CHILDHOOD ANAEMIA IN REMOTE COMMUNITIES: ADDRESSING A CRITICAL NEED

PARTNERSHIPS SOUGHT: SCALABLE. FOR DISCUSSION + PHD SCHOLARSHIP

Young children living in remote Indigenous communities have long been known to suffer from iron deficiency and anaemia at many times the rates found among other Australian children.

Anaemia is a complicated and multi-faceted group of conditions that results in low Hb levels with potentially detrimental acute and longer-term health effects including failure to thrive, growth faltering, adverse neuro-cognitive development and chronic diseases later in life.

THE NEED

• In the Northern Territory (NT), 15% of mothers are anaemic during pregnancy, 14% of children are Low Birth Weight (LBW) and 25% of children aged 0–5 years are anaemic. Of concern is the anaemia prevalence of 31% for children aged 6–11 months

• From studies conducted in other countries we know that a maternal history of perinatal anaemia or low birth weight (LBW) places the infant at an increased risk of developing anaemia, however we do not know how big a risk factor this is for Aboriginal children.

PARTNERSHIP OPPORTUNITY

The prevalence of childhood anaemia in the Northern Territory (NT) is high but there is a lack of anaemia studies that can be used to guide evidence-based practice for this setting. Our project will for the first time, link perinatal and child hospital presentations with clinic presentations including all laboratory results and growth measures to provide a medical overview of the health of a remote Indigenous child from the perinatal period to 24 months of age.

Menzies will investigate maternal and child risk factors associated with the development of childhood anaemia and to determine how well the current screening and treatment guidelines are implemented in the NT. The establishment of a cohort of children’s records assembled through a data-linkage process will enable analyses to provide a better understanding of the respective contributions of specific risk factors to the high prevalence of anaemia in Indigenous children.

The child protection notification rate will be investigated for anaemic children to determine if this is a prevailing medical condition common to child protection notifications and consider the context of community wellbeing during the first two years of life. By improving our understanding of risk factors and the interactions between different causes of anaemia as well as their cumulative effect, this study will provide important baseline evidence to develop appropriate and culturally acceptable prevention and management strategies.

Our study has four primary aims for a cohort of Indigenous children born in the NT from 2007–2011 to determine whether:

• LBW children are more likely to have documented evidence of iron supplementation in primary health care records from 1–6 months of age compared with children who were not LBW.

• Children with a maternal history of perinatal anaemia or LBW (<2500g) are at increased risk of anaemia by six months of age compared with children with no history of perinatal maternal anaemia or LBW.

• Children identified as meeting the standard criteria for anaemia treatment whose health records are indicative of better adherence to best practice guidelines have better growth and community wellbeing than children whose health records are indicative of a poorer adherence to best practice guidelines.

• Children in the NT diagnosed with anaemia by six months of age are more likely to have had a child protection notification by 24 months of age that indicates failure to thrive than children who were not diagnosed with anaemia by six months of age.

PARTNERSHIP IMPACT

By identifying the major risk factors associated with the development of anaemia in Indigenous children we will be able to develop culturally appropriate and acceptable prevention strategies that will improve the quality of health services and the educational and health outcomes of children.

These prevention strategies will contribute significantly to closing the gap for Indigenous people particularly if childhood anaemia can be prevented that will directly benefit educational attainment and health status. Prevention strategies will also reduce the cost of health care associated with hospital admissions and health centre visits in the short and long term.

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