



PRESS STATEMENT

PNG MEDICAL SYMPOSIUM 2012

IMR16/12
4 September 2012

DIARRHOEA: FOCUS ON YOUNG CHILDREN

In Papua New Guinea, diarrhoeal diseases in children under five years of age are one of the greatest causes of hospital admissions and deaths.

Identifying the intestinal bugs that like to live in PNG's children can be tricky, but IMR is developing modern and sensitive methods for speedy and accurate diagnosis, said Dr Kevin Soli, a senior postdoctoral research fellow with IMR in Goroka.

“We are building on previous studies in PNG where a broad range of virus and bacteria have been detected and are associated with intestinal diseases,” Dr Soli said.

“Our collection and preparation of samples before analysis may seem unpleasant to some, as the best way to analyse the bugs is to work on faeces,” he said.

“We collected samples from children already in Goroka Base hospital with acute gastroenteritis, then ran a series of tests in which we compared different diagnostic methods, including the Immuno Probe Rapid Diagnostic Test (RDT), real-time Polymerase Chain Reaction (PCR) and loop-mediated isothermal amplification (LAMP) assays.

“Our tests revealed that a broad range of causes are associated with acute watery diarrhoea in children in Goroka, with *Campylobacter jejuni* (4%), *Shigella* (12%), Enteropathogenic *Escherichia coli* (7%) and rotavirus (26%), to name just a few.

“We found that the Immuno Probe RDT provided sensitive (88%) and specific (99%) detection of rotavirus compared to norovirus and adenovirus but its suitability for primary health care clinics needs evaluation.

“Real-time PCR and LAMP assays are very sensitive techniques, but can only be used in diagnostic laboratories with considerable resources and therefore unsuited to primary health care clinics,” Dr Soli said.

Symposium Paper: Aetiology of Acute Watery Diarrhoea in Children in Goroka, PNG.

Contributors: Soli KW¹, Kas M¹, Maure T¹, Jonduo MH¹, Bebes S¹, Umezaki M², Morita A², Igai K², Greenhill AR³, Siba PM¹, Horwood PF¹.

Institutions: ¹Papua New Guinea Institute of Medical Research, Goroka, ²School of Medicine, University of Tokyo, Japan, ³Monash University, Victoria, Australia.

Media contacts: Geraldine Vilakiva – phone: (+675) 532 2800 or (+675) 7205 6686
Email: geraldine.vilakiva@pngimr.org.pg Or phone Wendy Levy - +675-7201 7264