

PReterm OuTborn Education CollaboraTive

EP02.20. PROTECT Study — PReterm OuTborn Education CollaboraTive: a maternal-newborn quality initiative in Eastern Ontario

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Background:

- In Canada, up to 28% of infants <29w are born outside a tertiary centre and require transportation. The rate of severe brain injury in outborn infants (<33w) across Canada is 14.7% vs. 8.2% when born at a tertiary care centre.
- In-utero transfer to a tertiary level hospital is the most effective intervention. However, preterm birth (PTB) in a nontertiary center can be unavoidable.

Objective:

- Understand regional and system barriers that exist in Eastern Ontario with respect to high-risk maternal transport when presenting in threatened preterm labour (PTL)
- To develop and implement an educational bundle of care seeking to increase the uptake of steroids for lung maturation and MgSO4 for neuroprotection when PTB is unavoidable at a Level 1 or 2 centre

Methods: CNMRP Level 1 and 2 centres volunteered to review 8 cases randomly selected from their centres, 4 in which transfer of patients in TPTL was successful and 4 in which it failed. Through semi-structured interviews of exploratory focus groups, process map the components of care and create a Fishbone diagram for root cause analysis.

Results: Difficulty communicating regarding timing of through provincial referral Steroids and/or system with tertiary centre MD MgSO4 consultant, substantially administration delaying care and timely transfer MgSO4 can only be run in ICU in Level 1 Transfer decision-making is not patient-centred Need 1:1 or 2:1 nursing if administering MgSO4 Demographic and Staffing crisis, high MgSO4 administration geographic turnover, lack of restrictions based on factors level of care and mode of transportation Low confidence when Lack of managing patients documentation on with PTL and PTB Outdated equipment transportation data affecting proper maternal and --fetal monitoring Discomfort Multiple pregnancies performing delayed more challenging to cord clamping for transfer PTB newborns

Proposed change ("wildly important qoal"):

- Increase the number of high-risk mothers transferred to tertiary level centers in a timely manner
- When delivery inevitable, ensure:
 - Timely antenatal steroid first dose administration (increase by 50%) in 5y
 - Timely MgS04 administration bolus (increase by 50%) in 5y



Implementation strategy:

- Maternal and neonatal care bundles for emergency use created to support referral teams
- Bundles outlining clinical care frameworks using national guidelines and best practices for use in the emergency management of PTL/PTB







