Neonatal vitamin A supplementation

Infants and young children have increased vitamin A requirements to support rapid growth and to help combat infections. Member States have requested guidance from the World Health Organization (WHO) on the effects and safety of vitamin A supplementation in the neonatal period (first 28 days of life) as a public health strategy.

WHO has developed the present evidence-informed recommendation using the procedures outlined in the WHO handbook for guideline development. The steps in this process included: (i) identification of priority questions and outcomes; (ii) retrieval of the evidence; (iii) assessment and synthesis of the evidence; (iv) formulation of recommendations, including future research; and (v) planning for dissemination, implementation, impact evaluation and updating of the guideline. The Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology was followed to prepare evidence profiles related to preselected topics, based on up-to-date systematic reviews. An international, multidisciplinary group of experts participated in two WHO technical consultations, held in Geneva, Switzerland, on 19–20 October 2009 and 16–18 March 2011, to review and discuss the evidence and draft recommendation, and to vote on the strength of the recommendation, taking into consideration: (i) desirable and undesirable effects of this intervention; (ii) the quality of the available evidence; (iii) values and preferences related to the intervention in different settings; and (iv) the cost of options available to health-care workers in different settings. All guideline group members completed a Declaration of Interests Form before each meeting. An External Experts and Stakeholders Panel was involved throughout the process.

Neonatal vitamin A supplementation is not recommended as a public health intervention to reduce infant morbidity and mortality (strong recommendation). The quality of the available evidence for mortality-related outcomes was found to be moderate. Mothers should continue to be encouraged to exclusively breastfeed infants for the first 6 months to achieve optimal growth, development and health.

Four randomized, double-blind, placebo-controlled trials are currently being conducted in Pakistan, India, Ghana and Tanzania to assess the feasibility of delivering neonatal vitamin A supplements through health workers and to evaluate the efficacy of neonatal vitamin A supplementation in improving child survival. In addition, there are ongoing studies on the impact of neonatal vitamin A supplementation on immune function and organ maturation, and an animal study on the metabolism of vitamin A at birth is also in progress. The results of these studies will provide further knowledge to help inform updates to this guideline in the future.

Summary

WHO Guideline

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1 This publication is a WHO guideline. A WHO guideline is any document, whatever its title, containing WHO recommendations about health interventions, whether they be clinical, public health or policy interventions. A recommendation provides information about what policy-makers, health-care providers or patients should do. It implies a choice between different interventions that have an impact on health and that have ramifications for the use of resources. All publications containing WHO recommendations are approved by the WHO Guidelines Review Committee.