AMERICAN ACADEMY OF FAMILY PHYSICIANS

AAFP Reprint No. 261

Recommended Curriculum Guidelines for Family Medicine Residents

Maternity Care

This Curriculum Guideline is endorsed by the American Academy of Family Physicians (AAFP) to be used in conjunction with the recommended AAFP Curriculum Guideline No. 282 – Women's Health and Gynecologic Care.

Introduction

This Curriculum Guideline defines a recommended training strategy for family medicine residents. Attitudes, behaviors, knowledge, and skills that are critical to family medicine should be attained through longitudinal experience that promotes educational competencies defined by the Accreditation Council for Graduate Medical Education (ACGME), www.acgme.org. The family medicine curriculum must include structured experience in several specified areas. Much of the resident's knowledge will be gained by caring for ambulatory patients who visit the family medicine center, although additional experience gained in various other settings (e.g., an inpatient setting, a patient's home, a long-term care facility, the emergency department, the community) is critical for well-rounded residency training. The residents should be able to develop a skillset and apply their skills appropriately to all patient care settings.

Structured didactic lectures, conferences, journal clubs, and workshops must be included in the curriculum to supplement experiential learning, with an emphasis on outcomes-oriented, evidence-based studies that delineate common diseases affecting patients of all ages. Patient-centered care, and targeted techniques of health promotion and disease prevention are hallmarks of family medicine and should be integrated in all settings. Appropriate referral patterns, transitions of care, and the provision of cost-effective care should also be part of the curriculum.

Program requirements specific to family medicine residencies may be found on the ACGME website. Current AAFP Curriculum Guidelines may be found online at

www.aafp.org/cg. These guidelines are periodically updated and endorsed by the AAFP and, in many instances, other specialty societies, as indicated on each guideline.

Please note that the term “manage” occurs frequently in AAFP Curriculum Guidelines. “Manage” is used in a broad sense to indicate that the family physician takes responsibility for ensuring that optimal, complete care is provided to the patient. This does not necessarily mean that all aspects of care need to be directly delivered personally by the family physician. Management may include appropriate referral to other health care providers, including other specialists, for evaluation and treatment.

Each residency program is responsible for its own curriculum. **This guideline provides a useful strategy to help residency programs form their curricula for educating family physicians.**

Preamble

While the scope of practice for family physicians continues to evolve, competency in providing high quality, evidence-based, consistent care to women throughout their lifetimes, including during pregnancy, continues to be an important objective of residency training. Maternity care experience varies widely among training programs, but acquiring a core set of knowledge and skills is required by both allopathic and osteopathic residency accreditation councils, and is recommended to ensure that the opportunity for family physicians to offer maternity care in their practices remains widely available.

Family physicians generally offer a unique model of prenatal and intrapartum/postpartum care in which physicians attend the majority of their own patients’ deliveries, and both the woman and her baby often continue to see their family physician for ongoing women’s health, medical, and well-child care. This unique experience continues to be essential in residency training, but it must be underpinned by achievement of competency in appropriate history taking and physical examination skills; knowledge of the physiologic and psychosocial aspects of caring for women; and certain specific hands-on procedural skills. Even those family physicians who do not choose to include maternity care in their scope of practice should be comfortable with and competent in the care of medical issues in women during pregnancy and lactation, as well as management of contraception and preconception counseling. This is particularly relevant to the preconception care family physicians can choose to provide for women who have chronic medical conditions.

Because of the unique model family medicine offers for maternity care, family physicians often provide care in the immediate neonatal period to newborns they deliver. This model helps support maintenance of a well-child population in the continuity clinic. It gives residents the opportunity to provide care for young children while simultaneously monitoring the mothers and providing interconception care. While the care of infants and children is covered extensively in the recommended AAFP

Curriculum Guideline No. 260 – Care of Infants and Children, elements of newborn care are often included in residency maternal health curricula for this reason.

This Curriculum Guideline provides an outline of the attitudes, knowledge, and skills family physicians should attain during residency training to provide high quality maternity care to their female patients. Broader physical and psychological gender-specific health issues of women, including gynecologic care, are addressed in the recommended AAFP Curriculum Guideline No. 282 – Women's Health and Gynecologic Care.

Competencies

At the completion of residency training, family medicine residents should be able to:

- Communicate effectively with female patients of all ages, demonstrating active listening skills, a respectful approach to issues that may be sensitive for women, and collaborative care planning with the patient (Interpersonal and Communication Skills, Professionalism)
- Perform comprehensive physical examinations of female anatomy, with appropriate screening tests for pregnant women, and be able to perform obstetrical procedures (detailed below) (Patient Care, Medical Knowledge)
- Develop and implement treatment plans for common pregnancy complications (prenatal, intrapartum, and postpartum) and utilize community resources when indicated (Medical Knowledge, Systems-based Practice, Practice-based Learning and Improvement)
- Demonstrate effective primary care counseling skills for psychosocial, behavioral, and reproductive issues in women, as well as comprehensive wellness counseling based on the patient's age and risk factors (Patient Care, Interpersonal and Communication Skills)
- Consult and communicate appropriately with obstetrician-gynecologists (OB-GYNs), maternal-fetal medicine specialists, and allied health care professionals to provide optimum health services for women (Medical Knowledge, Systems-based Practice)
- Act as patient advocate and coordinator of care for female patients across the continuum of outpatient, inpatient, and institutional care (Systems-based Practice, Professionalism)

Attitudes and Behaviors

The resident should demonstrate attitudes and behaviors that encompass:

- A caring, compassionate, and respectful approach to the female patient's role as an informed participant in her own health care decisions and those affecting her family

- Recognition that a woman's health and childbearing is affected not only by medical problems, but also by family, career, life cycle, relationships, and community
- A patient-centered approach to prenatal care, labor management, and postpartum care that is respectful of the wishes of women and their families for their birth experience, while ensuring safe and evidence-based care to optimize health outcomes for women and their babies
- Recognition that major depression is common throughout prenatal and postnatal time frames, particularly for women in low-income, poorly supported environments, and that serial screening, diagnosis, and treatment for this disorder are recommended
- Recognition of the impact of addiction on pregnancy outcomes, and a compassionate and supportive approach to women struggling with addiction during pregnancy
- Awareness of issues facing heterosexual, lesbian, bisexual, and transgender patients, particularly with regard to reproductive health
- Awareness of the widespread and complex health effects of psychological, physical, and sexual abuse on women, including on their subsequent experience of pregnancy and the birth process
- Awareness of issues related to female circumcision/female genital mutilation when caring for women from cultures that support such practices

Knowledge

In the appropriate setting, the resident should demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, and demonstrate the ability to apply knowledge of the following:

I. Family-centered maternity care

A. Preconception counseling and planning

1. Counseling in the areas of:
   a. Nutrition, including for women who have eating disorders and all classes of obesity
   b. Contraception and identification of chronic medical conditions in which estrogen-containing contraceptives are contraindicated (e.g., thrombophilia)
   c. Prevention of birth defects with the use of periconceptional folic acid/multivitamins and limitation of the use of known teratogenic medications (e.g., valproic acid)
   d. Optimization of health prior to conception (e.g., aiming for euglycemic control prior to conception in a patient who has type 2 diabetes to decrease the incidence of congenital heart disease in the newborn)

e. Identification of chronic mental health conditions to optimize treatment and to avoid known teratogens
f. Identification of women who have addiction disorders in order to arrange for multidisciplinary treatment and support programs
g. Assessment of immunization status and appropriate vaccinations, as needed
h. Screening for preconception genetic counseling
i. Exercise, particularly in women who are overweight or obese
j. Occupational hazards assessment
k. Anticipatory guidance regarding realistic assessment of expectations about work

B. Antenatal care: first trimester

1. Diagnosis of pregnancy, including differentiation and management or referral of abnormal gestations (e.g., gestational trophoblastic disease, ectopic pregnancy)
2. Initial prenatal history and evaluation, including clinical assessment of gestational age and ascertainment of accurate dating with ultrasound, if indicated
3. Baseline laboratory testing
   a. Maternal blood type and Rh, rubella titer, varicella IgG (if status unknown)
   b. Urine culture
   c. Sexually transmitted infection (STI) testing: hepatitis B surface antigen, rapid plasma reagin (RPR), gonorrhea (GC), chlamydia, HIV, hepatitis C antibody (if risk factors present)
4. Assessment and management of complications and symptoms in the first trimester
   a. Spotting/bleeding
   b. Pelvic pain
   c. Hyperemesis gravidarum
   d. Multi-fetal gestation
   e. Musculoskeletal changes and discomforts
   f. Body image changes
   g. Life cycle stresses and changes in family dynamics
5. Risk factor screening
   a. Appropriate counseling to help patients make personal decisions regarding risk factor screening and assessment
      i. Options for early screening for chromosomal abnormalities through noninvasive prenatal testing, including ultrasound examination for nuchal translucency/pregnancy associated plasma protein (PAPP), combined or sequential screening protocols, cell-free DNA testing and alpha-fetoprotein (AFP)/quadruple marker testing
      ii. Cystic fibrosis, Tay-Sachs disease, and hemoglobinopathy screening, if indicated

iii. Referral for genetic counseling regarding other genetic diseases, with attention to maternal age and other risk factors
iv. Referral for amniocentesis or chorionic villus sampling, when indicated

6. Counseling for prevention or treatment of substance abuse and STIs, to specifically include:
   a. Tobacco cessation counseling in pregnancy
   b. Alcohol abuse risks and fetal alcohol syndrome
   c. Opiate abuse and referral for treatment with methadone or buprenorphine, and counseling with regard to neonatal abstinence syndrome
   d. Other substances of abuse and pregnancy risks
   e. Risk factors for STIs (including viral hepatitis and HIV) and their impact on pregnancy and fetal outcome
7. Prenatal nutrition counseling for optimal nutrition for the developing fetus and the mother, including:
   a. Vitamins, including vitamin D, iron, and folic acid supplementation, as needed
   b. Counseling regarding appropriate weight gain based on maternal pre-pregnancy body mass index (BMI), and counseling regarding increased risks of obesity (or inadequate weight gain in normal or underweight women) in pregnancy
   c. Screening/treatment of eating disorders
8. Psychosocial stressors of pregnancy
   a. Counseling and support of the patient and her family through the multiple adjustments required for both normal and complicated pregnancies (including the impact on the patient's partner and other children in the family) and referral to psychological support services, as appropriate
   b. Longitudinal screening, diagnosis, and treatment for depression throughout pregnancy and the postnatal period
9. Counseling for unintended pregnancy (including options of adoption and termination of pregnancy; see also AAFP Curriculum Guideline No. 282 – Women's Health and Gynecologic Care)
10. First trimester pregnancy loss
    a. Diagnosis and differentiation of failed pregnancies (threatened, incomplete, complete, embryonic demise), and recognition and referral of ectopic pregnancies
    b. Management of uncomplicated spontaneous abortion, including expectant, medical, aspiration, and surgical evacuation
    c. Referral for surgical intervention when indicated for spontaneous abortion complicated by infection, for retained products of conception, or in otherwise high-risk situations
    d. Counseling regarding grief in event of any first trimester loss, whether planned or spontaneous abortion
    e. Appropriate medical evaluation for recurrent early pregnancy loss

11. Breastfeeding: early promotion and support of breastfeeding, as well as support in decision making throughout pregnancy using knowledge and education of the patient as a means of optimizing the health of the mother and newborn
12. Adolescent pregnancy: special considerations with regard to nutrition requirements, confidentiality, and social and psychological needs, with the awareness of community resources
13. Substance abuse in pregnancy: special consideration for prenatal monitoring and testing, and to anticipate needs for pain management and/or withdrawal symptoms during pregnancy and the intrapartum and postpartum periods
14. Counseling with regard to and promotion of appropriate immunizations in pregnancy

C. Antenatal care: second and third trimester
    1. Counseling, assessment, and management regarding discomforts of and adjustments to the growing pregnancy, including musculoskeletal complaints, vaginal bleeding, and normal physiologic changes
    2. Second and third trimester screening and risk assessment for:
        a. Gestational diabetes (including first trimester screening for pre-gestational diabetes when appropriate based on risk factors)
        b. STIs
        c. Vaginal infections
        d. Group B beta-hemolytic strep screening
        e. Asymptomatic bacteriuria, urinary tract infection, and pyelonephritis
        f. Iron deficiency anemia
    3. Gestational diabetes: management with appropriate counseling and referral for nutritional care, glucose testing, oral medication or insulin management, antenatal fetal surveillance, and obstetrical consultation, if indicated
    4. Obstetrical complications: assessment and management, including indications for consultation with obstetrician or need for transfer of care
        a. Preterm labor
        b. Intrauterine growth restriction (IUGR)
        c. Malpresentation
        d. Placental abruption
        e. Trauma/deceleration injuries
        f. Blood factor isoimmunization
        g. Hypertensive disorders of pregnancy, including essential hypertension, gestational hypertension, preeclampsia, preeclampsia with severe features (severe headache, visual disturbances, HELLP [hemolysis, elevated liver enzymes, and low platelet count] syndrome), and eclampsia Note increasing awareness that preeclampsia may present for the first time in the postpartum period up to six weeks after delivery
        h. Intrahepatic cholestasis of pregnancy
        i. Polyhydramnios and oligohydramnios

j. Fetal demise
k. Collaboration in management of high-risk patients with obstetric consultation; development of skills for early identification of patients at high risk of morbidity or mortality to mother or fetus; and appropriate, timely referral to maternal fetal medicine specialists

5. Medical complications during pregnancy, with appropriate consultation or referral to obstetrician/medical subspecialist:
   a. Asthma
   b. Pyelonephritis and renal calculi
   c. Thyroid disease (hypothyroid and hyperthyroid)
   d. Chronic kidney disease
   e. Epilepsy
   f. Autoimmune disease (i.e., lupus)
   g. Cholelithiasis and acute cholecystitis
   h. Preexisting hypertension or diabetes
   i. Thromboembolic disease/thrombophilia
   j. Dilated cardiomyopathy
   k. Chronic pulmonary hypertension
   l. Valvular heart disease

D. Peripartum care: labor and delivery

1. Normal labor and delivery
   a. Understand the physiology of the three stages of labor and demonstrate effective management of all three stages, including management of contemporary normal and abnormal labor curves and active management of the third stage of labor
   b. Demonstrate appropriate utilization and interpretation of external electronic fetal monitoring, with knowledge of the benefits and limitations of use and respect for individual and family desires for labor
   c. Use appropriate obstetric analgesia and anesthesia; evaluate the need for pain control interventions and counsel appropriately. Include family presence and awareness of labor support methods such as Lamaze and Bradley methods
   d. Anticipate and plan for needs of special populations (e.g., opiate-dependent patients or other substance-abusing patients, women with extreme obesity)
   e. Utilize nonpharmacologic methods of pain control in labor and delivery (e.g., ambulation, hydrotherapy, change of positions, counter pressure, self-hypnosis, use of transcutaneous electrical nerve stimulation [TENS] units, use of intradermal sterile water injections for persistent back labor)
   f. Understand the evidence that supports the use of doulas to improve a number of birth and postpartum outcomes
   g. Understand and demonstrate methods for protecting the perineum during the second stage of labor; understand indications for episiotomy
   h. Understand the normal course of the third stage of labor and the steps involved to prevent excessive bleeding and reduce risk of postpartum

hemorrhage using active management techniques, as described in Advanced Life Support in Obstetrics (ALSO)

i. Support and counsel patients regarding breastfeeding in the immediate postpartum period, utilizing support staff such as lactation consultants when indicated

2. Complications during labor and delivery
   a. Fetal malpresentation: understand fetal-pelvic relationships and the importance of early detection of different types of malpresentation and understand their compatibility with vaginal delivery
   b. Latent phase labor: understand that latent phase labor lasts until 6 cm dilation and that patience is warranted unless maternal or fetal health is jeopardized
   c. Active phase labor dystocia: understand risk factors, prevention, recognition, and management, including placement of intrauterine pressure catheter monitors to titrate oxytocin infusion until adequate uterine contractions are maintained for a minimum of four hours
   d. Post-term pregnancy: understand indications and risk assessments for induction of post-term pregnancy, including post-dates monitoring, and selection of management options, including cervical ripening agents, Pitocin induction, and artificial rupture of membranes; understand appropriate assessment and use of Bishop scoring for induction management
   e. Premature and prolonged rupture of membranes: know appropriate interventions, including induction or augmentation of labor and use of prophylactic antibiotics, when indicated
   f. Fetal malposition: understand the important role that fetal malposition (occiput posterior/occiput transverse) plays in active phase dystocia and during the second stage of labor
   g. Meconium: demonstrate awareness of the need for appropriate personnel to be present at the time of delivery and for appropriate intrapartum management of the neonate born with meconium-stained fluid, including counseling mothers and families about expectations for delivery
   h. Emergencies: recognize signs and symptoms of potentially life-threatening emergencies during the peripartum period and utilize appropriate resuscitative techniques for mothers and babies; with obstetric consultation, co-manage placental abruption/hemorrhage, preeclampsia, eclampsia, amniotic fluid embolism, and disseminated intravascular coagulation (DIC)
   i. Category 2 and 3 tracings: recognize early signs of fetal compromise and demonstrate appropriate interventions, including position change, tocolytics, maternal fluid administration, oxygen resuscitation, and amnioinfusion, as well as timely consultation, when necessary
   j. Shoulder dystocia: understand risk factors, prevention, recognition, and management using ALSO protocols
   k. Assisted deliveries: understand indications for and appropriate use and application of a vacuum extractor; understand indications for forceps

l. Cesarean section: understand indications, risks/benefits, and need for timely intervention and surgical consultation
m. Stillbirth: care for the psychological needs of patients and families experiencing stillbirth or other catastrophic medical complications of pregnancy
n. Neonatal resuscitation: Residents should maintain Pediatric Advanced Life Support (PALS) and/or Neonatal Resuscitation Program/Neonatal Advanced Life Support (NRP/NALS) certification and have experience as first responders for neonates requiring resuscitation.

E. Postpartum care

1. Routine postpartum care, including understanding of normal lochia patterns, fluid shifts, education on perineal care, support of breastfeeding and maternal-child bonding, and counseling regarding postpartum contraceptive options
2. Recognition and appropriate evaluation and management of postpartum complications in the hospital, including:
   a. Delayed postpartum hemorrhage
   b. Postpartum fever and endometritis
   c. Pain associated with normal uterine involution, episiotomy, or laceration repair; epidural- or spinal anesthesia-related pain or headache; and musculoskeletal injury associated with labor
   d. Thromboembolic disease
   e. Preeclampsia, which may present as a new disorder in the first six weeks postpartum, usually with hypertension, severe headache, and visual disturbances, but may present with signs/symptoms of congestive heart failure (CHF)
   f. Lactation: addressing difficulties in the newborn period
   g. Postpartum depression and other mood disorders
3. Later postpartum follow-up
   a. Normal and abnormal postpartum lochia and bleeding patterns
   b. Awareness of and counseling/management for common breastfeeding difficulties, including problems with milk supply, latch, nipple soreness or cracking, blocked milk ducts, engorgement, and mastitis
   c. Continued screening, assessment, and management of postpartum mood disorders
   d. Postpartum intimate relationships and family dynamics
   e. Parenting education and resources
4. Interconception care: counseling regarding child spacing, risks and monitoring related to prior pregnancy outcomes (e.g., gestational diabetes, pregnancy-induced hypertension, prior preterm labor or birth, thromboembolic disease) with specific knowledge of risk reduction for prevention of preterm birth

F. Newborn care (see AAFP Curriculum Guideline No. 260 – Care of Infants and Children)

G. Consultation and referral

1. Understanding of the roles of the obstetrician, gynecologist, and subspecialist
2. Recognition of a variety of resources in women's health care delivery systems (e.g., Special Supplemental Nutrition Program for Women, Infants, and Children [WIC], Planned Parenthood)
3. Regionalized perinatal care for high-risk pregnancies
4. Collaboration with other health care professionals (e.g., childbirth educator, lactation consultant, certified nurse midwife, nutritionist, dietician, parenting educator, social services, U.S. Department of Health and Human Services, mental health and addiction professionals)

II. Gynecology (see AAFP Curriculum Guideline No. 282 – Women's Health and Gynecologic Care)

Skills

I. Core skills: In the appropriate setting, the resident should demonstrate the ability to independently perform the following skills (when this is not available or appropriate, the resident should have exposure to the opportunity to practice these skills):

A. Pregnancy: independent performance

1. History, physical examination, counseling, and laboratory and clinical monitoring throughout pregnancy
2. Assessment of pelvic adequacy with pelvimetry
3. Assessment of estimated fetal weight by Leopold maneuvers
4. Performance and interpretation of non-stress tests and stress tests
5. Limited obstetric ultrasound examination (fetal position, amniotic fluid index, placental location, cardiac activity)
6. Management of labor with accurate assessment of cervical progress and fetal presentation and lie
7. Induction and augmentation of labor, including artificial rupture of membranes
8. Placement of fetal scalp electrode
9. Placement of intrauterine pressure catheter
10. Amnioinfusion
11. Local anesthesia
12. Spontaneous cephalic delivery
13. Active management of the third stage of labor
14. Episiotomy

15. Repair of episiotomies and lacerations (including third-degree)
16. Neonatal resuscitation

B. Pregnancy: exposure and practice
    1. Vacuum extraction
    2. Emergency breech delivery
    3. Management of common intrapartum problems (e.g., malpresentation, unanticipated shoulder dystocia, manual removal of placenta)
    4. Pudendal block anesthesia
    5. First assisting at cesarean delivery
    6. Vaginal birth after previous cesarean delivery
    7. Dilation and curettage for incomplete abortion (may be an “advanced skill” at some programs)

C. Gynecology (see AAFP Curriculum Guideline No. 282 – Women’s Health and Gynecologic Care)

D. Family planning and contraception (see AAFP Curriculum Guideline No. 282 – Women’s Health and Gynecologic Care)

II. Advanced skills: For family medicine residents who are planning to practice in communities without readily available obstetric-gynecologic consultation and who will need to provide a more complete level of obstetric-gynecologic services, additional, intensified experience is recommended. This experience should be agreed on by the maternity operations committee (defined below) and be tailored to the needs of the resident's intended practice. This additional training may occur within the three years of residency. Family medicine residents planning to include the procedures listed below in their practices should obtain additional experience taught by appropriately skilled family physicians. In programs in which appropriately skilled family physicians are not available, these skills should be taught by or in collaboration with OB-GYNs. Due to variance in availability of training, some of these skills may be considered “core” skills at some residency programs, particularly those offering advanced obstetrical fellowships.

A. Pregnancy
    1. Ultrasound-guided amniocentesis during mid-trimester and third trimester
    2. Conduction anesthesia and analgesia (not routinely taught by OB-GYNs)
    3. Management of early preterm labor or preterm rupture of membranes
    4. Management of multiple gestation
    5. Management of planned breech delivery
    6. External cephalic version

7. Forceps delivery
8. Fourth-degree laceration repair
9. Management of severe preeclampsia or eclampsia
10. Management of complications of vaginal birth after previous cesarean delivery

B. Surgery
   1. Performance of cesarean delivery
   2. Postpartum tubal ligation with and without cesarean delivery

C. Gynecology (see AAFP Curriculum Guideline No. 282 – Women's Health and Gynecologic Care)

D. Family planning and contraception (see AAFP Curriculum Guideline No. 282 – Women's Health and Gynecologic Care)

Implementation

Core knowledge and skills should require a minimum of two months of experience in a structured obstetrics educational program, with an additional one month dedicated to gynecologic care (see AAFP Curriculum Guideline No. 282 – Women's Health and Gynecologic Care). Adequate emphasis on both ambulatory and hospital care should be provided. Residents will obtain substantial additional experience in maternity care throughout the three years of their continuity practices. Ideally, residencies should have several core family medicine faculty members skilled in performing and teaching comprehensive maternity care, in addition to OB-GYN specialists in a supportive role.

Programs for family medicine residents should have a collaborative relationship between family medicine faculty and OB-GYNs at the training institution; OB-GYNs may be a formal part of the faculty or be collaborative consultants. Depending on the setting, challenges may exist if the training of OB-GYN residents is privileged over that of family physicians or if practice styles differ among the physicians involved in training residents. Therefore, it is recommended that an operational committee be established with regard to the practice of maternity care at any institution involved in graduate medical education; part of its mission should be the training of family medicine residents. Members of the committee should represent both the family medicine and the obstetrics and gynecology departments, as well as involving community family physicians who practice maternity care (in communities in which they exist). Members should be approved by chairs of the respective departments of the sponsoring educational institution. These physicians should collaborate in the design, implementation, and evaluation of the training of family medicine residents in obstetrics and gynecology. It should be the responsibility of this operational committee to develop objectives that align with the goals of the training program, to monitor resident experiences, and to assist in the evaluation of faculty teaching skills. Educational institutions sponsoring

graduate medical education should assume corporate responsibility for the overall program. A curriculum in obstetrics and gynecology for family medicine residents should incorporate knowledge of diagnosis, management, core skills, and advanced skills. In this document, management implies responsibility for and provision of care, as well as consultation and/or referral, when necessary.

This Curriculum Guideline in maternity care for family medicine residents is intended to aid residency directors in developing curricula and to assist residents in identifying areas of necessary training. Following these recommendations—which are designed as guidelines rather than as residency program requirements—should result in graduates of family medicine residency programs who are well prepared to provide quality medical care in the areas of maternity care, labor, and delivery. These guidelines are not intended to serve as criteria for hospital privileging or credentialing. The assignment of hospital privileges is a local responsibility and is based on training, experience, and current competence.

Resources

American Academy of Family Physicians. Preconception care (revised and approved 2016). http://www.aafp.org/about/policies/all/preconception-care.html. Accessed June 1, 2016.

American Academy of Pediatrics (AAP) Committee on Fetus and Newborn, American College of Obstetricians and Gynecologists (ACOG) Committee on Obstetric Practice. *Guidelines for Perinatal Care*. 7th ed. Elk Grove Village, Ill.: American Academy of Pediatrics; 2012.

American College of Obstetricians and Gynecologists. Hypertension in pregnancy. Report of the American College of Obstetricians and Gynecologists' Task Force on Hypertension in Pregnancy. *Obstet Gynecol*. 2013;122(5):1122-1131.

Chang PC, Leeman L, Wilkinson J. Family medicine obstetrics fellowship graduates: training and post-fellowship experience. *Fam Med.* 2008;40(5):326-332.

Coutinho AJ, Cochrane A, Stelter K, Phillips RL Jr, Peterson LE. Comparison of intended scope of practice for family medicine residents with reported scope of practice among practicing family physicians. *JAMA*. 2015;314(22):2364-2372.

Creasy RK, Resnik R, Iams JD, Lockwood CJ, Moore TR, Greene MF. *Creasy and Resnik's Maternal-Fetal Medicine: Principles and Practice*. 7th ed. Philadelphia, Pa.: Saunders; 2013.

Cunningham FG, Leveno KJ, Bloom SL, et al. *Williams Obstetrics*. 24th ed. New York, NY: McGraw-Hill Medical; 2014.

Dresang LT, Yonke N. Management of spontaneous vaginal delivery. *Am Fam Physician.* 2015;92(3):202-208.

Farahi N, Zolotor A. Recommendations for preconception counseling and care. *Am Fam Physician*. 2013;88(8):499-506.

Fritz MA, Speroff L. *Clinical Gynecologic Endocrinology and Infertility*. 8th ed. Philadelphia, Pa.: Lippincott Williams & Wilkins; 2010.

Gabbe SG, Niebyl JR, et al. *Obstetrics: Normal and Problem Pregnancies*. 7th ed. Philadelphia, Pa.: Saunders, 2016.

Hartling L, Dryden DM, Guthrie A, Muise M, Vandermeer B, Donovan L. Benefits and harms of treating gestational diabetes mellitus: a systematic review and meta-analysis for the U.S. Preventive Services Task Force and the National Institutes of Health Office of Medical Applications of Research. *Ann Intern Med*. 2013;159(2):123-129.

Hofmeyr GJ, Lawrie TA, Atallah AN, Duley L, Torloni MR. Calcium supplementation during pregnancy for preventing hypertensive disorders and related problems. *Cochrane Database Syst Rev*. 2014;(6):CD001059.

Kelly BF, Sicilia JM, Forman S, Ellert W, Nothnagle M. Advanced procedural training in family medicine: a group consensus statement. *Fam Med.* 2009;41(6):398-404.

LeFevre ML; U.S. Preventive Services Task Force. Low-dose aspirin use for the prevention of morbidity and mortality from preeclampsia: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2014;161(11):819-826.

O'Connor E, Rossom RC, Henninger M, Groom HC, Burda BU. Primary care screening for and treatment of depression in pregnant and postpartum women: Evidence report and systematic review for the U.S. Preventive Services Task Force. *JAMA*. 2016;315(4):388-406.

Spong CY, Berghella V, Wenstrom KD, Mercer BM, Saade GR. Preventing the first cesarean delivery: summary of a joint Eunice Kennedy Shriver National Institute of Child Health and Human Development, Society for Maternal-Fetal Medicine, and American College of Obstetricians and Gynecologists Workshop. *Obstet Gynecol*. 2012;120(5):1181-1193.

Zakrzewski L, Sur D. Immunizations in pregnancy. *Am Fam Physician*. 2013;87(12):828-830.

Zolotor AJ, Carlough MC. Update on prenatal care. *Am Fam Physician*. 2014;89(3):199-208.

Web Sites

American Academy of Pediatrics. www.aap.org/

American Congress of Obstetricians and Gynecologists. www.acog.org/

American Family Physician (*AFP*) Topic Module: Labor, Delivery, and Postpartum Issues. www.aafp.org/afp/topicModules/viewTopicModule.htm?topicModuleId=16

American Family Physician (*AFP*) Topic Module: Prenatal. www.aafp.org/afp/topicModules/viewTopicModule.htm?topicModuleId=25

Association of Maternal & Child Health Programs. www.amchp.org/

Centers for Disease Control and Prevention. Health Equity – Women's Health. www.cdc.gov/women/

Centers for Disease Control and Prevention. Reproductive Health: Maternal and Infant Health. www.cdc.gov/reproductivehealth/MaternalInfantHealth/

National Guideline Clearinghouse. www.guideline.gov/

World Health Organization. www.who.int/

Published 7/1980
Reformatted 7/1988
Revised and Re-titled 3/1998
Revised 2/2008
Revised 11/2009 by Hinsdale Family Medicine Residency
Revised 09/2012 by Eastern Maine Medicine Center Family Medicine Residency
Revised/Retitled 06/2014 by Bayfront Health St. Petersburg Family Medicine Residency, FL
Revised 08/2016 by Lancaster General Family Medicine Residency, Lancaster, PA

AAFP--ACOG Joint Statement
Cooperative Practice and Hospital Privileges

This joint statement was developed by a joint task force of the American Academy of Family Physicians and the American College of Obstetricians and Gynecologists.

Access to maternity care is an important public health concern in the United States. Providing comprehensive perinatal services to a diverse population requires a cooperative relationship among a variety of health professionals, including social workers, health educators, nurses and physicians. Prenatal care, labor and delivery, and postpartum care have historically been provided by midwives, family physicians and obstetricians. All three remain the major caregivers today. A cooperative and collaborative relationship among obstetricians, family physicians and nurse midwives is essential for provision of consistent, high quality care to pregnant women.

Regardless of specialty, there should be shared common standards of perinatal care. This requires a cooperative working environment and shared decision-making. Clear guidelines for consultation and referral for complications should be developed jointly. When appropriate, early and ongoing consultation regarding a woman's care is necessary for the best possible outcome and is an important part of risk management and prevention of professional liability problems. All family physicians and obstetricians on the medical staff of the obstetric unit should agree to such guidelines and be willing to work together for the best care of patients. This includes a willingness on the part of obstetricians to provide consultation and back-up for family physicians who provide maternity care. The family physician should have knowledge, skills and judgment to determine when timely consultation and/or referral may be appropriate.

The most important objective of the physician must be the provision of the highest standards of care, regardless of specialty. Quality patient care requires that all providers should practice within their degree of ability as determined by training, experience and current competence. A joint practice committee with obstetricians and family physicians should be established in health care organizations to determine and monitor standards of care and to determine proctoring guidelines. A collegial working relationship between family physicians and obstetricians is essential if we are to provide access to quality care for pregnant women in this country.

A. Practice privileges

The assignment of hospital privileges is a local responsibility and privileges should be granted on the basis of training, experience and demonstrated current competence. All physicians should be held to the same standards for granting of privileges, regardless of specialty, in order to assure the provision of high quality patient care. Prearranged, collaborative relationships should be established to ensure ongoing consultations, as well as consultations needed for emergencies.

The standard of training should allow any physician who receives training in a cognitive or surgical skill to meet the criteria for privileges in that area of practice. Provisional privileges in primary care, obstetric care and cesarean delivery should be granted regardless of specialty as long as training criteria and experience are documented. All physicians should be subject to a proctorship period to allow demonstration of ability and current competence. These principles should apply to all health care systems.

B. Interdepartmental relationships

Privileges recommended by the department of family medicine shall be the responsibility of the department of family medicine. Similarly, privileges recommended by the department of obstetrics-gynecology shall be the responsibility of the department of obstetrics-gynecology. When privileges are recommended jointly by the departments of family medicine and obstetrics-gynecology, they shall be the joint responsibility of the two departments. (1998) (2014 April BOD)

Link to **AAFP – ACOG Joint Statement: Cooperative Practice and Hospital Privileges.**
http://www.aafp.org/about/policies/all/aafp-acog.html

Core Competencies in Breastfeeding Care and Services for All Health Professionals

Revised Edition

 Cite as: United States Breastfeeding Committee. *Core Competencies in Breastfeeding Care and Services for All Health Professionals*. Rev ed. Washington, DC: United States Breastfeeding Committee; 2010.

Link to ***Core Competencies in Breastfeeding Care and Services for all Health Professionals***. http://www.usbreastfeeding.org/p/cm/ld/fid=170.

About USBC

The United States Breastfeeding Committee (USBC) is an independent nonprofit coalition of
more than 40 nationally influential professional, educational, and governmental organizations. Representing over half a million concerned professionals and the families they serve, USBC and its member organizations share a common mission to improve the Nation's health by working collaboratively to protect, promote, and support breastfeeding. For more information on USBC, visit ***www.usbreastfeeding.org***.

Background

Breastfeeding is a basic and cost-effective measure that has a significant positive impact on short- and long-term health outcomes for individuals and populations.[1] The greatest health impact is found with early initiation, exclusive breastfeeding for the first six months of life, and continued breastfeeding with appropriate complementary foods for the first year of life and beyond.[2] Lack of breastfeeding is a significant risk to the public health of our nation and increases health care spending.[3]

In order to establish and maintain breastfeeding, women need education and support from a knowledgeable health care community.[4] Evidence-based knowledge, skills, and attitudes are lacking among health professionals in many disciplines.[5] The volume of new information, advances in treatments and technologies, and health care system challenges, combined with the relative paucity of professional training in human lactation and breastfeeding, leave many providers without satisfactory answers for their patients.[6 7]

Purpose

These core competencies in breastfeeding care and services were developed to provide health professionals with a guideline and framework to integrate evidence-based breastfeeding knowledge, skills, and attitudes into their standard health care delivery practices.

The United States Breastfeeding Committee recommends that *all* health professionals possess the core competencies identified in this document in order to integrate breastfeeding care effectively and responsibly into current practice and thus provide effective and comprehensive services to mothers, children, and families.

Effecting Change

Educators are in a unique position to lead the way by incorporating these core competencies into the undergraduate, graduate, and post-graduate curricula of health professionals.[8 9 10 11] These core competencies provide a structure for educators to respond to the emerging necessity of educating all health care providers regarding

breastfeeding and human lactation in the context of findings from the World Health Organization (WHO)[12] and the Agency for Healthcare Research and Quality (AHRQ).[13]

Maternal and child health (MCH) education and practice is based upon a life cycle framework that recognizes that there are pivotal periods in human development that present both risks and opportunities for improving health outcomes for individuals and populations.[14] In particular, USBC calls upon MCH leaders to emphasize the synergistic value of these breastfeeding core competences to the health of women, children, and families.

Breastfeeding Core Competencies

Competence in the following areas represents the ***minimal*** knowledge, skills, and attitudes necessary for health professionals from ***all*** disciplines to provide patient care that protects, promotes, and supports breastfeeding.

At a minimum, every health professional should understand the role of lactation, human milk, and breastfeeding in:

- The optimal feeding of infants and young children[3 15]
- Enhancing health and reducing:
  - long-term morbidities in infants and young children[2 15]
  - morbidities in women[15 16]

All health professionals should be able to facilitate the breastfeeding care process by:

- Preparing families for realistic expectations
- Communicating pertinent information to the lactation care team[17]
- Following up with the family, when appropriate, in a culturally competent manner after breastfeeding care and services have been provided[18]

USBC proposes to accomplish this by recommending that health professional organizations:

- Understand and act upon the importance of protecting, promoting, and supporting breastfeeding as a public health priority[2 3 16 19 20]
- Educate their practitioners to:
  - appreciate the limitations of their breastfeeding care expertise[17 21]
  - know when and how to make a referral to a lactation care professional[17 21]
- Regularly examine the care practices of their practitioners and establish core competencies related to breastfeeding care and services[20 22]

Knowledge_____
All health professionals should understand the:

1.1 basic anatomy and physiology of the breast[8 23]

1.2 role of breastfeeding and human milk in maintaining health and preventing disease[2 15]

1.3 importance of exclusive breastfeeding, and its correlation with optimal health outcomes[15 24]

1.4 impact of pregnancy, birth, and other health care practices on breastfeeding outcomes[19 25]

1.5 role of behavioral, cultural, social, and environmental factors in infant feeding decisions and practices[26 27]

1.6 potentially adverse outcomes for infants and mothers who do not breastfeed[28]

1.7 potential problems associated with the use of human milk substitutes[29]

1.8 few evidence-based contraindications to breastfeeding[30 31]

1.9 indications for referral to lactation services[17]

1.10 resources available to assist mothers seeking breastfeeding and lactation information or services[30 32]

1.11 effects of marketing of human milk substitutes on the decision to breastfeed and the duration of breastfeeding[1 33 34]

Skills_____

All health professionals should be able to:

2.1 practice in a manner that protects, promotes, and supports breastfeeding[2 3 16 22]

2.2 gather breastfeeding history information sufficient to identify mothers and families who would benefit from specific breastfeeding support services[35]

2.3 seek assistance from and refer to appropriate lactation specialists[22 24]

2.4 safeguard privacy and confidentiality[36]

2.5 effectively use new information technologies to obtain current evidence-based information about breastfeeding and human lactation[22 37]

Attitudes_____

All health professionals should:

3.1 value breastfeeding as an important health promotion and disease prevention strategy[30 38]

3.2 recognize and respect philosophical, cultural, and ethical perspectives influencing the use and delivery of breastfeeding care and services[18 22]

3.3 respect the confidential nature of the provision of breastfeeding care and services[36]

3.4 recognize the importance of delivering breastfeeding care and services that are free of commercial conflict of interest or personal bias[22 23 34]

3.5 understand the importance of tailoring information and services to the family's culture, knowledge, and language level[18 39]

3.6 seek coordination and collaboration with interdisciplinary teams of health professionals[17]

3.7 recognize the limitations of their own lactation knowledge and breastfeeding expertise[17]

3.8 recognize when personal values and biases may affect or interfere with breastfeeding care and services provided to families[8]

3.9 encourage workplace support for breastfeeding[40]
3.10 support breastfeeding colleagues[41 42 43]
3.11 support family-centered policies at federal, state, and local levels[9]

All health professionals do not need to have the level of competence expected of those practitioners who care for childbearing women, infants, and young children. Health professionals who care for childbearing women, infants, and young children can be further divided into two groups:

1. Those that provide **primary care** are front-line practitioners who care for women of childbearing age and/or infants and young children.
2. Those that provide **secondary care** may be front-line practitioners or practitioners with enhanced knowledge and skills specifically referable to the use of human milk and breastfeeding.

Those health professionals who provide primary and secondary care for childbearing women, infants, and young children should be able to:

4.1 understand the evidence-based *Ten Steps to Successful Breastfeeding*[25 44]
4.2 obtain an appropriate breastfeeding history[45]
4.3 provide mothers with evidence-based breastfeeding information[24]
4.4 use effective counseling skills[18]
4.5 offer strategies to address problems and concerns in order to maintain breastfeeding[24 46]
4.6 know how and when to integrate technology and equipment to support breastfeeding[36]
4.7 collaborate and/or refer for complex breastfeeding situations[47]
4.8 provide and encourage use of culturally appropriate education materials[33]
4.9 share evidence-based knowledge and clinical skills with other health professionals[35 48]
4.10 preserve breastfeeding under adverse conditions[24 49]

In addition, those health professionals who provide secondary or more direct "hands-on" care for childbearing women, infants, and young children should also be able to:

5.1 assist in early initiation of breastfeeding[50]
5.2 assess the lactating breast[51]
5.3 perform an infant feeding observation[37 51]
5.4 recognize normal and abnormal infant feeding patterns[51 52]
5.5 develop and appropriately communicate a breastfeeding care plan[51 52]

References

[1] U.S. Department of Health and Human Services. *The Surgeon General's Call to Action to Support Breastfeeding*. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; 2011.

[2] American Academy of Pediatrics Section on Breastfeeding. Breastfeeding and the use of human milk (policy statement). *Pediatrics*. 2005;115(2):496-506.
[3] American Academy of Family Physicians. Family physicians supporting breastfeeding (position paper). http://www.aafp.org/online/en/home/policy/policies/b/breastfeedingpositionpaper.html. Accessed October 2, 2010.
[4] Britton C, McCormick FM, Renfrew MJ, Wade A, King SE. Support for breastfeeding mothers. *Cochrane Database Syst Rev*. 2007;(1):CD001141.
[5] Grossman X, Chaudhuri J, Feldman-Winter L, et al. Hospital Education in Lactation Practices (Project HELP): does clinician education affect breastfeeding initiation and exclusivity in the hospital? *Birth*. 2009;36(1):54-59.
[6] Philipp BL, McMahon MJ, Davies S, Santos T, Jean-Marie S. Breastfeeding information in nursing textbooks needs improvement. *J Hum Lact*. 2007;23(4):345-349.
[7] Philipp BL, Merewood A, Gerendas EJ, Bauchner H. Breastfeeding information in pediatric textbooks needs improvement. *J Hum Lact*. 2004;20(2):206-210.
[8] Spatz DL, Pugh LC; American Academy of Nursing Expert Panel on Breastfeeding. The integration of the use of human milk and breastfeeding in baccalaureate nursing curricula. *Nurs Outlook*. 2007;55(5):257-263.
[9] Spatz DL. The breastfeeding case study: a model for educating nursing students. *J Nurs Educ*. 2005;44(9):432-434.
[10] Feldman-Winter L, Barone L, Milcarek B, et al. Residency curriculum improves breastfeeding care. *Pediatrics*. 2010;126(2):289-297.
[11] Wellstart International. *Lactation Management Self-Study Modules, Level I*. 3rd rev ed. Shelburne, VT:Wellstart International; 2009.
[12] Horta BL, Bahl R, Martines JC, Victora CG. *Evidence on the Long-Term Effects of Breastfeeding: Systematic Reviews and Meta-Analyses.* Geneva, Switzerland: World Health Organization; 2007.
[13] Ip S, Chung M, Raman G, Chew P, Magula N, DeVine D, Trikalinos T, Lau J. *Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries*. Rockville, MD: Agency for Healthcare Research and Quality; 2007. Evidence Report/Technology Assessment No. 153.
[14] MCH Leadership Competencies Workshop. *Maternal and Child Health Leadership Competencies*. Version 3.0. Rockville, MD: U.S. Department of Health and Human Services, Health Resources Services Administration, Maternal and Child Health Bureau; 2009.
[15] Leviniene G, Petrauskiene A, Tamuleviciene E, Kudzyte J, Labanauskas L. The evaluation of knowledge and activities of primary health care professionals in promoting breast-feeding. *Medicina (Kaunas)*. 2009;45(3):238-247.
[16] Committee on Health Care for Underserved Women, American College of Obstetricians and Gynecologists. ACOG committee opinion no. 361: breastfeeding: maternal and infant aspects. *Obstet Gynecol*. 2007;109(2, pt 1):479-480.
[17] Szucs KA, Miracle DJ, Rosenman MB. Breastfeeding knowledge, attitudes, and practices among providers in a medical home. *Breastfeed Med*. 2009;4(1):31-42.
[18] Noble LM, Noble A, Hand IL. Cultural competence of healthcare professionals caring for breastfeeding mothers in urban areas. *Breastfeed Med*. 2009;4(4):221-224.

[19] Wallis M, Harper M. Supporting breastfeeding mothers in hospital: part 1. *Paediatr Nurs*. 2007;19(7):48-52.
[20] U.S. Preventive Services Task Force. Primary care interventions to promote breastfeeding: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2008;149(8):560-564.
[21] Shealy KR, Li R, Benton-Davis S, Grummer-Strawn LM. *The CDC Guide to Breastfeeding Interventions*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2005.
[22] Dykes F. The education of health practitioners supporting breastfeeding women: time for critical reflection. *Matern Child Nutr*. 2006;2(4):204-216.
[23] World Health Organization/UNICEF. *Breastfeeding Counselling: A Training Course*. Geneva, Switzerland: World Health Organization; 1993.
[24] Taveras EM, Li R, Grummer-Strawn L, et al. Opinions and practices of clinicians associated with continuation of exclusive breastfeeding. *Pediatrics*. 2004;113(4):e283-e290.
[25] DiGirolamo AM, Grummer-Strawn LM, Fein SB. Effect of maternity-care practices on breastfeeding. *Pediatrics*. 2008;122(suppl 2):S43-49.
[26] Hannula L, Kaunonen M, Tarkka MT. A systematic review of professional support interventions for breastfeeding. *J Clin Nurs*. 2008;17(9):1132-1143.
[27] Pak-Gorstein S, Haq A, Graham EA. Cultural influences on infant feeding practices. *Pediatr Rev*. 2009;30(3):e11-e21.
[28] McNiel ME, Labbok MH, Abrahams SW. What are the risks associated with formula feeding? A reanalysis and review. *Breastfeed Rev*. 2010;18(2):25-32.
[29] Gagnon AJ, Leduc G, Waghorn K, Yang H, Platt RW. In-hospital formula supplementation of healthy breastfeeding newborns. *J Hum Lact*. 2005;21(4):397-405.
[30] Spatz DL. Ten steps for promoting and protecting breastfeeding for vulnerable infants. *J Perinat Neonatal Nurs*. 2004;18(4):385-396.
[31] Lawrence RM, Lawrence RA. Given the benefits of breastfeeding, what contraindications exist? *Pediatr Clin North Am*. 2001;48(1):235-251.
[32] Guise JM, Palda V, Westhoff C, et al. The effectiveness of primary care-based interventions to promote breastfeeding: systematic evidence review and meta-analysis for the U.S. Preventive Services Task Force. *Ann Fam Med*. 2003;1(2):70-78.
[33] World Health Organization. *International Code of Marketing of Breast-milk Substitutes*. Geneva, Switzerland: World Health Organization; 1981.
[34] Howard FM, Howard CR, Weitzman M. The physician as advertiser: the unintentional discouragement of breast-feeding. *Obstet Gynecol*. 1993;81(6):1048-1051.
[35] Pérez-Escamilla R. Evidence based breast-feeding promotion: the Baby-Friendly Hospital Initiative. *J Nutr*. 2007;137(2):484-487.
[36] Thomas JR, Shaikh U. Electronic communication with patients for breastfeeding support. *J Hum Lact*. 2007;23(3):275-279.
[37] Hoddinott P, Tappin D, Wright C. Breast feeding. *BMJ*. 2008;336(7649):881-887.
[38] Stuebe AM, Schwarz EB. The risks and benefits of infant feeding practices for women and their children. *J Perinatol*. 2010;30(3):155-162.
[39] Grassley JS, Nelms PT. The breast-feeding conversation: a philosophic exploration of support. *ANS Adv Nurs Sci*. 2008;31(4):E55-E66.

[40] Angeletti MA. Breastfeeding mothers returning to work: possibilities for information, anticipatory guidance and support from U.S. health care professionals. *J Hum Lact*. 2009;25(2):226-232.
[41] Johnston ML, Esposito N. Barriers and facilitators for breastfeeding among working women in the United States. *J Obstet Gynecol Neonatal Nurs*. 2007;36(1):9-20.
[42] Kacmar JE, Taylor JS, Nothnagle M, Stumpff J. Breastfeeding practices of resident physicians in Rhode Island. *Med Health R I*. 2006;89(7):230-231.
[43] Sattari M, Levine D, Bertram A, Serwint JR. Breastfeeding intentions of female physicians [published online ahead of print June 24, 2010]. *Breastfeed Med*. doi:10.1089/bfm.2009.0090.
[44] World Health Organization/UNICEF. *Protecting, Promoting and Supporting Breast-feeding: The Special Role of Maternity Services*. Geneva, Switzerland: World Health Organization; 1989.
[45] Mulder PJ, Johnson TS. The Beginning Breastfeeding Survey: measuring mothers' perceptions of breastfeeding effectiveness during the postpartum hospitalization. *Res Nurs Health*. 2010;33(4):329-344.
[46] Walker M. Breast-feeding: good starts, good outcomes. *J Perinat Neonatal Nurs*. 2007;21(3):191-197; quiz 198-199.
[47] do Nascimento MB, Issler H. Breastfeeding the premature infant: experience of a Baby-Friendly hospital in Brazil. *J Hum Lact*. 2005;21(1):47-52.
[48] Shaikh U, Smillie CM. Physician-led outpatient breastfeeding medicine clinics in the United States. *Breastfeed Med*. 2008;3(1):28-33.
[49] Walker M. Conquering common breast-feeding problems. *J Perinat Neonatal Nurs*. 2008;22(4):267-274.
[50] Dyson L, McCormick F, Renfrew MJ. Interventions for promoting the initiation of breastfeeding. *Cochrane Database Syst Rev*. 2005;(2):CD001688.
[51] Riordan J, Wamback K, eds. *Breastfeeding and Human Lactation.* 4th ed. Sudbury, MA: Jones & Bartlett Publishers, LLC; 2010.
[52] Philipp BL, Academy of Breastfeeding Medicine Protocol Committee. ABM Clinical Protocol #7: Model breastfeeding policy (revision 2010). *Breastfed Med*. 2010;5:173-177.

This document was funded in part by the U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau, grant 6T79MC00007-22-01 – University of Minnesota.