Implementation of nasal high flow therapy in Thursday Island and Cape York

Nicholas Cairns¹, Sally West²
¹Torres and Cape Hospital Health Service, ²Centre for Rural and Remote Health, James Cook University

Abstract

Background: Respiratory diseases represent the main reason for paediatric inter-hospital transfers in urban and remote areas. Nasal High Flow (NHF) therapy is a simple method of oxygen delivery that provides additional respiratory support to patients with acute respiratory failure. It is proven to be effective and has been safely used outside intensive care settings in tertiary and regional hospitals. Although there is a desire to use NHF therapy in remote hospitals in Australia, the safety and value of using NHF where retrieval to intensive care services requires air retrieval and potential time delays, is unknown.

Aim: The aim of this study is to explore the safety and efficacy of implementing NHF therapy for infants with bronchiolitis in remote Torres and Cape hospitals.

Proposed methods: This study will use a sequential mixed methods design. Using a modified Delphi technique, an expert panel will establish agreed clinical guidelines on NHF therapy implementation. Once the NHF therapy guidelines have been established training will be provided to staff. A comparison cohort study will audit the clinical outcomes of all infants presenting with bronchiolitis to Weipa, Cooktown and Thursday Island hospitals for a 12 month period and compared with outcomes for all presentations in the 12 months prior to NHF therapy implementation.

Issues/dilemmas: The expert panel and subsequent audit evaluating clinical outcomes post-implementation is a reasonably established research process. The challenge in developing the guidelines will be in ensuring fair and equal input from all panel members. Suggestions on how to negotiate potentially opposing ideas and agendas and to sort opinion without evidence from more knowledgeable input will be sought. This project involves staff training on NHF and the developed guidelines for use. Advice is sort from conference delegates on the most pragmatic way to evaluate knowledge translation in a highly mobile, casual workforce where the research is conducted over an area physically difficult to access.
Presenters

**Nick Cairns** lives and works in Weipa as the Acting Director of Medical Services for the Western Cape, Torres and Cape Hospital and Health Service. He is a Rural Generalist and Fellow with the Australian College of Rural and Remote Medicine, advanced skill in Anaesthesia. The focus of his work is on supporting effective health service through good clinical governance and driving innovation through research translation.

**Sally West** is a Clinical Education Coordinator and Lecturer in Remote Health for the Centre for Rural and Remote Health, Weipa site, James Cook University. Her current research is evaluating the implementation of nasal high flow therapy in the remote context and translating the evidence for this therapy into a remote context. Sally is a registered nurse and has worked clinically in rural and remote communities for the past seven years. Prior to this she worked in specialty units such as: infectious disease, emergency and paediatrics within Queensland. Sally has completed a Masters of Public Health majoring in Communicable Disease Control, a Masters of Nursing majoring in Clinical Education and a Graduate Certificate in Disaster and Refugee Health.