

Pioneering research hopes to improve Indigenous lung health

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The first ever detailed study of the bacteriology of bronchiectasis in Indigenous children has been undertaken to better understand and prevent the disease progression.

The study by Dr Kim Hare entitled, *The Bacteriology of Bronchiectasis and Impact of Azithromycin on Upper and Lower Airway Bacteria and Resistance in Australian Indigenous Children*, is vital to improving respiratory health for Indigenous children through better understanding of infectious disease pathogens.

Bronchiectasis is a relatively rare condition in developed countries; however many Aboriginal and Torres Strait Islander children in the Northern Territory have bronchiectasis.

Dr Hare, a NHMRC research fellow at the Menzies School of Health Research, said early detection, knowledge of causation, and appropriate treatment are essential to preventing disease progression and early death in adulthood.

“If it’s picked up early, it’s treatable. If not, the condition develops into severe lung disease and Aboriginal people can die from it in their 30s and 40s,” Dr Hare said.

“We found the main bacterial pathogens were the same for Indigenous and non-Indigenous children with the disease.

“Additionally, the same strains were found in upper and lower airway specimens, strongly supporting the hypothesis that aspiration of nasopharyngeal secretions contributes to the pathology.”

Dr Hare said the antibiotic azithromycin reduced nasopharyngeal carriage of the three main bacteria, but increased carriage of azithromycin-resistant organisms.

“In a clinical trial, respiratory exacerbation frequency was significantly reduced in children who received azithromycin compared to placebo, despite increased azithromycin resistance. This may be due to reduced aspiration of nasopharyngeal bacteria, or azithromycin’s anti-inflammatory properties, or both” she said.

“This is encouraging for our continued research efforts into improving respiratory health for Indigenous populations.”

Dr Hare will be conferred a Doctor of Philosophy at Charles Darwin University’s mid-year graduation ceremony held today at the Darwin Convention Centre.

Media note:

Dr Kim Hare is a senior research fellow at the Menzies School of Health Research. View her profile at: http://www.menzies.edu.au/page/Our_People/Researchers/Kim_Hare/

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Menzies Background

Menzies School of Health Research is Australia's only Medical Research Institute dedicated to improving Indigenous health and wellbeing. We have a 28-year history of scientific discovery and public health achievement. Menzies works at the frontline, partnering with over 60 Indigenous communities across Northern and Central Australia. We collaborate to create resources, grow local skills and find enduring solutions to problems that matter.