

00723 Efficacy of mass co-administration to control scabies and impetigo in a highly endemic setting

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Background: In small community-based trials, ivermectin mass drug administration (MDA) has been shown to substantially reduce prevalence of both scabies and secondary impetigo. The effect at larger scale is untested. In addition, combined MDA of medicines for two or more neglected diseases has potential practical advantages, but efficacy of potential combinations should be confirmed. We aimed to investigate the efficacy of the intervention against community prevalence of scabies and impetigo.

Materials/methods: The Azithromycin Ivermectin MDA (AIM) trial was a prospective, single-arm, before-and-after, community intervention trial to assess the efficacy of ivermectin and azithromycin MDA for scabies and impetigo. MDA was offered to the entire population of Choiseul Province, Solomon Islands. We compared prevalence of scabies and impetigo in residents of 10 randomly-selected villages at baseline, to that in residents of 10 different randomly-selected villages 12 months after MDA. Randomisation was carried out by a central computer system to select settlements with populations between 100 and 250. We also compared the number of outpatient presentations before and after MDA.

Results: In September 2015, 26,188 people (99.3% of the estimated resident population of Choiseul as determined at the 2009 census) were treated. Skin examination was performed in 1,399 people at baseline (84.2% of the estimated resident population of selected villages) and 1,261 people (77.6%) 12 months after MDA. At baseline there were 261 people (18.7%) with scabies and 347 people (24.8%) with impetigo. At 12 months there were 29 people (2.3%) with scabies (relative reduction 88%, 95%CI 76.5–99.3) and 81 (6.4%) with impetigo (relative reduction 74%, 95%CI 63.4–84.7) respectively. There were 10,614 presentations to outpatient clinics in the three-month period after MDA compared to 16,602 in the three-month period before it (36.1% reduction, 95%CI 34.7–37.6). Presentations for skin sores, boils and abscesses fell by 50.9% (95%CI 48.6–53.1).

Conclusions: Ivermectin-based MDA can be scaled to a population of over 25,000 with a similar efficacy for scabies and impetigo as in smaller island populations and this level of efficacy can be achieved when MDA for scabies is integrated with azithromycin MDA for trachoma.