

Problem

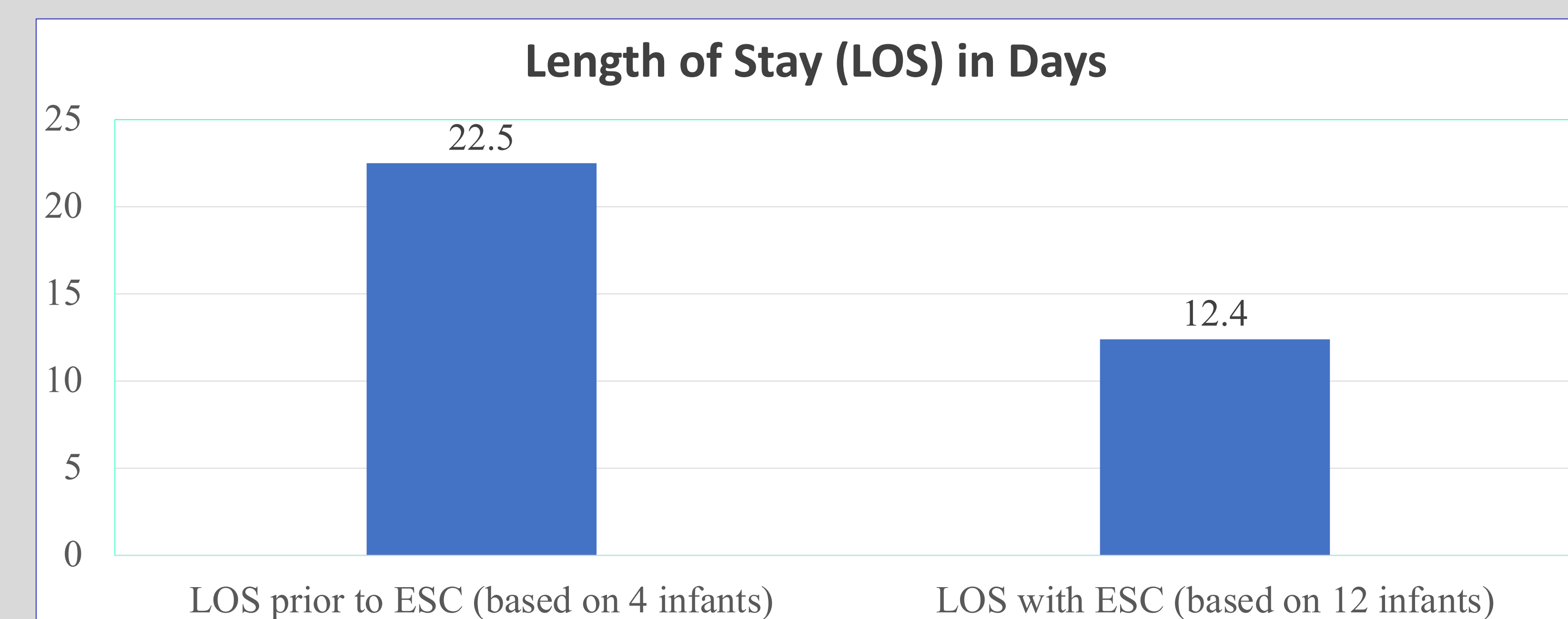
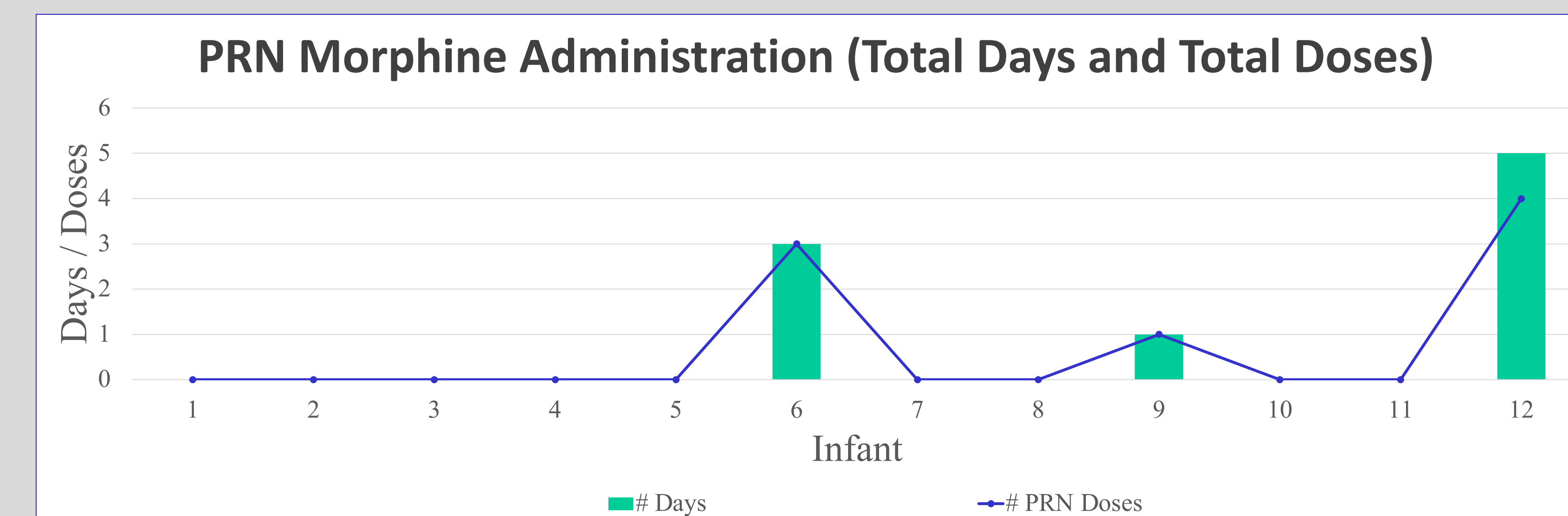
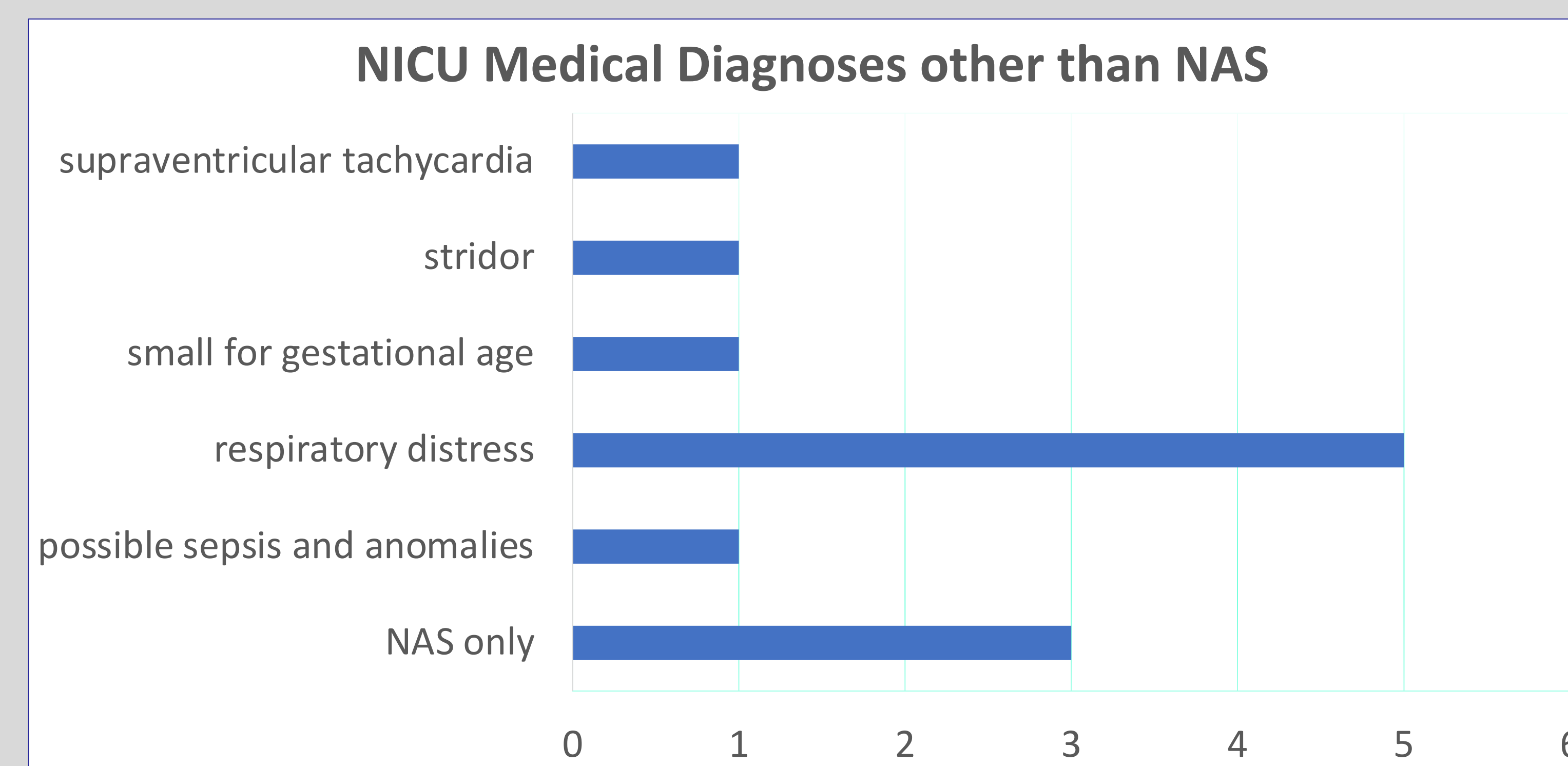
- Eat, Sleep, Console (ESC) protocol for care of infants with neonatal abstinence syndrome (NAS) is becoming widely employed with reduced morphine and/or methadone use, and decreased length of hospitalization
- One main component of the ESC protocol is assessment of infant's ability to tolerate on demand breastfeeds (or bottle feeds)
- Opioid exposed infants requiring Neonatal Intensive Care Unit (NICU) admission often have medical issues which prevent the opportunity to provide on demand feeds
- Loyola NICU cares for infants with a variety of medical conditions, often requiring NPO status, nasogastric/orogastric (NG/OG) feeds, and/or transition from NG/OG feeds to breast/bottle feeds
- Multidisciplinary team collaborated to implement a modified ESC protocol for NICU opioid exposed infants born ≥ 35 weeks gestation

Project Implementation

- Our quality improvement (QI) clinical practice change involved transition from the Neonatal Withdrawal Inventory (NWI) to a modified ESC protocol for opioid exposed infants born at ≥ 35 weeks gestation, with medically indicated NICU admission
- An established ESC order set (for newborn nursery use) was utilized, with the additional option to eliminate the assessment of infant's ability to tolerate on demand feeds from the specific orders
- All other components of the ESC protocol were applied in care of these opiate exposed infants requiring NPO status, NG/OG feeds, and/or transition from NG/OG feeds to breast/bottle feeds
- Education of NICU health care providers occurred prior to implementation of the practice change
- Buy-in of key nursing and medicine stakeholders supported provision of one-to-one nursing care in a low stimulation environment
- Family participation encouraged, as available
- Volunteer "cuddlers" assisted with consoling infants, as available

Results

- Beginning January 2019, the NWI was replaced by a modified ESC protocol for opioid exposed infants ≥ 35 weeks gestation requiring NICU admission
- 12 NICU admissions with NAS, 75% with primary or secondary diagnoses other than NAS
- No infants required scheduled morphine and only single morphine doses were administered, based upon multidisciplinary team huddle decisions
- There were no complications or harm to any NICU infants
- Safe discharge plan for all infants



Conclusions

- Sole utilization of the modified ESC protocol with the option to eliminate assessment of on demand feeds has led to decreased morphine use and decreased length of stay
- Ongoing education of new health care providers will ensure sustainability of this successful QI clinical practice change in the care of NICU opioid exposed infants born at ≥ 35 weeks gestation
- Modified ESC protocol can be successfully utilized in care of opioid exposed infants ≥ 35 weeks requiring NICU admission

Acknowledgements

- Sincere gratitude to all Loyola NICU health care providers (from nursing and medicine), and the Loyola Cuddler Program for contributions which supported implementation of this QI clinical practice change