301 Hyperemesis Gravidarum

Definition/ cut-off value

Severe nausea and vomiting to the extent that the pregnant woman becomes dehydrated and acidotic. Presence of Hyperemesis Gravidarum diagnosed by physician as self reported by applicant/participant/caregiver, or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter NRF #301 in screen 106.
Document High Risk Care Plan in participant's chart.
Suggested components to assess:

- weight gain status
- dietary intake
- fluid intake
- anemia status

RD must document management of care plan
Document referrals in screen 106.
Schedule appropriate nutrition education or individual counseling at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Counseling guidelines

Recommend participant keep a diary to identify triggers for nausea - include time of day, foods eaten, smells, activities, and stimuli like lights and noise.
Recommend appropriate calorie and fluid intake.
Recommend small, frequent meals.
Encourage eating foods that are craved.
Experiment with different types of foods such as salty, bitter or sour.

Continued on next page

301 Hyperemesis Gravidarum, Continued

Suggested handouts

Helpful Hints for Nausea, Constipation and Heartburn
Daily Food Guide - Expectant

Follow up and assessment guidelines

Weight gain plotted and assessed at each clinic visit.
Individual assessment with a Registered Dietitian.

- reassess weight gain
- reassess dietary/caloric intake
- review food diary and assist participant in identifying triggers for nausea, if appropriate
- assess compliance with recommendations
- document if participant followed through on referrals

Justification

Nausea and vomiting are common early in gestation; 50% or more of normal pregnant women experience some vomiting. However, pregnant women with severe vomiting during pregnancy are at risk of weight loss, dehydration, and metabolic imbalances. Nutrition risk is based on chronic conditions, not single episodes.

Justification for high risk

Women who are experiencing hyperemesis gravidarum are at risk for weight loss, dehydration, and metabolic imbalances. Women with this condition may also be plagued with insomnia, extreme fatigue and nausea for most or all of the pregnancy. The WIC nutritionist can play a vital role in helping her identify triggers for nausea and develop her own techniques and diet for relief, and ultimately help her experience the joys of pregnancy.

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 166-168.

2. Erick M. *No More Morning Sickness - A Survival Guide for Pregnant Women*. New York, NY: Plume; 1993.

302 Gestational Diabetes

Definition/ cut-off value

Presence of gestational diabetes diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y

Documentation

Document physician's diagnosis in participant's chart of circle condition on Medical History form if self reported.
Enter NRF #302 in screen 106.
Document High Risk Care Plan in participant's chart.
Suggested components to assess:

- current nutrition follow-up and support provided by MD and/or other health professionals - referrals needed
- current insulin therapy, if any
- compliance and understanding of dietary recommendations
- weight gain status

RD must document management of care plan
Document referrals in screen 106.
Schedule appropriate nutrition education or individual counseling at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

302 Gestational Diabetes, Continued

Counseling guidelines

Remember, women with gestational diabetes often feel well and are in their last trimester of pregnancy, therefore they may be casual about their treatment.
Emphasize the positive outcomes for treatment with gestational diabetes
If participant is receiving comprehensive nutrition counseling outside of WIC:
Encourage compliance with
- monthly visits with health care team
- lifestyle diet and exercise plan
- blood sugar testing 4 or more times per day
- insulin therapy, if needed

If participant is not receiving comprehensive nutrition counseling outside of WIC:
- refer to local diabetes program, RD, or physician for comprehensive nutrition counseling and follow-up
- explain potential risks to mother:
  - fatigue
  - difficult labor and cesarean delivery
  - increased risk of infection
  - toxemia and preeclampsia
  - diabetes after the pregnancy ends
- explain potential risks to infant:
  - large birth size (macrosomia)
  - low blood sugar after birth
  - jaundice
  - respiratory distress syndrome
  - cardiovascular problems
  - kidney dysfunction
  - hypocalcemia
  - fetal death in extreme cases

Explain the relationship between diet, insulin and exercise.
Explain that gestational diabetes is easily treated through diet and exercise, but if medications are necessary insulin injection is the only pharmaceutical intervention available during pregnancy.

Continued on next page

302 Gestational Diabetes, Continued

Counseling guidelines, (continued)

- provide basic counseling on diet which provides nutrient needs for pregnancy and facilitates normal blood glucose levels:
  - explain nutritional needs for pregnancy first, then specific changes necessary for management of gestational diabetes
  - consume calories adequate for recommended weight gain but not excessive weight gain
  - recommend diet which contains approximately 50% carbohydrate, 20% protein and 30% fat
  - to calculate daily caloric needs:
- Basal needs = (.9 kcal X kg prepreg wt X 24 hrs) + 300 kcals
- Activity Factor - Add 40-60% of basal needs for light activity
  - keep timing of meals consistent from day to day with calorie and carbohydrate content fairly evenly divided from meal to meal
  - recommend increased intake of high fiber foods and complex carbohydrates
  - counsel on decreased intake of foods high in refined sugar (sugar, soda, candy, jelly, sweet rolls, desserts, cookies, etc.)
  - plan for food to be taken to correct hypoglycemic episodes
  - plan for food and fluids to be taken for periods of increased physical activity and illness
  - depending on insulin regimen:
- plan for a bedtime snack to prevent nocturnal hypoglycemia
- take midmorning and midafternoon snacks if needed to match food intake to peak insulin action
- encourage moderate regular exercise
  - best to exercise after snack or meal
  - don’t exercise if blood glucose is < 80 mg/dL or higher than 250 mg/dL
  - take carbohydrate in case of hypoglycemia
  - always exercise with a partner in case blood sugar drops
- stress importance of maternal follow-up during postpartum period and annually
- stress importance of maintaining a reasonable body weight
- encourage breastfeeding and assure compatibility of medications with breastfeeding

Continued on next page

302 Gestational Diabetes, Continued

Suggested handouts

Daily Food Guide - Pregnant
What to Eat When You Are Pregnant

Follow up and assessment guidelines

Weight gain plotted and assessed at each clinic visit.
Individual assessment with a Registered Dietitian.

- reassess weight gain
- reassess dietary/caloric intake
- assess compliance with meal plan
- assess compliance with recommendations
- encourage compliance with medical treatment (e.g. insulin, other medications)
- stress importance of follow-up glucose test at 6 weeks postpartum
- document if participant followed through on referrals

Justification

With gestational diabetes, diabetes is not present before the pregnancy. Abnormal glucose levels appear during pregnancy and then usually return to normal after the pregnancy ends. Ninety percent (90%) of all pregnant diabetics are gestational diabetics. Diabetics are at higher risk for complications of pregnancy and are at increased risk of developing Type II diabetes mellitus later in life. Infants born to women with diabetes are at increased risk of macrosomia, congenital abnormalities, hypoglycemia and neonatal death. The client can benefit from the WIC Program's dietary counseling and supplemental foods.

Justification for high risk

Data suggests that even minor abnormalities in glucose metabolism will cause increases in infant birth weight and put mother and infant at risk for complications. The WIC nutritionist can play a vital role in counseling and assuring the participant receives comprehensive counseling and follow-up by appropriate health care providers outside of WIC.

Continued on next page

302 Gestational Diabetes, Continued

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 169-170.

2. American Diabetes Association: Position Statement on Gestational Diabetes; January 1997.

3. Jovanovic L. Current management of gestational diabetes mellitus. Nutrition and the M.D. 1998; 24 (12): 1-5.

4. How to Manage Gestational Diabetes. Indianapolis, IN: Eli Lilly and Company; 1994.

303 History of Gestational Diabetes

Definition/ cut-off value

History of diagnosed gestational diabetes.

Pregnant Women: any history of gestational diabetes
Breastfeeding/Postpartum: most recent pregnancy

Presence of condition diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N

Documentation

Circle condition on Medical History form.
Enter NRF #303 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

303 History of Gestational Diabetes, Continued

Counseling guidelines

Encourage regular prenatal care with physician.
Counsel on basic prenatal nutrition.
Counsel on recommended weight gain based on BMI.
Encourage participant to request gestational diabetes screening (Glucose Tolerance Test) as soon as possible. If the initial screening is normal, the test will be repeated between 24 and 28 weeks gestation.
Explain that recurrence rate for gestational diabetes is 30-50% and is highest among Hispanic, Black, Asian, and Pacific Island women.
Explain that risk of gestational diabetes increases with age and weight.
Counsel on signs and symptoms of Type II diabetes:

- extreme thirst
- blurry vision from time to time
- frequent urination
- unusual tiredness or drowsiness
- unexplained weight loss
- frequent or recurring skin, gum or bladder infections
- tingling/numbness in hands and feet

Encourage moderate exercise.
Explain if she develops gestational diabetes, a new diet plan will be recommended.
Ask her to contact the WIC clinic if she is diagnosed with gestational diabetes so she may be followed more closely.

Suggested handouts

Daily Food Guide -Expectant
What to Eat When You Are Pregnant

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Continued on next page

303 History of Gestational Diabetes, Continued

Justification

Diabetes with pregnancy has long been recognized as a serious problem for both the mother and the fetus. A woman with a history of gestational diabetes is at increased risk of developing Type II diabetes mellitus later in life. Infants born of diabetic women are at increased risk of macrosomia, congenital abnormalities, hypoglycemia and neonatal death. The client can benefit from the WIC Program's dietary counseling and supplemental foods.

Justification for high risk

Not applicable

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996, pp. 169-170.

2. American Diabetes Association: Position Statement on Gestational Diabetes; January 1997.

3. Gilbert and Harmon: High Risk Pregnancy and Delivery; Mosby Books; 1993; Chap. 9.

311 History of Preterm Delivery

Definition/ cut-off value

Birth of an infant at ≤ 37 weeks gestation

Pregnant Women: any history of preterm delivery
Breastfeeding/Postpartum: most recent pregnancy

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N

Documentation

Circle condition on Medical History form.
Enter NRF #311 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Counseling guidelines

Encourage regular prenatal care with physician.
Counsel on recommended weight gain based on prepregnancy BMI.
Review weight gain pattern of previous pregnancies.
Counsel on basic prenatal nutrition.
Explain the importance of prenatal vitamins.
Refer to smoking cessation program if woman smokes.

Suggested handouts

Daily Food Guide - Expectant
What to Eat When You Are Pregnant

Continued on next page

311 History of Preterm Delivery, Continued

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

Preterm birth causes at least 75% of neonatal deaths not due to congenital malformations (1). In most cases of preterm labor, the cause is unknown. Epidemiologic studies have consistently reported low socioeconomic status, nonwhite race, maternal age of ≤ 18 years or ≥ 40 years, and low prepregnancy underweight as risk factors. A history of one previous preterm birth is associated with a recurrent risk of 17-37% (2, 3); the risk increases with the number of prior preterm births and decreases with the number of term deliveries.

Justification for high risk

Not applicable

References

1. Preterm Labor; ACOG Technical Bulletin; No. 206; June 1995.

2. Hoffman HJ, Bakketeig LS.: Risk factors associated with the occurrence of preterm birth; Clin Obstet Gynecol; 1984; 27:539-522.

1. Keiirse MJNC, Rush RW, Anderson AB, Turnbull AC: Risk of preterm delivery in patients with a previous preterm delivery and/or abortion; Br J Obstet Gynecol; 1978; 85:81.85.

312 History of Low Birth Weight

Definition/ cut-off value

Birth of an infant weighing ≤ 5 lb. 8 oz (= 2500 grams)

Pregnant Women: any history of low birth weight
Breastfeeding/Postpartum: most recent pregnancy

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N

Documentation

Circle condition on Medical History form.
Enter NRF #312 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Counseling guidelines

Encourage regular prenatal care with physician.
Counsel on recommended weight gain based on prepregnancy BMI.
Review weight gain pattern of previous pregnancies.
Counsel on basic prenatal nutrition.
Explain the importance of prenatal vitamins.
Refer to smoking cessation program if woman smokes.

Suggested handouts

Daily Food Guide - Expectant
What to Eat When You Are Pregnant

Continued on next page

312 History of Low Birth Weight, Continued

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

A woman's history of a delivery of a low birth weight (LBW) baby is the most reliable predictor for LBW in her subsequent pregnancy (1). The risk for LBW is 2-5 times higher than average among women who have had previous LBW deliveries and increases with the number of previous LBW deliveries (1). This is true for histories in which the LBW was due to premature birth, fetal growth restriction (FGR) or a combination of these factors. The extent to which nutritional interventions (dietary supplementation and counsel) can decrease risk for repeat LBW, depends upon the relative degree to which poor nutrition was implicated in each woman's previous poor pregnancy outcome. Nutritional deficiencies and excesses have been shown to result in LBW and pregnancy loss. The pregnant woman's weight gain is one of the most important correlates of birth weight and of FGR (2, 3).

Justification for high risk

Not applicable

References

1. Institute of Medicine: Committee to Study the Prevention of Low Birth Weight: Preventing Low Birth Weight; 1985; p. 51.

2. Institute of Medicine: Nutrition During Pregnancy; National Academy Press; 1990, pp. 176-211

1. Kramer: Intrauterine Growth and Gestational Duration Determents. Pediatrics; October 1987; 80(4):502-511.

321 History of Spontaneous Abortion, Fetal or Neonatal Loss

Definition/ cut-off value

A spontaneous abortion (SAB) is the spontaneous termination of a gestation at < 20 weeks gestation or < 500 grams
Fetal death is the spontaneous termination of a gestation at = 20 weeks
Neonatal death is the death of an infant within 0-28 days of life.

Pregnant Women: any history of fetal or neonatal loss or 2 or more spontaneous abortions.
Breastfeeding Women: most recent pregnancy in which there was a multifetal gestation with one or more fetal or neonatal deaths but with one or more infants still living
Postpartum Women: most recent pregnancy

Presence of condition diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N

Documentation

Circle condition on Medical History form.
Enter NRF #321 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

321 History of Spontaneous Abortion, Fetal or Neonatal Loss, Continued

Counseling guidelines

Acknowledge the woman's loss and provide sensitive and compassionate counseling.

If pregnant:
- encourage regular prenatal care with physician
- counsel on recommended weight gain based on prepregnancy BMI
- review weight gain pattern of previous pregnancies
- explain the importance of prenatal vitamins
- refer to a smoking cessation program if the woman smokes

If postpartum:
- refer to a counselor or social worker if needed, especially for depression, anxiety, or inability to cope
- refer to a physician for medical follow-up if needed
- explain the importance of maintaining her own health and nutritional status
- provide guidelines for a healthy diet following the Food Guide Pyramid recommendations
- encourage folic acid supplement.

Suggested handouts

Daily Food Guide - Expectant
What to Eat When You Are Pregnant

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Continued on next page

321 History of Spontaneous Abortion, Fetal or Neonatal Loss, Continued

Justification

Pregnancy:

Previous fetal and neonatal deaths are strongly associated with preterm low birth weight (LBW) and the risk increases as the number of previous poor fetal outcomes goes up.

Spinnillo et al found that the risk for future small for gestational age outcomes increased two fold if a woman had 2 or more spontaneous abortions. Adverse outcomes related to history of spontaneous abortion include recurrent spontaneous abortions, low birth weight (including preterm and small for gestational age infants), premature rupture of membranes, neural tube defects and major congenital malformations. Nutrients implicated in human and animal studies include energy, protein, folate, zinc, and vitamin A.

Postpartum women:

A spontaneous abortion has been implicated as an indicator of a possible neural tube defect in a subsequent pregnancy. Women who have just had a spontaneous abortion or a fetal or neonatal death should be counseled to increase their folic acid intake and delay a subsequent pregnancy until nutrient stores can be replenished.

The extent to which nutritional interventions (dietary supplementation and counseling) can decrease the risk for repeat poor pregnancy outcomes, depends upon the relative degree to which poor nutrition was implicated in each woman's previous poor pregnancy outcome. WIC Program clients receive foods and services that are relevant and related to ameliorating adverse pregnancy outcomes. Specifically, WIC food packages include good sources of implicated nutrients. Research confirms that dietary intake of nutrients provided by WIC foods improve indicators of nutrient status and/or fetal survival in humans and/or animals.

Justification for high risk

Not applicable

Continued on next page

321 History of Spontaneous Abortion, Fetal or Neonatal Loss, Continued

References

1. Spinnillo, A, et al: Maternal high risk factors and severity of growth deficit in small gestational age infants; Ear Human Dev; 1994; 38:35-43.

2. Thorn, D.H.: Spontaneous abortion and subsequent adverse birth outcomes; Am J Obstet Gyn; 1992; 111-6.

3. Carmi, R. et al: Spontaneous abortion-high risk factor for neural tube defects in subsequent pregnancy; Am J of Med Gen: 1994; 51:93-97.

4. Paz, J. et al: Previous miscarriage and stillbirth as risk factors for other unfavorable outcomes in the next pregnancy; Bri J of Obstet Gyn: October 1999; 808-812.

5. Institute of Medicine: Committee to Study the Prevention of Low Birth Weight: Preventing Low Birth Weight; 1985; p. 51.

6. Shapiro, S, LF Ross, and HS Levine: Relationship of Selected Prenatal Factors to Pregnancy Outcome and Congenital Anomolies. Am.J.Public Health; February 1965; Vol. 55, No. 2; pp. 268-282.

7. Preterm Labor; AGOG Technical Bulletin, No. 206; June 1995. Institute of Medicine: Nutrition During Pregnancy; National Academy Press; 1990; pp. 176-211.

8. Kramer: Intrauterine Growth and Gestational Duration Determents. Pediatrics; October 1987; 80(4):502-511.

331 Pregnant < 18 Years at Conception

Definition/ cut-off value

Conception < 18 years of age.

Pregnant Women: current pregnancy
Breastfeeding/Postpartum: most recent pregnancy

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Age < 16
Breastfeeding	I	N
Postpartum	IV	N

Documentation

Enter birthdate in screen 102.
Enter date of LMP in screen 103.
NRF #331 auto assigned by UWIN.
If pregnant and < 16 at conception, document High Risk Care Plan in participant's chart.

Suggested components to assess:

- prepregnancy BMI and weight gain status
- dietary intake
- referrals needed
- intake of prenatal vitamins

RD must document management of care plan

Document referrals in screen 106.
If pregnant and < 16 at conception, schedule appropriate nutrition education or individual counseling at next visit.
If breastfeeding, postpartum, or pregnant and = 16 at conception, schedule appropriate nutrition education at next visit.

Parameters for auto assign

Will be auto assigned if date of LMP is before 18th birthday.
Will be auto assigned as high risk if pregnant and date of LMP is before 16th birthday.

Continued on next page

331 Pregnant < 18 Years at Conception, Continued

Counseling guidelines

Encourage regular prenatal care with physician.
Discuss recommended weight gain for pregnancy:
- 30-40 pounds or 1 pound per week
- support weight gain as normal part of pregnancy process
- explain need for the body to change to support pregnancy

Explain potential risk of low weight gain:
- low birth weight infant
- premature infant

Review dietary intake and need for variety of food from food groups:
- review Food Guide Pyramid
- encourage adequate fruit and vegetable intake
- encourage healthy snacking

Explain importance of prenatal vitamins.

Suggested handouts

Daily Food Guide - Expectant/Postpartum/Breastfeeding
What to Eat When You Are Pregnant

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
If pregnant and < 16 at conception, individual second contact with a Registered Dietitian:
- reassess weight gain
  - support dietary changes
  - if weight gain is too little or too much, target snacking habits, food choices and portion sizes
- reassess dietary/caloric intake
  - encourage use of WIC foods for self
- assess compliance with recommendations
- encourage compliance with prenatal care
- document if participant followed through on referrals.

If breastfeeding, postpartum, or pregnant and = 16 at conception, appropriate nutrition education at each visit.

Continued on next page

331 Pregnant < 18 Years at Conception, Continued

Justification

Pregnancy before growth is complete, is a nutritional risk because of the potential for competition for nutrients for the pregnancy needs and the woman's growth.

The pregnant teenager is confronted with many special stresses that are superimposed on the nutritional needs associated with continued growth and maturation.

Younger pregnant women of low socioeconomic status tend to consume less than recommended amounts of protein, iron, and calcium, and are more likely to come into pregnancy already underweight. Pregnant teens who participate in WIC have been shown to have an associated increase in mean birth weight and a decrease in LBW outcomes.

Adolescent mothers frequently come into pregnancy underweight, have extra growth related nutritional needs, and because they often have concerns about weight and body image, are in need of realistic, health promoting nutrition advice and support during lactation. Diets of adolescents with low family incomes typically contain less iron, and less vitamin A than are recommended during lactation.

The adolescent mother is also confronted with many special stresses superimposed on the normal nutritional needs associated with continued growth. Nutrition status and risk during the postpartum period follow from the nutritional stresses of the past pregnancy, and in turn have an impact on nutrition related risks in subsequent pregnancies.

Poor weight gain and low intakes of a variety of nutrients are more common in pregnant adolescents. Therefore, participation in the WIC Program should be of substantial benefit.

Justification for high risk

Pregnant teens are at risk for poor birth outcomes. Teenagers less than 16 years may be especially vulnerable and can benefit from individualized follow-up, support, and encouragement to meet dietary and weight gain goals.

Continued on next page

331 Pregnant < 18 Years at Conception, Continued

References

1. Institute of Medicine: Nutrition During Pregnancy; National Academy Press; 1990; pp. 74, 269, 279.

2. Storey, M.: Nutrition Management of the Pregnant Adolescent; A Practical Reference Guide; USDA and March of Dimes; DHHS; 1990; pp. 21-26.

3. Endres: Older pregnant women and adolescents: Nutrition data after enrollment in WIC; J. of Am. Diet. Assn.; August 1987; 87(8):1011-1019.

4. Kennedy and Kotlechuck: The effect of WIC supplemental feeding on birth weight: A case control analysis; Am. J. of Clin. Nutr.; September 1984; 40:579-585.

332 Closely Spaced Pregnancies

Definition/ cut-off value

Conception before 16 months postpartum.

Pregnant Women: current pregnancy
Breastfeeding/Postpartum: most recent pregnancy

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	IV	N

Documentation

Enter date last pregnancy ended and LMP in screen 103.
NRF #332 auto assigned by UWIN.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Will be auto assigned if < 24* months from EDD date to date last pregnancy ended.

*Note: 24 months - 9 month pregnancy = 16 month interconceptual period.

Counseling guidelines

Explain that closely spaced pregnancies leave less time to replenish nutrient stores, therefore good nutrition is very important during this pregnancy.
Review basic prenatal nutrition.
Explain nutritional value of the WIC food and encourage their consumption.
Explain benefits of spacing pregnancies.

- less risk for preterm birth, low birth weight, and infant mortality
- more time for mother's body to replenish nutrient stores
- more time for mom and baby to strengthen their nurturing relationship
- more time to enjoy breastfeeding

Refer to family planning clinic, if appropriate.

Continued on next page

332 Closely Spaced Pregnancies, Continued

Suggested handouts

Daily Food Guide - Expectant/Postpartum/Breastfeeding
What To Eat When You Are Pregnant

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

Pregnancy stimulates an adjustment of the mother to a new physiological state which results in rapid depletion of maternal stores of certain nutrients. Mothers with closely spaced pregnancies do not have sufficient time to replenish the nutritional deprivations of the previous pregnancy. Breastfeeding places further nutritional demands on the mother and may increase risks to the pregnancy. After birth, readjustments take place. It is undesirable for another pregnancy to occur before the readjustment is complete since a short interconceptional time period may leave the woman in a compromised nutritional state and at risk for a poor pregnancy outcome. Among low income, inner-city, multiparous women, inter-pregnancy intervals of less than 12 months have been associated with lower folate levels in the postpartum period.

There is a sharply elevated relative risk for low birth weight (LBW) when the interconception interval is less than 6 months. An increased risk persists for inter-pregnancy intervals of up to 18 months and holds when adjusted for potential confounders. The increased risk is for small gestational age term births rather than for LBW due to prematurity.

In one study, postpartum women who received WIC supplements for 5-7 months, delivered higher mean birth weights and lengths and had a lower risk of low birth weight than women who received supplements for two months or less. Women who were supplemented longer had higher mean hemoglobin values and a lower risk of maternal obesity at the subsequent pregnancy.

Recognizing the potential problems associated with closely spaced pregnancies, WIC Program Regulations specifically include this condition.

Continued on next page

332 Closely Spaced Pregnancies, Continued

Justification for high risk

Not applicable

References

1. Worthington-Roberts, B.S. and Williams, S.R.: Nutrition in Pregnancy and Lactation; 1989; pp. 401-402.

2. Institute of Medicine: Committee to Study the Prevention of Low Birthweight: Preventing Low Birthweight; NAS; 1985; pp. 103-106.

3. Lieberman et al.: The association of interpregnancy interval with small for gestational age births; Obstet. Gynecol.; 1989; 74:1-5.

4. Lang and Lieberman: Interpregnancy Interval and Risk of Preterm Labor; Am. J. of Epidem; 1990; vol 132(2) 304-309.

5. Schall, J.L. et al.: Maternal Micronutrient and Short Interpregnancy Interval: Abstracts Society for Epidemiologic Research: Annual Meeting, Buffalo; June 1991; vol. 134(7) p. 770.

6. Caan, et al.: Benefits associated with WIC supplemental feeding during the interpregnancy interval; American Journal Clin. Nutr.; 1987; 45:29-41.

7. WIC Program Regulations: Section 246.7 (e)(2)(ii).

333 High Parity and Young Age

Definition/ cut-off value

Women under age 20 at date of conception who have had 3 or more previous pregnancies of at least 20 weeks duration, regardless of birth outcome.

Pregnant Women: current pregnancy
Breastfeeding/Postpartum: most recent pregnancy

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	N
Postpartum	IV	N

Documentation

Enter date of Last Menstrual Period (LMP) in screen 103.
Enter number of previous pregnancies in screen 103 (do not include current pregnancy).
If number of previous pregnancies is > 3 (lasting > 20 weeks) and mom was < 20 years at conception, enter NRF #333 in screen 106.
If pregnant, document High Risk Care Plan in participant's chart.

Suggested components to assess:

- prepregnancy BMI and weight gain status
- dietary intake
- referrals needed
- intake of prenatal vitamins

RD must document management of care plan

If pregnant, schedule appropriate nutrition education or individual counseling at next visit.
If breastfeeding or postpartum, schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

333 High Parity and Young Age, Continued

Counseling guidelines

Encourage regular prenatal care with physician.
Discuss recommended weight gain for pregnancy:
- 30-40 pounds or 1 pound per week
- support weight gain as a normal part of the pregnancy process
- explain need for the body to change to support pregnancy
- review weight gain patterns from previous pregnancies

Explain importance of prenatal vitamins.
Explain potential risks of low weight gain:
- low birth weight infant
- premature infant

Review dietary intake and need for variety of foods from food groups:
- review Food Guide Pyramid
- encourage 4 servings of dairy foods daily
- encourage adequate fruit and vegetable intake
- encourage healthy snacking

Refer to family planning clinic, if appropriate.

Suggested handouts

Daily Food Guide - Pregnant/Breastfeeding/Postpartum
What to Eat When You Are Pregnant
I'm Breastfeeding - What Should I Eat?
After You Deliver

Continued on next page

333 High Parity and Young Age, Continued

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
If pregnant, individual assessment with a Registered Dietitian.

- reassess weight gain:
  - support dietary changes
  - if weight gain is too little or too much, target snacking habits, food choices, and portion sizes
- reassess dietary/caloric intake
  - encourage use of WIC foods for self
- assess compliance with recommendations
- encourage compliance with prenatal care
- document if participant followed through on referrals.

If breastfeeding or postpartum, schedule appropriate nutrition education at each visit.

Justification

The IOM Report (p. 204) states, "empirical evidence on the interactions of high parity with both age and short interpregnancy interval does suggest significant nutritional risks associated with high parity at young ages and high parity with short interpregnancy intervals (1)."

Since factors such as adolescent pregnancy (<18 years of age) and short interpregnancy interval are used independently as risk criteria, women with such risks would be eligible for participation in WIC. Studies by Kramer (1987) and MacLeod & Kiely (1988) (pg. 202) show that "multiparity increases the risk of low birth weight (LBW) for women under age 20." Kramer further reports "multiparity has little effect for women age 20-34 years and decreases for women over age 35." These studies demonstrate the risk of delivering LBW babies for women under the age of 20 years. Thus, low birth weight increases the likelihood of physical and mental developmental deficiencies among surviving infants, and even a higher incidence of infant death.

Justification for high risk

Multiparity increases the risk of low birth weight for women < 20 years. Women who have this risk factor may benefit from individual follow-up, referrals and encouragement to meet dietary and weight gain goals.

Continued on next page

333 High Parity and Young Age, Continued

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 201-204.

2. Kramer et al.: Determinants of low birth weight: Methodological assessment and meta -analysis. Bull. World Health Organization; 1987; 65:663-73.

3. MacLeod & Kiely: The effects of maternal age and parity on birthweight: A population based study in New York City; Int. J. Gynecol. Obstet; 1988; 26:11-19.

4. Taffel: Trends in low birthweight: United States, 1975 - 1985. Centers for Disease Control, National Center for Health Statistics; 1989.

334 Lack of Prenatal Care

Definition/ cut-off value

Prenatal care beginning after the 1st trimester (after 13th week) of pregnancy.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N

Documentation

Document month prenatal care began in screen 103.
Enter NRF #334 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Counseling guidelines

Explain importance of receiving early and adequate prenatal care.
Refer to Baby Your Baby Program, if appropriate.
Provide a referral list for Obstetricians in the area and assist in making an appointment, if possible.
Review basic prenatal nutrition.
Review expected weight gain.
If participant is not currently receiving prenatal care, place a note in screen 108 to ask participant at next visit if prenatal appointment was scheduled/attended with health care provider.

Suggested handouts

Daily Food Guide - Pregnant
What to Eat When You Are Pregnant

Continued on next page

334 Lack of Prenatal Care, Continued

Follow up and assessment guidelines

Weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.
Document if participant followed through on referral to prenatal care in participant's chart or in screen 108.

Justification

Women who do not receive early and adequate prenatal care are more likely to deliver premature, growth retarded, or low birth weight infants (2). Women with medical or obstetric problems, as well as younger adolescents, may need closer management; the frequency of prenatal visits should be determined by the severity of identified problems (1). Several studies have reported significant health and nutrition benefits for pregnant women enrolled in the WIC Program (2).

Justification for high risk

Not applicable

References

1. The American Academy of Pediatrics and the American College of Obstetricians and Gynecologists: Guidelines for Perinatal Care; 4th ed., Chapter 4; Washington, D.C.; August 1997.

2. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 208-210.

3. Kessner DM, Singer J, Kalk CE, Schlesinger ER: Infant Death: An Analysis by Maternal Risk and Health Care. Contrasts in Health Status; Vol. I, Washington, DC; Institute of Medicine; National Academy of Sciences; 1973.

4. Centers for Disease Control and Prevention: Prenatal Nutrition Surveillance System User's Manual. Atlanta, GA: CDC; 1994; page 8-3.

335 Multifetal Gestation

Definition/ cut-off value

More than one (>1) fetus in a current pregnancy (Pregnant Women) or the most recent pregnancy (Breastfeeding and Postpartum Women).

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	Y
Postpartum	IV	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form, if self reported.
Enter NRF #335 in screen 106 if pregnant.
NRF #335 auto assigned if breastfeeding or postpartum.
If pregnant or breastfeeding, document High Risk Care Plan in participant's chart.
Suggested components to assess:

- current nutrition follow-up and support provided by MD and/or other health professionals - referrals needed
- compliance and understanding of dietary recommendations
- weight gain status

RD must document management of care plan
Document referrals in screen 106.
If pregnant, schedule appropriate nutrition education or individual counseling at next visit.
If breastfeeding or postpartum, schedule appropriate nutrition education at next visit.

Parameters for auto assign

Will be auto assigned if breastfeeding or postpartum and total number of infants =2 in screen 103.
Must be manually selected for pregnant women.
Will be auto assigned high risk if breastfeeding and total number of infants = 2 in screen 103.

Continued on next page

335 Multifetal Gestation, Continued

Counseling guidelines

Refer to appropriate medical services for prenatal care (the earlier the better) if needed.

Official recommended weight gain and dietary allowances for multiple pregnancy/lactation have not yet been nationally recognized or established. Generally accepted dietary recommendations include:

- increased needs for calories, protein, iron, calcium, folate, vitamin B6, and zinc (table of food guidelines to follow)
- a need for increased weight gain (table of guidelines follow) during pregnancy, especially for those women who are of low or normal prepregnancy weight
- encourage early weight gain due to reduced stomach capacity as pregnancy progresses
- encourage small, frequent energy-dense meals every 2-3 hours at first, then every hour or two as the pregnancy proceeds
  - a liberal fat intake (40% of calories) may be needed due to volume restrictions
- encourage an extra serving of milk for each fetus to meet calcium needs
- emphasize importance of prenatal vitamin-mineral supplementation
- recommend iron supplements beginning in the second trimester
- encourage avoidance of alcohol
- recommend limiting caffeinated beverages to 3 servings/day
- Breastfeeding:
  - Assess:
    - dietary adequacy of mother
    - growth of infants (including test weighing
  - Counseling:
    - reassure that mother can provide adequate milk
    - encourage simultaneous breastfeeding to increase prolactin levels
    - teach positions for simultaneous breastfeeding (double clutch, parallel, double cradle)
    - verify proper latch-on and positioning
- refer to support group for breastfeeding mothers of multiples
- refer to Lactation Educator for breastfeeding support/encouragement

Continued on next page

335 Multifetal Gestation, Continued

Daily Food Guide for Multifetal Gestation

Food Groups	Minimum Number of Servings Needed Daily		
	Twins	Triplets	Quads
Protein Rich Foods (provides protein, iron, zinc, B vitamins)	9	11	12
Milk Products (provides protein, calcium)	4	5	6
Grains & Cereals (provides CHOs, B vitamins, iron; select whole grains whenever possible)	8	9	10
Vitamin C Rich Foods	2	2	3
Vitamin A Rich Foods	1	1	2
Other Fruits and Vegetables (provides variety of vitamins and minerals, CHOs, fiber)	4	4	6
Unsaturated Fats (provides vitamin E)	4	4	6

Continued on next page

335 Multifetal Gestation, Continued

Suggested handouts

What to Eat When You Are Pregnant
To the Pregnant Woman Who is Not Gaining Enough Weight (if weight gain is a concern)
Daily Food Guide - Pregnant/Breastfeeding/Postpartum

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
If pregnant or breastfeeding, individual assessment with a Registered Dietitian.

- reassess weight gain/status
- assess dietary/caloric intake
- assess compliance with recommendations
- assess adequate vitamin/mineral supplementation
- encourage compliance with medical care
- document if participant followed through on referrals

If postpartum, appropriate nutrition education at each visit.

Continued on next page

335 Multifetal Gestation, Continued

Justification

Multifetal gestations are associated with low birth weight, fetal growth restriction, placental and cord abnormalities, preeclampsia, anemia, shorter gestation and an increased risk of infant mortality. Twin births account for 16% of all low birth weight infants. The risk of pregnancy complications is greater in women carrying twins and increases markedly as the number of fetuses increases.

For multiple births, both the optimal range of birth weight and the gestational age associated with the lowest morbidity is achieved earlier than for singleton births. For twins, the optimal range of birth weight is estimated to be 2,500 to 2,800 grams at 36-37 weeks and for triplets, 1,900 to 2,200 grams at 34-36 weeks. Other reports indicate that twins weighing 3,000 to 3,500 grams at birth experience minimal perinatal mortality. (1, 2) Outcomes with both twins (or the average of the twin pair) weighing 2,500 grams or more have been reported for maternal weight gains of 40-45 pounds. Weight gain of 0.85 pound/week or less, before 24 weeks' gestation was significantly associated with poor intrauterine growth and higher morbidity among twins, regardless of subsequent rate of gain. (3)

It has been suggested that clinical guidelines for maternal weight gain during twin gestation should be based on prepregnancy BMI, although data to support the development of such guidelines while growing, remains scant. Weight gain should be encouraged throughout a twin gestation in underweight women, with a target gain of 1.75 pounds/week after 20 weeks' gestation. The data support a weight gain of 1.5 pounds/week for normal weight women during the second half of twin pregnancy. (3)

Pregnant or breastfeeding women with twins have greater requirements for all nutrients than women with only one infant. Postpartum, nonbreastfeeding women delivering twins are at greater nutritional risk than similar women delivering only one infant. All three groups of women would benefit greatly from the nutritional supplementation provided by the WIC Program.

Continued on next page

335 Multifetal Gestation, Continued

Justification for high risk

Multiple fetal gestations are associated with low birth weight, fetal growth restriction, placental and cord abnormalities, preeclampsia, anemia, shorter gestation, and increased risk of infant mortality. A woman meeting this risk criteria can benefit from assessment of her weight gain and individual nutrition counseling through WIC.

References

1. Brown JE and Scloesser PT. Pregnancy weight status, prenatal weight gain, and the outcome of term twin gestation. Am J Obstet Gynecol, 1990; 162:182-6.

2. Williams R, Creasy R, et al. Fetal growth and perinatal viability in California. Obstet Gynecol 1982; 59:624-32.

3. Institute of Medicine: Nutrition During Pregnancy; National Academy Press; 1990.

4. Suitor, CW. 1997 Maternal Weight Gain: A Report of an Expert Work Group. Arlington, VA: National Center for Education in Maternal and Child Health Bureau.

5. Worthington-Roberts, B. Weight gain patterns in twin pregnancies with desirable outcomes. Clin Nutr 1988;7:191-6.

6. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 210-11.

7. "Nutritional Management of Multiple Pregnancy," Diane Dimperio, The Perinatal Report, Fall Issue 1994.

8. Pat Malmstromm, MA, Director of Twin Services, PO Box 10066, Berkley, CA, 94709, (510) 524-0863

336 Fetal Growth Restriction

Definition/ cut-off value

Fetal Growth Restriction (FGR) (replaces the term Intrauterine Growth Retardation (IUGR)), may be diagnosed by a physician with serial measurements of fundal height, abdominal girth and can be confirmed with ultrasonography. FGR is usually defined as a fetal weight < 10th percentile for gestational age.

Presence of condition diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter NRF #336 in screen 106.
Document High Risk Care Plan in participant's chart.
Suggested components to assess:

- current nutrition follow-up and support provided by MD and/or other health professionals - referrals needed
- compliance and understanding of dietary recommendations
- weight gain status

RD must document management of care plan
Document referrals in screen 106.
Schedule appropriate nutrition education or individual counseling at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

336 Fetal Growth Restriction, Continued

Counseling guidelines

Refer to appropriate medical services for prenatal care if needed.
Assess nutritional status with emphasis on well-balanced intake.
Assess and promote healthy weight gain:

- food supplementation during pregnancy to improve weight gain reduces the risk of FGR

Refer to smoking cessation program if woman smokes.

Suggested handouts

Daily Food Guide - Pregnant
What to Eat When You Are Pregnant

Follow up and assessment guidelines

Weight gain plotted and assessed at each clinic visit.
Individual assessment with a Registered Dietitian.

- reassess weight gain
- reassess dietary/caloric intake
- assess compliance with recommendations
- document if participant followed through in referrals

Justification

Fetal Growth Restriction (FGR) usually leads to low birth weight (LBW), which is the strongest possible indicator of perinatal mortality risk. Severely growth restricted infants are at increased risk of fetal and neonatal death, hypoglycemia, polycythemia, cerebral palsy, anemia, bone disease, birth asphyxia, and long-term neurocognitive complications. FGR may also lead to increased risk of ischemic heart disease, hypertension, obstructive lung disease, diabetes mellitus, and death from cardiovascular disease in adulthood. FGR may be caused by conditions affecting the fetus such as infections and chromosomal and congenital anomalies. Restricted growth is also associated with maternal height, prepregnancy weight, birth interval, and maternal smoking. WIC's emphasis on preventive strategies to combat smoking, improve nutrition, and increase birth interval, may provide the guidance needed to improve fetal growth.

Continued on next page

336 Fetal Growth Restriction, Continued

Justification for high risk

Fetal Growth Restriction (FGR) usually leads to low birth weight which is the strongest possible indicator for prenatal mortality risk. Severely growth restricted infants are at increased risk of: fetal and neonatal death, hypoglycemia, polycythemia, cerebral palsy, anemia, bone disease, birth asphyxia, long-term neurocognitive delays.

References

1. Institute of Medicine: Nutrition During Pregnancy: Part I, Weight Gain; and Part II, Nutrient Supplements; National Academy Press; 1990.

2. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996.

3. Williams, SR: Nutrition and Diet Therapy; 1989; 6th edition.

4. Worthington-Roberts, BS and Williams, SR: Nutrition During Pregnancy and Lactation; 1989; 4th edition.

5. Stein, ZA and Susser, M.: Intrauterine Growth Retardation: Epidemiological Issues and Public Health Significance. Seminars in Perinatology; 1984; pp. 8:5-14.

6. Altman D.G. and Hytten F.E.: Intrauterine growth retardation: Let's be clear about it; Br. J. Obstet. Gynaecol. 96:1127-1132.

7. Barros, F.C., S.R. Huttly, C. G. Victora, B. R., Kirkwood, and J.P. Vaughan: Comparison of the causes and consequences of prematurity and intrauterine growth retardation: A longitudinal study in southern Brazil. Pediatrics; 1992; 90:238-244.

8. Kramer, M.S., M. Olivier, F.H. McLean, G.E. Dougherty, D.M. Willis, and R.H. Usher: Determinants of fetal growth and body proportionality. Pediatrics; 1990; 86:18-26.

Continued on next page

336 Fetal Growth Restriction, Continued

References (continued)

9. Kramer, M.S., M. Olivier, F.H. McLean, D.M. Willis, and R.H. Usher: Impact of Intrauterine growth retardation and body proportionality on fetal and neonatal outcome; Pediatrics; 86:707-713.

10. Institute of Medicine: Nutrition During Pregnancy; National Academy Press; 1990; pp. 212-20, 10-12, 18, 20.

337 History of Birth of a Large for Gestational Age Infant

Definition/ cut-off value

Pregnant Women: any history of birth of a large for gestational age infant
Breastfeeding/Postpartum: most recent pregnancy, or

History of birth of an infant weighing ≥ 9 lbs. (4000 grams) or ≥ 90th percentile weight for gestational age at birth, based on a generally accepted intrauterine growth reference.

Presence of condition diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter infant's birth weight in screen 103.
Enter NRF #337 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

337 History of Birth of a Large for Gestational Age Infant, Continued

Counseling guidelines

Referral to appropriate medical services for regular prenatal care if pregnant (the earlier the better)

Assess nutritional status with emphasis on well-balanced intake, however:

- maternal obesity, high prepregnancy weights and large gestational weight gains contribute significantly to LGA therefore:
  - counsel on recommended weight gain based on prepregnancy BMI
  - review weight gain pattern from previous pregnancies

If woman is diabetic (see NRF #302 for counseling tips):

- refer to medical services for diabetic testing and in-depth diabetic counseling (if diagnosed, may be warranted), or
- if client is a diagnosed diabetic, review and reinforce diabetic guidelines

Suggested handouts

Daily Food Guide - Pregnant/Breastfeeding/Postpartum
I'm Breastfeeding - What Should I Eat
What To Eat When You Are Pregnant

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

Women with a previous delivery of an infant weighing = 9 lbs. (4000 grams) are at an increased risk of giving birth to a large for gestational age infant. Macrosomia may be an indicator of maternal diabetes (current or gestational) or a predictor of future diabetes.

The incidence of maternal, fetal, and neonatal complications is high with neonates weighing = 9 lbs. (4000 grams). Risks for the infant include dystocia, meconium aspiration, clavicular fracture, brachia plexus injury, and asphyxia.

Justification for high risk

Not applicable

Continued on next page

337 History of Birth of a Large for Gestational Age Infant, Continued

References

1. Modenlou, M.D., W.L. Dorchester, A. Thorosian, and R.K. Freeman: Macrosomia-maternal, fetal, and neonatal implications; Obstet Gynecol.; 1980; 55:420-424.

2. Boyd, M.E., R.H. Usher, and F.H. McLean: Fetal Macrosomia: Prediction, risks, proposed management; Obstet. Gynecol.; 1983; 61:715-722.

3. Institute of Medicine: Nutrition During Pregnancy; National Academy Press; 1990; p. 187.

4. Institute of Medicine: Nutrition During Pregnancy; National Academy Press; 1996, p. 117.

5. Posner A.C., Friedman S, Posner L.B.: The large fetus: A study of 547 cases; Obstet Gynecol; 1955; 5: 26.

6. Stallone L.A., Ziel H.D.: Management of gestational diabetes. Am J Obstet Gynecol.; 1974; 119:1091.

7. Parks D.G., Ziel H.K.: Macrosomia a proposed indication for primary cesarean section; Obstet Gynecol.; 1978; 52: 407.

8. Gilbert and Harmon: High Risk Pregnancy and Delivery; Mosby Books; 1993; pp. 188-191.

9. Kruppel and Drekker: High Risk Pregnancy: A Team Approach. 2nd edition; W.B. Saunder and Co.; 1993.

10. Behrman, R., et al.: Nelson Textbook of Pediatrics; 13th ed.; 1987; p.384.

11. Babson, SG, Benda, GI: Journal of Pediatrics; 1976; 89:815.

12. Lubchenco, LO, Hansman, C., and Boyd, E.: Pediatrics; 37:403.

338 Pregnant and Currently Breastfeeding

Definition/ cut-off value

Breastfeeding woman now pregnant.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N

Documentation

Enter "yes" to "Currently Breastfeeding" in screen 104.
NRF #338 auto assigned by UWIN.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Will be auto assigned if category is pregnant and "yes" is entered in currently breastfeeding field.

Counseling guidelines

Refer to appropriate medical care for prenatal services (the earlier the better) if needed.
Ensure WIC's advice is consistent with MD's recommendations.
Assess overall nutritional intake with emphasis on:

- well-balanced, nutritious intake:
  - adequate to meet both the mother and the fetus's nutritional needs
  - educate on importance of prenatal vitamins
- gaining weight at the appropriate rate

Encourage adequate rest.

- monitor stress level

Refer to Dietitian/Lactation Educator if needed.

Continued on next page

338 Pregnant and Currently Breastfeeding, Continued

Counseling guidelines, (continued)

Other important considerations include:

- the age of the nursing child
  - the natural decrease in milk supply that occurs during pregnancy (usually in the last 4 months) could compromise the infant's nutritional needs, if the baby is less than a year old
  - suggest that mother keep track of the baby's weight gain and offer supplemental feedings if they are needed
- the child's need to nurse (physically and emotionally)
  - some wean on their own during pregnancy
  - others who weaned during pregnancy may want to breastfeed again once the baby is born
- whether the mother is experiencing any breastfeeding related discomforts (such as sore nipples caused by hormonal changes) and the degree of her discomfort
- the mother's past nursing experience(s)
- health concerns related to the pregnancy (which may be medical reasons to consider weaning):
  - uterine pain or bleeding while breastfeeding (uterine contractions stimulated by breastfeeding usually pose no danger to the unborn baby and do not increase the risk of premature delivery, but refer participant to physician immediately)
  - history of premature birth
  - continued loss of weight by mother during pregnancy

Hormones of pregnancy will not be harmful to a breastfeeding infant or toddler. During the last few months of pregnancy the milk changes to colostrum in preparation for birth.

- the nursing child cannot "use up" the colostrum -- no matter how much he nurses, the colostrum will still be available at birth for the newborn

If this mother chooses to nurse both after the baby's birth ("tandem nursing"), follow-up to Dietitian/Lactation Educator is appropriate.

- remember that the newborn is the priority of the two children
  - It is important to listen to the mother's feelings, as it is an individual decision whether or not to continue breastfeeding through a pregnancy (and after).

Continued on next page

338 Pregnant and Currently Breastfeeding, Continued

Suggested handouts

What To Eat When You Are Pregnant
Daily Food Guide - Pregnant
How To Have A Good Breast Milk Supply
Soreness
Weaning for the Breastfed Baby

Follow up and assessment guidelines

Weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

Breastfeeding during pregnancy can influence the mother's ability to meet the nutrient needs of her growing fetus and nursing baby. Generally, pregnancy hormones cause the expectant mother's milk supply to drastically decline (until after delivery). If the mother conceived while her nursing baby was still solely or predominantly breastfeeding, the baby could fail to receive adequate nutrition. In addition to changes in milk volume and composition, mothers who breastfeed throughout a pregnancy usually report that their nipples, previously accustomed to nursing, become extremely sensitive (presumably due to pregnancy hormones). When women nurse through a pregnancy it is possible that oxytocin released during breastfeeding could trigger uterine contractions and premature labor. When a mother chooses to nurse through a pregnancy, she needs breastfeeding counseling.

Justification for high risk

Not applicable

References

1. Mohrbacher, N., Stock, J.: The Breastfeeding Answer Book: Revised Edition Schaumburg, IL; La Leche League International; 1997.

341 Nutrient Deficiency Diseases

Definition/ cut-off value

Diagnosis of nutritional deficiencies or a disease caused by insufficient dietary intake of macro and micro nutrients. Diseases include:

- Protein Energy Malnutrition
- Scurvy
- Rickets
- Beri Beri
- Hypocalcemia
- Osteomalacia
- Vitamin K Deficiency
- Pellagra
- Cheilosis
- Menkes Disease
- Xeropthalmia

Presence of nutrient deficiency diseases diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	Y
Postpartum	IV	Y
Infants	I	Y
Children	III	Y

Continued on next page

341 Nutrient Deficiency Diseases, Continued

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter NRF #341 in screen 106.
Document High Risk Care Plan in participant's chart
Suggested components to assess:
- present nutrition follow-up and support provided by MD and/or other health professionals -- referrals needed

RD must document management of care plan
Document referrals in screen 106.
Schedule appropriate nutrition education or individual counseling at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Counseling guidelines

If participant is receiving comprehensive nutrition counseling outside of WIC:
- reinforce and encourage compliance with:
  - nutrition and medical management
  - using WIC foods high in the nutrient(s) individual to the participant's nutrient deficiency
- ways in which to incorporate these WIC foods into their diet

If participant is not receiving comprehensive nutrition counseling outside of WIC:
- refer to local outpatient nutrition or medical clinic, Registered Dietitian or physician for comprehensive nutrition counseling and medical management and follow-up
- explain potential risks to participant particular to their nutritional disease
- provide basic nutrition counseling which addresses their individual disease
- review WIC foods high in the nutrient(s) individual to the participant's nutrient deficiency
- review ways in which to incorporate these WIC foods into their diet
- tailor food package to include WIC foods high in the nutrient they are deficient in

Continued on next page

341 Nutrient Deficiency Diseases, Continued

Suggested handouts

Iron
Vitamin C
Vitamin A
Calcium
Bean Cuisine
Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Individual assessment with a Registered Dietitian.

- assess weight gain/status/growth
- reassess dietary/caloric intake
- assess compliance with recommendations
- encourage compliance with medical treatment
- document if participant followed through on referrals

Justification

The presence of macro- and micro-nutrient deficiencies indicates current nutrition health risks.

Persistent malnutrition may lead to elevated morbidity and mortality rates. Important functional disturbances may occur as a result of single or multiple nutrient deficiencies. Examples include impaired cognitive function, impaired function of the immune system, and impaired function of skeletal muscle. Participation in the WIC Program provides key nutrients and education to help restore nutrition status and promote full rehabilitation to those with an overt nutrient deficiency.

Continued on next page

341 Nutrient Deficiency Diseases, Continued

Justification for high risk

Persistent malnutrition may lead to elevated morbidity and mortality rates. Important functional disturbances may occur as a result of a single or multiple nutrient deficiencies including: impaired cognitive function; impaired function of immune system; and impaired function of skeletal muscle. Participants who meet this criteria are extremely high risk and need counseling which addresses their individual needs.

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 159-166.

2. Worthington, Vonnie S., et al.: Nutrition Throughout the Life Cycle, 2nd ed.; 1992; pp. 102-107.

3. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 164-165.

342 Gastro-Intestinal Disorders

Definition/ cut-off value

Current disease(s) or condition(s) that interferes with the intake or absorption of nutrients. The conditions includes:

- stomach or intestinal ulcers
- small bowel enterocolitis and syndrome
- malabsorption syndromes
- inflammatory bowel disease, including ulcerative colitis or Crohn's disease
- liver disease
- pancreatitis
- gallbladder disease
- gastroesophageal reflux (GER)

Presence of gastro-intestinal disorders diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	Y
Postpartum	IV	Y
Infants	I	Y
Children	III	Y

Continued on next page

342 Gastro-Intestinal Disorders, Continued

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter NRF #342 in screen 106.
Document referrals in screen 106.
Document High Risk Care Plan in participant's chart.
Suggested components to assess:

- current nutrition follow-up and support provided by MD and/or other health professionals
- referrals needed
- compliance and understanding of dietary recommendations
- consider how WIC and the food packages can best meet their needs
- weight gain status

RD must document management of care plan
Schedule appropriate nutrition education or individual counseling at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

342 Gastro-Intestinal Disorders, Continued

Counseling guidelines

If participant is receiving counseling outside of WIC:

- encourage compliance with:
  - nutritional recommendations
  - medical follow-up and recommendations
  - recommended weight

If participant is not receiving nutrition counseling outside of WIC:

- refer to appropriate medical and nutritional services for comprehensive medical treatment and directed nutrition counseling
- explain potential nutritional risks--as they pertain to the specific GI disease --to the participant
- recommend increased nutrient intake, if needed, to correct existing deficiencies, or to counterbalance excessive losses of nutrients or fluid.
- review signs of dehydration and malnutrition due to frequent loss of nutrients via vomiting, diarrhea, malabsorption, and/or infections
- explain that WIC can help by providing:
  - nutritious, supplemental foods, which can be tailored to the participant's need
  - special dietary formulas
  - nutrition information
  - support for breastfeeding initiation and maintenance
  - referrals to health and social services

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
Infant Feeding Guide

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Individual assessment with Registered Dietitian:

- assess weight gain/status/growth
- reassess dietary/caloric intake
- assess compliance with recommendations
- encourage compliance with medical treatment
- document if participant followed through on referrals.

Continued on next page

342 Gastro-Intestinal Disorders, Continued

Justification

Gastrointestinal disorders increase nutrition risk through a number of ways, including impaired food intake, abnormal deglutition, impaired digestion of food in the intestinal lumen, generalized or specific nutrient malabsorption, or excessive gastrointestinal losses of endogenous fluids and nutrients. Frequent loss of nutrients through vomiting, diarrhea, malabsorption, or infections can result in malnourishment and lowered resistance to disease in individuals with chronic symptoms.

Justification for high risk

GI disorders increase nutrition risk through a number of ways: impaired food intake; impaired digestion of food; generalized or specific nutrient malabsorption; and excessive GI losses. Frequent loss of nutrients through vomiting, diarrhea, malabsorption or infections can lead to malnourishment and lowered resistance to disease in individuals with chronic symptoms. It is important that WIC participants receive individual counseling tailored to meet the nutritional needs of their GI disorder.

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 166-167.

2. American Dietetic Association: Pediatric Manual of Clinical Dietetics; 1998; pp. 235-237.

343 Diabetes Mellitus

Definition/ cut-off value

Presence of diabetes mellitus diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	Y
Postpartum	IV	Y
Infants	I	Y
Children	III	Y

Documentation

Document physician's diagnosis in participant's chart or circle condition on the Medical History form if self reported.
Enter NRF #343 in screen 106.
Document High Risk Care Plan in participant's chart.
Suggested components to assess:

- current nutrition follow-up and support provided by MD and/or other health professionals
- referrals needed
- compliance and understanding of dietary recommendation
- present insulin/medical therapy, if any
- weight status

RD to document management of care plan
Document referrals in screen 106.
Schedule individual contact with Registered Dietitian at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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343 Diabetes Mellitus, Continued

Counseling guidelines

If participant is receiving comprehensive nutrition counseling outside of WIC:

- encourage compliance with:
  - dietary recommendations
  - medical recommendations
- e.g.--insulin therapy--if on insulin, or
- any other medication
  - exercise

If participant is not receiving nutrition counseling outside of WIC:

- refer to local diabetes treatment program, RD or physician for in-depth, comprehensive nutrition counseling and follow-up
- explain potential risks to participant:
  - all diagnosed diabetics: cardiovascular disease, renal disease, circulatory disease, foot problems, vision loss, and secondary to DM, hypertension
  - during pregnancy: difficult labor and delivery, increased risk of infection, toxemia, increased risk of preeclampsia, fetal malformation, fetal and neonatal death, large birth size, congenital abnormalities, low blood sugar after birth in infants, jaundice, neonatal death
- re. jaundice--early and frequent breastfeeding may prevent
  - during breastfeeding: delayed lactogenesis, mastitis, and lower blood sugar levels
- explain potential benefits (as related to DM) to mother/infant if she breastfeeds:
  - some DM mothers experience partial or total remission from DM as long as they breastfeed - however, this is very individual
  - overall, breastfeeding tends to make diabetes more easily managed
- during the first few days after childbirth, DM mothers often experience drastic changes in blood sugar levels, but
- because it is the body's natural response to childbirth; the hormones responsible for lactation cause the physiological changes to occur more naturally
  - amount of insulin needed during pregnancy/breastfeeding may decrease (can be up to half!) due to the hormones released during pregnancy/breastfeeding

Continued on next page

343 Diabetes Mellitus, Continued

Counseling guidelines, (continued)

- hormones released during breastfeeding relax the mother, reducing stress, which aggravates diabetes
- breastfed babies are healthier
- psychologically, breastfeeding can help the diabetic mom feel "normal," because like every other breastfeeding mother, she is able to give her child the best
- if weaning is gradual, adjustments in insulin and diet can be equally slow and smooth, making diabetic control easier
- provide basic diabetic counseling which facilitates normal blood glucose levels
- consume calories adequate for recommended weight gain but not excessive weight gain
- keep timing of meals consistent from day to day with carbohydrate content fairly evenly divided from meal to meal
- priorities for dietary management for all categories:
  - establishing a regular meal pattern and consistent carbohydrate intake are the well-accepted dietary principles for the management of DM
  - plan for food to be taken to correct hypoglycemic episodes
  - plan for food and fluids to be taken for periods of increased physical activity and illness
  - depending on insulin regimen:
- plan for a bedtime snack to prevent nocturnal hyploglycemia
- take midmorning and midafternoon snacks, if needed, to match food intake to peak insulin action
  - to calculate daily caloric needs:
- Basal needs = (.9 kcal X kg prepreg wt X 24 hrs) + 300 kcals
- Activity Factor - Add 40-60% of basal needs for light activity
- priorities for dietary management of the breastfeeding mom:
  - insulin is compatible with breastfeeding
  - blood sugar monitoring may be affected by milk production

Continued on next page

343 Diabetes Mellitus, Continued

Counseling guidelines, (continued)

- drastic changes in blood sugars after giving birth require close monitoring, along with insulin and dietary adjustments
- once control is achieved, the mom should have no further problems if she follows good management practices
  - remind mom that her milk may be a little slower in coming in:
- 5 or 6 days if in good control, 6 or 7 days without good control vs. 3 or 4 days in non-DM moms
- is due to fluctuating insulin requirements and other diabetic-related physiologic changes
- early and frequent feedings may help bring in milk
  - mother will need increased calories to give her the extra energy needed for milk production. Furthermore:
- she needs to eat more if the baby nurses more, and less if the baby nurses less (in-depth counseling from referral)
- insulin adjustment may be needed as well (must work with referral health care provider)
  - mother may be more prone to mastitis and infections of nipples and vagina
- risk of yeast infection increases when blood sugar levels are increased therefore monitor blood sugar levels closely
- use good hygiene
- keep nipples clean and dry after nursing
- treat plugged ducts, lumps, sore spots promptly

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
Infant Feeding Guide

Continued on next page

343 Diabetes Mellitus, Continued

Follow up and assessment guidelines

If pregnant, plot and assess weight gain at each clinic visit.
Individual assessment with Registered Dietitian.

- reassess weight gain/status/growth
- reassess dietary/caloric intake
- encourage compliance with meal plan
- assess compliance with recommendations
- encourage compliance with medical treatment (eg. insulin, other medications)
- stress the importance of blood glucose monitoring
- document if participant followed through on referrals

Justification

Diabetes mellitus is a metabolic disease characterized by hyperglycemia resulting from defects in insulin secretion, insulin action, or both. The chronic hyperglycemia of diabetes is associated with long-term damage, dysfunction, and failure of various organs, especially the eyes, kidneys, nerves, heart, and blood vessels.

The two major classifications of diabetes are Type I Diabetes (beta-cell destruction, usually leading to absolute insulin deficiency) and Type II Diabetes (ranging from predominantly insulin resistance with relative insulin deficiency to predominantly an insulin secretory defect with insulin resistance.

Justification for high risk

The chronic hypoglycemia of diabetes is associated with long term damage, dysfunction and failure of various organs, especially the eyes, kidneys, nerves, heart, and blood vessels. The WIC nutritionist can play a vital role in providing nutrition counseling and assuring the participant receives comprehensive follow-up outside WIC.

References

1. American Diabetes Association: Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus; Diabetes Care; vol. 20, no. 7; p. 1183.

344 Thyroid Disorders

Definition/ cut-off value

Hypothyroidism (insufficient levels of thyroid hormone produced or defect in receptor) or hyperthyroidism (high levels of thyroid hormone secreted).

Presence of thyroid disorders diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	Y
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on the Medical History form if self reported.
Enter NRF #344 in screen 106.
If breastfeeding, document High Risk Care Plan in participant's chart.
Suggested components to assess:

- present nutrition follow-up and support provided by MD and/or other health care provider
- weight status
- medical therapy and compliance

RD must document management of care plan
Document referrals in screen 106.
If breastfeeding, schedule appropriate nutrition education or individual counseling at next visit.
If not breastfeeding, schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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344 Thyroid Disorders, Continued

Counseling guidelines

If participant is receiving nutrition counseling outside of WIC:

- encourage compliance with
  - dietary recommendations
  - medical recommendations including medications
  - exercise, if appropriate

If participant is not receiving nutrition counseling outside of WIC:

- refer to health care provider, RD, or physician for nutrition counseling and medical follow-up
- explain potential risks of Hyperthyroidism:
  - Hyperthyroidism is the result of an overactive thyroid gland leading to too much thyroid hormone in the body; must be treated medically
  - symptoms for all categories include:
- "pop eyes"
- goiters (enlarged thyroid)
- strain on heart, muscles, nervous system:
    - fast pulse
    - extreme nervousness
    - muscle tremors
    - weight loss, depleted body stores
  - considerations for infants include:
- breastfed infants of mothers with treated hyperthyroidism must have their thyroid monitored for normal function
- the ability to breastfeed does not appear to be affected by untreated hyperthyroidism
  - considerations for breastfeeding women include:
    - the ability to breastfed should not be affected by hyperthyroidism, however, the mother's health care provider must be involved in the decision to breastfeed
    - some thyroid suppressants may suppress baby's thyroid as well, therefore mother needs to find a breastfeeding compatible medications such as *PTU* (*Propylthiouracil*) or *Carbimazole*.

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344 Thyroid Disorders, Continued

Counseling guidelines, (continued)

- assess nutritional status and counsel to meet following goals:
  - compensate for lost weight, exhausted body reserves and depleted vitamin and minerals stores via:
- high calorie/protein/carbohydrate diet
- multi-vitamin/mineral supplement (calcium, phosphorus, B-complex, and vitamin D)
  - maintenance of desirable weight, growth, and development
- tailor food package to include increased cheese, whole milk, and/or monthly issuance of peanut butter, if appropriate (document tailoring)
- explain the potential risks of Hypothyroidism:
  - Hypothyroidism is the result of a sluggish thyroid gland producing too little thyroid hormone; must be treaded medically
  - symptoms include:
    - fatigue ("bone tired")
    - puffed up hands, face and especially, eyelids
    - weight gain, because metabolism kicks into low gear
    - depression
    - poor appetite
    - cold intolerance
    - dry skin and thinning hair
  - considerations for infants and children include:
- may not grow properly, leading to stunting
- breastfed infants of mothers with untreated hypothyroidism may not gain weight satisfactorily
  - considerations for breastfeeding women:
- untreated hypothyroidism can result in reduced milk supply
- infant may fail to gain weight on breastmilk alone
- health care provider must be involved in the decision to breastfeed to assure thyroid supplements are compatible with breastfeeding
- assess nutritional status and counsel to meet the following nutrition goals:
  - maintenance of desirable weight, growth, and development
- due to sluggish metabolism leading to weight gain, a low calorie diet may be warranted for mothers
- monitor breastfed infant's weight
  - tailor food packages/education
  - consistent and moderate exercise

Continued on next page

344 Thyroid Disorders, Continued

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
What to Eat When You're Pregnant
I'm Breastfeeding: What Should I Eat?
Infant Feeding Guide

Follow up and assessment guidelines

If pregnant, plot and assess weight gain at each clinic visit.
If breastfeeding, individual assessment with a Registered Dietitian.

- reassess weight status
- reassess dietary/caloric intake
- assess compliance with recommendations
- encourage compliance with medical treatment
- document if participant followed through on referrals

If not breastfeeding, appropriate nutrition education at each visit.

Justification

Individuals with hyperthyroidism can benefit from WIC foods and nutrition education due to the increased caloric needs of hypermetabolism. Nutrition education and low-fat WIC food packages can assist individuals with hypothyroidism in weight management and promotion of normal growth and development.

Justification for high risk

Individuals with hyperthyroidism can benefit from WIC foods and education due to increased needs of hypermetabolism. Nutrition and lowfat WIC foods can assist individuals with hypothyroidism in weight management and in the promotion of normal growth and development.

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 170-172.

2. Berkow, et al.: Merck Manual Section 8.87; 1992; 16th Edition.

345 Hypertension

Definition/ cut-off value

Presence of chronic and pregnancy-induced hypertension diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on the Medical History form if self reported.
Enter NRF #345 in screen 106.
Document referrals in screen 106.
If pregnant, document High Risk Care Plan in participant's chart.
Suggested components to assess:

- present nutrition follow-up and support provided by MD and/or other health care provider
- medical therapy and compliance

RD must document management of care plan
If pregnant, schedule appropriate nutrition education or individual counseling at next visit.
If not pregnant, schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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345 Hypertension, Continued

Counseling guidelines

If participant is receiving comprehensive nutrition counseling outside of WIC:
- encourage compliance with:
  - dietary recommendations
  - medical recommendations
- medications as prescribed
  - exercise if appropriate

If participant is not receiving nutrition counseling outside of WIC:
- refer to health care provider, RD, or physician for nutrition counseling and medical follow-up
- explain HTN and potential risks to participants:
  - factors associated with HTN include:
- family history -- greater risk if African American/Asian
- obesity -- especially if weight is around the waist/midriff
- salt (may be salt sensitive?), fat intake; perhaps others
- alcohol consumption
- too little exercise
- smoking
- race
- age: risk increase in men 45-50; in women = d/t menopausal protection
- diabetes
- stress
- unknown reasons

In infants and children:
- not prevalent in children and infants; generally accompanies chronic disease
- strong correlation between obesity and blood pressure
- direct association between body weight and blood pressure
- John Hopkins study suggests ongoing adolescent stress

Potential risks to participants:
- stroke
- coronary heart disease
- hypertensive heart disease
- kidney failure

Continued on next page

345 Hypertension, Continued

Counseling guidelines, (continued)

If pregnant, risks include:
- increased risk of pregnancy-induced HTN if calcium intake is low in early pregnancy or sodium intake is high
- greater risk of pregnancy-induced HTN if deficient in zinc, protein, essential fatty acids, magnesium
- increased risks of:
  - low birth weight (LBW)
  - fetal growth restriction (FGR)
  - premature delivery
  - abrupto placentae
  - superimposed preeclampsia (i.e. -- pregnancy-aggravated HTN)
  - maternal, fetal, and neonatal morbidity

If breastfeeding:
- benefits include:
  - the milk-producing hormone, prolactin, relaxes and soothes breastfeeding mothers -- may benefit those moms with HTN
  - breastfeeding has not been found to cause extra stress, as stress may play a role in further elevating blood pressure
- risks include:
  - assuring that medication is compatible with breastfeeding; many are

Provide basic nutrition counseling which includes:
- encouraging a diet that is based primarily on an abundance of fruits, vegetables, minimally-refined grains and limited saturated fat and cholesterol
- weight loss strategies if overweight
  - losing weight is the single, most effective way to reduce both systolic and diastolic blood pressure
- incorporating heart-healthy eating ideas
  - reduce sodium intake to no more than 24 grams sodium or 6 grams sodium-chloride
- eliminating or limiting alcohol intake to no more than 5 oz ethanol (e.g. - 12 oz beer, 5 oz wine or 1 oz hard liquor). Pregnant women should not consume any amount of alcohol
- increase aerobic physical activity (30-45 minutes most days of week)
- smoking cessation if woman smokes
- adequate intakes of calcium, magnesium and potassium

Continued on next page

345 Hypertension, Continued

Counseling guidelines, (continued)

- assure that the breastfeeding mother's medication(s) are compatible with breastfeeding
  - if plans to breastfeed, call Pregnancy Riskline or discuss/encourage prescription compatibility with MD
- adopt sensible exercise program
- referral to smoking cessation program
- limit alcohol intake to 2 per day or referral to alcohol counseling program, if appropriate
- tailor education classes/contacts and food packages accordingly

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
What to Eat When You're Pregnant
Infant Feeding Guide

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each visit.
If pregnant, individual assessment with a Registered Dietitian.

- reassess growth/weight gain/status
- reassess dietary/caloric intake
- assess compliance with recommendations
- assess compatibility of medication with breastfeeding, if mother intends to breastfeed
- encourage compliance with medical treatment
- document if participant followed-through on referrals

If not pregnant, appropriate nutrition education at each visit.

Continued on next page

345 Hypertension, Continued

Justification

Women with chronic hypertension are at risk for complications of pregnancy such as pre-eclampsia. An estimated 15% of women with hypertension also have renal or cardiac involvement.

Hypertension is the most common medical complication of pregnancy, occurring in 7% of all pregnancies.

Factors associated with these hypertensive disorders include low income, low educational attainment, and poor nutrition. Hypertension during pregnancy may lead to low birth weight, fetal growth restriction, and premature delivery, as well as maternal, fetal, and neonatal morbidity.

Decreased calcium intake in early pregnancy may increase the risk of pregnancy-induced hypertension, while increasing calcium intake has been shown to lower blood pressure, and may prevent the risk of hypertensive disorders. Zinc deficiency, protein deficiency, excess salt intake, essential fatty acid deficiencies, and magnesium deficiencies have all been associated with increased rates of pregnancy-induced hypertension and preeclampsia. There is evidence that dietary changes aid in the prevention and control of hypertension. The WIC program provides foods and nutrition education compatible with treatment and prevention of hypertension during pregnancy.

Children with higher blood pressure are more likely to become adult hypertensives. The definition of hypertension during childhood is age-specific. Blood pressure and overweight status have been suggested as criteria to identify, monitor, and treat hypertensive children. Nutrition-related prevention efforts in high risk children include avoiding overweight, consuming a moderate salt intake, and maintaining an active lifestyle (8).

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345 Hypertension, Continued

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 172-174.

2. Krause's: Food Nutrition and Diet Therapy 8th Edition; 1992; pp. 387-388.

3. Institute of Medicine: Nutrition During Pregnancy: Part I, Weight Gain; and Part II, Nutrient Supplements; National Academy Press; 1990.

4. Dekker, G.A. and Sibai, Baha, M.: Early detection of preeclampsia; Amer. Journal of Obst. and Gyncol; 1991; 165(1):160.

5. Belizian, JM, Villar J, Gonzalez L, Campodonico L, Bergel E.: Calcium supplementation to prevent hypertensive disorders of pregnancy; New England Journal of Medicine; 1991; 325(20): 1399.

6. O'Brien, W.F.: The Prediction of Preeclampsia; Clinical Obstetrics and Gynecology; 1992; 35(2):351.

7. Henderson P, Little GA.: The detection and prevention of pregnancy-induced hypertension and preeclampsia; New Perspectives on Prenatal Care; 1990; pp. 479-500.

8. Trams, CM, and Pipes, PL: Nutrition in Infancy and Childhood; 6th edition; WCB McGraw-Hill; 1997; pp. 238-258.

346 Renal Disease

Definition/ cut-off value

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

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	Y
Postpartum	IV	Y
Infants	I	Y
Children	III	Y

Documentation

Document physician's diagnosis participant's chart or circle condition on the Medical History form if self reported.
Enter NRF #346 in screen 106.
Document High Risk Care Plan in participant's chart.
Suggested components to assess:

- current nutrition follow-up and support provided by MD and/or other health professionals including referrals needed and compliance and understanding of dietary recommendations
- present medical therapy, if any

RD must document management of care plan
Document referrals in screen 106.
Schedule appropriate nutrition education or individual counseling at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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346 Renal Disease, Continued

Counseling guidelines

If participant is receiving nutrition counseling outside of WIC
- Encourage compliance with:
  - dietary recommendations
  - medical recommendations, including medications

If participant is not receiving nutrition counseling outside of WIC
- due to the variety and variability of the disease, the participant must receive comprehensive nutrition counseling outside of WIC.
- refer to local medical treatment program (University of Utah Medical Center), renal dietitian, or MD for in-depth, comprehensive nutrition counseling and follow-up
- refer to Early Intervention Program, Development and Disability, Inc. (DDI), speech pathology, occupational therapy, physical therapy, if appropriate

Explain potential risks for pregnant women
- decreased kidney function (temporary or permanent) as pregnancy progresses
- depending on the disease state, may end up on hemodialysis before the pregnancy ends
- strong possibility of developing a preeclampsia-like syndrome superimposed on underlying vascular disease (i.e. - pregnancy-induced hypertension)
- increased anemia
- women with Chronic Renal Disease often have proteinuria (i.e. protein in the urine) but the additional risk of azotemia is increased (i.e. nitrogenous bodies, especially urea, in the blood; is not normal) if she ups her protein intake
  - participant may be on a protein restricted diet
- risk of premature infant, SGA infant, or both
- fetal loss and morbidity

Explain special considerations for breastfeeding women:
- option to breastfeed is a matter of the risk:benefit ratio
- decision needs to be made with her OB, nephrologist, and/or neonatologist involved
  - involves not only the medical status of mom and baby but the medications used to keep both stable

Continued on next page

346 Renal Disease, Continued

Counseling guidelines, (continued)

Explain potential risks for infants and children:
- Inadequate growth and developmental delay leading to growth failure (i.e. FTT) as the disease progresses

Oral aversion is common; they miss the "bonding" stage with food so often don't "feel" hungry

Once participant has received individual counseling outside of WIC, work in conjunction with the participant's Renal Dietitian to:
- reinforce dietary plan
- tailor food package to meet the nutritional needs of the participant

Suggested handouts

Daily Food Guide - Child/Pregnant/Breastfeeding/Postpartum
Infant Feeding Guide

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each visit.
Individual assessment with a Registered Dietitian.
- reassess growth/weight gain/status
- reassess dietary/caloric intake
- reassess compliance with recommendations
- encourage compliance with medical treatment
- tailor food package if needed
- document if participant followed through on referrals

Justification

Renal disease can result in growth failure in children and infants. In pregnant women, fetal growth is often limited and there is a high risk of developing a preeclampsia-like syndrome. Women with chronic renal disease often have proteinuria, with risk of azotemia, if protein intake becomes too high.

Continued on next page

346 Renal Disease, Continued

Justification for high risk

Renal disease can result in growth failure in children and infants. In pregnant women, fetal growth is often limited and there is a high risk of developing pregnancy-aggravated hypertension. Pregnant women with chronic renal disease have an increased risk of azotemia. All participants with renal disease need individual counseling with an RD, to assure that appropriate food packages and referrals are provided.

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 174-175.

347 Cancer

Definition/ cut-off value

A chronic disease whereby populations of cells have acquired the ability to multiply and spread without the usual biologic restraints. The current condition, or the treatment for the condition, must be severe enough to affect nutritional status.

Presence of cancer diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding*	I	Y
Postpartum	IV	Y
Infants	I	Y
Children	III	Y

*Some cancer treatments may contraindicate breastfeeding.

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter NRF #347 in screen 106.
Document High Risk Care Plan in participant's chart.
Suggested components to assess:

- participant is receiving medical care
- participant is receiving nutritional consultation from RD by MD referral
- compliance and understanding of dietary recommendation
- weight status for breastfeeding/postpartum women; weight gain for pregnant women; growth status for infant and children
- appetite and intake

RD must document management of care plan
Document referrals in screen 106.
Schedule appropriate nutrition education or individual counseling at next visit.

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347 Cancer, Continued

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Counseling guidelines

If participant is receiving comprehensive nutrition counseling outside of WIC:

- reinforce what she is doing well (e.g. weight status, efforts in dietary management, attitude)
- encourage compliance with dietary recommendations
- assist with adjusting meal plan or reported problems
- help problem solve identify areas in dietary plan that could be improved
- provide additional ideas for increased calorie and protein intake

If participant is not receiving nutrition counseling outside of WIC:

- refer her to treatment program, for RD nutrition counseling, and follow-up
- explain potential nutrition concerns and the importance of good dietary intake
  - the type of cancer and stage of disease progression determines the type of medical treatment and nutrition management
  - the type of ongoing treatment may put the participant at increased nutrition risk and health risk (irradiation to the neck, esophagus, abdomen, pelvis, or intense or frequent use of corticosteroid therapy)
  - PEM and wasting are the most common nutritional risks
  - PEM is associated with impaired immune competence, increased susceptibility to infections, etc.
- provide dietary recommendations
  - infants - refer to Infant Feeding Guide
  - women/children - refer to Daily Food Guide
- maintain adequate nutrition status to:
  - maintain body weight in postpartum women
  - meet recommended weight gain for pregnant women
  - promote normal growth patterns for infant and children
- explain need for protein and energy
- assist with meal planning and following the daily food guide with emphasis on meeting the protein group
- provide tricks such as modifying temperatures, textures, or using supplemental food products especially if treatment or medications effected taste perception or appetite

Continued on next page

347 Cancer, Continued

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
Infant Feeding Guide

Follow up and assessment guidelines

If pregnant, plot and assess weight gain at each clinic visit.
Individual assessment with Registered Dietitian.

- reassess growth/weight gain/status
- reassess dietary/caloric intake
- assess compliance with recommendations
- identify changes in disease or treatment
- encourage compliance with medical treatment
- document if participant followed through on referrals

Justification

An individual's nutritional status at the time of diagnosis of cancer is associated with the outcome of treatment. The type of cancer and stage of disease progression determines the type of medical treatment, and if indicated, nutrition management. Individuals with a diagnosis of cancer are at significant health risk and under specific circumstances may be at increased nutrition risk, depending upon the stage of disease progression or type of ongoing cancer treatment.

Justification for high risk

Participants are at medical and nutritional risk depending on the stage of disease and type of treatment. The most common nutritional risk is PEM (Protein Energy Malnutrition) and wasting. Irradiation treatment also contributes to PEM. PEM is associated with impaired immune competence, increased susceptibility to infections, major organ dysfunction, and increased morbidity and mortality. Hematopoietic, GI and immunologic systems are most affected by PEM. Some chemotherapy drugs (e.g. cytosine arabinoside), are toxic to the GI tract and pose additional nutritional risks.

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347 Cancer, Continued

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 175-176.

2. Zeman FJ. Clinical Nutrition and Dietetics. Lexington, Mass: The Collamore Press; 1993.

3. Robinson CH, Weigley ES, Mueller DH. Basic Nutrition and Diet Therapy. New York, NY: Macmillan Publishing Company; 1980.

4. Powers DE, Moore AM. Food Medication Interactions. Tempe, AZ: F-MI Publishing; 1983.

348 Central Nervous System Disorders

Definition/ cut-off value

Conditions which affect energy requirements and may affect the individual's ability to feed self that alter nutritional status metabolically, mechanically, or both. Includes:

- epilepsy
- cerebral palsy (CP) and
- neural tube defects (NTD), such as:
  - spina bifida or
  - myelomeningocele
- Parkinson's disease
- multiple sclerosis (MS)

Presence of central nervous system disorders diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter NRF #348 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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348 Central Nervous System Disorders, Continued

Counseling guidelines

Provide dietary recommendations
Include adequate calories and protein nutrient dense foods (to prevent malnutrition which can lead to growth retardation, poor development and motor skills).
Follow health care provider's or RD special dietary recommendations.
Encourage recommended weight gain for pregnancy.
Encourage recommended growth for infant and children.
Discuss if they are receiving adequate social services and medical care (refer to a child development program).
Discuss if have decreased motor skills and/or feeding abilities.

- ask if can self feed, or feed with assistance, or needs full assistance
- refer to feeding clinic, occupational therapist, RD
  - clinic can provide instruction to child, parent, and/or provider to assist with feeding and possibly special feeding tools or utensils

Epilepsy:

- identify if any injury occurred due to seizures
- discuss if seizures are controlled by medications
- identify medications
  - reinforce following prescription instructions
  - identify possible drug nutrient interaction (e.g. Phenobarbital may increase needs of folate, vitamin D, K, calcium, B vitamins, increase risk of osteomalacia, increase appetite, increase nausea, vomiting, anorexia)
  - address possible drug nutrient interaction through dietary recommendations
- recommend daily multivitamin/mineral supplement
- refer participant to MD regarding any special supplementation or medical concerns

Cerebral Palsy (C.P.)

- for those that are underweight, recommend increased calorie and nutrient intake and vitamin/mineral supplementation
- for those that are overweight and have limited activity, discuss prevention of obesity

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348 Central Nervous System Disorders, Continued

Counseling guidelines, (continued)

Neural tube defects (NTDs)

- identify and refer to health care provider for the following problems that could occur
  - Genitourinary problems, bladder and bowel incontinence
  - variable weakness to flaccid paralysis in lower extremities
  - hydrocephalic
  - possible decreased intelligence
- discuss and counsel regarding:
  - obesity, which is common
  - low energy needs
  - maintaining normal weight for height ratio, or recommended weight gain for pregnancy, or growth for infants/children
  - folic acid supplementation
- recommend maternal intake of at least 400µg (.4 mg) daily, and
- .4 mg daily for women who have had an affected infant previously in the periconceptional period is believed to greatly reduce the risk of having an infant with NTD
  - encourage foods high in folic acid, continue with folic acid supplementation
  - the bioavailability of folic acid in foods is approximately half
  - refer women on anticonvulsant drugs to MD regarding increased risk of NTD birth
- e.g. Valproic acid/Depakene and Carbamazapine are associated with NTD; folic acid reduces the risk
  - vitamin/mineral supplementation
  - possible disorders of ascorbic acid metabolism
  - increase fluids to prevent bladder infections
  - high fiber diet to avoid constipation

Continued on next page

348 Central Nervous System Disorders, Continued

Counseling guidelines, (continued)

Multiple Sclerosis (MS)

- encourage a well balanced diet
- identify if chewing or swallowing is affected; provide recommendations for:
  - appropriate food choices and modifying food textures
- offer thicker drinks, shakes, puddings
- avoid foods that crumble (e.g. crackers, toast, cakes) that can cause choking
  - cooking and food preparation
- offer soft, blenderized, mashed foods
- offer stewed/cooked fruits/vegetables vs. raw
- identify if characteristic problems such as: vision problems, weakness, fatigue, decreased coordination, numbness, paralysis, and decreased mobility *affect*
  - food shopping
  - meal preparation
  - self feeding
  - provide recommendations
  - refer to occupational therapist for special utensil aids to assist in kitchen
- maintain normal weight (appropriate BMI) as activity decreases
  - encourage exercise as recommended by MD
  - refer to physical therapist
  - prevent overheating with exercise - exercise in cool water, in an air-conditioned environment, with appropriate clothing (overheating temporarily aggravates MS symptoms)
- refer to MD for treatment if UTIs or incontinence becomes a problem
  - possibly limit caffeine
  - do not restrict fluid intake
- if constipation is a problem, provide recommendations for high fiber, increased water, exercise, etc.
- refer for counseling if depression, anxiety is identified
- encourage/promote treatment for infections

Continued on next page

348 Central Nervous System Disorders, Continued

Counseling guidelines, (continued)

Multiple Sclerosis (cont.)

- refer postpartum women to MD if symptoms temporarily increase after delivery (sometimes there are less symptoms during pregnancy) Studies show that pregnancy does not alter the long-term course of MS.
- refer to local MS chapter (if appropriate)
  - National Multiple Sclerosis Society: 1-800-344-4867 (1-800-FIGHT-MS) with 24 hour hotline, or website: www.nmsss.org
  - Multiple Sclerosis Society, Utah State Chapter 1-800-527-8116

National Institute for Neurological disorders and stroke: 1-800-352-9424

Parkinson's disease

- maintain appropriate BMI; prevent low BMI or weight losses
  - provide high calorie diet
  - encourage calorie dense food choices diet (e.g. peanut butter, cheese, whole milk)
  - encourage more foods per day, more frequent meals
- identify swallowing difficulties (which can lead to weight loss)
  - modify foods, textures to accommodate
- eating slowly or not finishing meals may be common
  - plan meals for smaller, more frequent meals
  - plan cold foods for end of meal (so cooked meals do not get cold and unappealing to eat)
- identify if medications cause nausea or GI upset
  - recommend small amount of food (e.g. crackers, bread) eaten with medication to help prevent nausea
- identify if there is constipation
  - increase fiber and liquids in diet
  - recommend appropriate food choices
  - encourage exercise
- refer for counseling if depression or anxiety is identified
- identify if the characteristic involuntary muscle movements affects
  - self feeding
  - meal preparation, cooking
  - walking & working in the kitchen

Continued on next page

348 Central Nervous System Disorders, Continued

Counseling guidelines, (continued)

Parkinson's disease (cont.)

- refer to occupational therapist for instruction, helpful devises & tool use
- recommend alcohol use in moderation; avoid if pregnant
- refer to MD for guidance regarding medication and diet restrictions
- refer to local Parkinson's disease support group
  - Parkinson's Disease Foundation: 1-800-457-6676
  - Medical information: Jeanne Rosner 1-312-733-1893
- Parkinson's is usually diagnosed in age groups in late 40s; average age 55-65
- Medications frequently used are L-dopa and carbidopa (sinemet) and have fewer restrictions with diet interactions (e.g. protein, B6 Pyridoxine). A very small percentage of patients need to decrease the amount of protein in their diet; distribute the protein through out the day in several meals; and separate taking their medications from the protein meals by 1 -1/2 hours.

Suggested handouts

Infant Feeding Guide
Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

Epileptics are at nutrition risk due to alterations in nutrient status from prolonged anti-convulsant therapy, inadequate growth, and physical injuries from seizures. Infants and children with CP often grow poorly and have decreased energy and nutrient intake, primarily because of poor motor skills. Limited mobility or paralysis, hydrocephalus, limited feeding skills, and genitourinary problems, put NTDs at increased risk of abnormal growth and development. The participant with Parkinson's disease will benefit from nutrition education that includes dietary protein modification that ensures adequate nutrition and meets minimum protein requirements. In some cases, protein redistribution diets will be necessary to increase the efficacy of the medication used to treat Parkinson's disease. MS may cause difficulties with chewing and swallowing that require changes in food texture in order to achieve a nutritionally adequate diet.

Continued on next page

348 Central Nervous System Disorders, Continued

Justification for high risk

Not applicable

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 177-178.

2. Zeman FJ. Clinical Nutrition and Dietetics. Lexington, Mass: The Collamore Press; 1993.

3. Robinson CH, Weigley ES, Mueller DH. Basic Nutrition and Diet Therapy. New York, NY: Macmillan Publishing Company; 1980.

4. Pike RL, Brown ML. Nutrition an Integrated Approach. New York, NY: John Wiley & Sons; 1984.

5. Institute of Medicine: Nutrition During Pregnancy. Washington, DC: National Academy Press; 1990.

6. Mayo Clinic Diet Manual: A Handbook of Nutrition Practices; Seventh Edition; 1994; pp. 287-291.

7. Sarnoff, J, and Rector, DM. MS Information, Food for Thought: MS and Nutrition; 5/14/99; pp. 1-6.

8. Chang, MW, Rosendall, B, and Finlayson, BA. Mathematical modeling of normal pharyngeal bolus transport: a preliminary study. J. Rehabil Res Dev, 1998 Jul; 35 (3): 327-34.

9. Berkow, et al.: Merck Manual; 1992; 16th Edition; pp. 1354-1356.

349 Genetic and Congenital Disorders

Definition/ cut-off value

Hereditary or congenital condition at birth that causes physical or metabolic abnormality. The current condition must alter nutrition status metabolically, mechanically, or both. Includes:

- cleft lip or palate
- Down's syndrome
- thalassemia major
- sickle cell anemia (not sickle cell trait)
- muscular dystrophy

Presence of genetic and congenital disorders diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter NRF #349 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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349 Genetic and Congenital Disorders, Continued

Counseling guidelines

Explain:
- disorders affect nutrition if they cause problems with self-feeding, digestion, absorption or utilization of nutrients and/or hypoxia (low oxygen levels)
- for most disorders, address:
  - dietary recommendations
  - following MD/RD special recommendations
  - weight gain for pregnancy
  - growth assessment for infants and children
  - appropriate referrals
  - special feeding challenges

Cleft Lip and Palate:
- discuss and address solutions to feeding difficulties
  - infant cannot create an airtight seal (for negative pressure) to suck
  - swallowing can be affected; excessive air intake
- discuss and address solutions to other difficulties:
  - respiratory problems
  - more ear infections
  - weight and height can be subnormal, due to feeding problems
  - dental decay
- discuss feeding method(s)
  - determined by the severity of the cleft
  - breastfeeding and/or pumped breastmilk
  - Brecht feeder (syringe with flexible tubing)
  - Beniflex (crossed nipple)
  - Haberman feeder (large nipple with collection receptacle)
  - Supplemental Nutrition System (SNS), Infant Feeding Tube devises
  - formula
  - referral to specialist for assistance in feeding (O.T., RD, CLC)
  - use feeding method up to 4-6 months until infant can use cup and spoon feeding

Continued on next page

349 Genetic and Congenital Disorders, Continued

Counseling guidelines, (continued)

Cleft Lip and Palate (continued):

- explain mom and baby will need breastfeeding assistance:
  - support recommended feeding techniques
  - refer to CLE, CLC if breastfeeding or pumping (e.g. hospital)
  - closely monitor
- breastfeeding at breast with cleft palates is very difficult and many medical professionals do not encourage it due to the outcomes
- less severe cleft lips, especially after surgery, can be more successful at breast
- explain breastfeeding benefits:
  - breastfeeding provides benefits of decreased infections, ear and respiratory and prior to surgeries and post surgery protection
  - bonding and closeness
- development of orofacial muscles
- explain breastfeeding techniques:
  - try different positions to get seal, both mother and baby comfortable, head slightly higher than buttocks
  - use finger or thumb to seal cleft lips
  - direct nipple away from back of throat
  - support breast and chin to prevent tiring (“Dancer” position)
  - shorter feeds may be necessary due to fatigue
  - get “let down” before feeding
  - pump to keep milk supply up
  - use of hind milk
  - support breastfeeding mom’s efforts (regardless of outcome)
- explain importance of closely monitoring weight gain
- explain older infant receiving solids:
  - avoid acidic and spicy foods that could cause irritation of the mouth and nose
  - avoid nuts, peanut butter, leafy vegetables, peeling of raw fruits, creamed dishes that could get caught in cleft
  - may eat slower, may tire before eating adequately
  - offer smaller, more frequent meals of high caloric dense foods (low fluid content)

Continued on next page

349 Genetic and Congenital Disorders, Continued

Counseling guidelines, (continued)

Cleft and Lip Palate (continued):

- explain lip surgery/repair:
  - when infant reaches 10 lbs or about 6-8 weeks
  - may use feeding assistance devise until resume breastfeeding
  - offer water after feeding to prevent contamination of suture line
- explain palate repair:
  - usually schedule at 12-14 months old
  - palatal obturator used to keep the hard palate from closing
  - post operation - use cup feeding not spoon feeding or straw to avoid injury the repair site
  - diet of soft, finely pureed or mashed 10-20 days, then normal diet

avoid hard foods (e.g. raw vegetables)

Down Syndrome:

- discuss feeding method(s):
  - support health care provider's feeding recommendations
  - dependent on the individualities and abilities of the dyad
  - dependent on if very low tone or have other medical problems
  - breastfeeding options and using pumped breastmilk
  - use of Supplemental Nursing System (SNS), Infant Feeding Tube devise
  - use of cup, flexible cup (e.g. - Infa Feeder)
  - use of appropriately suited bottle and nipple
  - referral to specialist for feeding assistance (O.T., RD, CLC)
- discuss and address solutions to feeding difficulties:
  - encourage small frequent feedings and correct latch/positioning
  - low muscle tone may fatigue or be less effective at feedings (e.g. - 2-3 gum presses and then sweep tongue to get milk from breast)
  - flat tongue gets less milk at breast (doesn't cup)
  - gulping and choking happens more easily; airway not as well protected with swallowing

Continued on next page

349 Genetic and Congenital Disorders, Continued

Counseling guidelines, (continued)

Down Syndrome (continued):

- explain mom and baby may need breastfeeding assistance:
  - refer to lactation assistance (e.g. - hospital CLC)
  - participant may need other feeding techniques and feeders to supplement
  - discuss benefits of breastfeeding
- decreased ear and respiratory infections
- bonding and closeness
- development or orofacial muscles
- discuss breastfeeding techniques:
  - cuddle, skin to skin for stimulation
  - breastfeeding positions, well supported for baby and mom
  - direct nipple away from back of throat or more upward to assist milk flow for easier swallowing
  - observe nursing patterns, may change in need to burp
  - burping positions to collapse diaphragm
  - support breast and chin to prevent tiring ("Dancer" position)
  - shorter feeds may be necessary due to fatigue
  - get "let down" before feeding
  - double electric breast pump to keep milk supply up
  - use of hind milk
  - encourage patience and learning
  - support breastfeeding mom's efforts (irrelevant of outcome)
- explain importance of monitoring weight gain (use Down growth chart for counseling)
- refer for physical therapy (PT) improve strength and development
- discuss older infant or child receiving solids:
  - avoid nuts, peanut butter, leafy vegetables, or foods that are difficult to manipulate in mouth or cause choking
  - may eat slower, may tire before eating adequately
  - possibly delay introduction to solid foods due to late appearance of the chewing reflex and of teeth
  - offer small bites, clear mouth, offer liquids due to storage of food in the high arched palate; thrusting of food out of the mouth with the tongue
  - use bibs/overshirts; increased mucus production
  - offer smaller more frequent meals
  - adjust caloric intake for appropriate growth for the older child

Continued on next page

349 Genetic and Congenital Disorders, Continued

Counseling guidelines, (continued)

Sickle Cell Anemia:

- nutrition recommendations:
  - assure there is not excessive iron storage
  - high hematocrit should be referred to their physician
  - dietary intakes should be normally low in iron
  - iron rich foods such as liver and iron fortified cereals should be excluded
  - requirements for water soluble vitamins are high
  - dietary intake of fat should be low (< 30% of total calories especially if they have liver and gall bladder disease)
  - zinc supplementation may be helpful; refer to physician
  - refer to health care provider for ongoing care and if hematocrit is very low or very high

Thalassemia

- nutrition recommendations:
  - provision of a well balanced diet
  - include diet rich in water soluble vitamins
  - recommend diet low in iron if transfusions are part of treatment
- refer to health care provider for ongoing care and if hematocrit is very low or very high

Continued on next page

349 Genetic and Congenital Disorders, Continued

Counseling guidelines, (continued)

Muscular Dystrophy

- nutritional recommendations:
  - provision of a well balanced diet
  - calorie requirements may be less than normal
  - limit high calorie, low nutrient dense foods
  - limit fat to no greater than 30% of total calories
  - increase fiber if constipation is a problem
  - watch for increase in weight gain, (increase in BMI), or obesity; encourage following exercise program, physical & respiratory therapies
  - watch for swallowing difficulties, if phlegm accumulates due to ingestion of dairy, ensure adequate calcium intake and use juices to clear phlegm
  - observe for changes in functional ability or mobility that affect caloric intake (e.g. self feeding) or caloric expenditure (e.g. ability to walk/move)
- Refer to local muscular dystrophy association (for information, support groups, recreational activities, other services)
  - Muscular Dystrophy Association (Holladay, Utah) 1-801-278-6200
    U of U Medical Clinic, Dept. of Neurology, 1-801-581-6873
  - Muscular Dystrophy Association, National Office 1-800-572-1717
- Refer for occupational therapy for eating assistance, such as:
  - use rubber mesh mat or moistened paper towel under plate to prevent slipping
  - use lightweight plastic bowls vs. glass or ceramic
  - increase diameter of eating utensils with foam; use wide-handled plastic mugs & sip cups, two handled cups or water bottles with straws
  - cut out rim of disposable cup to fit child's nose (allows chin forward comfort)
  - for swallowing difficulties: suck ice chips to desensitize the gag reflex (adults), tip chin down if food gathers in the back of the mouth, place frozen package of peas on the front of the neck to relax muscle spasms.
- Refer to MD for:
  - monitoring medications and their possible side effects
  - GI problems
  - possible labor and delivery complications due to muscle abnormalities in uterus
  - medical bracelet
  - rehabilitative devices, orthopedic aids

Continued on next page

349 Genetic and Congenital Disorders, Continued

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
What to Eat When You Are Pregnant
I'm Breastfeeding What Should I Eat?
Infant Feeding Guide

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

For women, infants, and children with these disorders, special attention to nutrition may be required to achieve adequate growth and development and/or to maintain health.

Severe cleft lip and palate anomalies commonly cause difficulty with chewing, sucking and swallowing, even after extensive repair efforts (2). Surgery is required for many gastrointestinal congenital anomalies. (Examples are trachea-esophageal fistula, esophageal atresia, gastroschisis, omphalocele, diaphragmatic hernia, intestinal atresia, and Hirschsprung's Disease.)

Impaired esophageal atresia and trachea-esophageal fistula can lead to feeding problems during infancy. The metabolic consequences of impaired absorption in short bowel- syndrome, depend on the extent and site of the resection or the loss of competence. Clinical manifestations of short bowel syndrome, include diarrhea, dehydration, edema, general malnutrition, anemia, dermatitis, bleeding tendencies, impaired taste, anorexia, and renal calculi. Total parenteral feedings are frequently necessary initially, followed by gradual and individualized transition to oral feedings. After intestinal resection a period of adaptation by the residual intestine begins and may last as long as 12-18 months (3). Even after oral feedings are stabilized, close follow-up and frequent assessment of the nutritional status of infants with repaired congenital gastro-intestinal anomalies is recommended (2).

Continued on next page

349 Genetic and Congenital Disorders, Continued

Justification (continued)

Sickle-cell anemia is an inherited disorder in which the person inherits a sickle gene from each parent. Persons with sickle-cell trait carry the sickle gene, but under normal circumstances are completely asymptomatic. Good nutritional status is important to individuals with sickle-cell anemia to help assume adequate growth (which can be compromised) and to help minimize complications of the disease since virtually every organ of the body can be affected by sickle-cell anemia (i.e., liver, kidneys, gall ladder, and immune system). Special attention should be given to assuring adequate caloric, iron, folate, vitamin E and vitamin C intakes as well as adequate hydration.

Muscular dystrophy is a familial disease characterized by progressive atrophy and wasting of muscles. Changes in functionality and mobility can occur rapidly and as a result children may gain weight quickly (up to 20 pounds in a 6 month period). Early nutrition education that focuses on foods to include in a balanced diet, limiting foods high in simple sugars and fat and increasing fiber intake can be effective in minimizing the deleterious effects of the disease.

Justification for high risk

Not applicable

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 179-181.

2. Ohio Neonatal Nutritionists: Nutritional Care for High Risk Newborns: Stickley Publishers; 1985; pp. 126-137, 141.

3. Grand, Stephen, and Dietz: Pediatric Nutrition: Theory and Practice; Butterworths; 1987; pp. 481-487.

4. Pediatric Nutrition in Chronic Diseases and Developmental Disorders: Prevention, Assessment and Treatment, Edited by Shirley Walberg Ekvall, PhD, FAAMD, FACN, RD; Oxford University Press; 1993; pp. 289-292.

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349 Genetic and Congenital Disorders, Continued

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6. Berkow R, et at. The Merck Manual of Diagnosis and Therapy. Rahway, MJ: Merck Sharp and Dohme Research Laboratories; 1982.

7. Danner SC, Cerutti ER. Nursing Your Baby With A Cleft Palate & Cleft Lip. Waco, TX: Childbirth Graphics; 1996.

8. Danner SC, Cerutti ER. Nursing Your Baby with Down Syndrome. Waco, TX: Childbirth Graphics; 1986.

9. American Dietetic Association: Pediatric Manual of Clinical Dietetics; 1998; pp. 177-178.

10. Berkow, et al.: Merck Manual; 1992; 16th Edition; page 1388.

350 Pyloric Stenosis

Definition/ cut-off value

Gastrointestinal obstruction with abnormal gastrointestinal function affecting nutritional status. Presence of pyloric stenosis diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Infants	I	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self-reported
Enter NRF #350 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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350 Pyloric Stenosis, Continued

Counseling guidelines

If surgery (pyloromyotomy) has not been completed:

- encourage follow-up with MD
- assure participant that the forceful projectile vomiting that occurred the first 2-6 weeks will cease postoperatively and the infant should be tolerating feedings well within a few days postoperatively
- review signs of dehydration:
  - limited urinary output (< 6 wet diapers in 24 hours)
  - urinate every 6-8 hours
  - dark urine
  - poor rebound from pinch test
  - sunken fontanel or soft spot
  - dry eyes and no tearing when crying
  - dry mouth
  - dry or wrinkly skin
  - unusually irritable or tired
  - thirsty

If surgery (pyloromyotomy) has been completed:

- identify if vomiting has decreased
- counsel on basic infant nutrition
- review appropriate length between feeding, volume/number of feedings
- encourage breastfeeding
- encourage follow-up with MD
- assess formula tolerance

Suggested handouts

Infant Feeding Guide
The First 12 Months

Follow up and assessment guidelines

Appropriate nutrition education at each visit.

Continued on next page

350 Pyloric Stenosis, Continued

Justification

Nonbilious projectile vomiting characteristically begins at two to three weeks of age and progresses to almost complete gastric outlet obstruction. Pyloric stenosis is associated with constipation, weight loss, dehydration and electrolyte imbalance. Most commonly it requires surgical correction within the first month of life. However, surgical repair is frequently unavailable, delayed or not completely effective leaving residual nutrition and potential growth problems. The infant remains at risk until full recovery from surgery and gastrointestinal function returns to normal.

Justification for high risk

Not applicable

References

1. Ed. By Bergsma, D.: Birth Defects Atlas and Compendium; March of Dimes; 1974; p. 768.

2. Zeman FJ. Clinical Nutrition and Dietetics. Lexington, Mass: The Collamore Press; 1993.

351 Metabolic Inborn Errors

Definition/ cut-off value

Presence of inborn error(s) of metabolism diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Generally refers to gene mutations or gene deletions that alter metabolism in the body, including:

- fructoaldolase deficiency
- galactokinase deficiency
- galactosemia
- glutaric aciduria
- glycogen storage disease
- histidinemia
- homocystinuria
- hyperlipoproteinemia
- hypermethioninemia
- maple syrup urine disease
- medium-chain acyl-CoA dehydrogenase (MCAD)
- methylmalonic acidemia
- phenylketonuria (PKU)
- propionic acidemia
- tyrosinemia
- urea cycle disorders

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	Y
Postpartum	IV	Y
Infants	I	Y
Children	III	Y

Continued on next page

351 Metabolic Inborn Errors, Continued

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self-reported.
Enter NRF #351 in screen 106.
Document referrals in screen 106.
Document High Risk Care Plan in participant's chart.

Suggested components to assess:

- compliance with the prescribed diet and formula
- proper formula mixing and preparation
- based on the current dietary prescription, the participant is receiving the correct food package
- if the participant is receiving ongoing medical care and routine lab testing
- feeding problems or difficulties
- growth status (weight, height, OFC for infant/child)
- recommended weight gain for pregnant women
- weight status for postpartum/breastfeeding women

RD must document management of care plan

Schedule appropriate nutrition education or individual assessment with Registered Dietitian according to client's nutritional needs/interests, lifestyle situation and cultural preferences. This individualized assessment may be waived if the client is currently being monitored at a metabolic clinic. Document the name of the clinic and physician in the client's chart.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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351 Metabolic Inborn Errors, Continued

Counseling guidelines

Explain risks:
- pregnant women are at higher risk of spontaneous abortion or other health or nutrition risks
- infants born to mothers with untreated PKU may show fetal growth restriction, microcephaly, LBW, and congenital heart disease
- infants need to be treated soon after birth to prevent serious health problems.

Reinforce:
- the disorder is treated through dietary restrictions/modification and special formulas
- following the dietary recommendations provided by the metabolic clinic/RD (to prevent or greatly lower risks)
- the goal is to maintain lab values within the normal treatment range; to provide for sufficient quantities to support growth and development
- proper mixing instructions
- learning food restrictions, portion sizes and planning/adjusting diet based on dietary prescription
- WIC can provide special formula/product; WIC foods to be used only in compliance with the dietary prescription
- receiving ongoing medical/dietary care from the metabolic clinic for:
  - if applicable, following lab testing schedule
  - reporting feeding problems (e.g. - excessive hunger, loss of appetite, refusal of formula/product or solids)
  - recommended schedule for introduction of solid foods for infants/children

Discuss recommended:
- growth for infants and children
- weight gain for pregnant women
- weight status for breastfeeding/postpartum women

Provider referrals to:
- health care provider or metabolic clinic that is providing the dietary management for ongoing car and follow-up
- local/state educational or support groups for that specific condition

Continued on next page

351 Metabolic Inborn Errors, Continued

Counseling guidelines, (continued)

PKU (phenylketonuria):

- review risks:
  - individuals with PKU lack the enzyme to convert phenylalanine (an essential amino acid) to tyrosine
  - high levels of phenylalanine and its metabolites are toxic to the developing central nervous system, risk to fetus and newborn such as IGR, congenital anomalies, mental retardation
  - total restriction of phenylalnine can also cause problems such as microcephaly, intrauterine growth retardation, FTT
- review benefits of treatment:
  - during pregnancy, lowering intake of phenylalanine to normal levels reduces the risk of damage to the fetus or newborn
  - infants and children who receive early and continuous dietary treatment can normalize blood phenylalanine and can have normal mental development
- reinforce:
  - infants with PKU should not be exclusively breastfed; they need to follow their prescription for low phenylalanine formula in conjunction with breastfeeding (e.g. - Phenex 1, Analog XP)
  - individuals with disorder, or parent/caregiver, need to learn foods low in phenylalanine, portion sizes, planning for diet.
  - not to use artificial sweetener aspartame, for foods containing; read labels (no Nutra Sweet, Equal)

Galactosemia:

- reinforce:
  - importance of receiving ongoing medical/dietary care
  - importance of following prescribed formula or dietary prescription which may change with the participant's needs

Continued on next page

351 Metabolic Inborn Errors, Continued

Counseling guidelines, (continued)

Hyperliproteinemia (HLP):

- reinforce:
  - need for ongoing medical/dietary care
  - need to follow dietary recommendations (which are individualized depending on the type) such as:
    - decrease saturated fat
    - decrease cholesterol
    - increase fiber
    - decrease alcohol
  - follow dietary recommendations regarding recent calories from fat and carbohydrates
  - follow medications
  - achieve or maintain appropriate BMI for breastfeeding/postpartum
  - encourage recommended weight gain for pregnant women
  - encourage appropriate growth for infants and children
  - participants with high triglyceride levels and/or hypertension need to follow MD treatment:
- no smoking
- encourage exercise
- encourage compliance to prevent atherosclerosis and coronary heart disease
- modify food package to:
  - decrease cheese
  - use nonfat or low fat milk
  - monthly issuance of beans (vs. peanut butter)

Suggested handouts

Not applicable

Continued on next page

351 Metabolic Inborn Errors, Continued

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Individual second contact with Registered Dietitian.

- reassess growth/weight gain/status
- reassess dietary/caloric intake
- assess compliance with recommendations
- encourage compliance with medical treatment
- tailor food package to support dietary recommendations or prescription
- document if participant followed through on referrals (MD, RD)

Justification

Appropriate dietary management, which may include the use of special formulas, can minimize the medical risk to individuals with inborn errors of metabolism.

Justification for high risk

Untreated pregnant women with certain inborn errors of metabolism have a higher risk of spontaneous abortion and other health or nutrition risks. Infants born to mothers with untreated PKU may show fetal growth restriction, microcephaly, low birth weight, and congenital heart disease. If not detected and treated soon after birth, infants accumulate abnormal metabolites in their blood, resulting in mental retardation, seizures, growth retardation, and developmental delays. Appropriate dietary management, which includes the use of special formulas, can minimize the medical risks to the individual.

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351 Metabolic Inborn Errors, Continued

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5. Institute of Medicine: Nutrition During Pregnancy. Washington, DC: National Academy Press; 1990.

6. The American Dietetic Association. Handbook of Clinical Dietetics. New Haven, Conn: Yale University Press; 1981.

7. The American Dietetic Association: Pediatric Manual of Clinical Dietetics; Table 2-Metabolic Disorders Amenable to Nutrition Therapy; 1998; p. 288.

352 Infectious Diseases

Definition/ cut-off value

A disease caused by growth of pathogenic microorganisms in the body severe enough to affect nutritional status. Includes:

- AIDS (Acquired Immunodeficiency Syndrome)*****
- bronchiolitis (3 episodes in last 6 months)
- hepatitis*****
- HIV (Human Immunodeficiency Virus infection)*****
- meningitis
- parasitic infections
- pneumonia
- tuberculosis

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding*	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

*Breastfeeding is contraindicated for women with HIV or AIDS.
*Breastfeeding may be permitted for <u>some</u> women with hepatitis (see counseling guidelines).

Documentation

Document physician's diagnosis in participant's chart of circle condition on Medical History form if self reported.
Enter NRF #352 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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352 Infectious Diseases, Continued

Counseling guidelines

Discuss need for receiving adequate nutrients, calories and protein to:
- maintain health status
- fight infection (e.g. -- more calories utilized with fever)
- provide for growth (infants/children)
- provide for adequate weight gain for pregnancy
- maintain normal body weight
- prevent malnutrition
- maintain adequate protein stores, prevent catabolism
- promote healing

Discuss:
- changes in dietary intake, appetite
- if participant is anorexic, nauseous
- recent weight loss or changes
- appropriate weight status or recommended weight gain for growth or pregnancy
- if medically allowed, moderate physical activity
- basic precautions of spreading infectious disease (e.g. - frequent handwashing with food preparation)

Dietary recommendations:
- provide dietary recommendations appropriate for category
- include food sources of vitamin A, C, iron and zinc
- offer small, frequent meals if intake is poor
- cater to personal preferences to spark appetite and encourage better intake
- offer high calorie, nutrient dense foods to maintain or increase weight
- reinforce to follow directions on medications (if to be taken with or without foods); identify possible food nutrient interactions (NRF #357)

Continued on next page

352 Infectious Diseases, Continued

Counseling guidelines, (continued)

Discourage:
- drug use
- smoking
- alcohol use

Encourage:
- adequate rest, prevention of fatigue
- limiting stress
- receiving help from other services specific to the disease

Breastfeeding recommendations:
- it is not recommended for women to breastfeed if they have hepatitis or HIV/AIDS
- for other infectious diseases, breastfeeding has specific immunological benefits to prevent infant from disease
- if the woman's health and nutrition status is severely compromised, consult MD regarding breastfeeding
- hepatitis: developments in the management and prevention of hepatitis have changed the management of infected women during pregnancy and have made breastfeeding safe. The following are guidelines for breastfeeding women with hepatitis, as found in the Technical Information Bulletin (10/97) "A Review of the Medical Benefits and Contraindications to Breastfeeding in the United States":
  - Hepatitis A: breastfeeding is permitted as soon as the mother receives gamma gobulin.
  - Hepatitis B: breastfeeding is permitted after the infant receives HBIG (Hepatitis B specific immunoglobin) and the first dose of the series of Hepatitis B vaccine.
  - Hepatitis C: breastfeeding is permitted for mothers without co-infection (e.g. HIV).

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
I'm Breastfeeding - What Should I Eat?
What to Eat When You Are Pregnant
How Much Is Enough For My Child?

Continued on next page

352 Infectious Diseases, Continued

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

Chronic, prolonged, or repeated infections adversely affect nutritional status through increased nutrient requirements as well as through decreased ability to take in or utilize nutrients.

Catabolic response to infection increases energy and nutrient requirements and may increase the severity of medical conditions associated with infection.

Bronchiolitis is a lower respiratory tract infection that affects young children, usually under 24 months of age. It is often diagnosed in winter and early spring, and is caused by the respiratory syncytial virus (RSV). Recurring episodes of bronchiolitis may affect nutritional status during a critical growth period and lead to the development of asthma and other pulmonary diseases.

HIV is a member of the retrovirus family. HIV enters the cell and causes cell dysfunction or death. Since the virus primarily affects cells of the immune system, immunodeficiency results (AIDS). Recent evidence suggests that monocytes and macrophages may be the most important target cells and indicates that HIV can infect bone marrow stem cells. HIV infection is associated with the risk of malnutrition at all stages of infection.

Justification for high risk

Not applicable

Continued on next page

352 Infectious Diseases, Continued

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 184-186.

2. Berkow, et al.: Merck Manual; 1992; 16th Edition.

3. Grand, Stupen, and Dietz: Pediatric Nutrition: Theory and Practice; Butterworths; 1987; pp. 549-570, 571-578, 651-664.

4. Zeman FJ. Clinical Nutrition and Dietetics. Lexington, Mass: The Collamore Press; 1993.

5. Lawrence, Ruth A: Maternal and Child Health Technical Information Bulletin: A Review of Medical Benefits and Contraindications to Breastfeeding in the United States; 1997; pp. 14-17.

353 Food Allergies

Definition/ cut-off value

An adverse immune response to a food or a hypersensitivity that causes adverse immunologic reaction.

Presence of food allergies diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self-reported
Enter NRF #353 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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353 Food Allergies, Continued

Counseling guidelines

Explain definition of a food allergy.

- true food allergies involve abnormal immunologic responses to food proteins
- the proteins are resistant to digestion and elicit the formation of antibodies
- this allergic response occurs immediately after food are eaten (this is different from a food intolerance)

Explain characteristics of a food allergy:

- will always result in the same symptomatic reaction for that individual (could be more mild or severe)
- if an individual is ill or stressed, symptoms may also be more severe
- sensitization can occur; may have previously tolerated a food but now has a reaction
- there may be potential for thresholds for individuals with multiple allergies (from contacting, inhaling or ingesting allergens)
- some food allergy reactions can be more severe for those that have other allergies, even not food allergens (e.g. - during seasonal pollen season)

Discuss:

- the most common offending foods are: peanuts, cow milk, eggs, soy beans, nuts from trees, wheat, and seafood
- prevalence:
  - 4 - 8% young infants
  - 1 - 2% children
  - < 1% adults

Continued on next page

353 Food Allergies, Continued

Counseling guidelines, (continued)

Discuss reactions that can occur:

- GI - nausea, vomiting, diarrhea, abdominal pain, colic, loss of appetite, constipation, malabsorption, cheilitis and stomatitis (inflammation of the lip and mouth)
- dermatologic - itchy "wheels", hives, eczema, dermatitis, rash around mouth, or ulcers in/around mouth
- respiratory - chronic rhinitis, asthma, recurrent bronchitis, recurrent croup, recurrent otitis media, chronic coughing, spitting up blood from irritated lungs or bronchioles
- CNS - headache, insomnia, irritability, listlessness, drowsiness
- hematologic - anemia
- systemic - anaphylaxis, FTT, malnutrition

Dietary recommendations - assist with:

- eliminating allergenic food(s) from diet
- meal planing at home, away from home, at restaurants
- adjusting food package: try goat's milk (40% of those sensitive to cow's milk can tolerate goat's milk)
- reading labels to identify allergenic foods (see NRF #354 "Celiac Disease" and #355 "Lactose Intolerance" for food list and other ideas)
- identify unobvious allergen sources in foods; they are widely found in commercial and prepared foods (e.g. - corn, eggs)
- modifying or substituting recipes
- If the CPA/RD determines that a client's calcium intake is compromised, offer calcium fortified orange juice by providing the client with a Special Formula/Food letter indicating the client's need for calcium fortified orange juice

Educate participant about anaphylactic response:

- it is a whole-body systemic reaction in which airway can be blocked, shock can occur, etc. in seconds to minutes
- if allergic individual has potential for anaphylactic response they should know:
  - what foods could precipitate anaphylactic response - legumes, especially peanuts, tree nuts, seafood particularly shellfish, berries
  - what treatments or medications should be administered at time of reaction
  - wearing a medical alert bracelet or jewelry could provide for more immediate treatment

Continued on next page

353 Food Allergies, Continued

Counseling guidelines, (continued)

Refer to health care provider.

Discuss during pregnancy:

- pregnant women with a family history of allergies:
  - follow diet without emphasis on any one food
  - are not recommended to eat large quantities of any high allergenic food
- replace diet with nutrients and energy due to the elimination of the allergenic foods (e.g. - provide calcium food list if milk is eliminated)
- if foods are eliminated long term, recommend vitamin/mineral supplements
- recommended weight gain for pregnancy

Infant allergies - discuss:

- infants are more susceptible to the development of food allergies than adults
- their digestive system is more permeable to proteins and is not fully mature
- infants born to parents with allergies are at a greater risk
- infants may have less allergies when they are older

Recommendations for infants:

- exclusively breastfeed for a minimum of 1 year to reduce severe allergic disease, especially in the high risk infant
- if breastfed infant shows signs of digestive problems:
  - do not stop breastfeeding!
  - refer to MD/RD/CLC
  - eliminate potential allergenic foods in lactating mother's diet
- non-breasted infants, provide soy or milk based, or hydrolysate infant formulas
- reinforce formulas, unlike breastmilk, do not have the immunologic benefits to actually reduce/prevent allergies
- delay introduction of solids until infant is developmentally ready
- adjust for gestational age for introduction of foods

Continued on next page

353 Food Allergies, Continued

Counseling guidelines, (continued)

- delay high allergenic foods in infants with family history of allergies
- if cow milk allergy, do not introduce diary products the first 12 months minimum
- allow a minimum of 3-5 days to introduce new foods and confirm no adverse reactions
- allow for adequate time to rechallenge foods
- discuss adequacy of weight gain and growth

Recommendations for children:

- provide psychological support to the child with multiple allergies; they do not need to feel different or fragile
- provide special treats or foods (e.g. - at birthdays, holidays) to replace other foods the child cannot have
- discuss adequacy of weight gain and growth

Refer to www.foodallergy.org for up-to-date food recalls or warnings because of undisclosed milk or other common allergens and accurate information about food allergies and anaphylaxsis

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
How To Avoid Infant Allergies
Infant Feeding Guide

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

The only way to avoid a food allergy reaction is to eliminate the food. This requires the assistance of a nutritionist to help individuals obtain nutrients from other food sources (1,2).

The goal is to remove from the diet as many potential food allergens as possible while also providing optimal nutrition. Treatment of food allergies by a registered dietitian or competent professional authority not only improves compliance by ensuring strict dietary avoidance through education and appropriate substitution, but also is essential for ensuring the nutritional adequacy of the diet (3).

Continued on next page

353 Food Allergies, Continued

Justification for high risk

Not applicable

References

1. Butkus, Nicholson, Sue, PhD, RD: Food Allergies. Nutrition Focus for Children with Special Health Care Needs; July/August 1995; Vol. 10, No. 4.

2. Clinical Nutrition and Dietetics: Nutrition in Diseases of the Immune System, New York; 1991; pp. 149-185.

3. Queen, Patricia and Lang, Carol: Handbook of Pediatric Nutrition; 1993; pp. 219-226.

4. Zeman FJ. Clinical Nutrition and Dietetics. Lexington, Mass: The Collamore Press; 1993.

5. Dobler ML. Food Allergies. Chicago, IL: The American Dietetic Association; 1991.

354 Celiac Disease

Definition/ cut-off value

Also known as:

- Celiac Sprue
- Gluten Enteropathy
- Non-tropical Sprue

Inflammatory condition of the small intestine precipitated by the ingestion of wheat in individuals with certain genetic make-up.

Presence of Celiac Disease diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter NRF #354 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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354 Celiac Disease, Continued

Counseling guidelines

Explain disease:

- lining of small intestine is damaged when gluten is ingested
- symptoms are constipation alternating with diarrhea, steatorrhea, excessive gas, bloating, weight loss with high calorie intake, anemia, itchy blistering lesions, projectile vomiting and growth failure with infants and children

Gluten is a protein found in wheat, rice, oats and barley (WROB).

Gluten may be fractionated into two parts: gliadin (the damaging fraction) and glutenin. In oats it is prolamin.

Explain:

- untreated can lead to other problems such as organ system problems, OB/GYN problems, dental problems, behavioral changes/irritability, decreased concentration in children
- even if the participant does not experience symptoms, damage still occurs which can lead to malabsorption and malnutrition
- celiac may be associated with other disorders such as Type I IDDM, hypoglycemia

Typically seen:

- in infants when cereals are added
- in adults 20-30 years of age
- in adolescence - remission and then later reoccurs
- secondary to intestinal damage

Identify/avoid gluten sources:

- avoid gluten in dietary by eliminating wheat, rye, oats, barley
- buckwheat (kasha), kamut (hybrid of wheat and rye), millet, quinoa, spelt (ancient wheat) or triticale flours
- identify less obvious food sources of gluten such as salad dressing, ice cream, candies, gravies and sauces containing fillers, malted milk, beer and ale from barley, paste products, food containing bran or labeled graham (e.g. - graham crackers), soy sauce solids, food starch - modified

Continued on next page

354 Celiac Disease, Continued

Counseling guidelines, (continued)

- ingredients labeling term that indicate the presence of gliadin (the damaging fraction of gluten)
  - flour, self-rising flour, enriched flour, modified food starch, monosodium glutamate (MSG), hydrolyzed vegetable protein (HVP), cereals, cereal extracts, distilled vinegar, emulsifiers and stabilizers
  - many medications may contain gluten; check with MD, pharmacist or refer to drug information from Celiac Sprue Association
  - some foods, such as cereals, could be contaminated with gluten during manufacturing
- if medically necessary, gluten free cereals may be approved. Provide the client with a Special Formula/Food letter indicating the name of the gluten free cereal

Recommend to incorporate in diet:

- promote fiber through other sources (e.g. - beans, lentils)
- corn, rice millet, corn breads and flours from rice, arrowroot, corn breads and flours from rice, arrowroot, potato, soy, tapioca
- cereals include Cream of Rice, hominy, corn meal, puffed rice
- wheat starch can be used to prepare baked products but not substituted freely as flour
- use rice vinegar, wine vinegar or pure cider vinegar, not distilled vinegar

Newly diagnosed individuals:

- recommend to avoid fat until steatorrhea subsides
- recommend to avoid lactose
- provide simplified meal plan regarding weaning from wheat based to rice based diet
- avoid overwhelming counseling
- provide a few excellent recipes
- discuss planning meal when away from home or when in restaurants
- provide a list of manufacturers who provide special food products
- provide list of support groups for Celiac Disease
- allow for GI recovery (up to 6 months)

Continued on next page

354 Celiac Disease, Continued

Counseling guidelines, (continued)

Dietary recommendations:

- encourage adequate intake of protein, carbohydrate and fat (without WROB)
- prevent/combat weight loss, and Failure to Thrive in infants and children
- eliminate lactose in diet (most dairy) if still intolerant/symptomatic
- encourage fat soluble vitamins A, D, E, K, the B vitamins including folate, and folate through food and vitamin/mineral supplementation
- encourage life long adherence to diet (life style change)
- adjust food package:
  - use lactaid/dairy ease, acidophilus milks
  - offer beans for increased fiber source
  - temporarily reduce or avoid cheese
  - use non WROB fortified cereals, non WIC cereals
    - The following WIC-approved cereals are WROB free:
      - Instant grits
      - Malt-O-Meal puffed rice (special food letter needed)

Assess/discuss weight status for breastfeeding and postpartum women.
Assess/discuss recommended weight gain for pregnant women.
Assess/discuss growth status for infants/children.

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
Infant Feeding Guide

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

Individuals need to remove all wheat from diet. Wheat in diet can cause diarrhea, weight loss, failure to thrive and possibly malabsorption of protein, carbohydrates, and fat (1, 2). Nutrition counseling can help individuals meet nutrient needs on wheat-free diet.

Continued on next page

354 Celiac Disease, Continued

Justification for high risk

Not applicable

References

1. Clinical Nutrition and Dietetics: The Intestinal Tract and Accessory Organs; New York; 1991; Chapter 8; pp. 218-258.

2. Semrod, Carol E., MD.: Celiac Disease and Gluten Sensitivity. Columbia University Division of Gastroenterology (via internet:/http//cpmcnet.columbia.edu/dept/gi/celiac.html); 1995.

3. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 192-193.

4. Zeman FJ. Clinical Nutrition and Dietetics. Lexington, Mass: The Collamore Press; 1993.

5. The American Dietetic Association. Handbook of Clinical Dietetics. New Haven, Conn: Yale University Press; 1981.

6. Hartsook EI. Gluten-Sensitive Enteropathy: Update for Health-Care Professionals. The Gluten Intolerance Group of North America; 1981.

7. Hartsook EI. Celiac Sprue: Patient Resource and Information Guide. The Gluten Intolerance Group of North America. 1991.

8. Dobler ML. Nutrition Fact Sheet. Chicago, FU National Center for Nutrition and Dietetics, The American Dietetics Association; 1991.

9. Dobler ML. Lactose Intolerance. Chicago, IL: The American Dietetic Association; 1991.

355 Lactose Intolerance

Definition/ cut-off value

Lactose intolerance occurs when there is an insufficient production of the enzyme lactase. Lactase is needed to digest lactose. Lactose in dairy products that is not digested or absorbed is fermented in the small intestine producing any or all of the following GI disturbances: nausea, diarrhea, abdominal bloating, cramps. Lactose intolerance varies among and within individuals and ranges from mild to severe.

Presence of lactose intolerance diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders; or symptoms must be well documented by the competent professional authority. Documentation should indicate that the ingestion of dairy products causes the above symptoms and the avoidance of such dairy products eliminates them.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter NRF #355 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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355 Lactose Intolerance, Continued

Counseling guidelines

Discuss/explain:

- lactose intolerance may be secondary to GI upset or illness
- if breastfeeding, continue to breastfeed
  - breastmilk is easily digested and will help with recovery of illness, diarrhea and other symptoms
- if formula fed, use lactose reduced formula; rechallenge with milk-based formula
- see Product Guide for transition mixing instructions for participant

Dietary recommendations to discuss:

- avoid foods containing lactose
- limit portion size of lactose-containing foods
- allow adequate time intervals between consumption of these foods
- try lactose-reduced or lactose-free milks (Lactaid, Dairy Ease)
  - issue food packages with half-gallons for whole milk lactose-free milk (underweight, child 12-24 months, failure to thrive)
  - issue food package with quarts for reduced fat/skim lactose-free milk
- adjust food package for Lactaid/Dairy Ease, acidophilus milks
- choose low-lactose foods such as aged hard cheese or yogurt for calcium source
- If the CPA/RD determines that a client's calcium intake is compromised, offer calcium fortified orange juice by providing the client with a Special Formula/Food letter indicating the client's need for calcium fortified orange juice
- substitute fruit juice or water in baked products that call for milk
  - choose recipes that produce a good product since texture may be different
- read labels to avoid foods containing milk or lactose such as: milk solids, non-fat milk solids, whey, lactose, margarine, sour cream, malted milk, butter, buttermilk
- avoid foods that may contain lactose; breads, candy/cookies, cold cuts, hot dogs, bologna, commercial sauces and gravies, cream soups, dry cereals, frostings, frozen breaded fish/chicken, prepared and processed foods, salad dressings containing milk or cheeses, sugar substitutes, chocolate drink mixes, coffee drinks/mixes
- kosher foods that contain the word "pareve" or "parve" are acceptable and do not contain milk

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355 Lactose Intolerance, Continued

Counseling guidelines, (continued)

- try food products made specifically for food-intolerance; but read label to state lactose-free/reduced (soy or rice milks or cheeses)
- consume dairy foods with meals (diluted with other foods)
- heated milk products may be better tolerated (lactose broken down)
- ingest active culture foods such as yogurt (helps break down lactose)
- higher-fat dairy foods (ice cream) may be better tolerated, for occasional treats
- lactose enzyme tablets are available to take when lactose containing foods are ingested (but are expensive)
- creamers do not adequately substitute milk
- assist with meal planning
- if dairy intake is compromised, include foods rich in calcium, vitamin A & D
- provide resource list for books, recipes, and food companies

Discuss weight status for breastfeeding and postpartum women.
Discuss recommended weight gain for pregnant women.
Discuss growth status for infant and children.

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
I'm Breastfeeding - What Should I Eat?
What to Eat When You Are Pregnant

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

Lactose is found primarily in milk, milk-based formula and other dairy products. Dairy products provide a variety of nutrients essential to the WIC population (calcium, vitamin D, protein). Lactose intolerance varies according to individuals. Some individuals may tolerate up to one cup of milk without discomfort, although many avoid dairy products all together. WIC can provide counseling on how to incorporate small amounts of lactose-containing foods and/or other dietary sources of above nutrients into the client's diet.

Continued on next page

355 Lactose Intolerance, Continued

Justification for high risk

Not applicable

References

1. Duyff, Roberta Larson: The American Dietetic Association's Complete Food and Nutrition Guide; Chapter 9 Sensitive About Food; 1996; pp. 189-203.

2. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 194-195.

3. American Dietetic Association: Lactose Intolerance Resource Including Recipes; Chicago; 1985.

4. Zeman FJ. Clinical Nutrition and Dietetics. Lexington, Mass: The Collamore Press; 1993.

356 Hypoglycemia

Definition/ cut-off value

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

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document physician's diagnosis in participant's chart or circle condition on Medical History form if self reported.
Enter NRF #356 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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356 Hypoglycemia, Continued

Counseling guidelines

Hypoglycemia is a manifestation of disease; is not a disease in itself.
There are many different causes or etiologies.
Signs and symptoms and when they occur may vary.
Infants at risk:

- explore potential causes of hypoglycemia
  - SGA
  - Fetal Growth Restriction
  - mother with Gestational Diabetes
- if hypoglycemia is secondary to a disease or other medical condition, follow medical recommendations
- if infant is being treated in the hospital, recommend the mother/parents be available for and make arrangements for frequent feedings if medically allowed
  - with breastfed infants - to prevent possible “nipple confusion,” increase milk production, benefits to baby, etc.
  - with formula/bottle fed infants - for bonding and interaction

Discuss signs and symptoms of hypoglycemia:

- when rate of fall of blood glucose is rapid:
  - sweating, weakness, hunger, tachycardia (increased heart rate)
- if fall is slow, over many hours:
  - headache, blurred vision, incoherent speech, mental confusion
  - if it is prolonged, more serious problems can occur
- if experience these symptoms, eat (e.g. - 1/2 cup juice or milk)

If participant is receiving medical care, encourage compliance with recommendations regarding:

- diet
- meal plan
- exercise
- weight gain
- surgery, post surgery, medications
- if pregnant, discuss with MD feeding plan with newborn; allow mother to breastfeed soon after delivery and frequently thereafter

Continued on next page

356 Hypoglycemia, Continued

Counseling guidelines, (continued)

If participant is not receiving medical care:
- refer to MD
- explain symptoms
- explain potential risks
  - sensory or motor deficits in the limbs
  - damage to organs, thyroid
  - psychiatric problems
  - brain damage

Dietary recommendations:
- review pregnancy food guide
- encourage regular scheduled interval meals (e.g. - 3 meals, 3 snacks)
- encourage not to miss meals; set alarm or stove as reminder
- recommend weight gain appropriate for pregnancy and BMI
- prevent obesity
- report presence of hypoglycemic symptoms to MD
- participant to ask MD about allowed exercise

Infants, children and postpartum women:
- review dietary recommendations
- concentrate on frequent feeding/meals
- set the food guide pyramid with distribution of food groups/servings throughout day, don't skip meals (e.g. - 6 meals or 3 meals and 3 snacks)
- provide adequate nutrients to prevent deficiencies and support adequate growth
- assess growth (or weight status for adults)
- report presence of hypoglycemic symptoms to MD

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
What To Eat When You Are Pregnant
I'm Breastfeeding - What Should I Eat?
How Much Is Enough For My Child?
Infant Feeding Guide

Continued on next page

356 Hypoglycemia, Continued

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

Hypoglycemia can occur as a complication of diabetes, as a condition in itself, in association with other disorders, or under certain conditions such as early pregnancy, prolonged fasting, or long periods of strenuous exercise (1).

Symptomatic hypoglycemia is a risk observed in a substantial proportion of newborns who are small for gestational age (SGA), but it is uncommon and of shorter duration in newborns who are of the appropriate size for gestational age (2).

WIC can provide nutrition management that concentrates on frequent feedings to support adequate growth for infants and children (2). WIC can also provide nutrition education to help manage hypoglycemia in women that includes consuming a balanced diet, low carbohydrate snacks and exercise (1).

Justification for high risk

Not applicable

References

1. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDKD): National Diabetes Information Clearinghouse; NIDDKD internet address: www.niddk.nih.gov; February 10, 1997.

2. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 217-218.

3. Zeman FJ. Clinical Nutrition and Dietetics. Lexington, Mass: The Collamore Press; 1993.

357 Drug Nutrient Interactions

Definition/ cut-off value

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.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document the drug or medication taken and it's published interference with nutrient intake or utilization on the Medical History Form.
Enter NRF #357 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next clinic visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

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357 Drug Nutrient Interactions, Continued

Counseling guidelines

Explain the factors associated with drug nutrient interaction:

- all drugs taken by pregnant women can be considered potentially harmful to the fetus
- misuse of some drugs during pregnancy can result in fetal malformations
- food components affect drug absorption and bioavailability, the effects vary for each drug
  - drugs can affect the stomach emptying time
  - drugs can complete with nutrients for absorption
  - drugs can affect appetite, induce nausea, and impair sense of taste which may reduce food intake and contribute to weight loss
- use of some prescription and over-the-counter drugs are not advisable in breastfeeding

Explain the possible nutrition related side effects of the medication(s) that they are currently taking:

- some adverse effects can be minimized through adequate nutrient intake and timing of intake in relation to meals and breastfeeding

Refer the participant to their health care provider for the drug nutrient interaction or if a drug nutrient reaction is suspected.

If the participant is pregnant or breastfeeding, refer them to the Pregnancy Riskline at 1-800-822-BABY or in Salt Lake City 328-BABY.

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
Infant Feeding Guide
What Should I Eat When I'm Pregnant?
I'm Breastfeeding What Should I Eat?

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Continued on next page

357 Drug Nutrient Interactions, Continued

Justification

The drug treatment of a disease or medical condition may itself affect nutritional status. Drug induced nutritional deficiencies are usually slow to develop and occur most frequently in long-term drug treatment of chronic disease. Possible nutrition-related side effects of drugs include, but are not limited to, altered taste sensation, gastric irritation, appetite suppression, altered GI motility, and altered nutrient metabolism and function, including enzyme inhibition, vitamin antagonism, and increased urinary loss.

The marketplace of prescribed and over-the-counter drugs is a rapidly changing one. For knowledgeable information on the relationship of an individual's drug use to his/her nutritional status, it is important to refer to a current drug reference such as Physician's Desk Reference (PDR), a text such as Physician's Medication Interactions, drug inserts, a pharmacist or the Pregnancy Riskline (if the woman is pregnant or breastfeeding).

Justification for high risk

Not applicable

Continued on next page

357 Drug Nutrient Interactions, Continued

References

1. Allen, M: Food-Medication Interactions; 7th edition; Tempe, Arizona; 1991.
2. Physician's Desk Reference; 51st edition; Montvale, New Jersey; Medical Economics Company, Inc.; 1997
3. Diet and Drug Interactions. Daphne A. Roe, M.D., F.R.C.P.
4. Handbook on Drug and Nutrient Interactions: A Reference and Study Guide.
5. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 217-218.
6. Pronsky, ZM: Powers and Moore's Food Medications Interactions; 10th edition; 1997.
7. USPDI: Drug Information for the Health Care Professional; 19th Edition; Micromedex; World Color Book Services, Taunton, Mass.; 1999.
8. Briggs, G. et. al.; Drugs in Pregnancy and Lactation, 5th Edition; Williams & Wilkins, Baltimore, Maryland; 1998.

358 Eating Disorders

Definition/ cut-off value

Eating disorders (anorexia nervosa and bulimia), are characterized by a disturbed sense of body image and morbid fear of becoming fat. Symptoms are manifested by abnormal eating patterns including:

- self-induced vomiting
- purgative abuse
- alternating periods of starvation
- use of drugs such as appetite suppressants, thyroid preparations or diuretics
- self-induced marked weight loss

Presence of eating disorder(s) diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders or evidence of such disorders documented by the CPA.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	Y
Postpartum	VI	N

Continued on next page

358 Eating Disorders, Continued

Documentation

Document physician's diagnosis in participant's chart or circle on Medical History form if self reported.
Enter NRF #358 in screen 106.
If pregnant or breastfeeding, document High Risk Care Plan in participant's chart.

Suggested components to assess:

- current nutrition follow-up and support provided by MD and/or other health professionals, referrals needed
- compliance and understanding of dietary recommendations
- weight gain (if pregnant) and weight status
- abusive practices (vomiting, purgative abuse, periods of starvation, use of appetite suppressants, diuretics, or other drugs)
- feelings about pregnancy and potential weight gain

RD must document management of care plan

Document referrals in screen 106.
If pregnant or breastfeeding, schedule appropriate nutrition education or individual counseling at next visit.
If postpartum, schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

358 Eating Disorders, Continued

Counseling guidelines

If participant is receiving comprehensive nutrition and medical counseling outside of WIC encourage compliance with:

- dietary recommendations
- other behavioral recommendations
- weight gain goals

If participant is not receiving nutrition counseling outside of WIC:

- refer to local treatment program or physician for care and follow-up (women with eating disorders require comprehensive care by a specialized team)
- explain the potential risks of inadequate weight gain, weight loss during pregnancy or poor weight status prior to pregnancy, if appropriate (see counseling recommendations under risk factors 101, 131, and 132).
- encourage intake of prenatal vitamins
- emphasize need for fetus to gain weight to grow and develop properly

Suggested handouts

Daily Food Guide - Pregnant/Breastfeeding/Postpartum
What to Eat When You Are Pregnant
I'm Breastfeeding, What Should I Eat?
To the Pregnant Woman Who is Not Gaining Enough Weight

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
If pregnant or breastfeeding, individual assessment with a Registered Dietitian.

- reassess weight gain/status
- reassess dietary/caloric intake
- assess compliance with recommendations
- assess compliance with current nutritional and medical treatment program
- document if participant followed through on referrals

If postpartum, appropriate nutrition education at each visit.

Continued on next page

358 Eating Disorders, Continued

Justification

Anorexia nervosa and bulimia are serious eating disorders that affect women in the childbearing years. These disorders result in general malnutrition and may cause life-threatening fluid and electrolyte imbalances. Women with eating disorders may begin pregnancy in a poor nutritional state. They are at risk of developing chemical and nutritional imbalances, deficiencies, or weight gain abnormalities during pregnancy if aberrant eating behaviors are not controlled. These eating disorders can seriously complicate any pregnancy since the nutritional status of the pregnant woman is an important factor in perinatal outcome.

Maternal undernutrition is associated with increased perinatal mortality and an increased risk of congenital malformation. While the majority of pregnant women studied reported a significant reduction in their eating disorder symptoms during pregnancy, a high percentage of these women regressed in the postpartum period. This regression in postpartum women is a serious concern for breastfeeding and non-breastfeeding postpartum women who are extremely preoccupied with rapid weight loss after delivery.

Justification for high risk

Eating disorders can seriously complicate any pregnancy since the nutritional status of the pregnant woman is an important factor in perinatal outcome. Weight gain is of critical importance. With bulimia the outstanding problem is the detrimental biochemical environment to the fetus. Individual counseling and WIC food can assist the pregnant woman gain an appropriate amount of weight and increase the baby's birth weight.

Continued on next page

358 Eating Disorders, Continued

References

1. Worthington-Roberts, B., and Williams, SR: Nutrition in Pregnancy and Lactation; 5th ed.; Mosby Pub; St. Louis; pp. 270-271.

2. Strober, M: International Journal of Eating Disorders; Vol. 8, No. 3; 1986; pp. 285-295.

3. Institute of Medicine: Nutrition Services in Perinatal Care; 1992; p. 20.

4. Clinical Issues Perinatal Womens Health Nursing; 1992; 3(4); pp. 695-700.

5. Krummel DA, and Kris-Etherton, PM: Nutrition in Women's Health, Aspen Pub; Gaithersburg, MD; pp. 58-102.

359 Recent Major Surgery, Trauma, Burns

Definition/ cut-off value

Major surgery, trauma or burns severe enough to compromise nutritional status.

Any occurrence must have the continued need for nutritional support diagnosed by a physician or a health care provider working under the orders of a physician.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Circle condition on the Medical History form. Make sure the physician's diagnosis statements/prescriptions are included in the chart.
Enter NRF #359 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

359 Recent Major Surgery, Trauma, Burns, Continued

Counseling guidelines

Explain that their recent injury (trauma, burn, surgery) may result in them having higher nutrient needs than normal for several months.

- persons experiencing severe trauma such as an automobile accident or burns exhibit a hypermetabolic state that may reach the basal levels and persist for 2 months or longer
- alterations in the metabolism of glucose, protein and fat occur following injury

Counsel on methods to achieve an adequate diet for their age and condition with emphasis on foods of high nutrient density.

If weight loss or weight maintenance is a problem, counsel them on ways to increase the caloric content of the diet.

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
Infant Feeding Guide
What to Eat When You Are Pregnant
I'm Breastfeeding - What Should I Eat?

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Continued on next page

359 Recent Major Surgery, Trauma, Burns, Continued

Justification

The body's response to recent major surgery, trauma or burns may affect nutrient requirements needed for recovery and lead to malnutrition. There is a catabolic response to surgery; severe trauma or burns cause a hypermetabolic state. Injury causes alterations in glucose, protein and fat metabolism.

Metabolic and physiological responses vary according to the individual's age, previous state of health, preexisting disease, previous stress, and specific pathogens. Once individuals are discharged from a medical facility, a continued high nutrient intake may be needed to promote the completion of healing and return to optimal weight and nutrition status.

Persons experiencing severe trauma such as an automobile accident or burn exhibit a hypermetabolic state that may reach the basal levels and persist for 2 months or longer.

Alterations in the metabolism of glucose, protein and fat occur following injury.

Justification for high risk

Not applicable

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 188-189.

360 Other Medical Conditions

Definition/ cut-off value

Diseases or conditions with nutritional implications that are not included in any of the other medical conditions. The current condition, or treatment for the condition, must be severe enough to affect nutritional status. Includes:

- juvenile rheumatoid arthritis (JRA)
- lupus erythematosus (lupus)
- cardiorespiratory diseases (CRD)
- heart disease
- cystic fibrosis (CF)
- asthma (moderate or severe) requiring daily medication

Presence of medical condition(s) diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Circle the appropriate medical condition on the Medical/Infant History form.
Document that the condition is severe enough to affect nutritional status.
Enter NRF #360 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

360 Other Medical Conditions, Continued

Counseling guidelines

Discuss providing adequate energy (calories) and nutritional intake to maintain or provide for normal growth and development and body weight.
Counsel that the goal is to prevent malnutrition which can lead to growth retardation, poor development and motor skills.
Refer the participant to their health care provider or specialty clinic, if needed.
If appropriate, discuss the use of special formulas, especially higher calorie ones, which may be indicated for some of these conditions, especially to help correct the growth and weight problems in children with JRA, CF and lupus.

Juvenile rheumatoid arthritis (JRA):

- discuss the nutritional risk associated with this disease:
  - about 36% experience protein energy malnutrition (PEM)
  - lowered intakes of energy, vitamin E, calcium and iron
  - serum vitamin C may also be low in patients taking high doses of aspirin
- counsel the participant on increasing the energy level in the diet as well as consuming adequate amounts of calories, vitamins A & C, calcium & iron, if appropriate

Lupus erythematosus:

- discuss the nutritional risk associated with this disease:
  - increased risk of infection, malaise, anorexia, and weight loss
  - in pregnancy, there is an increased risk of late pregnancy losses (after 28 weeks) and spontaneous abortion
    - late pregnancy losses are secondary to hypertension, renal failure and cardiac defects in the fetus
- more common in dark-skinned ethnic groups, including blacks, Hispanics, Asians and some American Indian tribes.
- occurs mostly in women between ages of 15 to 65 years of age
- counsel the participant to eat an adequate diet for age and category, taking into consideration the current symptoms the participant is presenting
  - little is known about the nutrient metabolism or requirements in a person with lupus, so emphasis on sound nutritional practices is important

Continued on next page

360 Other Medical Conditions, Continued

Counseling guidelines, (continued)

Cardiorespiratory diseases (CRD) including heart, asthma & Cystic Fibrosis (CF):

- counsel regarding the nutritional risk of CRD:
  - failure to thrive
  - malnutrition
  - these diseases interfere with normal physiological processes
  - growth failure can also be aggravated because of increased metabolic requirements and difficulty in sucking and swallowing
- discuss with participant with congestive health failure to limit salt intake
  - infants may need to find a formula that is lower in salt
- if poor growth, discuss ways to increase calories
- additional counseling for Cystic Fibrosis:
  - frequent height and weight evaluation is recommended for infants and children
  - if growth is poor, the diet may need to increase up to 150% of the RDA for calories
- goal of nutritional therapy is to overcome energy deficit
  - reinforce the need to follow their health care provider recommendations including the use of pancreatic enzyme supplementation
  - protein deficiency is more common in the first year when requirements are the greatest
- ensure protein intake is adequate
  - fat recommendations are the same as normal diets (35-40% for the calories)
- food items with fat should be as tolerated
  - sodium needs are excessive because of sweat
- liberal use of salt should be recommended

Continued on next page

360 Other Medical Conditions, Continued

Counseling guidelines, (continued)

- infants can be fed breastmilk and/or all types of formula
- it should be individualized based on their use of pancreatic enzyme replacement therapy
  - breastfed infants may require additional sodium
  - formula fed infants may need additional calories from fat or carbohydrates
  - formula may be recommended up to 24 months
  - introduction of solids is normal guidelines
  - nutrient and caloric needs increase again in adolescence
  - vitamin and mineral supplementation should be recommended or reinforced

Suggested handouts

Infant Feeding Guide
How Much Is Enough For My Child?
Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Continued on next page

360 Other Medical Conditions, Continued

Justification

Juvenile rheumatoid arthritis (JRA) is the most common pediatric rheumatic disease and most common cause of chronic arthritis among children. JRA puts individuals at risk of anorexia, weight loss, failure to grow, and protein energy malnutrition (PEM).

Lupus erythematosus is an autoimmune disorder that affects multiple organ systems. Lupus erythematosus increases the risk of infections, malaise, anorexia, and weight loss. In pregnant women, there is increased risk of spontaneous abortion and late pregnancy losses (after 28 weeks gestation).

Cardiorespiratory diseases affect normal physiological processes and can be accompanied by failure to thrive and malnutrition. Cardiorespiratory diseases put individuals at risk for growth failure and malnutrition due to low calorie intake and hypermetabolism.

Cystic fibrosis (CF), a genetic disorder of children, adolescents, and young adults characterized by widespread dysfunction of the exocrine glands, is the most common lethal hereditary disease of the Caucasian race.

Many aspects of the disease of CF stress the nutritional status of the patient directly or indirectly by affecting the patient's appetite and subsequent intake. Gastrointestinal losses occur in spite of pancreatic enzyme replacement therapy. Also, catch-up growth requires additional calories. All of these factors contribute to a chronic energy deficit, which can lead to a marasmic type of malnutrition. The primary goal of nutritional therapy is to overcome this energy deficit.

Studies have shown variable intakes in the CF population, but the intakes are usually less than adequate and are associated with a less than normal growth pattern.

Continued on next page

360 Other Medical Conditions, Continued

Justification (continued)

Asthma is a chronic inflammatory disorder of the airways, which can cause recurrent episodes of wheezing, breathlessness, chest tightness, and coughing of variable severity. Persistent asthma requires daily use of medication, preferably inhaled anti-inflammatory agents. Severe forms of asthma may require long-term use of oral corticosteroids which can result in growth suppression in children, poor bone mineralization, high weight gain, and, in pregnancy, decreased birth weight of the infant. High doses of inhaled corticosteroids can result in growth suppression in children and poor bone mineralization. Untreated asthma is also associated with poor growth and bone mineralization and, in pregnant women, adverse birth outcomes such as low birth weight, prematurity, and cerebral palsy. Repeated asthma exacerbations ("attacks") can, in the short-term, interfere with eating, and in the long-term, cause irreversible lung damage that contributes to chronic pulmonary disease. Compliance with prescribed medications is considered to be poor. Elimination of environmental factors that can trigger asthma exacerbations (such as cockroach allergen or environmental tobacco smoke) is a major component of asthma treatment. WIC can help by providing foods high in calcium and vitamin D, in educating participants to consume appropriate foods and to reduce environmental triggers, and in supporting and encouraging compliance with the therapeutic regimen prescribed by the health care provider.

NOTE: This criterion will usually not be applicable to infants for the medical condition of asthma. In infants, asthma-like symptoms are usually diagnosed as bronchiolitis with wheezing which is covered under Criterion #352, Infectious Diseases.

Justification for high risk

Not applicable

Continued on next page

360 Other Medical Conditions, Continued

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 185-187, 190-191.

2. Queen, Patricia and Lang, Carol: Handbook of Pediatric Nutrition; 1993; pp. 422-425.

3. National Heart, Lung, and Blood Institute: Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma; 1997; pp. 3, 20, 67-73.

4. National Heart, Lung, and Blood Institute: Management of Asthma During Pregnancy; 1992; pp. 7, 36-37.

5. JAMA: Asthma Information Center: Asthma Medications Misused, Underused in Inner City Residents; 1998, pp. 1-2.

361 Depression

Definition/ cut-off value

Presence of clinical depression diagnosed by a physician or psychologist as self reported by applicant/participant/caregiver; or as reported or documented by a physician, psychologist or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Children	III	N

Documentation

Document physician's diagnosis in participant's chart or circle on Medical History form if self reported.
Enter NRF #361 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

361 Depression, Continued

Counseling guidelines

Explain the risk associated with maternal depression for mother and fetus:

- appetite changes
- anorexia
- bulimia
- weight loss
- more likely to smoke during pregnancy
- attend prenatal care less frequently
- higher incidence of low birth weight babies
- higher perinatal mortality rates

Explain the risks associated with maternal depression for the child:

- more stomachaches and headaches in preschool children
- delayed achievement of developmental milestones
- child behavior problems such as sleep problems, feeding problems, child depression, social isolation, ADD, withdrawal and defiant behaviors

Discuss the importance of consuming a nutritious and well balanced diet to promote good physical and mental health.

Reinforce use of medication, if prescribed

If appetite changes, discuss ways to achieve an adequate diet.

Refer to appropriate health care, mental health care and social service programs.

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum

How Much Is Enough For My Child?

I'm Breastfeeding - What Should I Eat?

What to Eat When You Are Pregnant

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.

Appropriate nutrition education at each visit.

Continued on next page

361 Depression, Continued

Justification

Appetite changes are a distinguishing feature of depression. Severe depression is often associated with anorexia, bulimia, and weight loss. Maternal depressive symptoms are associated with pre-term birth among low-income urban African-American women. Depressed pregnant women are more likely to smoke during pregnancy, attend prenatal care less frequently, have a higher incidence of low birth weight infants, and experience higher perinatal mortality rates. WIC can provide much needed nutrition education and counseling that encourages clinically depressed women to continue healthy eating habits as well as referrals to other health care and social service programs that may be of more direct assistance to the clinically depressed WIC participant.

Justification for high risk

Not applicable

References

1. Institute of Medicine: WIC Nutrition Risk Criteria: A Scientific Assessment; 1996; pp. 315-316.

362 Developmental Delays

Definition/ cut-off value

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

- 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
- other disabilities

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document physician's diagnosis in participant's chart or circle the appropriate medical condition on the Medical/Infant History form if self reported.
Enter NRF #362 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

362 Developmental Delays, Continued

Counseling guidelines

Explain nutrition and energy needs must be individualized for each person.
Discuss providing adequate energy and nutrient intake to maintain or provide for adequate growth and development including appropriate/adequate fluid levels.
Discuss ways to select nutritionally adequate food based on their oral-motor feeding development levels and total energy needs, including:

- appropriate choices for texture level, i.e. liquid, pureed, thickened liquids
- ways to increase or decrease caloric intakes
- if appropriate, discuss the use of special formulas, especially higher calorie formulas, which may be indicated for some of these conditions
- special/altered nutrient needs due to drug/nutrient interactions
- recommended frequency of meals and snacks
- appropriate mealtime behavior management
- recognizing and responding to hunger cues

Discuss factors that influence their food intake and support or reinforce recommendations they have received from their health care provider. They include, but are not limited to:

- developmental level or oral-motor skills level, i.e. chewing, swallowing and self feeding
- muscle tone, cough and gag reflexes, especially if hypersensitive gag reflexes are a problem
- tube feeding, oral feeding or the process of transitioning from tube to oral feeding
- bowel management, especially constipation management (fiber and fluid recommendations)
- the feeding position is of prime importance
  - head and body should be supported to minimize abnormal oral movement patterns and increase the person's voluntary oral control
  - availability and use of specially adapted utensils for feeding may be recommended or reinforced

Refer to their health care provider, Children with Special Health Care Needs program, or a specialty clinic. Specialty providers may also include, dietitians and speech, occupational and physical therapists
Reinforce the dietary and medical counseling from their health care providers including weight gain/loss goals.
Provide the family with lots of positive reinforcement and support.

Continued on next page

362 Developmental Delays, Continued

Counseling guidelines, (continued)

Autism

- Recognize that the child with PDD may have a sensory-based feeding problem that results in extreme pickiness, difficulty with changes, sensitivity to tastes, texture, smells and new foods or anything different. Their picky eating is not a result of inadequate parenting with food. Be sensitive to the difficulties the family experiences with feeding.
- Children with autism who are especially sensitive to tastes, textures, smells or new foods need many exposures to a new food before they will eat it. The child may move through many stages before a food is accepted, including touching, smelling, or licking the food. Touching, playing with and otherwise interacting with the food can desensitize the child.
- Keep mealtimes consistent. Use the same plates and utensils. Eat at the same place and at the same time. Teach the social structure of eating; the child needs to stay at the table with the family.
- Offer small servings of a few (2-3) foods at one time. Avoid offering too much food or too many choices. Offer a food the child likes at each meal. Offer new foods along with foods your child already will eat. Continue to offer a variety of foods, or the child will become more restrictive over time.
- Introduce foods in forms that are similar to foods your child already eats.
- Make changes gradually. Expect slow changes. Set realistic goals.
- Use non-food reinforcers. Verbal praise is best. Reinforce child for ANY positive food behavior. Reinforce siblings appropriate eating.
- Many parents are experimenting with special diets (casein-free, gluten-free) or supplements. There is at present no established scientific basis for restrictive diets for children with autism. However, if the parent chooses to try dietary restriction, refer to the dietitian. The dietitian should support the family and provide guidance on adequate diet and appropriate substitutes for foods restricted (e.g., substitute soy formula for milk, authorize calcium-fortified juice, recommend a gluten-free cereal).

Continued on next page

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
Infant Feeding Guide

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Justification

Infants and children with developmental disabilities are at increased risk for nutritional problems. Education, referrals, and service coordination with WIC will aid in early intervention of these disabilities. Prenatal, lactating and non-lactating women with developmental, sensory or motor disabilities may have: 1) feeding problems associated with muscle coordination involving chewing or swallowing, thus restricting or limiting the ability to consume food and increasing the potential for malnutrition; or 2) to use enteral feedings to supply complete nutritional needs which may potentially increase the risk for specific nutrient deficiencies.

Pervasive Developmental Disorder (PDD) is a category of developmental disorders with autism being the most severe. Young children may initially have a diagnosis of PDD with a more specific diagnosis of autism usually occurring at 2 1/2 to 3 years of age or older. Children with PDD have very selective eating habits that go beyond the usual "picky eating" behavior and that may become increasingly selective over time, i.e. foods they used to eat will be refused. This picky behavior can be related to the color, shape, texture, or temperature of a food. Common feeding concerns include:

- difficulty with transition to textures, especially during infancy;
- increased sensory sensitivity; restricted intake due to color, texture, and/or temperature of foods;
- decreased selection of foods over time;

Continued on next page

362 Developmental Delays, Continued

Justification, continued

- difficulty accepting new foods; difficulty with administration of multivitamin/mineral supplementation and difficulty with changes in mealtime environment.

Nutrition education, referrals, and service coordination with WIC will assist the participant, parent or caregiver in making dietary changes/adaptations and finding assistance to assure she or her infant or child is consuming an adequate diet.

Justification for high risk

Not applicable

References

1. Quinn, Heidi Puelzl; "Nutrition Concerns for Children With Pervasive Developmental Disorder/Autism" Published in Nutrition Focus by the Center on Human Development and Disability; University of Washington, Seattle, Washington; September/October 1995.

2. Paper submitted by Betty Lucas, MPH, RD, CD to the Risk Identification and Selection Collaborative (RISC); November, 1999.

3. Zeman: Clinical Nutrition and Dietetics, 2nd Edition; 1991; pp. 713-14, 721-72, 729-730.

4. Ogata, Beth, and Betty Lucas. *Autism, Nutrition, and Picky Eating.* Center on Human Development and Disability, University of Washington, Seattle, WA. September 1999. (handout in DDPD newsletter)

5. Toomey, Kay A. *When Children Won't Eat: Managing and Preventing Problematic Eating Patterns in Children with Autism.* Presentation at Autism Pre-Conference, May 20, 2000, San Francisco.

371 Maternal Smoking

Definition/ cut-off value

Any daily smoking of tobacco products, i.e., cigarettes, pipes, or cigars.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N

Documentation

Enter "yes" in currently smoking field in screen 104.
NRF #371 auto assigned by UWIN.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Will be auto assigned if "yes" is entered in the currently smoking field.

Continued on next page

371 Maternal Smoking, Continued

Counseling guidelines

Explain the potential risks associated with smoking during pregnancy, higher rates of:

- spontaneous abortions
- stillbirth
- bleeding during pregnancy
- placental complications (abruptio placenta, placenta previa)
- complications of labor (preterm labor, prolonged and premature rupture of the membranes)
- fetal growth restriction
- small for gestational age
- perinatal mortality

Other adverse effects which are significantly greater as maternal age increases:

- prematurity
- neonatal mortality (respiratory distress syndrome and SIDS)

Explain that risk of adverse affects increases if smoking combined with alcohol and/or caffeine consumption.

If breastfeeding woman, smoking has been reported to:

- decrease production and volume of breastmilk
- cause nicotine toxicity/poisoning in young infants on 6-16 cigarettes

Counsel on ways to achieve an adequate diet for age and condition with emphasis on increased intakes of vitamins A & C, fiber, folate and iron.

Refer to smoking cessation programs and to their health care provider.

Refer to the Pregnancy Riskline, 1-800-822-2229 or 328-2229.

Suggested handouts

I'm Breastfeeding - What Should I Eat?
What To Eat When You Are Pregnant
Give A Gift to Your Baby
Keep Your Baby Smoke Free
To Slip and Smoke Doesn't Mean You Failed

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.

Appropriate nutrition education at each visit.

Continued on next page

371 Maternal Smoking, Continued

Justification

Women who smoke are at risk for chronic and degenerative disease. Smokers have lower plasma levels of vitamin C and E. The metabolic turnover of Vitamin C is significantly higher in smokers. Smoking impairs folate status. Smoking is inversely associated with intakes of Vitamin A and C, fiber, folate, and iron among women. The WIC food package supplements the participants intake of these lost nutrients. WIC participation may also include counseling and referral to smoking cessation programs.

Justification for high risk

Not applicable

References

1. McPhillips, C.E.Eaton, et. al.: Dietary Difference in Smokers and Non-Smokers from two Southeastern New England communities. JADA; March 1994; pp. 287-292.

2. Giraud, D. Martin, J. Driskell: Plasma and Dietary Vitamin C and E Levels of Tobacco Chewers, Smokers and Nonusers, JADA; July 1995; pp. 798-802.

3. Elsie Pamuk, Tim Byers, Ralph Coates, Jodi Vann, Anne Sowell, Elaine Gunter, Deborah Glass: Effect of Smoking on Serum Nutrient Concentrations in African-American Women. Am J Clin Nutr; 1994; 59:891-5.

372a Alcohol Use

Definition/ cut-off value

For Pregnant Women:
- Any current alcohol use

For Breastfeeding and Postpartum Women:
- Routine current use of ≥ 2 drinks per day (1). A serving or standard sized drink is: 1 can of beer (12 fluid oz.); 5 oz. Wine; and 1 1/2 fluid ounces liquor (1 jigger gin, rum, vodka, whiskey (86-proof), vermouth, cordials or liqueurs); or
- Binge Drinking, i.e., drinks 5 or more (≥ 5) drinks on the same occasion on at least one day in the past 30 days

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	N
Postpartum	VI	N

Documentation

Complete alcohol use in computer screen 104.
NRF #372a auto assigned by UWIN.
Document referrals in screen 106.
If pregnant, document High Risk Care Plan in participant's chart.
Suggested components to assess:
- pattern of weight gain as well as overall weight gain
- dietary intake
- referrals to health care provider and alcohol treatment programs
- status of alcohol consumption

RD must document management of care plan
If pregnant, schedule appropriate nutrition education or individual counseling at next visit.
If breastfeeding or postpartum, schedule appropriate nutrition education at next visit.

Continued on next page

372a Alcohol Use, Continued

Parameters for auto assign

Will be auto assigned if "yes" is entered in the currently drinking field for pregnant women.
Will be auto assigned if "yes" is entered in the currently drinking field, 7 in the days/week field, and 2 or more is entered in drinks per day on breastfeeding and postpartum women.
Must be manually assigned if Binge Drinking for breastfeeding and postpartum women.

Counseling guidelines

Explain the risks associated with drinking alcohol during pregnancy and breastfeeding:

- it is rapidly transmitted through the placenta and through the breastmilk
- there is no known safe amount during pregnancy
- it can damage the fetus at any stage of pregnancy

Excessive alcohol during pregnancy can cause:

- low birth weight
- reduced growth rate
- birth defects
- mental retardation
- adverse physical and behavioral effects
  - spontaneous abortions
  - subtle behavioral effects
  - poor postnatal growth in children without full FAS
- Fetal Alcohol Syndrome (FAS)

Excessive alcohol during the breastfeeding period may be associated with:

- failure to initiate let-down reflex
- lethargy in the breastfed infant
- low intake in folate, thiamin, etc. may be reflected in low intakes of these for the infant

For postpartum women, alcohol consumption may impair her ability to care for her infant, including her ability to provide optimal nutritional care.

Continued on next page

372a Alcohol Use, Continued

Counseling guidelines, (continued)

Counsel on ways to provide an adequate diet for age and condition:

- if appropriate, emphasize the nutrients that chronic alcoholics frequently have a lower nutrient intake of:
  - protein from meat
  - vegetable sources
  - dairy foods and calcium sources
  - cereals and breads
  - B vitamins and vitamin D
- if appropriate, discuss the nutrient deficiencies that occur in heavy drinkers and food sources of these nutrients to combat these deficiencies:
  - zinc
  - vitamin A
  - folate
  - thiamin
  - Refer to alcohol treatment program or to health care provider, if appropriate.

Suggested handouts

Daily Food Guide - Pregnant/Breastfeeding/Postpartum
What to Eat When You Are Pregnant
I'm Breastfeeding - What Should I Eat?

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
If pregnant, individual assessment with Registered Dietitian.

- reassess weight gain/status
- reassess dietary/caloric intake
- assess compliance with recommendations
- assess current alcohol use
- document if participant followed through with referrals

If postpartum, appropriate nutrition education at each visit.

Continued on next page

372a Alcohol Use, Continued

Justification

Drinking alcoholic beverages during pregnancy can damage the developing fetus. Excessive alcohol consumption may result in low birth weight, reduced growth rate, birth defects, and mental retardation. WIC can provide supplemental foods, nutrition education and referral to medical and social services which can monitor and provide assistance to the family.

"Fetal Alcohol Syndrome" is a name given to a condition sometimes seen in children of mothers who drank heavily during pregnancy. The child has a specific pattern of physical, mental, and behavioral abnormalities. Since there is no cure, prevention is the only answer.

The exact amount of alcoholic beverages pregnant women may drink without risk to the developing fetus is not known as well as the risk from periodic bouts of moderate or heavy drinking. Alcohol has the potential to damage the fetus at every stage of the pregnancy. Therefore, the recommendation is not to drink any alcoholic beverages during pregnancy.

Studies show that the more alcoholic beverages the mother drinks, the greater the risks are for her baby. In addition, studies indicate that factors such as cigarette smoking and poor dietary practices may also be involved. Studies show that the reduction of heavy drinking during pregnancy has benefits for both mother and newborns. Pregnancy is a special time in a woman's life and the majority of heavy drinkers will respond to supportive counseling.

Heavy drinkers, themselves, may develop nutritional deficiencies and more serious diseases, such as cirrhosis of the liver and certain types of cancer, particularly if they also smoke cigarettes. WIC can provide education and referral to medical and social services, including addiction treatment, which can help improve pregnancy outcome.

Continued on next page

372a Alcohol Use, Continued

Justification for high risk

The exact amount of alcoholic beverages pregnant women may drink without risk to the developing fetus is not known as well as the risk from periodic bouts of moderate or heavy drinking. Alcohol has potential to damage the fetus at every stage of pregnancy. There is no cure for FAS, prevention is the only answer. Therefore, the recommendation is not to drink any alcoholic beverage during pregnancy. WIC can provide supplemental foods, nutrition education and referral to medical and social services which can monitor and provide assistance to the family.

References

1. USDA/DHHS Dietary Guidelines; 1995.

2. Lawrence, Ruth: Maternal & Child Health Technical Information Bulletin: A Review of the Medical Benefits and Contraindications to Breastfeeding in the United States; October 1997.

3. Weiner, L., Morse, B.A., and Garrido, P.: FAS/FAE Focusing Prevention on Women at Risk; International Journal of the Addictions; 1989; 24:385-395.

4. National Clearinghouse for Alcohol and Drug Information; Office for Substance Abuse Prevention; The fact is…alcohol and other drugs can harm an unborn baby; Rockville; 1989.

5. Institute of Medicine: Nutrition During Pregnancy; National Academy of Press; 1990; pp. 88, 177, 391-394.

6. Jones, C. and Lopez, R.: Drug Abuse and Pregnancy; New Perspectives in Prenatal Care; 1990; pp. 273-318.

7. National Household Survey on Drug Abuse, Main Findings 1996; Office of Applied Studies, Substance Abuse and Mental Health Services Administration, DHHS.

372b Illegal Drug Use

Definition/ cut-off value

Any current illegal drug use.

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	Y
Breastfeeding	I	N
Postpartum	VI	N

Documentation

Circle the inappropriate practice on the Medical History form.
Enter NRF #372b in screen 106.
Document referrals in screen 106.
If pregnant, document High Risk Care Plan in participant's chart.
Suggested components to assess:

- pattern of weight gain as well as overall weight gain
- dietary intake
- referrals to health care provider and drug treatment programs
- status of drug intake

RD must document management of care plan
If pregnant, schedule appropriate nutrition education or individual counseling at next visit.
If not pregnant, schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

372b Illegal Drug Use, Continued

Counseling guidelines

Explain the risks associated with the use of illegal drugs during pregnancy and breastfeeding:

- it is rapidly transmitted through the placenta and through the breastmilk
- there is no known safe amount during pregnancy
- it can damage the fetus at any stage of pregnancy

If appropriate, explain the specific risks of the illegal drug use during pregnancy:

- marijuana can cause:
  - low birth weight
  - miscarriage
  - stillbirth
  - fetal abnormalities
- cocaine can cause higher rates of:
  - miscarriage
  - premature onset of labor
  - Intrauterine Growth Retardation (IUGR)
  - developmental/behavioral abnormalities in children in the preschool years
  - infants may exhibit signs of cocaine toxicity
- heroin, methadone and other narcotics may more likely cause:
  - stillborn
  - have low birth weights
  - need to go through withdrawal soon after birth
- amphetamines may cause higher rates of:
  - congenital defects
  - growth retardation
  - preterm delivery

For breastfeeding women:

- marijuana, cocaine, and heroin appear in the breastmilk
- marijuana may cause lethargy and decreased feedings in the infant
- cocaine and heroin put the infant at considerable risk of toxicity.

Continued on next page

372b Illegal Drug Use, Continued

Counseling guidelines, (continued)

For all postpartum women, illegal drug use may impair her ability to care for her infant, including her ability to provide optimal nutrition.

Counsel on ways to provide an adequate diet for age and condition emphasizing any nutrients they may be low in:

- cocaine, phencyclidine (PCP), marijuana users may have low serum levels of iron or folate
- cocaine is an appetite suppressant and may reduce their intake of energy and nutrients

Refer to drug treatment program or health care provider, if appropriate.

Suggested handouts

Daily Food Guide - Pregnant/Breastfeeding/Postpartum
After You Deliver
What to Eat When You Are Pregnant
I'm Breastfeeding - What Should I Eat?

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.

If pregnant, individual assessment with Registered Dietitian.

- reassess weight gain/status
- reassess dietary/caloric intake
- assess compliance with recommendations
- assess current drug use
- document if participant followed through on referrals.

If breastfeeding or postpartum, appropriate nutrition education at each visit.

Continued on next page

372b Illegal Drug Use, Continued

Justification

Pregnant women who smoke marijuana are frequently at higher risk of still birth, miscarriage, low birth weight babies and fetal abnormalities, especially of the nervous system. Heavy cocaine use has been associated with higher rates of miscarriage, premature onset of labor, IUGR, congenital anomalies, and developmental/behavioral abnormalities in the preschool years. Infants born to cocaine users often exhibit symptoms of cocaine intoxication at birth. Infants of women addicted to heroin, methadone, or other narcotics are more likely to be stillborn or to have low birth weights. These babies frequently must go through withdrawal soon after birth. Increased rates of congenital defects, growth retardation, and preterm delivery, have been observed in infants of women addicted to amphetamines.

Pregnant addicts often forget their own health care, adding to their unborn babies' risk. One study found that substance abusing women had lower hematocrit levels at the time of prenatal care registration, lower pregravid weights and gained less weight during the pregnancy. Since nutritional deficiencies can be expected among drug abusers, diet counseling and other efforts to improve food intake are recommended.

Heroin and cocaine are known to appear in human milk. Marijuana also appears in a poorly absorbed form but in quantities sufficient to cause lethargy, and decreased feeding after prolonged exposure.

Justification for high risk

The exact amount of illegal drugs a pregnant woman can take in without risk to the developing fetus is not known. Drugs have the potential to damage the fetus at every stage of pregnancy. Some of the illegal drug effects are irreversible. Therefore, the recommendation is to not take any illegal drugs during pregnancy. WIC can provide supplemental foods, nutrition education and referral to medical and social services which can monitor and provide assistance to the family.

Continued on next page

372b Illegal Drug Use, Continued

References

1. USDA/DHHS Dietary Guidelines; 1995.

2. Lawrence, Ruth: Maternal & Child Health Technical Information Bulletin: A Review of the Medical Benefits and Contraindications to Breastfeeding in the United States; October 1997.

3. Weiner, L., Morse, B.A., and Garrido, P.: FAS/FAE Focusing Prevention on Women at Risk; International Journal of the Addictions; 1989; 24:385-395.

4. National Clearinghouse for Alcohol and Drug Information; Office for Substance Abuse Prevention; The fact is…alcohol and other drugs can harm an unborn baby; Rockville; 1989.

5. Institute of Medicine: Nutrition During Pregnancy; National Academy of Press; 1990; pp. 88, 177, 391-394.

6. Jones, C. and Lopez, R.: Drug Abuse and Pregnancy; New Perspectives in Prenatal Care; 1990; pp. 273-318.

7. National Household Survey on Drug Abuse, Main Findings 1996; Office of Applied Studies, Substance Abuse and Mental Health Services Administration, DHHS.

8. Behnke, M., Eyler, F., Garvan, C., Wobie, K.: The Search for Congenital Malformations in Newborns with Fetal Cocaine Exposure; Pediatrics Vol. 107, No. 5 May 2001.

381 Dental Problems

Definition/ cut-off value

Diagnosis of dental problems by a physician or a health care provider working under the orders of a physician or adequate documentation by the CPA, include:

- Presence of nursing or baby bottle caries, smooth surface decay of the maxillary anterior and the primary molars (infants and children);
- Tooth decay, periodontal disease, tooth loss and or ineffectively replaced teeth which impair the ability to ingest food in adequate quantity or quality (children and all categories of women); and
- Gingivitis of pregnancy (pregnant women).

Participant category and priority level

Category	Priority	High Risk
Pregnant	I	N
Breastfeeding	I	N
Postpartum	VI	N
Infants	I	N
Children	III	N

Documentation

Document physician's, health care providers, or CPA's diagnosis in participant's chart or on medical History form.
Enter NRF #381 in screen 106.
Document referrals in screen 106.
Schedule appropriate nutrition education at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

381 Dental Problems, Continued

Counseling guidelines

Explain the risks associated with dental problems:

- in children, caries result from inappropriate feeding practices. The risks are:
  - primary tooth loss
  - possible feeding problems
  - damage to the permanent teeth
  - potential speech problems

Explain the risks associated with dental problems:

- in adults, missing teeth seriously affects the chewing ability and hence nutritional intake
- in pregnant women with gingivitis, there is a risk of pre-term low birth weight as a result of preterm labor or premature rupture of the membranes

Discuss methods to achieve an adequate diet.

Explain feeding practices appropriate for the participant's category.

Emphasize correcting inappropriate dental feeding practices and teaching them preventative practices.

- For infants and children:
  - hold your infant for bottle and breast feedings
  - do not allow the infant/toddler to sleep with the bottle or use it unsupervised during waking times
  - wipe your infant's gums with a soft cloth after feeding
  - introduce foods, beverages and meals/snacking behaviors that promote oral health (i.e. fruit juices in a cup)

Continued on next page

381 Dental Problems, Continued

Counseling guidelines, (continued)

- For women and children:
  - eat a balanced diet representing moderation
  - plan meals and snacks so as to combine and sequence foods to enhance chewing, saliva production and oral clearance (i.e. combine dairy foods with sweet or starchy foods, protein rich foods with cooked or processed starches, raw and cooked foods)
  - eating frequency is associated with caries risk
    - the more times a day the child consumes solid or liquid food, the higher the caries risk
    - caregivers should be counseled to offer structured meal and snack patterns
  - drink water to satisfy thirst and hydration needs, consume sweetened beverages with meals and snacks that contain other foods, protein and dairy, that can buffer them
  - encourage protein foods such as hard cheese, nuts (for adults and older children), eggs, and meats which are protective against caries
  - provide food choices and meal patterns that sustain energy needs, allow for personal food preferences, are nutrient dense and promote good dental health

Promote good dental hygiene at home.
Refer to health car providers and dental care providers, especially for prescriptions for fluoride, if appropriate
If appropriate, recommend folic acid supplementation for pregnant women, especially if they have gingivitis.

Suggested handouts

Daily Food Guide - Children/Pregnant/Breastfeeding/Postpartum
Infant Feeding Guide
Weaning for the Bottle Fed Baby
Weaning for the Breastfed Baby
Now Your Child Is One, it is Time to Break the Bottle Habit

Follow up and assessment guidelines

If pregnant, weight gain plotted and assessed at each clinic visit.
Appropriate nutrition education at each visit.

Continued on next page

381 Dental Problems, Continued

Justification

Early childhood caries results from inappropriate feeding practices. Nutrition counseling can prevent primary tooth loss, damage to the permanent teeth, and potential speech problems.

Missing more than 7 teeth in adults seriously affects chewing ability (1). This leads to eating only certain foods which in turn affects nutritional intake.

Periodontal disease is a significant risk factor for pre-term low birth weight resulting from pre-term labor or premature rupture of the membranes (2). There is evidence that gingivitis of pregnancy results from "end tissue deficiency" of folic acid and will respond to folic acid supplementation as well as plaque removal.

Justification for high risk

Not applicable

References

1. Agerberg, G and Carlsson, GE: Chewing ability in relation to dental and general health; Aeta Odontol. Scand.; 1981; 39:147-153.

2. Offenbacher, S. et al.: Periodontal infection as a possible risk factor for pre-term low birth weight; J. Periodontol; October 1996; 67(10 Suppl.):1103-1113.

3. J. Dent. Child 29:245

4. Rugg-Gunn, AJ: Nutrition and Dental Health; Oxford Medical Publications; 1993.

382 Fetal Alcohol Syndrome

Definition/ cut-off value

Fetal Alcohol Syndrome (FAS) is based on the presence of retarded growth, a pattern of facial abnormalities, and abnormalities of the central nervous system, including mental retardation (1).

Presence of FAS diagnosed by a physician as self reported by applicant/participant/caregiver; or as reported or documented by a physician, or someone working under physician's orders.

Participant category and priority level

Category	Priority	High Risk
Infants	I	Y
Children	III	Y

Documentation

Circle the appropriate condition on the Medical History form.
Enter NRF #382 in screen 106.
Document referrals in screen 106.
Document High Risk Care Plan in participant's chart.
Suggested components to assess:

- weight gain and growth of child
- dietary intake
- referrals to health care provider and other health services
- referrals to alcohol treatment and other social services programs

RD must document management of care plan
Schedule individual contact with Registered Dietitian at next visit.

Parameters for auto assign

Not auto assigned.
Must be manually selected.

Continued on next page

382 Fetal Alcohol Syndrome, Continued

Counseling guidelines

Explain the risks associated with the syndrome:

- irreversible birth defects
- failure to thrive
- a pattern of poor growth throughout childhood
- poor suck (for infants)
- babies are also more irritable, have difficulty feeding and sleeping
- poor appetite due to slower rate of growth
  - may lead to feeding behavioral problems
- delays in feeding skills due to slower rate of growth
  - may lead to feeding behavioral problems
- auditory and vision problems
- malformed and misaligned secondary teeth
- learning difficulties
- language delays
- attention deficit disorders

If appropriate, discuss the extra family stress of a special needs child and of a caregiver who is also recovering from their own health problems.

- this places the child at risk for poor nutrition
- may neglect to plan and provide meals

Counsel on ways to provide an adequate diet and nutritional intake for age and developmental level.

Special consideration should be given to:

- feeding skill levels and appropriate textures
- meal planning, meals and infant food preparation
- feeding and meal times
  - if child has a short attention span, more feeding times may be appropriate
- if excessive weight gain is a problem in children, stress lower caloric food choices and exercise

Refer to health care providers or specialty clinics such as Children Special Health Care Services.

Refer to appropriate social service agencies and alcohol treatment program.

If appropriate, refer to nutritional programs such at the Extension Agency (i.e. EFNEP).

Continued on next page

382 Fetal Alcohol Syndrome, Continued

Suggested handouts

Daily Food Guide - Children
How Much Is Enough For My Child?
Infant Feeding Guide
The First 12 Months

Follow up and assessment guidelines

Individual assessment with Registered Dietitian.

- reassess growth: height, weight, weight for height, OFC (infants)
- reassess dietary/caloric intake
- assess compliance with recommendations
- document if participant followed through on referrals

Justification

FAS is a combination of permanent, irreversible birth defects attributable solely to alcohol consumption by the mother during pregnancy. There is no known cure; it can only be prevented (1). Symptoms of FAS may include failure to thrive, a pattern of poor growth throughout childhood and poor ability to suck (for infants). Babies with FAS are often irritable and have difficulty feeding and sleeping.

Lower levels of alcohol use may produce Fetal Alcohol Effects (FAE) or Alcohol Related Birth Defects (ARBD) that can include mental deficit, behavioral problems, and milder abnormal physiological manifestations (2). FAE and ARBD are generally less severe than FAS and their effects are widely variable. Therefore, FAE and ARBD in and of themselves are not considered risks, whereas the risk of FAS is unquestionable.

Continued on next page

382 Fetal Alcohol Syndrome, Continued

Justification (continued)

Identification of FAS is an opportunity to anticipate and act upon the nutritional and educational needs of the child. WIC can provide nutritional foods to help counter the continuing poor growth and undifferentiated malabsorption that appears to be present with FAS. WIC can help caregivers acknowledge that children with FAS often grow steadily but slower than their peers. WIC can also educate the caregiver on feeding, increased calorie needs and maintaining optimal nutritional status of the child.

Alcohol abuse is highly concentrated in some families (3). Drinking, particularly abusive drinking, is often found in families that suffer from a multitude of other social problems (4). A substantial number of FAS children come from families, either immediate or extended, where alcohol abuse is common, even normative. This frequently results in changes of caregivers or foster placements. New caregivers need to be educated on the special and continuing nutritional needs of the child.

The physical, social, and psychological stresses and the birth of a new baby, particularly one with special needs, places an extra burden upon the recovering woman. This puts the child at risk for poor nutrition and neglect (e.g., the caregiver may forget to prepare food or be unable to adequately provide all the foods necessary for the optimal growth and development of the infant or child.) WIC can provide supplemental foods, nutrition education and referral to medical and social services which can monitor and provide assistance to the family.

Justification for high risk

The major complications of failure to thrive, poor growth throughout childhood and poor suck in the infant make these children high risk. The parent/caregiver is also frequently recovering from their own health problems. WIC can help by providing food, nutrition education and referrals to other agencies to help the family.

Continued on next page

382 Fetal Alcohol Syndrome, Continued

References

1. Clarren, S.K., and Smith, D.W.: The Fetal Alcohol Syndrome; New England Journal of Medicine; May 11, 1978; 298:1063-1067.

2. Jones, K.L., Smith, D.W., Ulleland, C.N., and Streissguth, A.P.: Pattern of Malformation in Offspring of Chronic Alcoholic Mothers. Lancet; June 9, 1973; 815:1267-1271.

3. Masis, B., M.D., May, A.: A Comprehensive Local Program for the Prevention of Fetal Alcohol Syndrome, Public Health Reports; September-October 1991; 106: 5; pp. 484-489.

4. Lujan, C.C., BeBruyn, L., May, P.A., and Bird, M.E.: Profile of Abuse and Neglected Indian Children in the Southwest; Child Abuse Negligent; 1989; 34: 449-461.

5. Institute of Medicine: Fetal Alcohol Syndrome, Diagnosis, Epidemiology, Prevention and Treatment; 1996.

6. Weiner, L., Morse, B.A., and Garrido, P.: FAS/FAE Focusing Prevention on Women at Risk; International Journal of the Addictions; 1989; 24:385-395.