

How to improve preterm labour aeromedical care for remote dwelling women: Mixed methods research project

Reports show babies born preterm, outside specialist mother and baby hospital centres, have higher rates of long-term disabilities and shortened lives. In Australia, air ambulances, known as aeromedical retrieval, bridges the vast distance between rural and remote dwelling women and the specialist hospital centres. Inflight care aims to prevent inflight preterm birth. There is no high-quality evidence governing aeromedical clinical preterm labour care. My mixed methods research will involve a literature review, data linkage and interviews, encompassing the clinical and maternal journey during aeromedical preterm labour. The results will provide insight and recommendations in aeromedical preterm labour care, underpinning clinical practice.

Abstract

Preterm birth increases the risk of neonatal mortality, short and long-term morbidity. For rural, remote and very remote dwelling women, preterm labour requires an aeromedical retrieval to a tertiary hospital with specialist obstetric and neonatal services. Aeromedical care aims to achieve inutero retrieval so that preterm birth occurs inside specialist services optimising short and long-term neonatal outcomes. To date, limited high-quality evidence exists to support clinical care of women during aeromedical retrieval for preterm labour. Also, true preterm birth rates in the Northern Territory are unknown due to preterm labour interstate aeromedical transfers.

The aim of this research is to generate evidence-based recommendations for Australian clinical practice in the aeromedical management of preterm labour and birth. A second aim is to determine the actual preterm birth rate in Central Australia. This research will use a mixed method, triangulation, convergence design. Study 1, a scoping review, will synthesise international research and clinical guidelines regarding prehospital and aeromedical preterm labour care. Study 2, a data linkage study in Central Australia, will estimate the actual preterm birth rate for First Nations cohort. Study 3, using a qualitative descriptive design, will use semi-structured interviews to explore the experiences of aeromedical clinicians (focus groups) and women involved in preterm labour retrieval (one-to-one). Findings from the three studies will be integrated to make clinical practice recommendations in aeromedical preterm labour care, aiming to improve maternal and neonatal outcomes.