveloped organ systems and without appropriate preparation and intervention can develop severe degrees of hypothermia and respiratory failure that can significantly increase morbidity and mortality. In addition, many full-term infants will experience difficulties following delivery and the basic principles of resuscitation can be applied in a similar fashion for all newborns infants of all gestational ages.

EVIDENCE-BASED PRACTICES

Neonatal intensive care beginning immediately after birth in the delivery room is associated with reduced neonatal morbidity in high-risk deliveries (Vento et al., 2008). For example, delayed cord clamping is associated with reduced morbidities such as anemia, intraventricular hemorrhages and NEC in qualified premature infants less than 32 weeks.

SCOPE

Twenty-six Illinois NICUs and Special Care Nurseries (SCNs) participated in the ILPQC Golden Hour Initiative and entered neonatal resuscitation and care data on 9,053 infants as of Fall 2018. This represents 91% of neonatal beds in Illinois. Overall, 23 hospitals have submitted data, with an average 17 hospitals submitting monthly data.

ILPQC MISSION

Engage perinatal stakeholders across disciplines at every level, in a collaborative effort to improve the quality of perinatal care and health outcomes for Illinois women and infants using improvement science, education, and evidence-based practice guidelines

Golden Hour Initiative



GOLDEN HOUR SUSTAINABILITY (2018)

The Neonatal Golden Hour Initiative has increased the use of best practices in delivery room communications and delivery room clinical care. Hospitals transitioned into sustainability in January 2018 working to develop sustainability plans that focus on three areas:

- Compliance monitoring on key variables
- New hire education
- Ongoing staff/provider education

Sustaining Golden Hour Success:

In Quarter 3 (July - September), 2018:

- 75% of eligible infants received delayed cord clamping in at least 30 seconds
- 80% of deliveries included a delivery room team debrief

APPROACH

From January to March 2015 the Neonatal Golden Hour Toolkit Team developed the ILPQC Golden Hour Quality Improvement Toolkit using conference calls, internet and cloud based tools. The resulting evidence-based toolkit was distributed to all participating hospitals. The ILPQC web-based data system with real time, secure reporting was implemented with input from the Neonatal and Data Advisory Workgroups.

The initiative launched with participating Illinois hospital teams at the face-to-face initiative kick-off meeting in Naperville, Illinois in April 2015. Participating hospitals are collecting and reporting data on all deliveries, using quality improvement strategies to test and implement clinical guidelines for the resuscitation of all infants following delivery. Monthly team calls allowed for the review of data, discussion of challenges, and for collaborative learning. Ongoing input was received from the ILPQC Neonatal Advisory Workgroup.

Hospital teams use real-time access through the secure ILPQC web-based data portal to compare process and outcome measures across time and across participating hospitals and use the Golden Hour listserv to share strategies and lessons learned. Outreach and support to hospitals needing additional assistance to reach their goal were provided by the Neonatal Leads and Perinatal Network Administrators. After one year of working on the initiative, teams focused their efforts on key measures still needing improvement and shared challenges and successes with each other at the spring 2016 Face to Face Meeting in Peoria, the fall 2016 Annual Conference and the spring 2017 Face to Face Meeting in Urbana. Over the course of the Golden Hour Initiative, teams have participated in approximately 18 one-hour collaborative learning webinars and 3 Face to Face Meetings to use collaborative learning, rapid response data, and QI strategies to drive

INITIATIVE SUCCESSES:

Between Baseline (July-September 2015) and December 2017, participating teams have:

- Increased the percent of deliveries completing a delivery room pre-briefing from 70% to 78%
- Increased the percent of deliveries utilizing delivery room checklists from 53% to 83%
- Increased the percent of eligible infants received delayed cord clamping in at least 30 seconds from 60% to 77%
- Increased the percent of resuscitated infants initially stabilized with a CPAP trial from 80% to 84%
- Increased the percent of families present during resuscitation from 57% to 85%
- Increased the percent of infants with temperatures 36.5 - 37.5 degrees Celsius upon NICU/Specialty Care Nursery Admission from 63% to 72%