Accreditation Council for
Graduate Medical Education

ACGME Program Requirements for Graduate Medical Education in Neonatal-Perinatal Medicine

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Introduction

Int.A. Scope of Training

Int.A.1. Neonatal-perinatal medicine programs provide fellows with the background to understand the physiology and altered structure and function of the fetus and the neonate, and to diagnose and manage problems of the neonate.

Int.A.2. The program must emphasize the fundamentals of clinical diagnosis and management of problems seen in the continuum of development from the prenatal through the intrapartum and neonatal periods, including assessment of outcomes. (Core)*

VII. Institutions

An accredited program in neonatal-perinatal medicine must be affiliated with a residency program in obstetrics and gynecology accredited by the Accreditation Council for Graduate Medical Education (ACGME). (Core)

VII.A. The obstetrics and gynecology program must be within the same geographic location and have board-certified maternal-fetal medicine specialists. (Core)

VIII. Program Personnel and Resources

VIII.A. Faculty

VIII.A.1. An accredited program must have at least four full-time neonatologists actively contributing sufficient time and effort to the educational program to fulfill the supervisory, teaching, and mentoring requirements of the program. (Core)

VIII.A.2. The program must include the full range of pediatric subspecialists necessary for teaching and consultation. (Core)

VIII.A.2.a) In addition, appropriate consultants must be available in related disciplines, including: a pediatric neurologist, a geneticist, a consultant skilled in neurodevelopment, and a pediatric radiologist. (Detail)

VIII.A.3. Each program must have a full range of surgical subspecialists with experience in pediatrics necessary for teaching and consultation. (Core)

VIII.A.3.a) This should include consultant faculty in: pediatric surgery, neurological surgery, ophthalmology, orthopaedic surgery, otolaryngology, urology, and cardiothoracic surgery. (Detail)

VIII.B. Other Program Personnel

The following professional staff, skilled in the care of critically ill and/or premature neonates, are essential: nurses, respiratory therapists, pharmacists, nutritionists skilled in the management of both enteral and parenteral nutrition, therapists skilled in evaluating feeding difficulties initially or in follow up, medical social workers skilled in management of families in crisis and end-of-life care, specialists in physical and occupational therapy applied in a developmentally appropriate way, and specialists in the assessment of hearing. (Detail)

VIII.C. Resources

VIII.C.1. A specially-designated neonatal intensive care unit (NICU) must be located in the primary teaching site. (Core)

VIII.C.1.a) Facilities and equipment in that unit must meet the generally-accepted standards of modern intensive care units, and appropriate laboratory services must be available 24 hours a day. (Core)

VIII.C.1.a).(1) The facilities and resources must include: portable x-ray, ultrasound imaging, ECG, neonatal echocardiography, and EEG services on a 24 hour a day basis with 24 hour a day interpretation services. (Detail)

VIII.C.2. The perinatal service must have facilities and equipment which meet the generally-accepted standards for high-risk newborn resuscitation. (Core)

VIII.C.3. The primary teaching site must meet the generally-accepted standards for modern laboratories and services needed for management of high-risk pregnancies and critically ill neonates. (Core)

These must include:

VIII.C.3.a) microchemistry and hematology laboratories; (Detail)

VIII.C.3.b) blood gas analysis; (Detail)

VIII.C.3.c) perinatal diagnostic laboratory; (Detail)

VIII.C.3.d) pathology services, including those for evaluation of placental pathology; (Detail)

VIII.C.3.e) diagnostic bacteriology and virology laboratories; (Detail)

VIII.C.3.f) blood bank; and, (Detail)

VIII.C.3.g) accessible CT and MRI facilities. (Detail)

VIII.C.4. The teaching sites should also have access to the following within a reasonable period of time: (Detail)

VIII.C.4.a) screening laboratory for inborn errors of metabolism; (Detail)

VIII.C.4.b) clinical toxicology laboratory; (Detail)

VIII.C.4.c) nuclear medicine facilities; (Detail)

VIII.C.4.d) cytogenetics laboratory; and, (Detail)

VIII.C.4.e) audiology services. (Detail)

VIII.C.5. The program must provide the patient care experiences necessary for the fellows to acquire skill in delivery room stabilization and resuscitation of critically ill neonates. (Core)

VIII.C.5.a) To accomplish this, there must be a sufficient number and variety of high-risk obstetrical patients to ensure that the fellows become knowledgeable in identifying high-risk pregnancies and evaluating fetal well-being and maturation. (Detail)

VIII.C.6. A sufficient number of discharged infants must be available to assure appropriate outpatient experience for each fellow. (Core)

VIII.C.6.a) This should occur in a NICU follow-up clinic (Detail)

VIII.C.6.b) The clinic must have staff with expertise in performing developmental assessments, as well as skilled neonatal or pediatric faculty as teachers. (Detail)

VIII.C.6.c) These experiences should enable fellows to understand the relationship between neonatal illnesses and later health and development, and to become aware of the socioeconomic impact and psychosocial stress that such infants may place on a family. (Detail)

IX. Educational Program

IX.A. Patient Care

IX.A.1. Fellows must demonstrate competence and effective participation in team-based care of critically-ill patients whose primary problem is surgical. (Outcome)

IX.A.1.a) To meet these goals, the coordination of care and collegial relationships between pediatric surgeons, neonatologists, and critical care intensivists concerning the management of medical problems in these complex critically ill patients are essential. (Detail)

IX.A.2. Fellows must be competent to manage critically-ill neonates. (Outcome)

IX.A.2.a) In addition to the general principles of critical care, this should include, but not be limited to, techniques of neonatal resuscitation,

venous and arterial access, evacuation of air leaks, endotracheal intubation, preparation for transport, ventilatory support, continuous monitoring, temperature control, and nutritional support. (Outcome)

IX.A.3. Fellows must have an understanding of the psychosocial implications of disorders of the fetus, neonate, and young infant, as well as in the family dynamics surrounding the birth and care of a sick neonate. (Outcome)

IX.A.3.a) The fellows should demonstrate competence in patient consultation, communication with referring physicians, and in organizing transport of neonates within the framework of an integrated regional system with different levels of perinatal care. (Outcome)

IX.A.3.b) They should also receive instruction about and participate in the education of physicians and other healthcare professionals regarding emerging issues and factors impacting regional perinatal morbidity and mortality. (Detail)

IX.A.4. Fellows must have the skills to identify the high-risk pregnancy, and must become familiar with the methods used to evaluate fetal well-being and maturation. (Outcome)

IX.A.4.a) Fellows must be competent to recognize the factors that may compromise the fetus during the intrapartum period, and recognize the signs of fetal distress. (Outcome)

IX.A.4.b) In addition, fellows must participate in the follow-up of high-risk neonates. (Detail)

IX.A.5. Fellows must be effective consultants in neonatal-perinatal medicine. (Outcome)

IX.A.5.a) Fellows must be competent to conduct and interpret relevant scholarly efforts in neonatal-perinatal medicine, to teach neonatal-perinatal medicine effectively, and to be effective administrators and leaders in the field. (Outcome)

IX.A.6. Fellows must be skilled in the diagnosis and management of critically-ill neonates with diverse conditions. (Outcome)

IX.A.6.a) Fellows must be skilled in the management of neonates who require ventilatory assistance. (Outcome)

IX.A.6.b) In addition, fellows must acquire knowledge of, and participate in, the care of neonates requiring cardiac surgical procedures (and their postoperative complications). (Detail)

IX.A.7. A neonatal database of all patient admissions, diagnoses, and outcomes must be used for fellow education. (Core)

IX.A.7.a) Fellows should demonstrate knowledge of the tabulation and evaluation of an institutional database. (Outcome)

IX.A.7.a).(1) Exposure to a regional or national fetal and neonatal morbidity and mortality database is encouraged. (Detail)

IX.A.7.b) Fellows should be competent to apply techniques of collation and critical interpretation of data pertaining to immediate outcome and sequelae of various diseases. (Outcome)

IX.A.7.b).(1) This experience should be closely related to the evaluations of various modalities of therapy used in these disorders. (Detail)

IX.B. Medical Knowledge

IX.B.1. The program must provide fellows with instruction in related basic sciences. (Core)

IX.B.1.a) Seminars, conferences, and courses must be offered in the basic disciplines related to pregnancy, the fetus, and the neonate. (Detail)

IX.B.1.a).(1) This should include maternal physiological, biochemical, and pharmacological influences on the fetus; fetal physiology; fetal development; placental function (placental circulation, gas exchange, growth); physiological and biochemical adaptation to birth; cellular, molecular, and developmental biology and pathology relevant to diseases of the neonate; psychology of pregnancy and maternal-infant interaction; breast feeding and lactation; growth and nutrition; and genetics. (Detail)

IX.B.2. Fellows should also participate in regularly-scheduled multidisciplinary conferences, such as case conferences and those that review perinatal mortality and morbidity. (Detail)

*__Core Requirements:__ Statements that define structure, resource, or process elements essential to every graduate medical educational program.
__Detail Requirements:__ Statements that describe a specific structure, resource, or process, for achieving compliance with a Core Requirement. Programs and sponsoring institutions in substantial compliance with the Outcome Requirements may utilize alternative or innovative approaches to meet Core Requirements.
__Outcome Requirements:__ Statements that specify expected measurable or observable attributes (knowledge, abilities, skills, or attitudes) of residents or fellows at key stages of their graduate medical education.

Osteopathic Principles Recognition

For programs seeking Osteopathic Principles Recognition for the entire program, or for a track within the program, the Osteopathic Recognition Requirements are also applicable. (http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/Osteopathic_Recognition_Requirements.pdf)