

Problem

- The incidence of Neonatal Abstinence Syndrome (NAS) has dramatically increased in recent years as a result of the rise in opioid use in pregnancy. In Illinois, there has been a 64% increase in the number of infants admitted for NAS between 2011 and 2017 (ILPQC). There are key strategies including: utilization of a standardized NAS assessment tool, partnering with mothers and families to provide non-pharmacologic care as the first-line treatment, use of a standard pharmacologic protocol when needed and coordination of discharge care that will help improve the care of these infants.
- Our Women & Children's Hospital has approximately 3,700 deliveries annually. We offer comprehensive care for women experiencing complicated or high-risk pregnancies with access to fetal medicine specialists. Our hospital has a family-centered, level III Neonatal Intensive Care Unit and Special Care Nursery with private single patient rooms.
- Our hospital QI team consists of a multidisciplinary team of physicians, NP's, leadership, nurses and a social work group.

Project Implementation

- Eat, Sleep, Console (ESC) Care Tool, 3rd Edition*
- ESC; Newborn Decision Flowchart
- ESC; NICU Decision Flowchart
- Newborn Care Diary*
- Coordinating a Safe Discharge Checklist*
- Neonatal Abstinence Syndrome Policy Revisions*
- MNO-Neo Folders :**
- Neonatal Material: ESC Care Tool, Newborn Care Diary , IDPH NAS: What you need to know booklet & Coordinating a Safe Discharge Checklist
- Maternal Material: IDPH Education on Opioids & Pregnancy & IDPH-NAS, Key Education to Care for the Newborn
- Education Campaign:**
- Provider education presented at departmental meetings.
- Nurses attended a mandatory 1 contact hour training session on how to assess and care for infants with NAS using the ESC tool and decision flowcharts. Case examples with quiz and training simulation scenarios utilized.
- Vermont Oxford Network SUD/NAS Provider Stigma & Bias Training Program with Loyola Perinatal Network.
- MNO Education Resource Binders available on all units.
- Interdepartmental monthly review and debriefing of all NAS cases.



Results

- Neonatal outcome data :**
- Percent of opioid exposed newborns (OEN's) requiring pharmacologic therapy for NAS Q3 2019 –Q4 2020 – 0%.
- Percent of mothers with opioid use disorder (OUD) and OEN's who roomed together during hospitalization -100% October 2019-present.
- Average length of stay (LOS) for OEN's with NAS symptoms –Deceased from 15 days to 12 days since start of initiative.
- Percent of OEN's discharged with a safe discharge plan made in partnership with the family, the hospital and community- 100%.

Table 1. Percent of OEN's Requiring Pharmacologic Therapy
Table 2. Percent of Mothers with OUD and OEN's Who Roomed Together

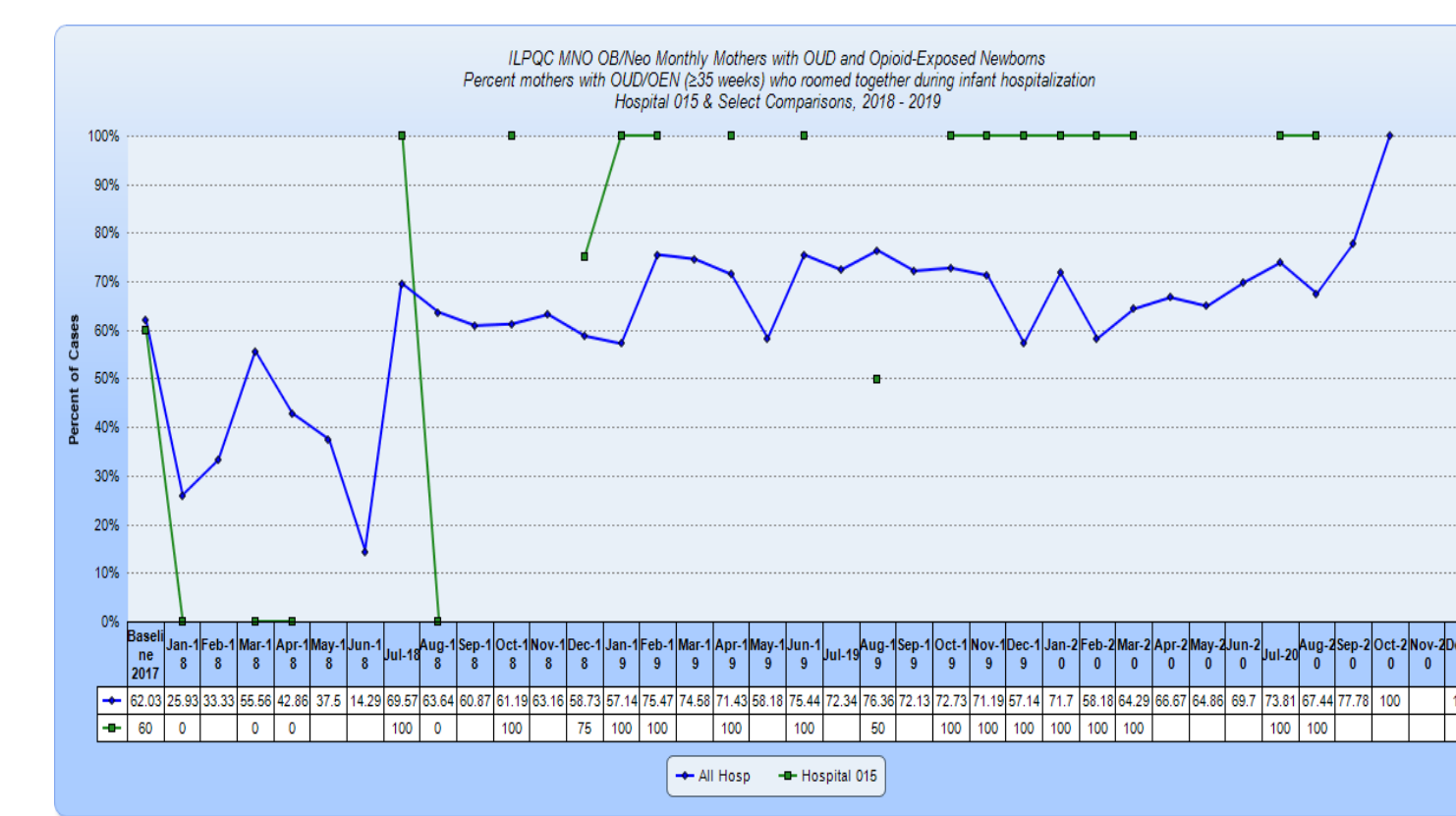
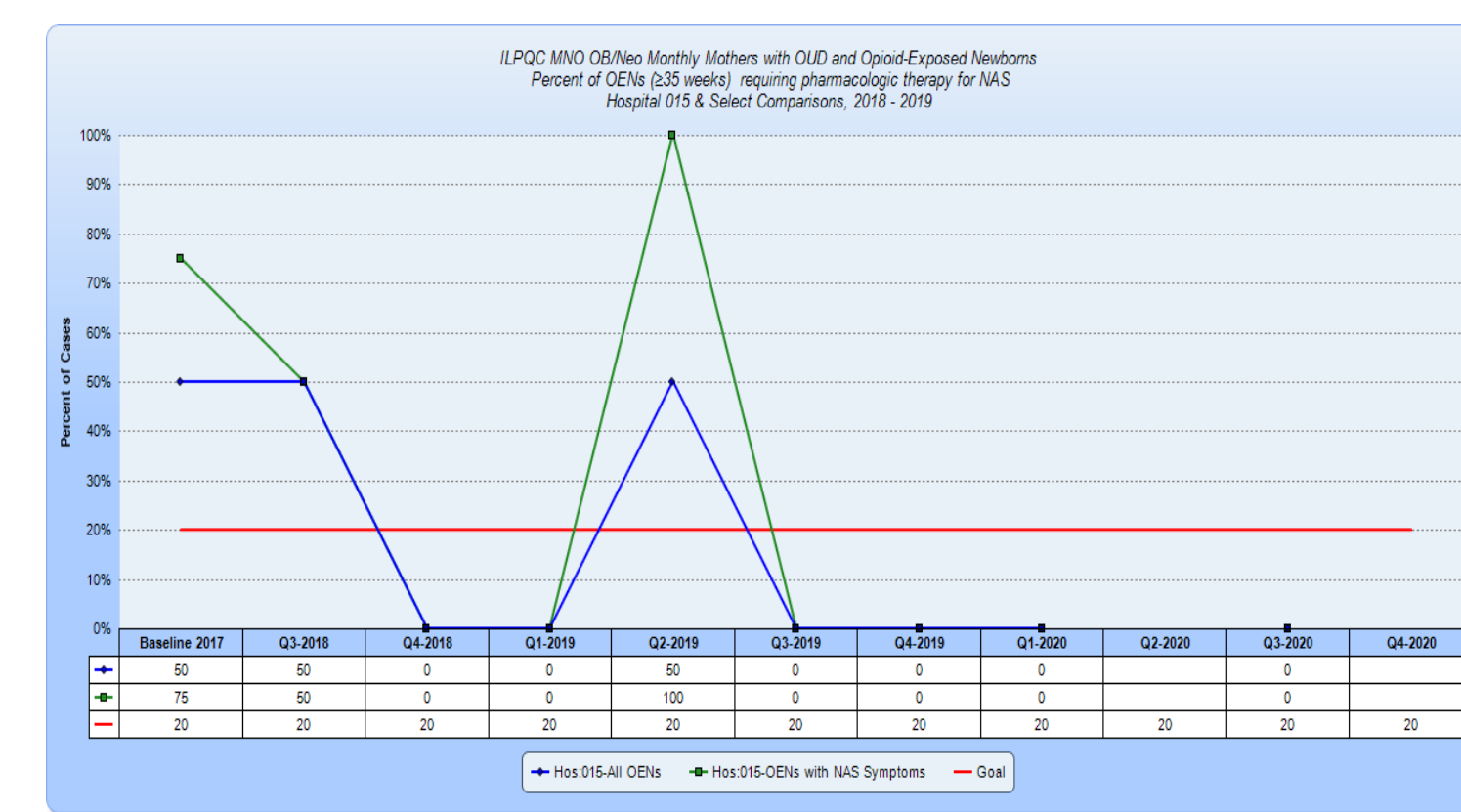


Table 3. Average LOS for OEN's

Table 4. Percent of OEN's Discharged with a Safe Discharge Plan Made

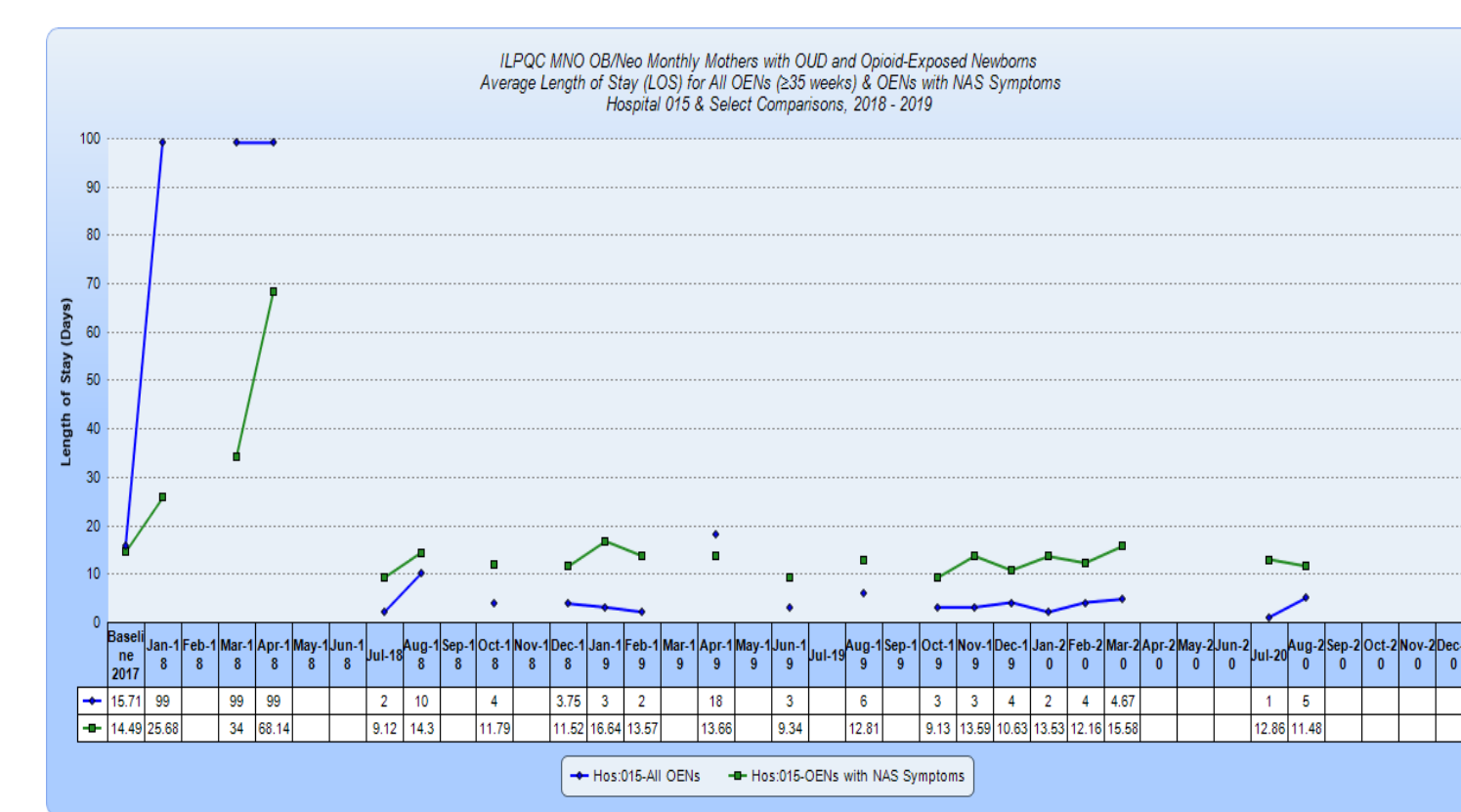
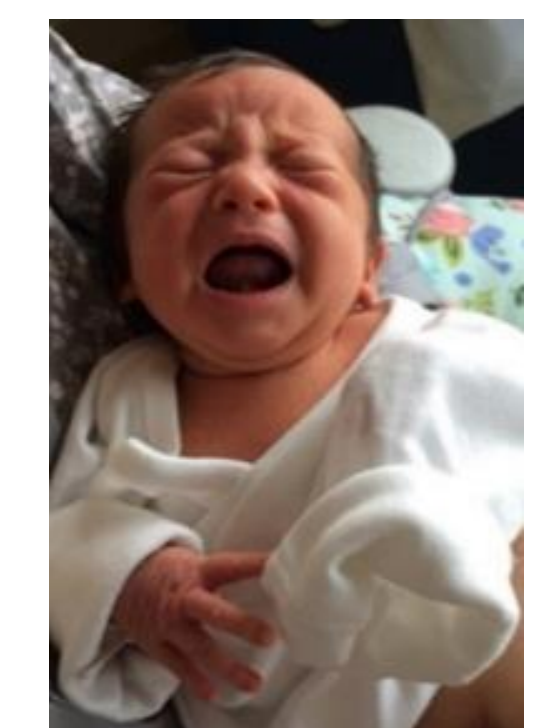
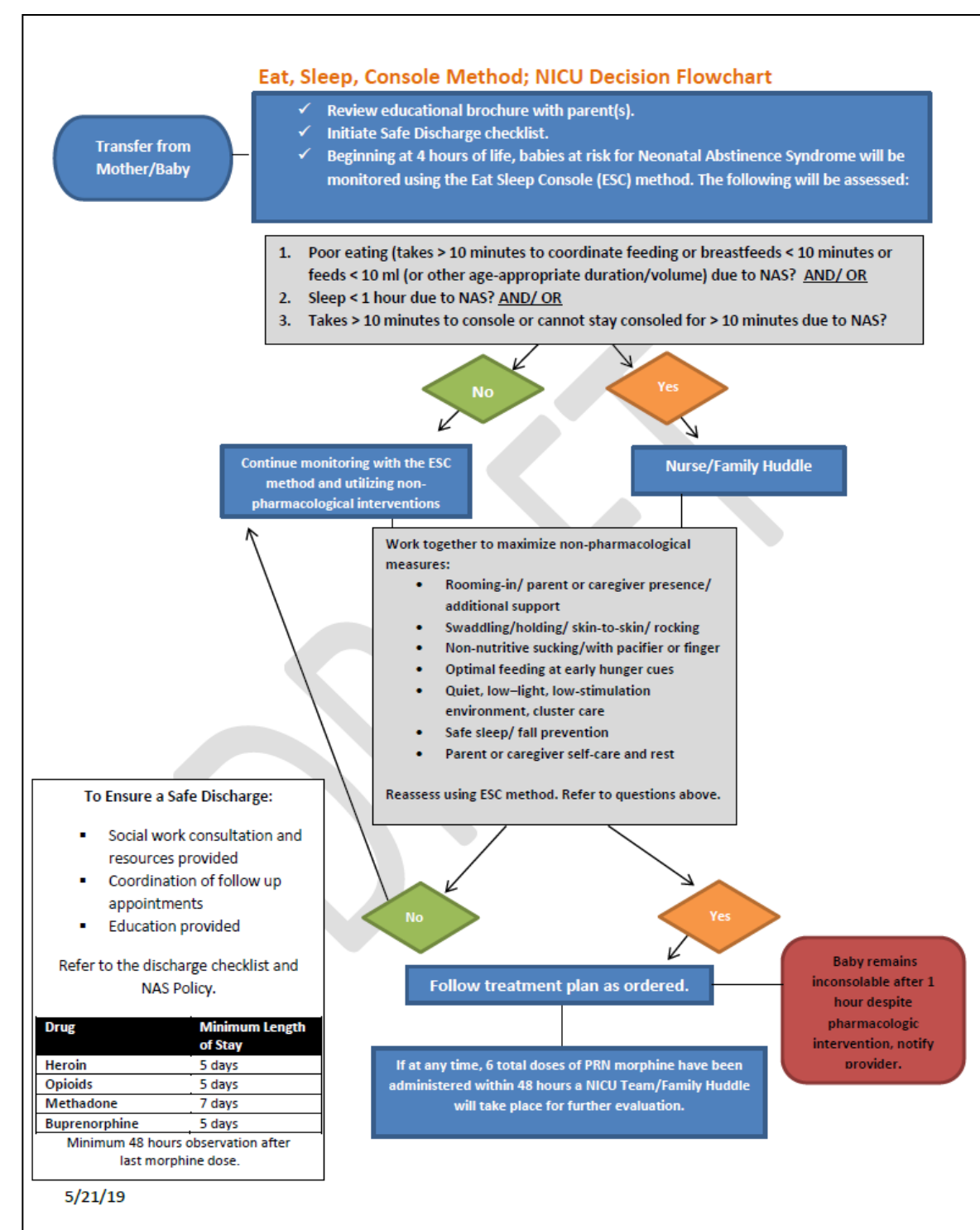
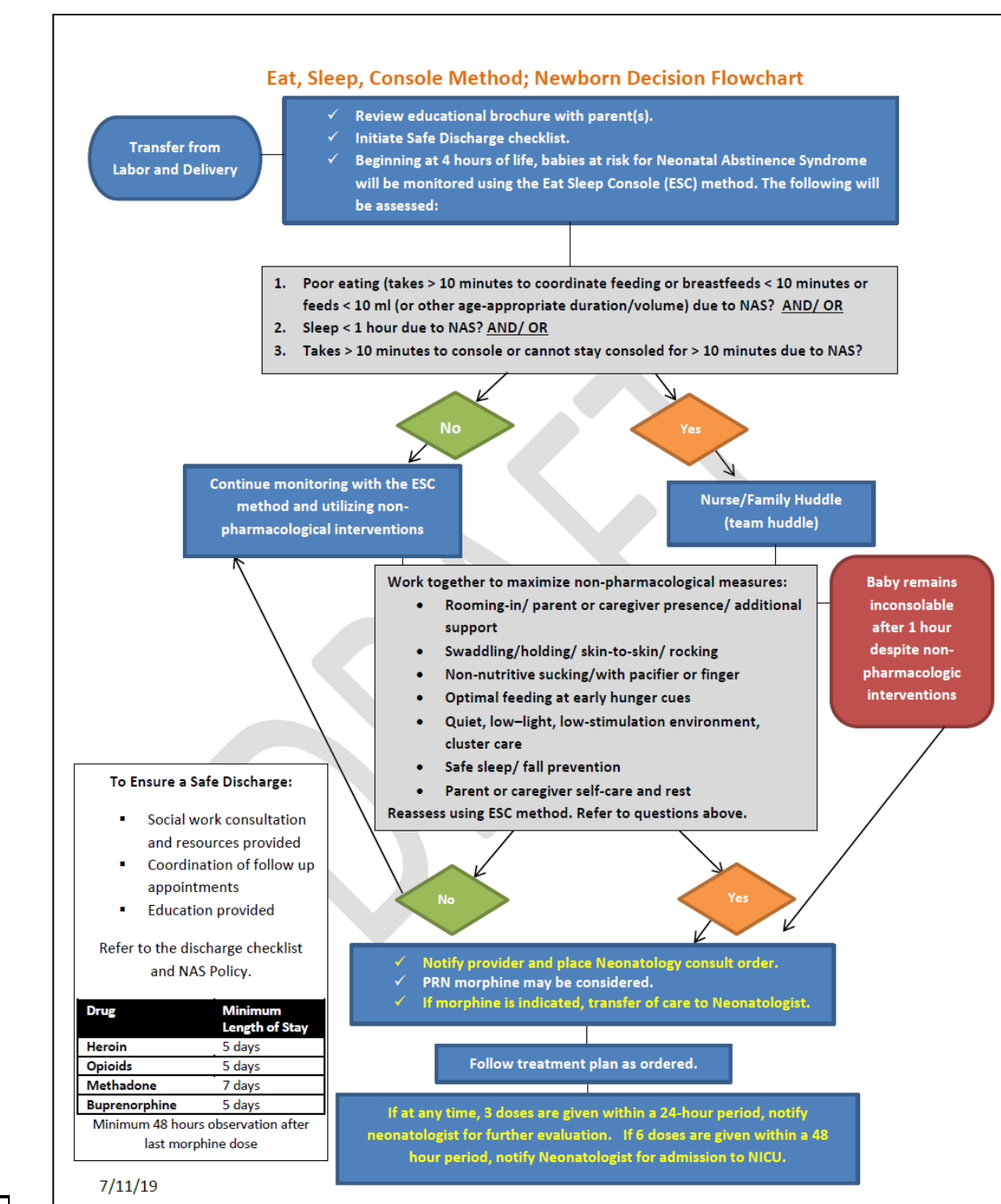


Figure 1. Eat, Sleep, Console Care Tool, 3rd Ed., Newborn & NICU Decision Flowcharts & Discharge Checklist



Conclusions

- The development and implementation of a standardized screening and assessment tool (ESC Care Tool & Decision Flow Charts), partnering with mothers and caregivers to optimize non-pharmacologic care as the first line of treatment, standardization of pharmacologic treatment and coordination of safe discharges using the Discharge Checklist has allowed our hospital to achieve key project goals. Our data demonstrates these changes made have positively impacted our ability to decrease lengths of stay for these families and the number of infants requiring pharmacologic treatment.
- Our sustainment plan moving forward includes: monthly review of all NAS cases, new hire staff education modules on use of the ESC Tool and annual competencies/on-going education as needed.

Acknowledgements/Hospital Team

- We would like to acknowledge the members of the Obstetric and Pediatric Steering Committees for their contribution to this quality improvement initiative. We would also like to thank all staff for their encouragement, willingness to adapt and help in providing feedback during project development and implementation.