

Global trends in schistosomiasis control

Myra Taylor^a

Schistosomiasis remains a global health problem in the 21st century with an estimated 200 million people in 74 countries infected, of whom 85% are living in sub-Saharan Africa.¹ In 2001, at the 54th World Health Assembly, every Member State endorsed resolution WHA 54.19 to promote preventive measures, ensure treatment and mobilize resources for the control of schistosomiasis and soil-transmitted helminths. The goal is to treat between 75% and 100% of all school-age children at risk of morbidity by 2010.²

Praziquantel provides effective, safe, single-dose treatment with few side-effects, offering opportunities for improved schistosomiasis control. A recent Cochrane review evaluating the standard dose for urinary schistosomiasis (praziquantel 40 mg/kg) found it to be as effective as a single dose, resulting in 95% egg reduction.³ WHO advocates mass treatment at schools with frequency of treatment dependent on prevalence and intensity of schistosomiasis infection. To simplify the procedure and reduce costs, a questionnaire has been developed to identify schools requiring treatment. To assist in calculating the required praziquantel dose, a dose-pole method has been developed.

This issue of the *Bulletin* reports on three recent studies to improve schistosomiasis control in Burkina Faso, China and the Philippines.⁴⁻⁶ The Schistosomiasis Control Initiative has been working with six countries in Africa and the results, two years after a single mass treatment in Burkina Faso, are encouraging.⁴ From the lessons learned, similar strategies may be adopted by other developing countries. The importance of effective community involvement for mass treatment is emphasized in the Philippines study. The possibility of a more effective treatment regimen by using artemether together with praziquantel for acute *Schistosoma japonica* was investigated in China.⁵ This study found that there was

no improvement in treatment efficacy by using the combination, while using 60 mg/kg praziquantel treatment for 1 day (3 doses) was found to be as effective as 120 mg/kg daily for 6 days.

Schistosomiasis morbidity control through chemotherapy has been successful in Brazil and countries in northern Africa. Further, the Schistosomiasis Control Initiative is re-invigorating efforts in Africa. Burkina Faso is one of the lowest-income countries in Africa. The successful campaign reported in this publication is a lesson for other resource-poor countries in Africa, suggesting that the key may lie in political will and combining resources to achieve schistosomiasis control. The reduction in the prevalence of schistosomiasis among school-children after one mass treatment indicates that, by working together using school and community resources, a high coverage can be achieved. This major reduction in infection in Burkina Faso was sustained over two years. Where school attendance is high, schools are the obvious place to treat but, in countries such as Burkina Faso that have a low school enrolment, efforts need to be made to reach the community. Burkina Faso managed to achieve sufficient community involvement to reach these children not in school.

The report from the Philippines indicates that efforts there were less successful, suggesting that more effort is needed to involve key stakeholders and increase use of media such as radio to raise awareness.⁶ Village leaders were primarily responsible for community mobilization and the extent of their support for the programme is unclear, since less than 50% coverage was achieved. Uptake of treatment may be improved by more publicity, identifying key stakeholders early in the programme and agreeing on their roles and responsibilities, and monitoring the implementation of the tasks agreed upon.

Until a vaccine is developed, public health initiatives together with known

effective chemotherapy are needed to control schistosomiasis morbidity. The decrease in drug prices and the safety of praziquantel can facilitate treatment programmes, and adding deworming to large-scale health campaigns may be a feasible option. Targeting school-age children who bear the greatest parasite burden is an important strategy to improve their growth, development and health status, and it may possibly reduce their risk of HIV infection.⁷ However with increased prevalence through irrigation, ponds and changing water bodies, other "at risk" populations may need to be included in treatment programmes. ■

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^a Department of Community Health, University of KwaZulu-Natal, Durban, South Africa.

Correspondence to Myra Taylor (e-mail: taylormyra@gmail.com).

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