Media Release

Kirby Institute

murdoch children's research institute

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Trial succeeds at drastically reducing two highly infectious skin diseases

Australian, Solomon Islands and British researchers have succeeded in simultaneously treating two debilitating skin diseases – scabies and impetigo – which infect hundreds of millions of people, mostly in tropical countries.

The study, published today in *The Lancet Infectious Diseases*, took place in Choiseul Province of the Solomon Islands and involved offering the entire population (26,000-plus) a single round of treatment for these closely linked highly infectious diseases.

The study is the largest ever conducted on the control of scabies and saw a reduction of almost 90 per cent in cases a year after treatment. Cases of impetigo decreased by 74 per cent.

The research was a collaboration between the Murdoch Children's Research Institute (MCRI), the Kirby Institute at UNSW Sydney, the Solomon Islands Ministry of Health and Medical Services, and the London School of Hygiene and Tropical Medicine.

MCRI Professor Andrew Steer said the study found that administering two medications (ivermectin and azithromycin) together to a whole population is highly effective at reducing the numbers of people affected by scabies and impetigo.

Professor Steer said significant reductions were also seen in local clinic attendance for skin sores, boils and skin abscesses, yaws, acute respiratory infections and diarrhoeal disease.

The Kirby Institute's Dr Lucia Romani, lead author on the paper, said scabies, recognised by the World Health Organization as a neglected tropical disease, is a skin disease caused by a microscopic mite that causes extreme itching, leads to bacterial infection of the skin and other organs and affects an estimated 200 million people worldwide.

In Choiseul Province the proportion of people with scabies and impetigo at the start of the study was 18.7 per cent and 24.8 per cent respectively.

"Scabies is too common in many tropical developing countries, especially in rural and remote communities where people share small living and sleeping spaces and access to treatment is limited," Dr Romani said.

"Our findings show that a simple intervention can have a major impact on a serious health issue that has been too long ignored, perhaps because there were no effective solutions."

The study compared the prevalence of scabies and impetigo in residents of 10 randomly selected villages before and after mass drug administration (MDA), administered by the Solomon Islands Ministry of Health and Medical Services.

Oliver Sokana, from the Ministry, said 1399 people had their skin examined by the research team at the start of the MDA in 2015, with 261 having scabies and 347 having impetigo.

“Both diseases were most common in children aged between five and nine years old,” he said. “Scabies has the greatest impact on young children and the severe itching can also impact on their attendance and attention in class.”

Mr Sokana said 12 months on, 1261 people were examined with only 29 people with scabies, a decrease of 88 per cent, and 81 with impetigo, a decrease of 74 per cent.

He said there was also almost 6000 less people overall presenting to outpatient clinics, a decrease of 36.1 per cent, in the three months after MDA. Presentations for skin sores, boils and abscesses fell by 50.9 per cent.

Dr Michael Marks, from the London School of Hygiene and Tropical Medicine, said the study provides crucial evidence for the global strategy of scabies control being developed.

The safety and feasibility of MDA with antibiotics (azithromycin and ivermectin) in the Choiseul Province was reported in a recent study.

Researchers from seven Australian and international universities and institutions took part in the study.

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Publication:

Lucia Romani, Michael Marks, Oliver Sokana, Titus Nasi, Bakaai Kamoriki, Billie Cordell, Handan Wand, Margot J Whitfeld, Daniel Engelman, Anthony W Solomon, John M Kaldor, Andrew C Steer. Efficacy of mass drug coadministration of ivermectin and azithromycin for control of scabies and impetigo: a single-arm community intervention trial. Lancet Infect Diseases. DOI:10.1016/S1473-3099(18)30790-4.

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