High-risk infants fed with standard cow’s milk formula as a supplement or replacement of breast milk may be exposed to a higher likelihood of developing atopic dermatitis

**Key insights**

Proteins found in standard cow’s milk formula have been associated with an increased risk of atopic dermatitis, especially in infants with a familial predisposition towards atopy. Compared to standard cow’s milk formula, partially or extensively hydrolyzed formulas are alternative protein sources that may reduce the risk of atopic dermatitis and other allergic disorders when used in high-risk infants. This study compared the long-term (i.e. 6 years) economic impact of using a partially hydrolyzed whey-based formula instead of a standard cow’s milk formula in the first 17 weeks of life in nonexclusively breastfed infants who are at high risk of developing atopic dermatitis in Malaysia, Singapore, and the Philippines. The analysis was based on the 6-year results of the German Infant Nutritional Intervention (GINI) study, a large randomized clinical trial comparing the risk of atopic dermatitis in following feeding with standard cow’s milk formula versus partially hydrolyzed whey-based formula.

**Current knowledge**

The development of childhood atopic dermatitis is associated with substantial costs, which vary depending on the country and disease severity. The main drivers of total costs are medical treatments, physician visits, and other indirect costs such as parental time lost to attend a child with atopic dermatitis. These costs are likely to be underestimated as they do not include the out-of-pocket expenses incurred by the patients’ families, since these are poorly documented.

**Practical implications**

The use of partially hydrolyzed whey-based formula as a replacement for cow’s milk formula in at-risk healthy infants reduces the clinical, economic, and quality of life burden due to atopic dermatitis. The 6-year net savings due to the risk reduction of atopic dermatitis per at-risk infant associated with the use of partially hydrolyzed whey-based formula were USD 237 in the Philippines, USD 372 in Malaysia, and USD 739 in Singapore. The higher initial cost of the formula itself was outweighed by the substantial decrease in costs due to the risk reduction of atopic dermatitis.

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