



Kansas WIC Program

Nutrition Risk Factors Infants

Revised - September 19, 2016



Kansas Department of Health & Environment
Bureau of Family Health
Nutrition and WIC Services
Curtis State Office Building
1000 SW Jackson St, Suite 220
Topeka, KS 66612-1274
(785) 296-1320 (Voice) (785) 296 -1326 (Fax)
www.kansaswic.org



Table of Contents

Feeding a Substitute for Breastmilk or Iron Fortified Formula.....	1
Inappropriate Use of Bottles or Cups	1
Inappropriate Introduction of Complementary Foods	1
Feeding Practices that Disregard Developmental Needs.....	1
Feeding Foods that Could be Contaminated	2
Improperly Diluted Formula	2
Inappropriate Frequency of Nursing the Exclusively Breastfed Infant	2
Diet Very Low in Calories and/or Essential Nutrients	3
Inappropriate Handling of Formula or Breastmilk.....	3
Intake of Dietary Supplements with Potentially Harmful Effects.....	4
Inadequate Vitamin/Mineral Supplementation	4
☞ Tobacco Smoke Exposure in the Home	4
Breastfeeding Infant of Woman at Priority 1 Nutritional Risk.....	4
Breastfeeding Infant of Woman at Priority 4 Nutritional Risk.....	5
Assumed Risk for Infants and Children between 4 and 24 Months.....	5
✓ Potential Breastfeeding Complications	5
Oral Health Conditions.....	5
✓ Disabilities Interfering with the Ability to Eat	6
✓ Nutrient Deficiency Diseases	6
✓ Cancer	6
✓ Celiac Disease	7
Central Nervous System Disorders.....	7
✓ Diabetes Mellitus.....	7
✓ Failure to Thrive	7
Fetal Alcohol Syndrome.....	8
Food Allergies	8
Gastrointestinal Disorders	8
✓ Genetic and Congenital Disorders	8
Hypertension and Prehypertension.....	9
Hypoglycemia	9
✓ Inborn Errors of Metabolism	9
✓ Infectious Diseases.....	12
Lactose Intolerance	12
Other Medical Conditions	12
✓ Recent Major Surgery, Trauma, Burns	13
✓ Renal Disease	13
Thyroid Disorders	13
✓ Drug Nutrient Interactions.....	13
✓ Elevated Blood Lead Levels.....	14
Infant Born to a Woman with Mental Retardation	14
Infant Born to a Woman who Abused Alcohol or Drugs.....	14
☞*Infant Born to a WIC Eligible Woman	14

Foster Care	14
✓ <input type="checkbox"/> Underweight, weight/length	14
<input type="checkbox"/> At Risk of Underweight, weight/length.....	15
✓ <input type="checkbox"/> High Weight for Length.....	15
<input type="checkbox"/> Short Stature, recumbent length	15
<input type="checkbox"/> At Risk of Short Stature, recumbent length.....	15
<input type="checkbox"/> Large for Gestational Age	15
✓ <input type="checkbox"/> Very Low Birth Weight.....	15
✓ <input type="checkbox"/> Low Birth Weight	16
<input type="checkbox"/> Prematurity	16
✓ <input type="checkbox"/> Low Hemoglobin / Hematocrit	16
<input type="checkbox"/> Migrancy.....	16
<input type="checkbox"/> Homelessness	16
<input type="checkbox"/> Transfer of Certification	17
Table 1 - Risk Factors for Infants with Priority & USDA Risk Code	18
Table 2 - High-Risk Risk Factors for Infants.....	21
Table 3 - Risk Factors Requiring Documentation of Physician Diagnosis.....	22
Attachment A - Calculating Gestation-Adjusted Age	23

✓ Risk Conditions marked with a check (✓) are considered high risk by the SA. LAs have the option of declaring any additional client as high risk by using “Professional Discretion High Risk”.

Risk Conditions marked with a computer mouse () are autocalculated by the KWIC system.

* Risk Conditions marked with a computer mouse () and asterisk (*) are autocalculated by the KWIC system in situations when qualifying pertinent data exists in the KWIC system. However staff must assess and manually assign the risk factor if pertinent data is not part of the WIC record.

The definition for each Risk Condition is by followed the priority and the date the condition was last revised by the Risk Identification and Selection Collaborative.

Feeding a Substitute for Breastmilk or Iron Fortified Formula

- Routinely using a substitute for breastmilk or for FDA approved iron-fortified formula as the primary nutrient source during the first year of life. Examples of substitutes include:
 - Low iron formula without iron supplementation;
 - Cow’s milk, goat’s milk, or sheep’s milk (whole, reduced fat, low-fat, skim);
 - Canned evaporated or sweetened condensed milk; and
 - Imitation or substitute milks (such rice- or soy-based beverages, non-dairy creamer), or other “homemade concoctions,”

Priority 4
7/09

Inappropriate Use of Bottles or Cups

- Routinely using nursing bottles or cups improperly. Examples of improper uses include:
 - Using a bottle to feed fruit juice;
 - Feeding any sugar-containing fluids, such as soda/soft drinks, gelatin water, corn syrup solutions, sweetened tea;
 - Allowing the infant to fall asleep or be put to bed with a bottle at naps or bedtime;
 - Allowing the infant to use the bottle without restriction (e.g., walking around with a bottle) or as a pacifier;
 - Propping the bottle when feeding;
 - Allowing infant to carry around and drink from a covered or training cup throughout the day; and
 - Adding any food (cereal or other solid foods) to the infant’s bottle.

Priority 4
7/09 (Minor edit 10/14)

Inappropriate Introduction of Complementary Foods¹

- Routinely offering complementary foods or other substances that are inappropriate in type or timing. Examples of inappropriate complementary foods include:
 - Adding sweet agents such as sugar, honey, or syrups to any beverage (including water) or prepared food, or used on a pacifier; and
 - Any food other than breastmilk or iron-fortified infant formula before 4 months of age.

Priority 4
7/09

Feeding Practices that Disregard Developmental Needs

- Routinely using feeding practices that disregard the developmental needs or stages

¹ Complementary foods are any foods or beverage other than breastmilk or infant formula.

of the infant, such as:

- Inability to recognize, insensitivity to, or disregarding the infant's cues for hunger and satiety (e.g., forcing an infant to eat a certain type and/or amount of food or beverage or ignoring an infant's hunger cues);
- Feeding foods of inappropriate consistency, size, or shape that put infants at risk of choking;
- Not supporting an infant's need for growing independence with self-feeding (e.g., solely spoon-feeding an infant who is able and ready to finger-feed and/or try self-feeding with appropriate utensils); and
- Feeding an infant food with an inappropriate texture based on his/her developmental stage (e.g., feeding primarily pureed or liquid food when the infant is ready and capable of eating mashed, chopped or appropriate finger foods).

Priority 4
7/09

Feeding Foods that Could be Contaminated

- Feeding Foods to an infant that could be contaminated with harmful microorganisms. Examples of potentially harmful foods for an infant include:
 - Unpasteurized fruit or vegetable juice;
 - Unpasteurized dairy products or soft cheeses such as feta, Brie, Camembert, blue-veined, and Mexican-style cheese;
 - Honey (added to liquids or solid foods, used in cooking, as part of processed foods, on a pacifier, etc.);
 - Raw or undercooked meat, fish, poultry, eggs;
 - Raw vegetable sprouts (alfalfa, clover, bean, and radish); and
 - Deli meats, hot dogs, & processed meats (avoid unless heated until steaming hot).
 - Undercooked or raw tofu

Priority 4
7/09 (Minor edit 10/14)

Improperly Diluted Formula

- Routinely feeding inappropriately diluted formula.
 - Failure to follow manufacturer's dilution instructions (to include stretching formula for household economic reasons).
 - Failure to follow specific instructions accompanying a prescription.

Priority 4
7/09

Inappropriate Frequency of Nursing the Exclusively Breastfed Infant

- Routinely limiting the frequency of nursing of the exclusively breastfed infant when breastmilk is the sole source of nutrients. Examples of inappropriate frequency of nursing include:
 - Scheduled feedings instead of demand feedings;
 - Less than 8 feedings in 24 hours if less than 2 months of age; and

- Less than 6 feedings in 24 hours if between 2 and 6 months of age.

Priority 4
7/09

Diet Very Low in Calories and/or Essential Nutrients

- Routinely feeding a diet very low in calories and/or essential nutrients. Examples include:
 - Strict vegan diet;
 - Macrobiotic diet; and
 - Any other diet restricting calories and/or essential nutrients.

Priority 4
7/09

Inappropriate Handling of Formula or Breastmilk

- Routinely using inappropriate sanitation in preparation, handling, and storage of expressed breastmilk or formula. Examples of inappropriate practices (including but not limited to):
 - Limited or no access to a:
 - Safe water supply (documented by appropriate officials e.g. municipal or health department authorities);
 - Heat source for sterilization; and/or
 - Refrigerator or freezer for storage.
 - Failure to prepare, handle and store bottles or storage containers or breast pumps properly. Published guidelines on the handling and storage of breastmilk may differ among pediatric nutrition authorities. However, the following breastmilk feeding, handling and storage practices, for example, are considered inappropriate and unsafe:
 - Human Milk
 - Thawing in a microwave
 - Refreezing
 - Adding freshly expressed unrefrigerated breastmilk to frozen breastmilk²
 - Adding refrigerated breastmilk to frozen breastmilk in an amount that is greater than the amount of frozen human milk
 - Feeding thawed breastmilk more than 24 hours after it was thawed
 - Saving breastmilk from a used bottle for another feeding
 - Failure to clean breastpump per manufacturer's instruction
 - Formula
 - Storing at room temperature for more than 1 hour
 - Failure to store prepared formula per manufacturer's instructions
 - Using formula in a bottle one hour after the start of a feeding

² The appropriate and safe practice is to add chilled freshly expressed breastmilk, in an amount that is smaller than the milk that has been frozen for no longer than 24 hours.

- Saving formula from a used bottle for another feeding
- Failure to clean baby bottle properly

Priority 4
11/2013

Intake of Dietary Supplements with Potentially Harmful Effects

- An infant consuming inappropriate or excessive amounts of dietary supplements not prescribed by a physician. Including:
 - Single or multiple vitamins;
 - Mineral supplements; and
 - Herbal or botanical supplements/remedies/teas.
 - Examples of teas with **potentially** harmful effects to infants include: licorice, comfrey leaves, sassafras, senna, buckhorn bark, cinnamon, wormwood, woodruff, valerian, foxglove, pokeroor or pokeweed, periwinkle, nutmeg, catnip, hydrangea, juniper, Mormon tea, thorn apple, yohimbe bark, lobelia, oleander, Mat e, kola nut or gotu cola, and chamomile.

Priority 4
7/09

Inadequate Vitamin/Mineral Supplementation

- Routinely not providing vitamin/mineral supplements as recognized as essential by national public health policy when an infant’s diet alone cannot meet nutrient requirements. Such as:
 - Infants who are 6 months of age or older who are ingesting less than 0.25 mg of fluoride daily when the water supply contains less than 0.3 ppm fluoride; and
 - Breastfed infants who are ingesting less than 1 quart per day of vitamin D fortified formula and are not taking a supplement of 400 IU of vitamin D; and
 - Non-breastfed infants who are ingesting less than 1 quart per day of vitamin D fortified formula and are not taking a supplement of 400 IU of vitamin D.

Priority 4
7/09

Tobacco Smoke Exposure in the Home

- Living with someone who smokes inside the home. KWIC will assign if **Environmental Tobacco Smoke Exposure: Household Smoking** is “Yes...” on most recent Health Interview record.

Priority 1 06/07

Breastfeeding Infant of Woman at Priority 1 Nutritional Risk

- Breastfeeding infant whose mother has been determined to be at priority 1 nutritional risk. Do not use if the infant has already been determined to be at priority 1 nutritional risk. Note: If the mother was certified first and the infant’s priority does not match, KWIC displays a warning. Then staff can assign the

appropriate breastfeeding dyad risk factor to make the client with a lower priority equal to the other dyad member's priority.

Priority 1 04/01

Breastfeeding Infant of Woman at Priority 4 Nutritional Risk

- Breastfeeding infant whose mother has been determined to be at priority 4 nutritional risk. Do not use if the infant has already been determined to be at priority 1, priority 2 or priority 4 risk. Note: If the mother was certified first and the infant's priority does not match, KWIC displays a warning. Then staff can assign the appropriate breastfeeding dyad risk factor to make the client with a lower priority equal to the other dyad member's priority.

Priority 4
04/01

Assumed Risk for Infants and Children between 4 and 24 Months

- An infant greater than or equal to four (≥ 4) months of age who has begun to or is expected to begin to 1) consume complementary foods and beverages, 2) eat independently, 3) be weaned from breast milk or infant formula, or 4) transition from a diet based on infant/toddler foods to one based on the Dietary Guidelines for Americans, is at risk of inappropriate complementary feeding. This risk factor may only be assigned **after the Kansas WIC Program Infant or Toddler Diet Questionnaire has been assessed** and no other risk factors are identified.

Priority 4
03/05

✓ Potential Breastfeeding Complications

- A breastfed infant with any of the following complications or potential complications for breastfeeding:
 - Jaundice;
 - Weak or ineffective suck;
 - Difficulty latching onto mother's breast;
 - Inadequate stooling (for age, as determined by a physician or other health care professional), and/or less than 6 wet diapers per day.

Priority 1
04/01

Oral Health Conditions

- Diagnosis of oral health conditions a physician, dentist, or someone working under a physician's orders as self-reported by client; or as reported or documented by a physician or dentist, or someone working under physician's orders. Includes, but is not limited to:
 - Dental caries/cavities/tooth decay;
 - Periodontal disease (either stage - gingivitis or periodontitis); and

- Tooth loss, ineffectively replaced teeth or oral infections which impair the ability to ingest food in adequate quantity or quality.

Priority 1 11/13

✓ **Disabilities Interfering with the Ability to Eat**

- Developmental, sensory or motor disabilities that restrict the ability to consume chew or swallow food or require tube feeding to meet nutritional needs.

Disabilities include but are not limited to:

- Minimal brain function;
- Feeding problems due to a developmental disability such as pervasive development disorder (PDD) which includes autism;
- Birth injury;
- Head trauma;
- Brain damage; or
- Other disabilities.

Priority 1
04/01

✓ **Nutrient Deficiency Diseases**

- Presence of nutritional deficiencies or a disease caused by insufficient dietary intake of macro and micronutrients as diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. Diseases include, but are not limited to:

- Protein Energy Malnutrition;
- Scurvy;
- Rickets;
- Beri Beri;
- Hypocalcemia;
- Osteomalacia;
- Vitamin K Deficiency;
- Pellagra;
- Cheilosis;
- Menkes Disease; or
- Xerophthalmia.

Priority 1
04/01

✓ **Cancer**

- Presence of cancer diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. The current condition, or the treatment for the condition, must be severe enough to affect nutritional status.

Priority 1
04/01

✓ Celiac Disease

- Presence of Celiac Disease (CD) diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician or someone working under physician's orders. CD is an autoimmune disease precipitated by the ingestion of gluten (a protein in wheat, rye, and barley) that results in damage to the small intestine and malabsorption of the nutrients from food. Celiac Disease is also known as:
 - Celiac Sprue;
 - Gluten Enteropathy; or
 - Non-tropical Sprue.

Priority 1
06/12

Central Nervous System Disorders

- Presence of central nervous system disorders diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. Central Nervous System Disorders are conditions which affect energy requirements, ability to feed self, or alter nutritional status metabolically, mechanically, or both. These include, but are not limited to:
 - Epilepsy;
 - Cerebral Palsy (CP);
 - Neural tube defects (NTDs), such as spina bifida;
 - Parkinson's Disease; or
 - Multiple Sclerosis.

Priority 1
06/07

✓ Diabetes Mellitus

- Presence of diabetes mellitus diagnosed by a physician, as self-reported by caregiver; or as reported or documented by a physician, or someone working under a physician's orders.
 - Diabetes mellitus consists of a group of metabolic diseases characterized by inappropriate hyperglycemia resulting from defects in insulin secretion, insulin action or both.

Priority 1
07/09

✓ Failure to Thrive

- Presence of failure to thrive. The condition must be diagnosed by a physician as self reported by the caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Priority 1
03/04

Fetal Alcohol Syndrome

- Presence of Fetal Alcohol Syndrome diagnosed by a physician as self reported by the caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Priority 1
04/01

Food Allergies

- Presence of food allergies diagnosed by a physician as self reported by the caregiver; or as reported or documented by a physician, or someone working under physician's orders. Food allergies are adverse health effects arising from a specific immune response that occurs reproducibly on exposure to a given food.

Priority 1
06/12

Gastrointestinal Disorders

- Presence of gastrointestinal disorders diagnosed by a physician, as self-reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. Gastrointestinal disorders are diseases and/or conditions that interfere with the intake, digestion, and/or absorption of nutrients. The diseases and/or conditions include, but are not limited to:
 - Gastroesophageal reflux disease (GERD);
 - Peptic ulcer;
 - Post-bariatric surgery;
 - Short bowel syndrome;
 - Inflammatory bowel disease, including ulcerative colitis or Crohn's disease;
 - Liver disease;
 - Pancreatitis; or
 - Biliary tract diseases.

Priority 1
07/09

✓ Genetic and Congenital Disorders

- Presence of a hereditary or congenital condition at birth that causes physical or metabolic abnormality, such as genetic and congenital disorders as diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. The current condition must alter nutrition status metabolically, mechanically, or both. May include, but is not limited to:
 - Cleft lip or palate;
 - Down's syndrome;
 - Thalassemia major;
 - Sickle cell anemia (not sickle cell trait); and

- Muscular dystrophy.

Priority 1
04/01

Hypertension and Prehypertension

- Presence of hypertension or prehypertension diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders.
 - Hypertension during childhood is age-specific, and is defined as blood pressure readings greater than the 95th percentile for age, gender, and height on at least three separate occasions.
 - Blood pressure reading between the 90th and 95th percentile is considered prehypertension.

Priority 1
07/09 (Edited 10/14)

Hypoglycemia

- Presence of hypoglycemia diagnosed by a physician, as self-reported by caregiver; or as reported or documented by a physician, or someone working under a physician's orders.

Priority 1
04/01

✓ Inborn Errors of Metabolism

- Presence of inherited metabolic disorder caused by a defect in the enzymes or their co-factors that metabolize protein, carbohydrate, or fat, diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. Inborn errors of metabolism (IEM) generally refer to gene mutations or gene deletions that alter metabolism in the body, including but not limited to:
 - Amino Acid Disorders - Amino Acid Metabolism Disorders are characterized by the inability to metabolize a certain essential amino acid. The build-up of the amino acid that is not metabolized can be toxic. Treatment of amino acid disorders involves restricting one or more essential amino acids to the minimum required for growth and development and supplying the missing product due to the blocked reaction.
 - [Phenylketonuria \(includes clinically significant hyperphenylalaninemia variants\);](#)
 - [Maple syrup urine disease;](#)
 - [Homocystinuria;](#)
 - [Tyrosinemia;](#)
 - Carbohydrate Disorders - This group of disorders includes an enzyme deficiency or its cofactor that affects the catabolism or anabolism of carbohydrate. Carbohydrate disorders are complex and affect neurological, physical, and nutritional status.

- [Galactosemia](#)
- [Glycogen storage disease type I](#)
- [Glycogen storage disease type II](#) (see also [Pompe disease](#))
- [Glycogen storage disease type III](#)
- [Glycogen storage disease type IV \(Andersen Disease\)](#)
- [Glycogen storage disease type V](#)
- [Glycogen storage disease type VI](#)
- Hereditary Fructose Intolerance ([Fructose 1-phosphate aldolase deficiency](#), Fructose 1, 6, biphosphatase deficiency, fructose kinase deficiency)
- Fatty Acid Oxidation Disorders - Fatty acid oxidation defects include any enzyme defect in the process of mitochondrial fatty acid oxidation (FAO) system. The biochemical characteristic of all FAO defects is abnormally low ketone production as a result of the increased energy demands. This results in fasting hypoglycemia with severe acidosis secondary to the abnormal accumulation of intermediate metabolites of FAO, which can result in death.
 - [Medium-chain acyl-CoA dehydrogenase deficiency](#)
 - [Long-chain 3-hydroxyacyl-CoA dehydrogenase deficiency](#)
 - [Trifunctional protein deficiency type 1](#) (LCHAD deficiency)
 - [Trifunctional protein deficiency type 2](#) (mitochondrial trifunctional protein deficiency)
 - [Carnitine uptake defect](#) (primary carnitine deficiency)
 - [Very long-chain acyl-CoA dehydrogenase deficiency](#)
- [Organic Acid Metabolism Disorders](#) - Organic Acid Disorders are characterized by the excretion of non-amino organic acids in the urine. Most of the disorders are caused by a deficient enzyme involving the catabolism of specific amino acid(s). As a result, the non-metabolized substance accumulates due to the blockage of the specific metabolic pathway, which is toxic to certain organs and may also cause damage to the brain.
 - [Isovaleric acidemia](#)
 - [3-Methylcrotonyl-CoA carboxylase deficiency](#)
 - [Glutaric acidemia type I](#)
 - [Glutaric acidemia type II](#)
 - [3-hydroxy-3-methylglutaryl-coenzyme-A lyase deficiency](#)
 - [Multiple carboxylase deficiency](#) (Biotinidase deficiency, [Holocarboxylase synthetase deficiency](#))
 - [Methylmalonic acidemia](#)
 - [Propionic acidemia](#)
 - [Beta-ketothiolase deficiency](#)
- [Lysosomal Storage Diseases](#) - Lysosomal storage diseases are a group of related conditions characterized by increased storage of undigested large molecules in lysosomes. Lysosomes are cellular organelles responsible for intracellular degradation and recycling of macromolecules. Due to a defect in a specific lysosomal enzyme, the macromolecule that normally would be metabolized is not broken down; instead, it accumulates in the lysosomes. This leads to tissue damage, organ failure and premature death. Common clinical features include

bone abnormalities, organomegaly, developmental impairment and central, peripheral nervous system disorders.

- [Fabry disease](#) (α -galactosidase A deficiency)
- [Gauchers disease](#) (glucocerebrosidase deficiency)
- [Pompe disease](#) (glycogen storage disease Type II, or acid α -glucosidase deficiency)
- [Mitochondrial Disorders](#) - Mitochondrial Disorders are caused by the dysfunction of the mitochondrial respiratory chain, or electron transport chain (ETC). Mitochondria play an essential role in energy production. The ETC dysfunction increases free radical production, which causes mitochondrial cellular damage, cell death and tissue necrosis and further worsens ETC dysfunction and thus forms a vicious cycle. The disorders can affect almost all organ systems. However, the organs and cells that have the highest energy demand, such as the brain and muscles (skeletal and cardiac) are most affected. The clinical features vary greatly among this group of disorders, but most have multiple organ dysfunctions with severe neuropathy and myopathy.
 - [Leber hereditary optic neuropathy](#)
 - [Mitochondrial encephalomyopathy, lactic acidosis, and stroke-like episodes \(MELAS\)](#)
 - [Mitochondrial neurogastrointestinal encephalopathy disease \(MNGIE\)](#)
 - [Myoclonic epilepsy with ragged-red fibers \(MERRF\)](#)
 - [Neuropathy, ataxia, and retinitis pigmentosa \(NARP\)](#)
 - [Pyruvate carboxylase deficiency](#)
- Peroxisomal Disorders - There are two types of peroxisomal disorders: single peroxisomal enzyme deficiencies and peroxisomal biogenesis disorders. These disorders cause severe seizures and psychomotor retardation. Peroxisomes are small organelles found in cytoplasm of all cells. They carry out oxidative reactions which generate hydrogen peroxides. They also contain catalase (peroxidase), which is important in detoxifying ethanol, formic acid and other toxins. Single peroxisomal enzyme deficiencies are diseases with dysfunction of a specific enzyme, such as acyl coenzyme A oxidase deficiency. Peroxisomal biogenesis disorders are caused by multiple peroxisome enzymes such as Zellweger syndrome and neonatal adrenoleukodystrophy.
 - [Zellweger Syndrome Spectrum](#)
 - [Adrenoleukodystrophy \(x-ALD\)](#)
- [Urea Cycle Disorders](#) - Urea Cycle Disorders occur when any defect or total absence of any of the enzymes or the cofactors used in the urea cycle results in the accumulation of ammonia in the blood. The urea cycle converts waste nitrogen into urea and excretes it from the kidneys. Since there are no alternate pathways to clear the ammonia, dysfunction of the urea cycle results in neurologic damages.
 - [Citrullinemia](#)
 - [Argininosuccinic aciduria](#)
 - [Carbamoyl phosphate synthetase I deficiency](#)

Priority 1 05/11 (Minor edit 10/14)

✓ Infectious Diseases

- An infectious disease within the past 6 months, and diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. The condition must be severe enough to affect nutritional status. Includes, but is not limited to:
 - Bronchiolitis (3 episodes in last 6 months);
 - A lower respiratory tract infection caused by the respiratory syncytial virus (RSV), that affects young infants, usually under 24 months of age.
 - HIV (Human Immunodeficiency Virus infection);
 - AIDS (Acquired Immunodeficiency Syndrome);
 - Hepatitis;
 - Tuberculosis;
 - Meningitis;
 - Parasitic infections; or
 - Pneumonia.

Priority 1
04/01

Lactose Intolerance

- Presence of lactose intolerance diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. Lactose intolerance is the syndrome of one or more of the following: diarrhea, abdominal pain, flatulence, and/or bloating, that occurs after lactose ingestion.

Priority 1
06/12

Other Medical Conditions

- Presence of medical condition(s) with nutritional implications that are not included in any of the other medical conditions diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. The current condition, or treatment for the condition, must be severe enough to affect nutritional status. Includes, but is not limited to:
 - Juvenile rheumatoid arthritis (JRA);
 - Lupus erythematosus;
 - Cardiorespiratory diseases;
 - Heart disease;
 - Cystic fibrosis; or
 - Persistent asthma (moderate or severe) requiring daily medication.

Priority 1 04/01

✓ Recent Major Surgery, Trauma, Burns

- Major surgery, trauma or burns severe enough to compromise nutritional status. Any occurrence:
 - within the past two (≤ 2) months may be self reported;
 - more than two (> 2) months previous must have the continued need for nutritional support diagnosed by a physician or a health care provider working under the orders of a physician.

Priority 1 04/01

✓ Renal Disease

- Presence of renal disease diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. Any renal disease including pyelonephritis and persistent proteinuria, but excluding urinary tract infections (UTI) involving the bladder.

Priority 1
04/01

Thyroid Disorders

- Presence of a thyroid disorder diagnosed by a physician as self reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. Thyroid dysfunctions that occur during fetal development, and in childhood are caused by the abnormal secretion of thyroid hormones. The medical conditions include, but are not limited to, the following:
 - Hyperthyroidism - Excessive thyroid hormone production (most commonly known as Graves' disease and toxic multinodular goiter).
 - Hypothyroidism - Low secretion levels of thyroid hormone (can be overt or mild/subclinical). Most commonly seen as chronic autoimmune thyroiditis (Hashimoto's thyroiditis or autoimmune thyroid disease). It can also be caused by severe iodine deficiency.
 - Congenital Hyperthyroidism - Excessive thyroid hormone levels at birth, either transient (due to maternal Grave's disease) or persistent (due to genetic mutation).
 - Congenital Hypothyroidism - Infants born with an under active thyroid gland and presumed to have had hypothyroidism in-utero.

Priority 1
05/11

✓ Drug Nutrient Interactions

- Use of prescription or over-the-counter drugs or medications that have been shown to interfere with nutrient intake or utilization, to an extent that nutritional status is compromised.

Priority 1
04/01

✓ Elevated Blood Lead Levels

- Blood lead level of greater than or equal to five (≥ 5) $\mu\text{g}/\text{deciliter}$ within the past 12 months.

Priority 1
05/15

Infant Born to a Woman with Mental Retardation

- Infant born to a woman diagnosed with mental retardation by a physician or psychologist and self-reported by the caregiver; or as reported or documented by a physician, psychologist, or someone working under physician's orders.

Priority 1
4/01

Infant Born to a Woman who Abused Alcohol or Drugs

- Infant born to a woman with documentation or self-report of any alcohol or illegal drug use during the most recent pregnancy.

Priority 1
4/01

📁*Infant Born to a WIC Eligible Woman

- An infant less than (<) six months of age whose mother was a WIC Program client during pregnancy or whose mother's medical records document that the woman was at nutritional risk during pregnancy because of detrimental or abnormal nutritional conditions detectable by biochemical or anthropometric measurements or other documented nutritionally related medical conditions. KWIC will autocalculate if the infant is less than or equal to 6 months of age and the Health Interview record has **Mother On WIC During Pregnancy?** as "On WIC in Kansas" or "On WIC in Other Program".
- *Staff must assess and manually assign if the mother was not on WIC during pregnancy.

Priority 2 4/01

Foster Care

- An infant who has entered the foster care system during the previous six months or moving from one foster care home to another foster care home during the previous six months.

Priority 7 4/01

✓ 📁 Underweight, weight/length

- Less than or equal to (\leq) the 2.3rd percentile weight-for-length as plotted on the CDC Birth to 24 months gender specific growth charts based on 2006 World Health Organization international growth standards.

Priority 1
05/11

📁 At Risk of Underweight, weight/length

- Greater than ($>$) the 2.3rd percentile and less than or equal to (\leq) the 5th percentile weight-for-length as plotted on the CDC Birth to 24 months gender specific growth charts based on 2006 World Health Organization international growth standards.

Priority 1
05/11

✓ 📁 High Weight for Length

- Greater than or equal to (\geq) the 97.7th percentile weight/length as plotted on the CDC Birth to 24 months gender specific growth charts based on 2006 World Health Organization international growth standards.

Priority 1
05/11

📁 Short Stature, recumbent length

- Less than or equal to (\leq) the 2.3rd percentile length for age (or adjusted gestational age) as plotted on the CDC Birth to 24 months gender specific growth charts based on 2006 World Health Organization international growth standards. For infants with a history of prematurity this factor is based upon adjusted gestational age. Instructions for adjusting for gestational age are found in Attachment A of this document.

Priority 1
05/11

📁 At Risk of Short Stature, recumbent length

- Greater than ($>$) the 2.3rd percentile and less than or equal to (\leq) the 5th percentile length for age as plotted on the CDC Birth to 24 months gender specific growth charts based on 2006 World Health Organization international growth standards. For infants with a history of prematurity this factor is based upon adjusted gestational age. Instructions for adjusting for gestational age are found in Attachment A of this document.

Priority 1
05/11

📁 Large for Gestational Age

- Birth weight greater than or equal to (\geq) 9 pounds.

Priority 1
04/04

✓ 📁 Very Low Birth Weight

- Less than ($<$) 24 months of age with a birth weight less than or equal to (\leq) 3 pounds 5 ounces (1500 g).

Priority 1 03/04

✓ **Low Birth Weight**

- Less than (<) 24 months of age with a birth weight greater than (>) 3 pounds 5 ounces (1500 g) and less than or equal to (\leq) 5 pounds 8 ounces (2500 g).

Priority 1
03/04

✓ **Prematurity³**

- Infant born at less than or equal to (\leq) to 37 weeks gestation.

Priority 1
03/04

✓ **Low Hemoglobin / Hematocrit**

- Infants greater than or equal to 6 months of age
 - Hemoglobin less than (<) 11.0 g/dl
 - Hematocrit concentration less than (<) 33%

Priority 1
04/01

✓ **Migrancy**

- An infant who is a member of a family which contain at least one individual whose principal employment is in agriculture on a seasonal basis, who has been so employed within the last 24 months, and who establishes, for the purposes of such employment, a temporary abode.

Priority 7
04/01

✓ **Homelessness**

- An infant who lacks a fixed and regular nighttime residence; or
- An infant whose primary nighttime residence is:
 - a supervised publicly or privately operated shelter (including a welfare hotel, a congregate shelter, or a shelter for victims of domestic violence) designed to provide temporary living accommodations;
 - an institution that provides a temporary residence for individuals intended to be institutionalized;
 - a temporary accommodation of not more than 365 days in the residence of another individual; or
 - a public or private place not designed for, or ordinarily used as, a regular sleeping accommodation for human beings.

Priority 7
04/01

³ Infants who were premature usually, fall in the lower percentiles before adjusting for gestational age. Instructions for adjusting for gestation age are found in Attachment A of this document.

Transfer of Certification

- Person with current valid Verification of Certification (VOC) document from another State or local agency. The VOC is valid until the certification period expires, and shall be accepted as proof of eligibility for program benefits. If the receiving local agency has waiting lists for participation, the transferring participant shall be placed on the list ahead of all other waiting applicants.
- This criterion would be used primarily when the VOC card/document does not reflect another (more specific) nutrition risk condition at the time of transfer or if the participant was initially certified based on a nutrition risk condition not in use by the receiving State agency.

Priority n/a
04/01

Table 1 - Risk Factors for Infants with Priority & USDA Risk Code

For a listing of the USDA risk codes and priorities for all categories, see [PPM CRT 07.00.00 - Nutrition Eligibility](#).

Risk Factor	Priority	USDA Risk Code
Assumed Risk for Infants and Children between 4-24 months	4	428
At Risk of Underweight (weight/length)	1	103
At Risk of Short Stature (recumbent length)	1	121
Breastfeeding Infant of Priority 1 Woman	1	702
Breastfeeding Infant of Priority 4 Woman	4	702
Cancer	1	347
Celiac Disease	1	354
Central Nervous System Disorders	1	348
Diabetes Mellitus	1	343
Diet Very Low in Calories and/or Essential Nutrients	4	411.8
Disabilities Interfering with the Ability to Eat	1	362
Drug Nutrient Interactions	1	357
Elevated Blood Lead Levels	1	211
Failure to Thrive	1	134
Feeding a Substitute for Breastmilk or Iron Fortified Formula	4	411.1
Feeding Foods that Could Be Contaminated	4	411.5
Feeding Practices Disregarding Developmental Needs	4	411.4
Fetal Alcohol Syndrome	1	382
Food Allergies	1	353
Foster Care	7	903
Gastrointestinal Disorders	1	342
Genetic and Congenital Disorders	1	349
High Weight for Length	1	115
Homelessness	7	801
Hypertension and Prehypertension	1	345

Risk Factor	Priority	USDA Risk Code
Hypoglycemia	1	356
Improperly Diluted Formula	4	411.6
Inadequate Vitamin/Mineral Supplementation	4	411.11
Inappropriate Frequency of Nursing the Exclusively Breastfed Infant	4	411.7
Inappropriate Handling of Formula/Breastmilk	4	411.9
Inappropriate Introduction of Complementary Foods	4	411.3
Inappropriate Use of Bottles or Cups	4	411.2
Inborn Errors of Metabolism	1	351
Infant born to a WIC Eligible Woman	2	701
Infant born to a Woman who Abused Alcohol or Drugs during Most Recent Pregnancy	1	703
Infant born to a Woman with Mental Retardation	1	703
Infectious Diseases	1	352
Intake of Dietary Supplements with Harmful Effects	4	411.10
Lactose Intolerance	1	355
Large for Gestational Age	1	153
Low Birth Weight	1	141
Low Hemoglobin/Hematocrit	1	201
Migrancy	7	802
Nutrient Deficiency Diseases	1	341
Oral Health Conditions	1	381
Other Medical Conditions	1	360
Potential Breastfeeding Complications	1	603
Prematurity	1	142
Recent Major Surgery, Trauma, Burns	1	359
Renal Disease	1	346
Short Stature (recumbent length)	1	121
Thyroid Disorders	1	344
Tobacco Smoke Exposure in the Home	1	904
Transfer of Certification	1	502

Risk Factor	Priority	USDA Risk Code
Underweight (weight/length)	1	103
Very Low Birth Weight	1	141

Table 2 - High-Risk Risk Factors for Infants

For information on providing nutrition education for high-risk clients, see [PPM NED 02.03.00 - Nutrition Education Contact - Second, High Risk](#).

<i>Risk Factor</i>
At Risk of Underweight, weight/length
Cancer
Celiac Disease
Diabetes Mellitus
Disabilities Interfering with the Ability to Eat
Drug Nutrient Interactions
Elevated Blood Lead Levels
Failure to Thrive
Genetic and Congenital Disorders
High Weight for Length
Inborn Errors of Metabolism
Infectious Diseases
Low Birth Weight
Low Hemoglobin / Hematocrit
Nutrient Deficiency Diseases
Potential Breastfeeding Complications
Recent Major Surgery, Trauma, Burns
Renal Disease
Underweight, weight/length
Very Low Birth Weight

Table 3 - Risk Factors Requiring Documentation of Physician Diagnosis

For the following risk factors the condition must be diagnosed by a physician as self-reported by caregiver; or as reported or documented by a physician, or someone working under physician's orders. Self-reporting of a diagnosis by a medical professional should not be confused with self diagnosis, where a person simply claims to have or to have had a medical condition without any reference to professional diagnosis. This should be documented by marking the [Risk Assigned Based on MD Diagnosis] check box on the Assign Risk Factors Window in KWIC.

<i>Risk Factor</i>
Cancer
Celiac Disease
Central Nervous System Disorders
Diabetes Mellitus
Failure to Thrive
Fetal Alcohol Syndrome
Food Allergies
Genetic and Congenital Disorders
Hypertension / Prehypertension
Hypoglycemia
Inborn Errors of Metabolism
Infant Born to a Woman with Mental Retardation
Infectious Diseases
Lactose Intolerance
Nutrient Deficiency Diseases
Other Medical Conditions
Oral Health Conditions ⁴
Recent Major Surgery, Trauma, Burns ⁵
Renal Disease
Thyroid Disorders

⁴ Oral Health Conditions can also be assigned based on diagnosis, documentation or report by a dentist.

⁵ Any occurrence more than two (>2) months previous must have the continued need for nutritional support diagnosed by a physician or a health care provider working under the orders of a physician.

Attachment A - Calculating Gestation-Adjusted Age⁶

INSTRUCTIONS*:

- Document the infant's gestational age in weeks. (Mother/caregiver can self-report, or referral information from the medical provider may be used.)
- Subtract the infant's gestational age in weeks from 40 weeks (gestational age of term infant) to determine the adjustment for prematurity in weeks.
- Subtract the adjustment for prematurity in weeks from the infant's chronological postnatal age in weeks to determine the infant's gestation-adjusted age.

* For WIC nutrition risk determination, adjustment for gestational age should be calculated for all premature infants for the first 2 years of life. This adjustment is automatically done by the KWIC system.

EXAMPLE:

Randy was born prematurely on March 19. His gestational age at birth was determined to be 30 weeks based on ultrasonographic examination. At the time of the June 11 clinic visit, his chronological postnatal age is 12 weeks. What is his gestation-adjusted age?

- $30 =$ gestational age in weeks
- $40 - 30 =$ weeks adjustment for prematurity
- $12 - 10 = 2$ weeks gestation-adjusted age

His measurements should be plotted on a growth chart as a 2-week-old infant.

⁶ Adapted from the Centers for Disease Control and Disease Prevention (CDC) internet training module: "Overview of the CDC Growth Charts"; www.cdc.gov/nccdphp/dnpa/growthcharts/trainingmodules/module2/text/page5itext.