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Exclusive *Breastfeeding* Duration

2004 Health Canada Recommendation

Introduction:

Health Canada promotes breastfeeding as the best method of feeding infants as it provides optimal nutritional, immunological and emotional benefits for the growth and development of infants [1]. This document solely focuses on updating the recommendation for the duration of exclusive breastfeeding made in the 1998 document *Nutrition for Healthy Term Infants*, page 12 [2]. The intent is not to provide an all-inclusive document on breastfeeding. More information on breastfeeding is available in the

Introduction:

document, *Nutrition for Healthy Term Infants*. A set of questions and answers for professionals has been developed to accompany this document and is available at the following address:

www.healthcanada.ca/nutrition

Recommendation:

Exclusive breastfeeding¹ is recommended for the first six months of life for healthy term infants, as breast milk is the best food for optimal growth. Infants should be introduced to nutrient-rich, solid foods with particular attention to iron [3] at six months with continued breastfeeding for up to two years and beyond [4].

¹ Exclusive breastfeeding, based on the WHO definition [5], refers to the practice of feeding only breast milk (including expressed breast milk) and allows the baby to receive vitamins, minerals or medicine. Water, breast milk substitutes, other liquids and solid foods are excluded.



Rationale

In 2001, the World Health Organization (WHO) changed its recommendation for exclusive breastfeeding from four to six months of age to exclusive breastfeeding until six months of age [6]. Before deciding to align with this recommendation, Health Canada carefully considered the evidence presented by WHO, along with other recent information of relevance in a Canadian context. Exclusive breastfeeding for six months confers additional protection against gastrointestinal infections. Healthy term infants who are exclusively breastfed for six months grow at similar rates and show similar iron status as infants who are exclusively breastfed for three to four months and then continue partial breastfeeding to six months. For the few studies that have examined other health outcomes related to six months versus four months of exclusive breastfeeding, the results have been inconclusive, insufficient or have not shown substantial differences.

The following is a summary of the information Health Canada reviewed to inform the decision to align with the WHO recommendation.

Infant Health Outcomes

Gastrointestinal Infections

There is good evidence that two more months of exclusive breastfeeding (i.e. from four to six months) provides infants with additional protection against gastrointestinal infections during that two-month period.

Results from a large prospective study in Belarus, where sanitary conditions are similar to those in Canada, showed that infants exclusively breastfed for six months or more had a statistically significant lower risk of gastrointestinal infection (one or more occurrences) compared to infants exclusively breastfed for three months who continued partial breastfeeding to six months [7].

Growth

The available data on growth show similar growth rate or body composition for healthy term infants exclusively breastfed for six months compared to those exclusively breastfed for three to four months who continued partial breastfeeding to six months [8].

Iron

Current evidence indicates that iron deficiency is not a concern for most healthy full term infants exclusively breastfed for six months [3,9]. Nutrient-rich, solid foods with particular attention to iron, should be introduced at six months.

Maternal Health Outcomes

Delayed Menses

There is evidence for delayed return of menses with an additional two months of exclusive breastfeeding. Kramer and Kakuma's review [8] of results from trials in Honduras (1998), showed that women who exclusively breastfed for six months showed a reduction in the likelihood that menses had returned by six months compared to women who exclusively breastfed for four months and continued partial breastfeeding to six months. The benefits of prolonged amenorrhea include increased birth spacing and reduced blood loss, resulting in reduced iron requirements for lactating mothers [10]. Iron requirements, as reported in the DRI report, are lower for lactating mothers whose menses have not returned than menstruating mothers and are based on six months of exclusive breastfeeding [11].

Weight Loss

There is evidence to support a small but statistically significant increase in rate of weight loss in women who exclusively breastfeed for a longer period. Pooling of results from two Hondurian trials showed that women from the six-month exclusively breastfeeding groups lost on average 0.42 kg (1 lb) more than women from the four-month exclusively breastfeeding group [8].



Other Evidence Reviewed

Upper and Lower Respiratory Tract Infections

The evidence is conflicting for a reduced rate of respiratory illness, suggesting there may be little difference with respect to six versus four months of exclusive breastfeeding.

Allergies

There is no evidence that an additional two months of exclusive breastfeeding reduces the risk of developing allergies. Data from a very large prospective cohort study, as well as two small cohort studies, indicate that an additional two months of exclusive breastfeeding is not associated with a reduced risk of atopic eczema, asthma or other atopic outcomes [8].

Obesity and Cognitive Development

There are no studies that have specifically examined obesity or long-term cognitive development in relation to six versus four months of exclusive breastfeeding.

Implications for Practice

■ The available evidence supports this recommendation for the Canadian population. Health Canada encourages all health professionals to promote and implement this revised recommendation at the national, provincial and community level. Special consideration is needed when applying this recommendation at the individual level.

■ It is recommended that all breastfed, healthy term infants in Canada receive a daily vitamin D supplement of 10 µg (400 IU). Supplementation should begin at birth and continue until the infant's diet includes at least 10 µg (400 IU) per day of vitamin D from other dietary sources or until the breastfed infant reaches one year of age [12].

■ Nutrient-rich complementary foods, with particular attention to iron, should be introduced at six months of age (approximately 180 days), with continued breastfeeding for up to two years and beyond.

■ All infants require careful monitoring of growth and illness, with appropriate intervention undertaken whenever clinically indicated [8].

■ Growth patterns of breastfed infants are different from those of formula-fed infants [13]. Growth charts currently in use (i.e. Centres for Disease Control and Prevention) represent different patterns of growth than typically seen in breastfed infants. This should be taken into consideration when assessing the growth of an exclusively breastfed infant to avoid unnecessary investigations, supplementation with formula or early introduction of solids.

■ Healthy term infants born to iron-deficient mothers and those small for gestational age may be at increased risk of iron deficiency. Health professionals should monitor the iron status of these infants closely.

■ Some mothers may not exclusively breastfeed to six months for personal and/or social reasons, and they should also be supported to optimize their infant's nutritional well-being. Parents need to be supported and given appropriate information to enable informed decisions to ensure optimal infant nutrition.

■ It is important that mothers maintain a well-balanced diet according to *Canada's Food Guide to Healthy Eating* while they are breastfeeding.

■ The implementation of this recommendation can be maximized through the provision of adequate social support to breastfeeding women by increasing community, public health, hospital and workplace efforts.



- The Canada Prenatal Nutrition Program funds community agencies and coalitions to increase access to health and social supports, including breastfeeding promotion for pregnant women facing circumstances that threaten their health and the development of their babies.
- Health Canada supports the efforts of the Breastfeeding Committee for Canada to implement the UNICEF/WHO Baby Friendly Initiative in Canada.

■ Although exclusive breastfeeding for an additional two months delays menses, it should not be relied upon as a foolproof method of contraception.

Implications for Future Research

■ Given that studies indicate [14,15] that duration of exclusive breastfeeding among Canadian women is significantly below six months, more research is needed to identify population-based, cost-effective approaches to support the implementation of the recommendation. Evaluation of programs such as the Baby Friendly Initiative should be supported and results shared.

■ There is a need for more research examining the relationship of longer duration of exclusive breastfeeding to several health outcomes. For example, more research examining the effect of longer exclusive and total breastfeeding duration on long-term postpartum weight retention is recommended.

The feedback and advice of the Expert Advisory Panel on Exclusive Breastfeeding has been incorporated into the present statement. The members of the panel included:

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