## Zinc Supplementation in Infants Less Than 6 Months of Age

Zinc has often been hailed as a wonder element because of the significant beneficial effects it accords in improving diarrhea related outcomes after supplementation for 10-14 days(1). However, most of the studies have been conducted in children older than 6 months of age(1,2). In children younger than the age of 6 months, few studies have shown that zinc supplementation is not consistently associated with significant benefit for diarrhea related outcomes. Longer term results have also failed to show pronounced effects of zinc on improvement of general anthropometric status(3,4).

We feel that zinc as an intervention for diarrhea in children younger than 6 months of age should not be dismissed altogether or out rightly since decisive consensus must be based on larger scale clinical trials and observation of consistency in the trends of the result obtained. Although the few studies conducted so far have provided interesting results, incorporation of some points in the study design of future trials can be helpful.

Baseline health status, zinc levels, along with stratification for exclusive breast feeding status are some of the parameters that should be considered in future studies of zinc therapy conducted in children less than 6 months of age. These points also happen to be the limitations in some of the current studies(4).

We think that a sizeable proportion of pediatric patients with diarrhea seen in clinical practice are less than 6 months of age. This calls for larger scale trials of zinc therapy to fully establish its role and evaluate its effectiveness so as to fully ascertain the need to prescribe zinc in this pediatric subgroup. In the meantime, we advocate use of clinical acumen and demonstration of perspicacity on the part of physicians in weighing the pros and cons of this intervention while prescribing zinc supplementation to infants less than 6 months of age. This approach should be exercised because of the paradoxically increased prevalence of diarrhea in zinc supplemented infants less than 6 months of age reported in one study(4).

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## References

- 1. Bhutta ZA, Bird SM, Black RE, Brown KH, Gardner JM, Hidayat A, *et al.* Therapeutic effects of oral zinc in acute and persistent diarrhea in children in developing countries: pooled analysis of randomized controlled trials. Am J Clin Nutr 2000; 72: 1516–1522.
- 2. Bhutta ZA, Black RE, Brown KH, Gardner JM, Gore S, Hidayat A, *et al.* Prevention of diarrhea and pneumonia by zinc supplementation in children in developing countries: pooled analysis of randomized controlled trials. J Pediatr 1999: 135: 689-697.
- 3. Fischer Walker CL, Bhutta ZA, Bhandari N, Teka T, Shahid F, Taneja S, *et al*. Zinc supplementation for the treatment of diarrhea in infants in India, Pakistan, and Ethiopia. J Pediatr Gastroenterol Nutr 2006; 43: 357–363.
- Walker CL, Bhutta ZA, Bhandari N, Teka T, Shahid F, Taneja S, *et al.* Zinc during and in convalescence from diarrhea has no demonstrable effect on subsequent morbidity and anthropometric status among infants <6 mo of age. Am J Clin Nutr 2007; 85: 887-894.