



AMERICAN ACADEMY OF  
FAMILY PHYSICIANS

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Recommended Curriculum Guidelines for Family Medicine Residents

# Care of Infants and Children

*This document was endorsed by the American Academy of Family Physicians (AAFP).*

## 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](http://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](http://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

Family physicians must develop knowledge and skills appropriate to manage medical, physical, social, and emotional problems in patients of all ages, including infants and children. Family physicians have a unique opportunity to treat all members of the family and to appreciate the influence that family members and siblings have on an individual infant or child. It is the responsibility of the family physician to monitor the development of each child so that the child can reach his or her full potential, and to improve the health of children and families in the community in a proactive and responsive manner.

## Competencies

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

- Demonstrate the ability to take an age-appropriate history and perform a physical examination (Patient Care, Medical Knowledge)
- Perform health promotion (i.e., well-child care) visits at recommended ages based on nationally recognized periodicity schedules (e.g., Bright Futures, Guidelines for Adolescent Preventive Services [GAPS]) (Patient Care, Medical Knowledge)
- Synthesize an appropriate diagnosis and treatment plan for common pediatric conditions in both the outpatient and inpatient settings (Patient Care, Medical Knowledge)
- Demonstrate the ability to communicate effectively with the patient, as well as the patient’s family and caregivers, to ensure the development and clear understanding of an appropriate, acceptable diagnosis and treatment plan (Interpersonal and Communications Skills)
- Recognize his or her own practice limitations and seek consultation with other health care professionals and resources when necessary to provide optimal patient care (Professionalism, Systems-based Practice)

- Demonstrate the ability to communicate effectively and coordinate care of children who have chronic conditions (including mental health conditions) with families and community resources (Interpersonal and Communications Skills, Systems-based Practice)

## **Attitudes and Behaviors**

The resident should demonstrate attitudes and behaviors that encompass:

- Empathic concern for the health of the child in the context of the family
- The importance of continuity and access to care for prevention and treatment of acute and chronic illness, including mental health conditions
- Promotion of healthy lifestyles for children and families
- Support for parents in transitioning to new roles and responsibilities as children develop
- Awareness of unique vulnerabilities of infants and children that may require special attention, consultation, and/or referral
- Awareness of social, cultural, and environmental factors that impact the health and well-being of infants and children
- The importance of educating the public about environmental factors that can adversely affect children
- Development of community programs to promote the health of children
- The importance of obtaining and utilizing information about school performance and learning disabilities in order to assist in the creation of a management plan

## **Knowledge**

In the appropriate setting, the resident should demonstrate the ability to apply knowledge of the following:

1. Perinatal and neonatal conditions including:
  - a. The impact of prenatal and perinatal risk factors, as outlined in AAFP Curriculum Guideline No. 261 – Maternity Care
  - b. Effects of labor and delivery on the infant
  - c. Physiologic adaptations to extrauterine life
  - d. Gestational age assessment (Ballard score)
  - e. Screening
    - i. Newborn metabolic screen (state specific)
    - ii. Critical congenital heart defect screen

- iii. Newborn hearing screen
- f. Diagnosis and role-appropriate management of:
  - i. Meconium-stained amniotic fluid
  - ii. Perinatal asphyxia
  - iii. Respiratory distress
  - iv. Cyanosis
  - v. Apnea
  - vi. Bradycardia
  - vii. Seizures
  - viii. Hypoglycemia
  - ix. Possible sepsis
  - x. Developmental dysplasia of the hip
  - xi. Birth-related injuries
  - xii. Neonatal abstinence syndrome (in utero drug exposure)
  - xiii. Anemia
  - xiv. Rh factor and blood type incompatibility
  - xv. Polycythemia
  - xvi. Jaundice
  - xvii. Premature and post-date gestations
  - xviii. Congenital and neonatal infections
  - xix. Maternal factors: infections (e.g., HIV, hepatitis); medical conditions (e.g., diabetes, hypertension)
- 2. Well-newborn and well-child care including:
  - a. Recommended schedule and content of examinations from birth to adolescence
  - b. Anticipatory guidance appropriate to age and developmental stage
    - i. Breastfeeding including:
      - 1) Early bonding
      - 2) Impact of maternal medication use, substance use/abuse, and maternal conditions
      - 3) Common breastfeeding problems
      - 4) Importance of social supports and cultural issues
    - ii. Nutrition, including feeding options and variations
    - iii. Temperament, developmental crying, and behavior
    - iv. Developmental stages and milestones
    - v. Family and social relationships
    - vi. Effective parenting
    - vii. Child abuse and neglect prevention
    - viii. Injury prevention
    - ix. Social determinants of health
    - x. School readiness (including school failure, bullying, social media, and peer pressure)
    - xi. Sleep problems
    - xii. Physical activity and exercise
    - xiii. Use of over-the-counter (OTC) medications and complementary and alternative medicine (CAM)

- c. Physical growth
    - i. Feeding strategies
    - ii. Growth and caloric requirements
    - iii. Nutritional supplementation
    - iv. Normal growth and variants, including dental development
    - v. Failure to thrive
    - vi. Obesity
    - vii. Sexual development and sexual maturity rating
    - viii. Reproductive health maintenance and health promotion
  - d. Current immunization schedule
  - e. Screening appropriate to age
    - i. Fluoride varnish and oral health
    - ii. Hemoglobin/ hematocrit for anemia
    - iii. Lead
    - iv. High-risk children (e.g., lipids, tuberculosis [TB], other infectious diseases)
    - v. Development (Ages and Stages Questionnaire)
    - vi. Vision and hearing
    - vii. Hypertension
    - viii. Depression
    - ix. Alcohol and drug use
    - x. Sexual behavior and sexually transmitted infections (STIs), including HIV
    - xi. Physical, psychological, and sexual abuse
    - xii. Other environmental health issues: actinic damage, media exposure, violence
3. Psychological disorders including:
- a. Families with high risk for parent-child interaction problems, dysfunction, or psychiatric problems
  - b. Evaluation, treatment, and/or referral for:
    - i. Anxiety disorders
    - ii. Bipolar disorder and related disorders
    - iii. Depressive disorders (including disruptive mood dysregulation disorder)
    - iv. Developmental and psychological issues of LGBTQ youth
    - v. Disruptive behavior, impulse control, and conduct disorders
    - vi. Elimination disorders
    - vii. Feeding and eating disorders
    - viii. Neurodevelopmental disorders
      - 1) Attention-deficit/hyperactivity disorder (ADHD)
      - 2) Autism spectrum disorder
      - 3) Intellectual development disorder
      - 4) Learning disorders
      - 5) Tic disorders
    - ix. Obsessive-compulsive disorder and related disorders
    - x. Psychiatric emergencies (including suicidality)
    - xi. Psychotic disorders
    - xii. Sleep-wake disorders
    - xiii. Somatic symptom disorder and related disorders

xiv. Trauma- and stressor-related disorders

4. Social and ethical issues including:
  - a. Adoption and foster care
  - b. Child physical abuse and neglect, sexual abuse, sexual assault and trafficking
  - c. Divorce, separation, death, and dying
  - d. Initiating, withholding and withdrawing life support
  - e. Family violence and/or drug/alcohol abuse
  - f. LGBTQ issues
  - g. Non-traditional families
  - h. Refugee and immigrant status
5. Children with chronic conditions including:
  - a. Genetic disorders
    - i. Common chromosomal abnormalities
    - ii. Screening issues (including ethical, legal, and social implications)
    - iii. Appropriate referral for necessary genetic diagnosis and counseling
  - b. Children with special needs or developmental delays
  - c. Cancer survivors
  - d. Premature infants
    - i. Chronic lung disease
    - ii. Gestational age correction for growth and development
    - iii. Nutrition
6. Evaluation and management of common signs and symptoms that present in the context of acute medical care in the inpatient or outpatient setting
  - a. Categories of symptoms and conditions
    - i. General
      - 1) Brief resolved unexplained event (BRUE)
      - 2) Constitutional symptoms
      - 3) Fever in the vaccinated vs. unvaccinated patient
        - a) <30 days
        - b) ≥30 days to 90 days
        - c) ≥90 days to <3 years
      - 4) Fever of unknown origin
      - 5) Altered mental status, including fussiness/irritability and lethargy/ fatigue
      - 6) Sleep disturbances
    - ii. Allergic
      - 1) Anaphylaxis
      - 2) Angioedema
      - 3) Drug allergy
      - 4) Food allergy
      - 5) Rhinitis
      - 6) Stevens-Johnson syndrome/toxic epidermal necrolysis

- iii. Cardiovascular
  - 1) Cardiomyopathy
  - 2) Chest pain
  - 3) Congenital heart disease
  - 4) Endocarditis
  - 5) Heart failure
  - 6) Hypertension
  - 7) Murmurs
- iv. Dermatologic
  - 1) Acne
  - 2) Atopic dermatitis/eczema
  - 3) Burns
  - 4) Edema
  - 5) Impetigo
  - 6) Molluscum
  - 7) Purpura
  - 8) Rashes
  - 9) Skin/soft tissue infection
    - a) Cellulitis
    - b) Abscess
  - 10) Tinea
  - 11) Urticaria
  - 12) Viral exanthema
  - 13) Warts
- v. Eye, ear, nose, and throat (EENT)
  - 1) Chalazion
  - 2) Conjunctivitis
  - 3) Dacryocystitis
  - 4) Deep neck space infections (e.g., retropharyngeal abscess, peritonsillar abscess, adenitis)
  - 5) Dental caries and abscess
  - 6) Hordeolum
  - 7) Laryngomalacia
  - 8) Orbital and periorbital cellulitis
  - 9) Otitis media, mastoiditis
  - 10) Pharyngitis
  - 11) Red eye
  - 12) Sinusitis
  - 13) Strabismus
  - 14) Visual changes
- vi. Endocrine/Metabolic
  - 1) Acid-base disorders
  - 2) Adrenal disorders
  - 3) Diabetes insipidus
  - 4) Diabetes mellitus
    - a) Type 1
    - b) Type 2

- c) Diabetic ketoacidosis (DKA)
- d) Nonketotic hyperosmolar coma
- 5) Electrolyte disorders
- 6) Growth failure/delay
- 7) Inborn errors of metabolism
- 8) Precocious or delayed puberty
- 9) Thyroid disease
- vii. Gastrointestinal
  - 1) Abdominal pain
  - 2) Appendicitis
  - 3) Bilious emesis
  - 4) Bloody stool
  - 5) Celiac disease
  - 6) Cholecystitis
  - 7) Colic
  - 8) Diarrhea, chronic
  - 9) Food intolerance, malabsorption
  - 10) Gastroenteritis/vomiting/diarrhea
  - 11) Gastroesophageal reflux disease (GERD)
  - 12) Hepatitis
  - 13) Hernia
  - 14) Inflammatory bowel disease (IBD) and irritable bowel syndrome (IBS)
  - 15) Intussusception
  - 16) Jaundice (non-neonatal)
  - 17) Meckel diverticulum
  - 18) Pancreatitis
  - 19) Pyloric stenosis
- viii. Gynecologic
  - 1) Imperforate hymen
  - 2) Menstrual disorders
  - 3) Pelvic inflammatory disease (PID)
  - 4) Sexual assault
  - 5) STI
  - 6) Vaginitis/vaginal discharge
- ix. Hematologic
  - 1) Anemias
  - 2) Bleeding diatheses, including hemophilia
  - 3) Hemoglobinopathies
  - 4) Lymphadenopathy
  - 5) Sickle cell disease, including crisis and appropriate prophylaxis
  - 6) Thrombocytopenia
  - 7) Thrombophilias
  - 8) Venous thromboembolism
- x. Immunologic/Rheumatologic
  - 1) Dermatomyositis
  - 2) Immunodeficiency (including HIV)
  - 3) Juvenile idiopathic arthritis (JIA) and other arthritides



- 4) Rheumatic fever
  - 5) Systemic lupus erythematosus (SLE)
  - 6) Vasculitis
    - a) Henoch-Schönlein purpura (HSP)
    - b) Kawasaki disease (KD)
    - c) Granulomatosis with polyangiitis (formerly Wegener syndrome)
    - d) Other
  - 7) Autoinflammatory disorder (e.g., periodic fever, aphthous stomatitis, pharyngitis, cervical adenitis [PFAPA])
- xi. Infectious diseases
- 1) Bacteremia
  - 2) Central line infection
  - 3) Community-acquired pneumonia
  - 4) HIV
  - 5) Late presentation of congenital infections (cytomegalovirus [CMV], syphilis)
  - 6) Lyme disease and other tick-borne illnesses
  - 7) Meningitis
  - 8) Osteomyelitis/septic arthritis
  - 9) Prophylaxis for patients with history of certain conditions (e.g., endocarditis, sickle cell, HIV)
  - 10) Sepsis
  - 11) Skin and soft tissue infections (e.g., cellulitis, abscess)
  - 12) Tuberculosis (TB)
  - 13) Local/regional differences in prevalence of infectious diseases, emerging infections, and antimicrobial resistance patterns
- xii. Musculoskeletal/Orthopedic
- 1) Aseptic necrosis of the femoral head (Legg-Calve-Perthes)
  - 2) Growing pains
  - 3) Developmental dysplasia of the hip (DDH)
  - 4) Limp
  - 5) Muscular dystrophy
  - 6) Nursemaid's elbow
  - 7) Slipped capital femoral epiphysis (SCFE)
  - 8) Sprains, dislocations, and fractures, including patterns suspicious for abuse
  - 9) Toxic synovitis
- xiii. Neurologic
- 1) Altered mental status/encephalopathy
  - 2) Developmental delay
  - 3) Diplopia/visual disturbance
  - 4) Encephalitis
  - 5) Guillain-Barré syndrome
  - 6) Headache
  - 7) Hearing concerns
  - 8) Hypotonia/weakness
  - 9) Hypertonia

- 10) Infant and foodborne botulism
- 11) Learning disabilities
- 12) Meningitis
- 13) Seizure
- 14) Stroke
- 15) Syncope
- 16) Traumatic brain injury
- xiv. Nutrition
  - 1) Failure to thrive
  - 2) Malnutrition
  - 3) Obesity prevention, treatment, and complications
- xv. Oncologic
  - 1) Abdominal mass
  - 2) Brain tumors
  - 3) Leukemias
  - 4) Lymphomas
  - 5) Neuroblastoma
  - 6) Retinoblastoma
  - 7) Tumor lysis syndrome
  - 8) Wilms tumor
- xvi. Renal/Urologic
  - 1) Glomerulonephritis
  - 2) Hematuria
  - 3) Hemolytic uremic syndrome
  - 4) Nephrolithiasis
  - 5) Proteinuria/nephrotic syndrome
  - 6) Scrotal mass, pain, erythema, or edema
  - 7) Urinary frequency
  - 8) Urinary tract infection (UTI)/pyelonephritis
  - 9) Vesicoureteral reflux
- xvii. Respiratory
  - 1) Apnea
  - 2) Asthma
  - 3) Bronchiolitis
  - 4) Croup
  - 5) Cystic fibrosis
  - 6) Epiglottitis
  - 7) Pertussis
  - 8) Pneumonia
  - 9) Bacterial tracheitis
  - 10) Upper respiratory illness (URI)
- xviii. Toxicology
  - 1) Drugs of abuse
  - 2) Heavy metal poisoning
  - 3) Overdose – acetaminophen, diphenhydramine, nonsteroidal anti-inflammatory drugs (NSAIDs), selective serotonin reuptake inhibitors (SSRIs), etc.

## Skills

In the appropriate setting, the resident should know at a minimum the indications, contraindications, and steps required/process of the procedures listed below. They should demonstrate the ability to appropriately perform the following skills as applicable and (when relevant) obtain informed consent, and maintain universal precautions and/or sterile technique. The resident should also understand when and how to appropriately refer patients.

1. Newborn care
  - a. Apgar score assignment
  - b. Circumcision
  - c. Frenotomy (i.e., tongue-tie snipping) for true ankyloglossia in the newborn
  - d. Resuscitation of newborns/ Neonatal Resuscitation Program (NRP)/Neonatal Advanced Life Support (NALS)
2. Well care
  - a. Age-appropriate history and physical examination (including pre-participation physical examination)
    - i. Use of appropriate growth charts (e.g., World Health Organization [WHO] <2 years, Centers for Disease Control and Prevention [CDC] >2 years, Down syndrome)
    - ii. Calculation of body mass index (BMI)
  - b. Bladder catheterization
  - c. Cerumen removal
  - d. Coordination of patient care and specialty services, when required
  - e. Hearing and vision screening test interpretation
  - f. Interpretation of radiologic or other diagnostic studies (e.g., spirometry, electrocardiogram [EKG])
  - g. Performance of developmental surveillance, as well as administration and interpretation of developmental screening tests (e.g., Modified Checklist for Autism in Toddlers [M-CHAT], Childhood Autism Rating Scale [CARS])
  - h. Pneumatic otoscopy and tympanograms (including interpretation)
  - i. Psychosocial/behavioral questionnaire administration and interpretation (e.g., Conners and Vanderbilt for ADHD; Pediatric Symptom Checklist [PSC] for cognitive, emotional, and behavioral problems)
  - j. Subcutaneous and intramuscular injections
  - k. Vascular access and blood sampling

3. Acute care
  - a. Anesthesia
    - i. Local
    - ii. Regional
  - b. Biopsy or destruction of skin lesion
  - c. Bladder catheterization
  - d. Casting and splinting
  - e. Chest physiotherapy
  - f. Conscious sedation
  - g. EKG interpretation
  - h. Eye exam
    - i. Fluorescein/Wood's lamp
  - i. Foreign body removal – skin or orifice
  - j. Gastric tube placement (orogastric [OG] or nasogastric [NG])
  - k. History and physical for physical or sexual abuse
  - l. Incision and drainage of abscess
  - m. Intravenous (IV) fluid calculations: maintenance, replacement, electrolytes, blood
  - n. Laboratory test interpretation (complete blood count [CBC], chemistries, renal function, hepatic function, inflammatory markers, coagulation studies, blood gases, urinalysis, cerebrospinal fluid [CSF] analysis, wet prep, stool studies, bacterial/viral/fungal studies)
  - o. Laceration repair
    - i. Staple
    - ii. Suture
    - iii. Tissue adhesive
  - p. Lumbar puncture
  - q. Management of acute diagnosis/diagnoses in the presence of comorbid conditions
  - r. Medication delivery: intramuscular (IM)/subcutaneous (SC)/IV/rectal/inhaled/intranasal/buccal
  - s. Nail removal
  - t. Radiographic interpretation
  - u. Reduction of dislocations
  - v. Resuscitation of infants and children/ Pediatric Advanced Life Support (PALS)/ Advanced Pediatric Life Support (APLS)
  - w. Spirometry interpretation
  - x. Subungual hematoma drainage

- y. Suctioning: nares, nasopharynx
- z. Universal precautions
- aa. Vascular access
  - i. Intraosseous (IO)
  - ii. IV
- bb. Vital signs: interpretation, appropriate monitoring modalities
- cc. Wound care/dressing management

## Implementation

This curriculum should be taught during both focused and longitudinal experiences throughout the residency program. Physicians who have demonstrated skills in caring for children should be available to act both as role models and information resources for the residents and should be available to give support and advice to individual residents regarding the evaluation and treatment of their patients. Each family medicine resident's panel of patients should include pediatric patients to meet current ACGME requirements.

## Resources

American Academy of Family Physicians (AAFP). Curriculum guideline reprint no. 278: Adolescent health. AAFP; 2013.  
[www.aafp.org/dam/AAFP/documents/medical\\_education\\_residency/program\\_directors/Reprint278\\_Adolescent.pdf](http://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint278_Adolescent.pdf). Accessed August 18, 2016.

American Academy of Family Physicians (AAFP). Curriculum guideline reprint no. 274: Allergy and immunology. AAFP; 2015.  
[www.aafp.org/dam/AAFP/documents/medical\\_education\\_residency/program\\_directors/Reprint274\\_Allergy.pdf](http://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint274_Allergy.pdf). Accessed August 18, 2016.

American Academy of Family Physicians (AAFP). Curriculum guideline reprint no. 272: Conditions of the nervous system. AAFP; 2013.  
[www.aafp.org/dam/AAFP/documents/medical\\_education\\_residency/program\\_directors/Reprint272\\_Nervous.pdf](http://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint272_Nervous.pdf). Accessed August 18, 2016.

American Academy of Family Physicians (AAFP). Curriculum guideline reprint no. 271: Conditions of the skin. AAFP; 2013.  
[www.aafp.org/dam/AAFP/documents/medical\\_education\\_residency/program\\_directors/Reprint271\\_Skin.pdf](http://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint271_Skin.pdf). Accessed August 18, 2016.

American Academy of Family Physicians (AAFP). Curriculum guideline reprint no. 267: Health promotion and disease prevention. AAFP; 2014.  
[www.aafp.org/dam/AAFP/documents/medical\\_education\\_residency/program\\_directors/Reprint267\\_Health.pdf](http://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint267_Health.pdf). Accessed August 18, 2016.

American Academy of Family Physicians (AAFP). Curriculum guideline reprint no. 270: Human behavior and mental health. AAFP; 2015.  
[www.aafp.org/dam/AAFP/documents/medical\\_education\\_residency/program\\_directors/Reprint270\\_Mental.pdf](http://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint270_Mental.pdf). Accessed August 18, 2016.

American Academy of Family Physicians (AAFP). Curriculum guideline reprint no. 289D: Lesbian, gay, bisexual, transgender health. AAFP; 2014.  
[www.aafp.org/dam/AAFP/documents/medical\\_education\\_residency/program\\_directors/Reprint289D\\_LGBT.pdf](http://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint289D_LGBT.pdf). Accessed August 18, 2016.

American Academy of Family Physicians (AAFP). Curriculum guideline reprint no. 265: Musculoskeletal and sports medicine. AAFP; 2013.  
[www.aafp.org/dam/AAFP/documents/medical\\_education\\_residency/program\\_directors/Reprint265\\_Musculo.pdf](http://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint265_Musculo.pdf). Accessed August 18, 2016.

American Academy of Family Physicians (AAFP). Curriculum guideline reprint no. 276: Rheumatic conditions. AAFP; 2013.  
[www.aafp.org/dam/AAFP/documents/medical\\_education\\_residency/program\\_directors/Reprint276\\_Rheumatic.pdf](http://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint276_Rheumatic.pdf). Accessed August 18, 2016.

American Academy of Family Physicians (AAFP). Curriculum guideline reprint no. 285: Urgent and emergent care. AAFP; 2014.  
[www.aafp.org/dam/AAFP/documents/medical\\_education\\_residency/program\\_directors/Reprint285\\_Urgent.pdf](http://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint285_Urgent.pdf). Accessed August 18, 2016.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders DSM-5*. 5<sup>th</sup> ed. Arlington, Va.: American Psychiatric Publishing, Inc.; 2013.

Armstrong AD, Hubbard MC. *Essentials of Musculoskeletal Care*. 5<sup>th</sup> ed. Rosemont, Ill.: American Academy of Orthopaedic Surgeons; 2015.

Bajaj L, Hambidge S, Kerby G, Nyquist A. *Berman's Pediatric Decision Making*. 5<sup>th</sup> ed. St Louis, Mo.: Mosby; 2011.

Crump WJ, O'Kelley S. Care of the newborn. *FP Essentials*<sup>™</sup>, Edition No. 399. Leawood, Ks.: American Academy of Family Physicians; August 2012.

Dulcan MK. *Dulcan's Textbook of Child and Adolescent Psychiatry*. 2<sup>nd</sup> ed. Arlington, Va.: American Psychiatric Publishing, Inc.; 2015.

Gomella TL, Cunningham M, Eyal FG. *Neonatology: Management, Procedures, On-Call Problems, Diseases, and Drugs*. 7<sup>th</sup> ed. New York, NY: McGraw-Hill Education/Medical; 2013.

Grissom M, Chauhan A, Mendez R. Disorders of childhood growth and development. *FP Essentials*<sup>™</sup>, Edition No. 410. Leawood, Ks.: American Academy of Family Physicians; July 2013.

Hagan JF, Shaw JS, Duncan PM. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. 4<sup>th</sup> ed. Elk Grove Village, Ill.: American Academy of Pediatrics; 2017.

Johns Hopkins Hospital, Engorn B, Flerlage J. *The Harriet Lane Handbook*. 20<sup>th</sup> ed. Philadelphia, Pa.: Saunders; 2014.

Kliegman RM, Stanton B, St. Geme J, Schor NF. *Nelson Textbook of Pediatrics*. 20<sup>th</sup> ed. Philadelphia, Pa.: Elsevier; 2015.

Krugman SD, Tepperberg S, Gauthier C, Middleton D. Guidelines for the care of children for family medicine residents. Academic Pediatric Association; 2011.  
[www.academicpeds.org/education/pdfs/GFCOCforFamilyMedicineResidents.pdf](http://www.academicpeds.org/education/pdfs/GFCOCforFamilyMedicineResidents.pdf). Accessed August 18, 2016.

Landier W, ed. Establishing and enhancing services for childhood cancer survivors: long-term follow-up program resource guide. Children's Oncology Group; 2007.  
[www.survivorshipguidelines.org/pdf/LTFUResourceGuide.pdf](http://www.survivorshipguidelines.org/pdf/LTFUResourceGuide.pdf). Accessed April 8, 2015.

Laskaris G. *Pocket Atlas of Oral Diseases*. 2<sup>nd</sup> ed. New York, NY: Thieme Stuttgart; 2006.

LoPresti L, Levy HP. Genetics update. *FP Essentials*<sup>™</sup>, Edition No. 396. Leawood, Ks.: American Academy of Family Physicians; May 2012.

Pfenninger JL, Fowler FC. *Pfenninger and Fowler's Procedures for Primary Care*. 3<sup>rd</sup> ed. Philadelphia, Pa.: Saunders; 2010.

South M, Isaacs D. *Practical Paediatrics*. 7<sup>th</sup> ed. Philadelphia, Pa.: Churchill Livingstone; 2012.

Voigt, RG, Macias MM, Myers SM, eds. *Developmental and Behavioral Pediatrics*. Elk Grove Village, Ill.: American Academy of Pediatrics, Section on Developmental and Behavioral Pediatrics; 2010.

## Website Resources

Academic Pediatric Association. [www.ambpeds.org](http://www.ambpeds.org)

American Academy of Family Physicians. *FP Essentials*. (Monographs published monthly. Available by subscription to residency programs and residents.)  
[www.aafp.org/cme/subscriptions/fp-essentials/editions.html?contentpar\\_gridblock\\_5\\_twocolumn\\_0\\_left\\_listimage\\_start=3](http://www.aafp.org/cme/subscriptions/fp-essentials/editions.html?contentpar_gridblock_5_twocolumn_0_left_listimage_start=3)

American Academy of Pediatrics. [www.aap.org](http://www.aap.org)

Bright Futures. [www.brightfutures.org](http://www.brightfutures.org)

Centers for Disease Control and Prevention. [www.cdc.gov](http://www.cdc.gov)

Early Childhood Development: An Office of the Administration for Children and Families.  
Birth to 5: Watch Me Thrive! [www.acf.hhs.gov/programs/ecd/watch-me-thrive](http://www.acf.hhs.gov/programs/ecd/watch-me-thrive)

GeneralPediatrics.com. The General Pediatrician's View of the Internet.  
<http://generalpediatrics.com>

National Institutes of Health. [www.nih.gov](http://www.nih.gov)

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# **Core Competencies in Breastfeeding Care and Services for All Health Professionals**

**Revised Edition**

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<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](http://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.<sup>1</sup> 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.<sup>2</sup> Lack of breastfeeding is a significant risk to the public health of our nation and increases health care spending.<sup>3</sup>

In order to establish and maintain breastfeeding, women need education and support from a knowledgeable health care community.<sup>4</sup> Evidence-based knowledge, skills, and attitudes are lacking among health professionals in many disciplines.<sup>5</sup> 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.<sup>6,7</sup>

## 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.<sup>8,9,10,11</sup> 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)<sup>12</sup> and the Agency for Healthcare Research and Quality (AHRQ).<sup>13</sup>

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.<sup>14</sup> In particular,

USBC calls upon MCH leaders to emphasize the synergistic value of these breastfeeding core competencies 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<sup>3 15</sup>
- Enhancing health and reducing:
  - long-term morbidities in infants and young children<sup>2 15</sup>
  - morbidities in women<sup>15 16</sup>

***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<sup>17</sup>
- Following up with the family, when appropriate, in a culturally competent manner after breastfeeding care and services have been provided<sup>18</sup>

***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<sup>2 3 16 19 20</sup>
- Educate their practitioners to:
  - appreciate the limitations of their breastfeeding care expertise<sup>17 21</sup>
  - know when and how to make a referral to a lactation care professional<sup>17 21</sup>
- Regularly examine the care practices of their practitioners and establish core competencies related to breastfeeding care and services<sup>20 22</sup>

**Knowledge\_\_\_\_\_**

***All health professionals should understand the:***

- 1.1 basic anatomy and physiology of the breast<sup>8 23</sup>
- 1.2 role of breastfeeding and human milk in maintaining health and preventing disease<sup>2 15</sup>
- 1.3 importance of exclusive breastfeeding, and its correlation with optimal health outcomes<sup>15 24</sup>
- 1.4 impact of pregnancy, birth, and other health care practices on breastfeeding outcomes<sup>19 25</sup>
- 1.5 role of behavioral, cultural, social, and environmental factors in infant feeding decisions and practices<sup>26 27</sup>
- 1.6 potentially adverse outcomes for infants and mothers who do not breastfeed<sup>28</sup>
- 1.7 potential problems associated with the use of human milk substitutes<sup>29</sup>
- 1.8 few evidence-based contraindications to breastfeeding<sup>30 31</sup>
- 1.9 indications for referral to lactation services<sup>17</sup>

- 1.10 resources available to assist mothers seeking breastfeeding and lactation information or services<sup>30 32</sup>
- 1.11 effects of marketing of human milk substitutes on the decision to breastfeed and the duration of breastfeeding<sup>1 33 34</sup>

### **Skills**\_\_\_\_\_

**All health professionals should be able to:**

- 2.1 practice in a manner that protects, promotes, and supports breastfeeding<sup>2 3 16 22</sup>
- 2.2 gather breastfeeding history information sufficient to identify mothers and families who would benefit from specific breastfeeding support services<sup>35</sup>
- 2.3 seek assistance from and refer to appropriate lactation specialists<sup>22 24</sup>
- 2.4 safeguard privacy and confidentiality<sup>36</sup>
- 2.5 effectively use new information technologies to obtain current evidence-based information about breastfeeding and human lactation<sup>22 37</sup>

### **Attitudes**\_\_\_\_\_

**All health professionals should:**

- 3.1 value breastfeeding as an important health promotion and disease prevention strategy<sup>30 38</sup>
- 3.2 recognize and respect philosophical, cultural, and ethical perspectives influencing the use and delivery of breastfeeding care and services<sup>18 22</sup>
- 3.3 respect the confidential nature of the provision of breastfeeding care and services<sup>36</sup>
- 3.4 recognize the importance of delivering breastfeeding care and services that are free of commercial conflict of interest or personal bias<sup>22 23 34</sup>
- 3.5 understand the importance of tailoring information and services to the family's culture, knowledge, and language level<sup>18 39</sup>
- 3.6 seek coordination and collaboration with interdisciplinary teams of health professionals<sup>17</sup>
- 3.7 recognize the limitations of their own lactation knowledge and breastfeeding expertise<sup>17</sup>
- 3.8 recognize when personal values and biases may affect or interfere with breastfeeding care and services provided to families<sup>8</sup>
- 3.9 encourage workplace support for breastfeeding<sup>40</sup>
- 3.10 support breastfeeding colleagues<sup>41 42 43</sup>
- 3.11 support family-centered policies at federal, state, and local levels<sup>9</sup>

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*<sup>25 44</sup>
- 4.2 obtain an appropriate breastfeeding history<sup>45</sup>

- 4.3 provide mothers with evidence-based breastfeeding information<sup>24</sup>
- 4.4 use effective counseling skills<sup>18</sup>
- 4.5 offer strategies to address problems and concerns in order to maintain breastfeeding<sup>24 46</sup>
- 4.6 know how and when to integrate technology and equipment to support breastfeeding<sup>36</sup>
- 4.7 collaborate and/or refer for complex breastfeeding situations<sup>47</sup>
- 4.8 provide and encourage use of culturally appropriate education materials<sup>33</sup>
- 4.9 share evidence-based knowledge and clinical skills with other health professionals<sup>35 48</sup>
- 4.10 preserve breastfeeding under adverse conditions<sup>24 49</sup>

***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<sup>50</sup>
- 5.2 assess the lactating breast<sup>51</sup>
- 5.3 perform an infant feeding observation<sup>37 51</sup>
- 5.4 recognize normal and abnormal infant feeding patterns<sup>51 52</sup>
- 5.5 develop and appropriately communicate a breastfeeding care plan<sup>51 52</sup>

## References

- <sup>1</sup> 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.
- <sup>2</sup> American Academy of Pediatrics Section on Breastfeeding. Breastfeeding and the use of human milk (policy statement). *Pediatrics*. 2005;115(2):496-506.
- <sup>3</sup> 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.
- <sup>4</sup> Britton C, McCormick FM, Renfrew MJ, Wade A, King SE. Support for breastfeeding mothers. *Cochrane Database Syst Rev*. 2007;(1):CD001141.
- <sup>5</sup> 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.
- <sup>6</sup> Philipp BL, McMahan MJ, Davies S, Santos T, Jean-Marie S. Breastfeeding information in nursing textbooks needs improvement. *J Hum Lact*. 2007;23(4):345-349.
- <sup>7</sup> Philipp BL, Merewood A, Gerendas EJ, Bauchner H. Breastfeeding information in pediatric textbooks needs improvement. *J Hum Lact*. 2004;20(2):206-210.
- <sup>8</sup> 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.
- <sup>9</sup> Spatz DL. The breastfeeding case study: a model for educating nursing students. *J Nurs Educ*. 2005;44(9):432-434.
- <sup>10</sup> Feldman-Winter L, Barone L, Milcarek B, et al. Residency curriculum improves breastfeeding care. *Pediatrics*. 2010;126(2):289-297.
- <sup>11</sup> Wellstart International. *Lactation Management Self-Study Modules, Level I*. 3rd rev ed. Shelburne, VT:Wellstart International; 2009.
- <sup>12</sup> 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.

- <sup>13</sup> 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.
- <sup>14</sup> 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.
- <sup>15</sup> 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.
- <sup>16</sup> 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.
- <sup>17</sup> Szucs KA, Miracle DJ, Rosenman MB. Breastfeeding knowledge, attitudes, and practices among providers in a medical home. *Breastfeed Med*. 2009;4(1):31-42.
- <sup>18</sup> 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.
- <sup>19</sup> Wallis M, Harper M. Supporting breastfeeding mothers in hospital: part 1. *Paediatr Nurs*. 2007;19(7):48-52.
- <sup>20</sup> 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.
- <sup>21</sup> 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.
- <sup>22</sup> Dykes F. The education of health practitioners supporting breastfeeding women: time for critical reflection. *Matern Child Nutr*. 2006;2(4):204-216.
- <sup>23</sup> World Health Organization/UNICEF. *Breastfeeding Counselling: A Training Course*. Geneva, Switzerland: World Health Organization; 1993.
- <sup>24</sup> 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.
- <sup>25</sup> DiGirolamo AM, Grummer-Strawn LM, Fein SB. Effect of maternity-care practices on breastfeeding. *Pediatrics*. 2008;122(suppl 2):S43-49.
- <sup>26</sup> Hannula L, Kaunonen M, Tarkka MT. A systematic review of professional support interventions for breastfeeding. *J Clin Nurs*. 2008;17(9):1132-1143.
- <sup>27</sup> Pak-Gorstein S, Haq A, Graham EA. Cultural influences on infant feeding practices. *Pediatr Rev*. 2009;30(3):e11-e21.
- <sup>28</sup> McNiel ME, Lobbok MH, Abrahams SW. What are the risks associated with formula feeding? A reanalysis and review. *Breastfeed Rev*. 2010;18(2):25-32.
- <sup>29</sup> 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.
- <sup>30</sup> Spatz DL. Ten steps for promoting and protecting breastfeeding for vulnerable infants. *J Perinat Neonatal Nurs*. 2004;18(4):385-396.
- <sup>31</sup> Lawrence RM, Lawrence RA. Given the benefits of breastfeeding, what contraindications exist? *Pediatr Clin North Am*. 2001;48(1):235-251.
- <sup>32</sup> 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.
- <sup>33</sup> World Health Organization. *International Code of Marketing of Breast-milk Substitutes*. Geneva, Switzerland: World Health Organization; 1981.
- <sup>34</sup> Howard FM, Howard CR, Weitzman M. The physician as advertiser: the unintentional discouragement of breast-feeding. *Obstet Gynecol*. 1993;81(6):1048-1051.

- <sup>35</sup> Pérez-Escamilla R. Evidence based breast-feeding promotion: the Baby-Friendly Hospital Initiative. *J Nutr.* 2007;137(2):484-487.
- <sup>36</sup> Thomas JR, Shaikh U. Electronic communication with patients for breastfeeding support. *J Hum Lact.* 2007;23(3):275-279.
- <sup>37</sup> Hoddinott P, Tappin D, Wright C. Breast feeding. *BMJ.* 2008;336(7649):881-887.
- <sup>38</sup> Stuebe AM, Schwarz EB. The risks and benefits of infant feeding practices for women and their children. *J Perinatol.* 2010;30(3):155-162.
- <sup>39</sup> Grassley JS, Nelms PT. The breast-feeding conversation: a philosophic exploration of support. *ANS Adv Nurs Sci.* 2008;31(4):E55-E66.
- <sup>40</sup> 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.
- <sup>41</sup> 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.
- <sup>42</sup> 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.
- <sup>43</sup> 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.
- <sup>44</sup> World Health Organization/UNICEF. *Protecting, Promoting and Supporting Breast-feeding: The Special Role of Maternity Services.* Geneva, Switzerland: World Health Organization; 1989.
- <sup>45</sup> 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.
- <sup>46</sup> Walker M. Breast-feeding: good starts, good outcomes. *J Perinat Neonatal Nurs.* 2007;21(3):191-197; quiz 198-199.
- <sup>47</sup> 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.
- <sup>48</sup> Shaikh U, Smillie CM. Physician-led outpatient breastfeeding medicine clinics in the United States. *Breastfeed Med.* 2008;3(1):28-33.
- <sup>49</sup> Walker M. Conquering common breast-feeding problems. *J Perinat Neonatal Nurs.* 2008;22(4):267-274.
- <sup>50</sup> Dyson L, McCormick F, Renfrew MJ. Interventions for promoting the initiation of breastfeeding. *Cochrane Database Syst Rev.* 2005;(2):CD001688.
- <sup>51</sup> Riordan J, Wamback K, eds. *Breastfeeding and Human Lactation.* 4th ed. Sudbury, MA: Jones & Bartlett Publishers, LLC; 2010.
- <sup>52</sup> Philipp BL, Academy of Breastfeeding Medicine Protocol Committee. ABM Clinical Protocol #7: Model breastfeeding policy (revision 2010). *Breastfed Med.* 2010;5:173-177.

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