Health Alert Network Information Service

Stark County Public Health Emergency Preparedness Project

To: Area Physicians

From: The Ohio Department of Health Women, Infants and Children's Program

Date: February 29, 2012 **Time: 3:00 pm**

Alert Number: 1-2012

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Health Alert Network Information Service Message 1-2012: Premature infants require specialized formulas.

Attached is a HAN Info Service Message. Oftentimes, premature infants require specialized formulas. Attached is the *Ohio Women, Infant, and Children (WIC) Works – Community Update* newsletter which includes some tips that can be of assistance when completing prescriptions, as well as an explanation on how the WIC program can work with physicians to support these infants.

Please distribute this information as necessary.

Categories of Health Alert messages:
Health Alert: conveys the highest level of importance; warrants immediate action or attention
Health Advisory: provides important information for a specific incident or situation; may not require immediate action
Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action
Info Service: provides general information that is not necessarily considered to be of an emergency nature

To change your emergency contact information with our office, please contact:
Health Alert Network Coordinator
(330) 489-3327
HAN@cantonhealth.org
(330) 489-3335 (fax)

Alliance City Health Department
(330) 821-7373

Canton City Health Department
(330) 489-3231

Massillon City Health Department
(330) 830-1710

Stark County Health Department
(330) 493-9904

Ohio WIC Works - Community Update

The Ohio Department of Health Women, Infants and Children's Program

February 2012

Premature Infants in the Community Setting: How WIC Can Help

How WIC Helps

- Trained WIC lactation specialists on staff to assist with infants nursing at the breast and receiving pumped breast milk
- Frequent monitoring of preterm infant weight gain
- Provision of supplemental infant formula, if needed
- Assessment of growth patterns and readiness to transition off of premature infant formulas
- Assessment of readiness to begin complementary infant foods
- Provision of strained and mashed baby food fruits and vegetables, and infant cereals
- Provision of strained baby food meats to exclusively breastfed infants

The Breastfed Preterm Infant

Breast milk is the ideal food for preterm infants as it has shown better infant tolerance, higher absorption of vitamins and minerals, immunologic and antimicrobial factors, and the benefits of maternal-infant attachment.[1,3] Your local WIC clinic has trained lactation professionals who can assist mothers of preterm infants receiving breast milk. The Academy of Breastfeeding Medicine, recommends a premature infant who is exclusively breastfeeding be given a complete multivitamin that contains iron.[6] Most over-the-counter infant vitamins dosed at 1 milliliter (cc) per day are sufficient to meet the infant's needs. For some preterm infants, offering only mother's milk may not provide infants with adequate vitamins and minerals for their increased needs. These infants typically are:

- born less than 34 weeks gestation, and/or
- born less than 3 lbs, 5 oz (1500 grams), and/or
- at high nutritional risk after discharge.[1]

This is because typical infants in the third trimester of gestation are utilizing increased amounts of vitamins and minerals for tissue and bone mineral development. In addition, very low birth weight (VLBW) infants, born <1500 grams, may not be able to tolerate large enough volumes of unfortified breast milk to meet their nutritional needs. In order to meet the increased needs of the VLBW infant, breast milk must be fortified with additional vitamins and minerals. Even with formula fortification, breast milk is still the food of choice for the VLBW infant.

At this time, there is no recommendation for the length of time fortification of breast milk should be continued post discharge. A "rule of thumb" when working toward the goal of decreasing breast milk fortification is that the infant must exhibit:

- the ability to sustain adequate growth, and
- the ability to sustain adequate intake of unfortified breast milk at the breast or when bottle feeding.[1]

(Continued on page 2)

(Continued from page 1)

Growth faltering has been observed in premature infants who receive exclusive breast milk feedings without supplementation, but, typically, with the exception of babies born less than 2 lbs, 3 oz (1000 grams), this is due to decreased total daily intake and not milk composition.[6] WIC Health professionals and breastfeeding coordinators will be assessing preterm infants on fortified breast milk regarding the discontinuance of fortified breast milk. The American Academy of Pediatrics (AAP) recommends that breast milk fortification can be discontinued before 9 to 12 months adjusted for gestational age (AGA) with documentation that the infant's weight is being maintained above the 25th percentile using the CDC recommended WHO growth charts.[3,7]

The Formula Fed Preterm Infant

Premature infants need higher levels of calories, protein, calcium and phosphorus to help with weight gain and bone development. If human milk cannot be provided to support the full diet, premature formulas are used as an alternative source of nutrition. Ohio WIC offers both Similac Expert Care NeoSure and Enfamil EnfaCare formulas which are specially designed to meet the nutritional needs of premature infants who are not able to receive their mother's milk.

A study by Reichman B, et al., showed that premature infants fed standard infant formula gained more of their weight as fat when compared to infants of similar gestational age in-utero.[2] Unlike standard infant formulas, premature infant formulas are designed to help the preterm infant gain weight in comparable composition (muscle, bone and fat) to a fetus of the same gestational age. Therefore, WIC supports the AAP recommendation that these infants should remain on premature formulas until 9 to 12 months adjusted age. It is not generally recommended to take an infant off of premature formula prior to reaching 9 to 12 months adjusted age if the weight for length is not being maintained above the 25th percentile.[3] Since it is in the best interest of the infant to remain on the formula, WIC health professionals may contact you to clarify and discuss the continued use of premature infant formula.

When to Introduce Solids

In the premature infant population, a study found that 80 percent may demonstrate feeding difficulties.[4] Premature infants who may already be prone to feeding issues may be at a greater risk for additional nutritional complications if solids are introduced too early. A study by Burklow, et al. showed that early introduction of solids in preterm infants increased the risk for food texture aversion.[5] Therefore, transition to solid foods in the premature infant should occur according to corrected age **and** signs of developmental readiness.[1] For example, if solid foods are initiated at six months chronological age for an infant born 30 weeks gestation (3 ½ months AGA), the infant will not likely be developmentally ready for solids, and the complementary foods may replace calories needed from breast milk or formula. Use of adjusted age also applies to the introduction of cow's milk which should not occur until the infant is 12 months AGA. WIC health professionals can work with premature infants and their caregivers to help assess for feeding readiness. If the infant is not yet ready for solids, exclusive breast milk or premature infant formula can be continued.

References

1. Oregon Deparment of Human Services (2006) *Nutrition Practice Care Guidelines for Preterm Infants in the Community.* Retrieved from http://www.oregon.gov/DHS/ph/wic/docs/preterm.pdf?ga=t
2. Reichman B, Chessex P, Putet G, et al. Diet fat, accretion, and growth in premature infants. *N Engl J Med.* 1981;305:1495-1500.
3. Klienman, R.E. (2009). *Pediatric Nutrition Handbook* (6th ed.) Illinois: American Academy of Pediatrics.
4. Manikam R, Perman, JA. Pediatric feeding disorders. *J Clin Gastroenterol.* 2000;30:34-46.
5. Burklow KA, McGrath AM, Valerius KS, Rudolph C. Relationship between feeding difficulties, medical complexity, and gestational age. *Nutr Clin Pract.* 2002;17:373-378.
6. The Academy of Breastfeeding Medicine (2004) *Clinical Protocol #12 Transitioning the Breastfeeding/ Breastmilk-fed Premature Infant from the Neonatal Intensive Care Unit to Home.* Retrieved from http:// www.bfmed.org/Resources/Protocols.aspx
7. CDC/National Center for Health Statistics (2009). The WHO Growth Charts. Retrieved from http://www.cdc.gov/growthcharts/who_charts.htm

To Contact Your Local WIC Clinic:

WIC Script Tips

- A **complete** prescription is required for WIC to provide formula (Exceptions: Similac Advance and Similac Soy Isomil).
- The ICD-9 code and written medical diagnosis must relate to the formula requested.
  - e.g., One of Similac Expert Care Alimentum's indications for use is food allergy/sensitivity to intact protein; therefore, the ICD-9 code 558.3 Allergic Gastroenteritis and Colitis could be a possible diagnostic code.
- If a diagnosis is suspected but a trial with a prescription formula is warranted to confirm, write "(suspected)" next to the medical diagnosis.
- Specify the exact amount of formula to be provided per day
  - Acceptable: 32 ounces/day
  - Unacceptable: Maximum amount