

Outcomes of a Neonatal Rapid Review Clinic: Readmissions and Risk Factors

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RESEARCH WEEK
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Background

Unplanned neonatal readmission to hospital is associated with family distress, and increased healthcare utilisation. The Neonatal Rapid Review Clinic (NRRC) was established to support infants with complex medical, feeding and growth concerns during the transition from hospital to home.

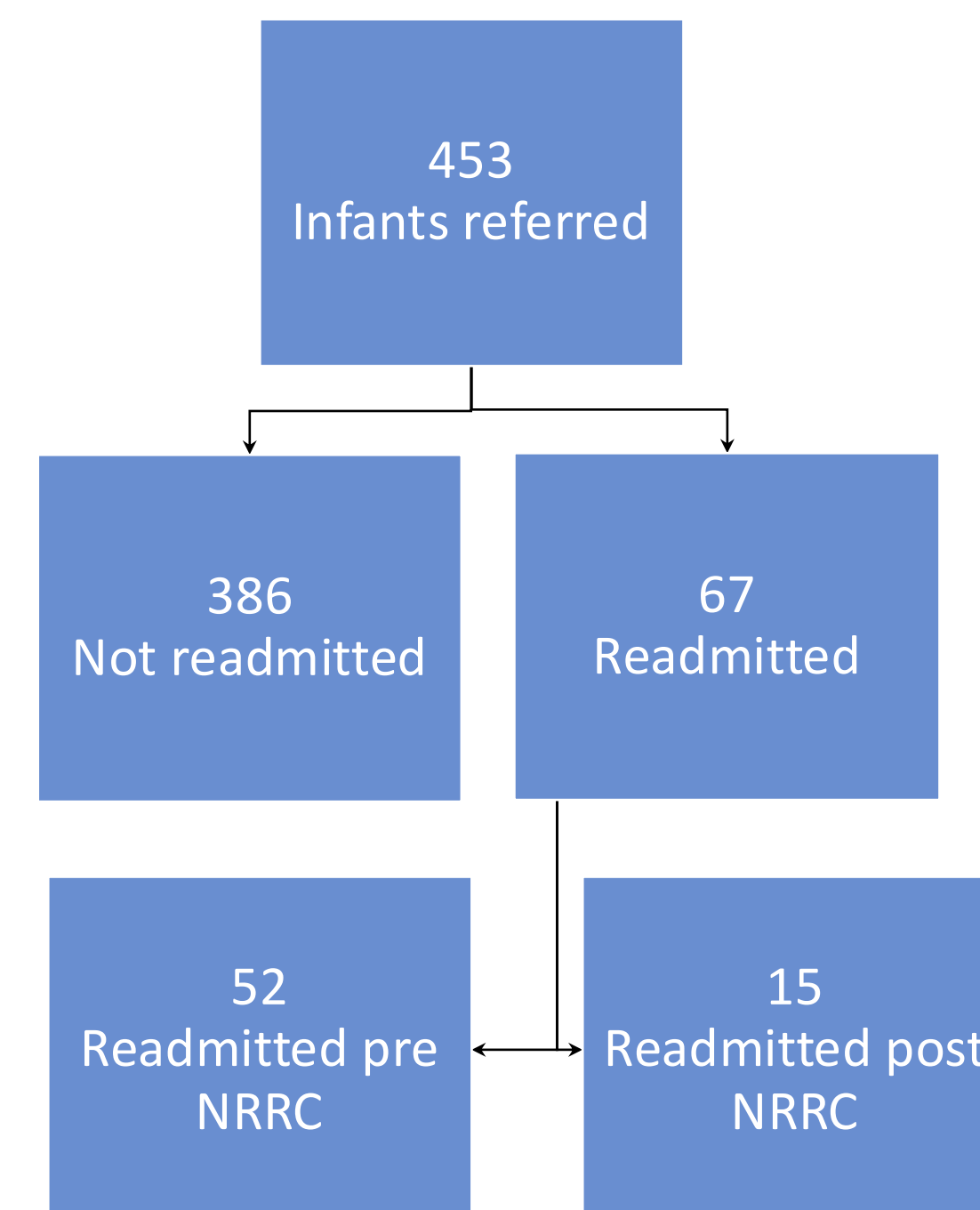
Aim

To describe the post-discharge pathway of infants referred to the NRRC, examine maternal and neonatal characteristics associated with readmission, and evaluate the program in terms of safety, efficiency and effectiveness.

Methods

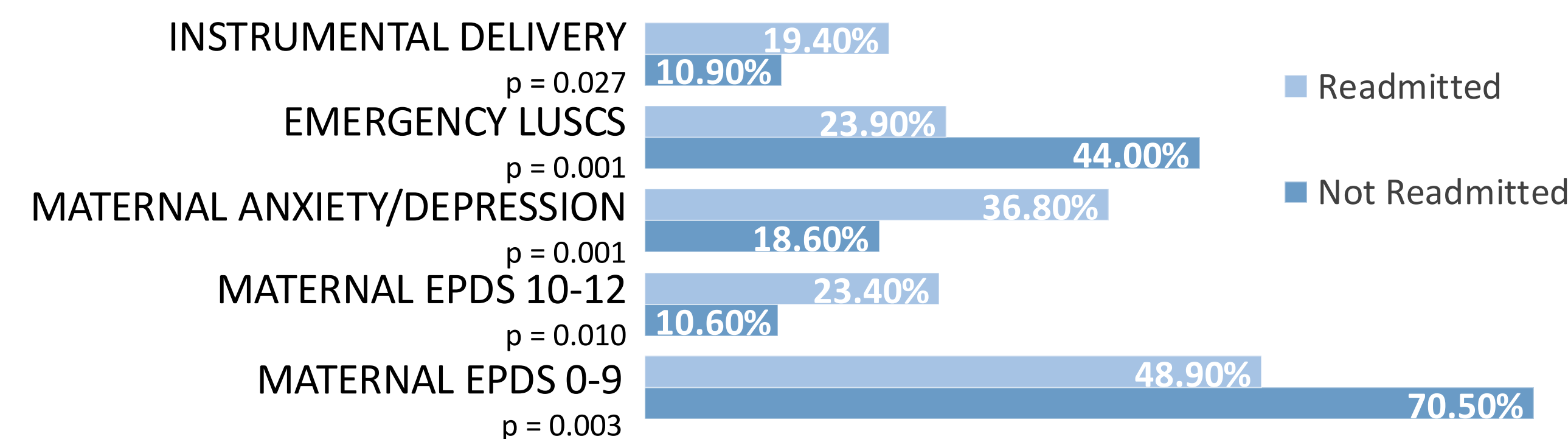
Single centre retrospective review and cohort study of neonates booked at the NRRC between January 2022 and December 2023. Descriptive statistics and univariable analysis was performed comparing neonates readmitted and not readmitted within 28 days of discharge. Readmitted infants were further divided into those readmitted before/after the scheduled NRRC review. Ethics approval: QA 57.2026

Results

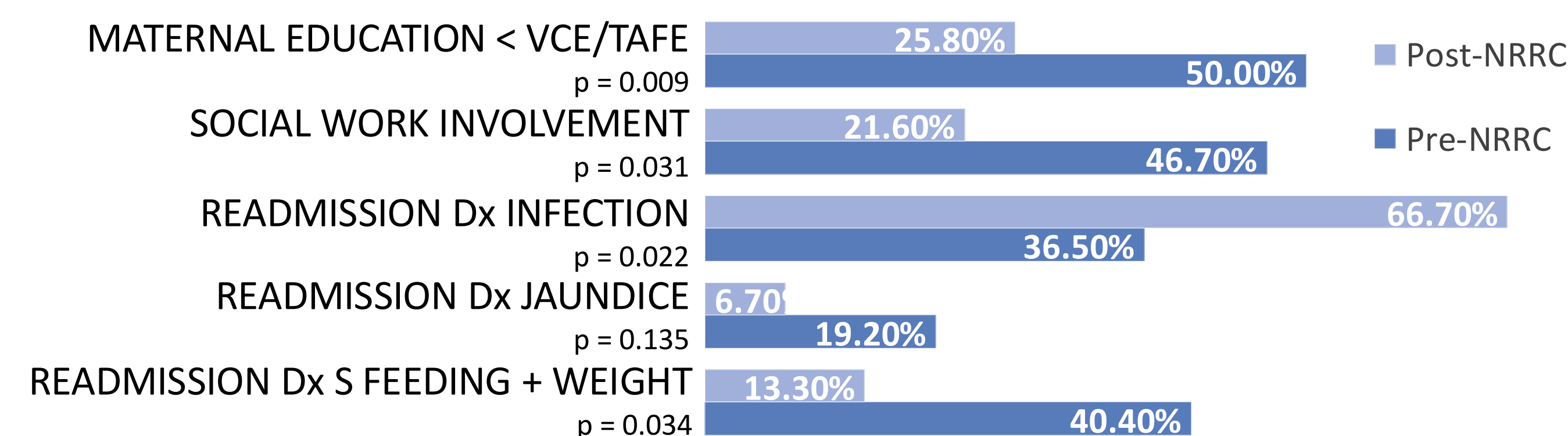


- A total of **453** neonates were referred
 - 81%** were referred from the Neonatal Unit
 - 89%** attended ≥ 1 review
 - Median time from discharge to NRRC: **15 days**
 - Median gestational age at birth: **37+0 weeks** (23+2-42+0), median birth weight **2660g**
 - Median corrected gestational age at review: **41+2 weeks**, median age: **32 days**, median weight **3380g**
- Common readmission diagnoses were infection (**43%**), feeding and growth concerns (**34%**), and jaundice (**16%**)

Factors associated with Readmission vs No Readmission



Factors associated with Readmission Pre NRRC vs Post NRRC



Safety:

- 11.5% (n=52)** of neonates required unplanned readmission pre NRRC
- 8.8% (n= 40)** of neonates were lost to follow-up, including 4% of families who were uncontactable

Efficiency:

- NRRC operates with minimal resources, relying on a single Nurse Practitioner with Neonatologist background support
- Multiple referral sources and methods without a triaging system creates roadblocks and limits escalation options

Effectiveness

- Over 85% of referred infants were successfully discharged home
- Exclusive breastfeeding rate at NRRC was **32% (n=146)** representing an opportunity to increase support, but only **10.4% (n=47)** of families had a change to the feeding plan.

Conclusion

The great majority of infants referred to the NRRC were successfully transferred home. Upgrading clinical scheduling and triaging processing, and consideration of maternal social determinants of health may strengthen follow-up and prevent readmission.