

Committee on Infectious Diseases

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In spite of the availability of effective vaccines, measles continues to be a public health problem throughout the world. In 1990, the Centers for Disease Control received more than 27 672 reports of measles in the United States. Complications were reported in one third of infected children younger than 5 years of age.<sup>1</sup> Of the 89 measles-related deaths in 1990, 55% occurred in children younger than 5 years old.

Several recent investigations have indicated that vitamin A treatment of children with measles in developing countries has been associated with reductions in morbidity and mortality. The World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) issued a joint statement recommending that vitamin A be administered to all children diagnosed with measles in communities where vitamin A deficiency (serum vitamin A <10 µg/dL) is a recognized problem and where mortality related to measles is ≥1%. The recommended regimen is 100 000 IU by mouth at the time of diagnosis for infants younger than 12 months of age, and 200 000 IU for older children. In the presence of ophthalmologic signs of vitamin A deficiency, such as night blindness, Bitot's spots (grayish white deposits on the bulbar conjunctiva adjacent to the cornea) or xerophthalmia, the WHO recommends the dose be repeated in 24 hours and again 4 weeks later.<sup>2</sup> Vitamin A is available in low-cost liquid formulations and is supplemented in infant formulas (2000 µ/L).

#### RATIONALE FOR VITAMIN A

Vitamin A is a necessary substrate for preserving epithelial cell integrity and in addition plays a role in immune modulation.<sup>1-3</sup>

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