

woman and her husband) was found to be about 4.5 for Bangladesh. Although the ratio was significantly higher than one, it was lower than the ratio obtained for the control of diarrhoeal diseases, childhood immunizations, and many other preventive interventions in the developing countries.

Conclusion: With the increased use of the MCH-FP centres, the unit cost of RPR and TPHA should fall significantly, which will further improve the benefit-cost ratio. Moreover, the reduced costs will make screening with RPR, followed by TPHA which is cost-effective at a much higher cut-off prevalence. In this study, the indirect benefit of curing syphilis, especially in preventing HIV infection, has not been considered. The prevalence of HIV in this population is not known, but if we assume the prevalence rate to be 1%, the probability of preventing an HIV infection through treatment of syphilis becomes so low that we can safely ignore this additional benefit at this low level of HIV and syphilis prevalence. However, at the higher prevalence rates, the benefits may become significant and should be taken into account.

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Role of Nitric Oxide in the Pathogenesis of Shigellosis and Cholera in Children

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Objective: Evaluate the role of nitric oxide in the pathogenesis of shigellosis and cholera in children.

Methodology: Concentrations of nitrite, a stable metabolite of nitric oxide (by Griess reaction) in urine and serum samples of 24 patients aged 1-5 years (10 shigellosis, 14 cholera) were determined. Tests were done on admission to hospital with acute diarrhoea and repeated at early convalescence after 3-7 days of specific antimicrobial therapy.

Results: In children with shigellosis, urinary nitrite excretion (nM/mg creatinine) was significantly increased during acute illness compared to early convalescence, median (range): 7061 (1046-18264) vs. 4316 (2369-12428, $p<0.05$). Concentration of nitric oxide in serum (mmol/L) also significantly ($p<0.05$) increased during acute illness compared to convalescence values: 206 (159-214) vs. 104 (102-273). Similarly, in children with cholera, both urinary and serum nitrite excretions were significantly ($p<0.05$) elevated during acute illness compared to convalescence: 5034 ± 1345 vs. 2178 ± 404 (urine); 450 ± 89 vs. 201 ± 56 (serum).

Conclusion: These results indicate that production of nitric oxide is increased both in acute shigellosis and cholera, more markedly in the former infection because of colonic inflammation. Urinary nitrite excretion can be a useful marker of severity of these infections.

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