Scabies in New Zealand: a call for action on diagnosis and control

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Scabies is a common, under-recognised and treatable skin infestation with highly effective, low-cost topical or oral therapies.[1] The disease is very common in Pacific Island nations,[2] and this is likely to contribute to a high prevalence in New Zealand through travel and migration. We have limited information about the national prevalence of disease; however, recent studies indicate a high prevalence in Auckland, particularly in socio-economically deprived areas.[3]

Traditionally, scabies has been considered a "Victorian disease" worthy of little attention. However, accumulating evidence both in New Zealand and overseas indicates that scabies is strongly associated with more serious diseases like bacterial skin infection, impetigo, acute rheumatic fever, rheumatic heart disease (RHD) and post-streptococcal glomerulonephritis.[1,4] Indeed, RHD is highly prevalent in almost all populations in Pacific Island nations who also have a substantial prevalence of scabies. Our experience in Tonga shows that 29.8% of school children had clinical signs of the disease, and a strong association between this skin condition and RHD detected on echocardiogram is present.[5] Other work has also shown a high incidence of RHD with a hospital diagnosis of scabies in a cohort of Auckland children.[6]

Having now established that scabies is prevalent in Auckland, and very likely to be causally associated with a range of other more serious diseases, the question is now "What can we do to improve scabies control in our nation?". The status quo is not reducing the incidence of the disease and scabies remains commonly encountered in clinical practice in South Auckland. We propose several initiatives that could help reduce scabies prevalence.

Improved diagnosis

Our survey showed that scabies was frequently misdiagnosed, with many patients treated for other conditions such as eczema, insect bites or allergy.[3] We believe that promoting the use of the recently developed "clinical" and "suspected" categories of the International Alliance for the Control of Scabies criteria, which focus on the identification of crops of papules along with a history of pruritus among household contacts, would improve treatment.[7] In cases of diagnostic uncertainty, a presumptive trial of household-wide treatment is safe, practical and may reduce transmission.

Recruiting primary care and school nurses, pharmacists and other health practitioners in the diagnosis and treatment of scabies is likely to further improve the recognition and control of the disease.

Laboratory improvements

Since diagnostic uncertainty remains a problem—particularly when patients have been exposed to other topical agents, such as steroids—using a molecular diagnostic test for scabies should be a priority. Our team has some experience with a novel test sourced from skin swabs, which could be refined and introduced for routine clinical use.[8] It is now realised that skin scrapings, which have been the main stay of laboratory diagnosis for many years, are specific but lack sensitivity, meaning that they only pick up at most about 10% of clinically diagnosed cases.[9]

Improved treatment

At present, ivermectin is available under special authority for general practitioners; however, this creates an administrative hurdle to its use. This could be lifted, since treatment is likely to be more effective with this agent compared to topical ones, which demand more effort. Follow-up to ensure treatment success at present incurs a cost to the patient. Successful treatment for scabies by synchronising treatment with the entire family offers both individual relief and population-level benefits by interrupting transmission. This indicates that the government

should facilitate follow-up and consider funding through primary care or pharmacies.

Screening those at high risk

Early childcare centres, schools and rest homes are frequent sites of scabies outbreaks in Auckland.[3] Systematically screening such facilities, particularly those in socio-demographically deprived areas, and organising mass treatment in these institutions if prevalence is high could be justified to reduce scabies prevalence. This is now recommended when prevalence exceeds 10%.[1] To carry out such screening, clear definitions of the disease, along with training and protocols for treatment, would need to be developed.

Health education

Increasing awareness of scabies may be useful. An innovative "magic glasses" brief educational cartoon has been shown to reduce the prevalence of soil-transmitted helminths in China by 50%.[10] Such programmes could be adapted for scabies, being potentially cost effective and scalable.

Conclusion

The ongoing burden of scabies in socio-economically disadvantaged communities in New Zealand offers an opportunity to reduce suffering and advance health equity. Scabies itself is an unpleasant condition that reduces the quality of life of those who suffer from it and is likely to contribute to several other serious diseases. Recognising scabies as a public health priority and coordinating national action, we believe, will be a sound investment in the health of future generations.

COMPETING INTERESTS
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