BASIC STANDARDS FOR SUBSPECIALTY FELLOWSHIP TRAINING IN NEONATAL MEDICINE

American Osteopathic Association
and
American College of Osteopathic Pediatricians

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ARTICLE I - Introduction

These are the basic standards for fellowship training in neonatology as approved by the American Osteopathic Association (AOA) and the American College of Osteopathic Pediatricians (ACOP). These standards are designed to provide the osteopathic fellow with advanced and concentrated training in neonatology and to prepare the osteopathic fellow for the examination for certification in neonatology.

ARTICLE II - Mission

The specialty of neonatology consists of the study and management of the care of newborns and infants as well as the diagnosis and treatment of their diseases. The purposes of osteopathic neonatal fellowship training are to:

A. Provide training and experience to enable the fellow to care for the whole patient, incorporating the osteopathic concept of the integrated function between the musculoskeletal and nervous systems in the practice of neonatology.

B. Provide continuity of advanced educational experience and increased patient care responsibilities to prepare the fellow for the complete medical care of the patient during the perinatal, neonatal and follow-up period, and to broaden his/her understanding of the fundamentals of neonatal medicine, behavioral sciences and basic sciences related to the specialty.

C. Provide a structured educational program that will enable the fellow, upon completion of training, to demonstrate expertise and clinical proficiency and in the technical skills required to perform at a level expected by a peer group of qualified neonatologists.

ARTICLE III- Educational Program Goals

The goals of the educational programs of the neonatology fellow are based on the core competencies as outlined by the American Osteopathic Association. Each Core competency is outlined below and is adapted to reflect the specific needs of the neonatal profession. The core competencies will be adopted by the college on its GME website and will serve as the annual program director's report.

Competency 1: Osteopathic Philosophy Principles and Manipulative Treatment:
Neonatal fellows shall demonstrate and apply knowledge of OPP/OMT appropriate to neonatology. The educational goal is to train a skilled and competent osteopathic neonatologist who remains dedicated to life-long learning and to practice habits in osteopathic philosophy and manipulative medicine.

This competency is not to be evaluated separately but its teaching and evaluation in the training program shall occur through Competencies 2-7 into which this competency has been fully integrated.
Competency 2: Neonatal Knowledge and Its Application into Osteopathic Medical Practice:
Neonatology fellows must demonstrate and apply integrative knowledge of accepted standards of
clinical neonatology and OPP, remain current with new developments in neonatology, and
participate in life-long learning activities, including research.

  C2 Required Element #1: The neonatology fellow shall demonstrate competency in the
understanding and application of clinical neonatology to osteopathic patient care.
  C2 Required Element #2: The neonatology fellow must know and apply the foundations of
clinical and behavioral neonatology with application of all appropriate osteopathic correlations.
The following are methods, outcomes or demonstrations that shall be utilized by the fellow.

Competency 3: Osteopathic Patient Care:
Osteopathic neonatology fellows must demonstrate the ability to effectively treat patients, provide
neonatal care that incorporates the osteopathic philosophy, patient empathy, awareness of
developmental issues, the incorporation of preventive medicine, and health promotion. The
following are methods, outcomes or demonstrations that shall be utilized by the fellow.

  C3 Required Element #1: Gather accurate, essential information from all sources, including
perinatal interviews, neonatal examination, osteopathic physical and structural examinations as
indicated, medical records, diagnostic/therapeutic plans, and treatments.
  C3 Required Element #2: The neonatal fellow's competency in the performance of diagnosis,
osteopathic PHILOSOPHY and other treatment and procedures appropriate to neonatology.
  C3 Required Element #3: The neonatology fellow's health care services consistent with the
osteopathic philosophy, including preventative medicine and health promotion based on
current scientific evidence and understanding of developmental issues and addiction medicine.

Competency 4: Interpersonal and Communication Skills in Osteopathic Pediatric Practice:
Fellows must demonstrate interpersonal and communication skills that enable them to establish and
maintain professional relationships with patient's families, and other members of the health care
teams. The following are methods, outcomes or demonstrations that shall be utilized by the fellow.

  C4 Required Element #1: The neonatal fellow shall demonstrate effectiveness in developing
appropriate doctor-patient relationships.
  C4 Required Element #2: The neonatology fellow shall exhibit effective listening, written and
oral communication skills in professional interactions with patients, families and other health
professionals.

Competency 5: Professionalism in Osteopathic Medical Practice:
Fellows must up hold the Osteopathic Oath in the conduct of their professional activities that
promote advocacy of patient welfare, adherence to ethical principles, collaboration with health
professionals, life-long learning, and sensitivity to a diverse patient population. Fellows shall be
cognizant of their own physical and mental health in order to care effectively for patients. The
following are methods, outcomes or demonstrations that shall be utilized by the fellow.

  C5 Required Element #1: The neonatology fellow demonstrated respect for his/her patients
and families and advocate for the privacy of his/her patient’s welfare and autonomy.

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C5 Required Element #2: The neonatology fellow adheres to ethical principles in the practice of osteopathic medicine.

C5 Required Element #3: The neonatology fellow demonstrates awareness and proper attention to issues of culture, religion, age, gender, sexual orientation, and mental and physical disabilities.

C5 Required Element #4: The neonatology fellow demonstrates awareness of one’s own mental and physical health.

Competency 6: Osteopathic Medical Practice-Based Learning and Improvement:
Fellows must demonstrate the ability to critically evaluate their methods of clinical practice, integrate evidence-based traditional and osteopathic medical principles into patient care, show an understanding of research methods, and improve patient care practices. The following are methods, outcomes or demonstrations that shall be utilized by the fellow.

C6 Required Element #1: The neonatology fellow treats patients in a manner consistent with the most up-to-date information on diagnostic and therapeutic effectiveness (traditional and osteopathic).

C6 Required Element #2: The neonatology fellow performs self-evaluations of clinical practice patterns and practice-based improvement activities using a systematic methodology.

C6 Required Element #3: The neonatology fellow understands research methods, medical informatics, and the application of technology as applied to medicine.

Competency 7: Systems-Based Osteopathic Medical Practice:
Fellows must demonstrate an understanding of health care delivery systems, provide effective and qualitative osteopathic patient care within the system, and practice cost-effective medicine. The following are methods, outcomes or demonstrations that shall be utilized by the fellow.

C7 Required Element #1: The neonatology fellow understands national and local health care delivery systems and medical societies and how they affect patient care, professional practice and relate to advocacy.

C7 Required Element #2: The neonatology fellow advocates for quality health care on behalf of his/her patients and assists them in their interactions with the complexities of the medical system.

The remainder of the core competencies shall be completed by the fellows as well as the final fellow assessment.
ARTICLE IV - Institutional Requirements

A. The institution must provide patient care experience to train a minimum of three (3) fellows in neonatology. No program may accept a new fellow unless at least two (2) other fellows are also in the program. A new program will have three (3) years to meet this requirement.

B. The institution shall provide for the interaction between the neonatal and other services including, but not limited to, obstetrics/perinatology, pathology, radiology, genetics/metabolic, infectious disease, cardiology, neurology, surgery, and osteopathic manipulative/neuromusculoskeletal medicine.

C. The teaching staff shall be composed of qualified physicians with diversified experience in clinical neonatology, basic and behavioral sciences and allied health fields.

D. The institution must provide an opportunity for exposure in a supervised ambulatory site for continuity of follow-up care training that will suit the needs of the tracks offered. Institutional clinics may be used. The fellow must function as the patients' neonatology provider.

ARTICLE V – Program Requirements and Content

5.1. The fellowship training program in neonatology shall be three (3) years (thirty-six (36) months) in neonatology medicine.

5.1.1. The fourth postdoctoral year will be the first year of fellowship. This position will be known as osteopathic graduate medical education (OGME-4) fellow. Subsequent years will be known as OGME 5,6.

5.2. At least twenty-four (24) months of the required thirty-six (36) months must be served in the same program unless an exemption is granted by the ACOP.

5.3. The general educational content of the fellowship training program must include:

5.3.1. The neuromuscular component of disease and the osteopathic concept of evaluating and treating the whole patient in inpatient care and ambulatory care settings.

5.3.2. Development of basic cognitive skills and knowledge pertaining to normal physiology and pathophysiology of the body systems and the correlating clinical applications of medical diagnosis and management.

5.3.3. Experience and training in the following procedures and development of respective interpretation skills. Verification by the program director of experience and competency in required procedures is necessary.

Required:
- neuromuscular/developmental screening
- lumbar puncture
- intravenous access
- endotracheal intubation and ventilation
- circumcision
- exchange transfusion
• phototherapy
• umbilical artery lines,
• umbilical venous lines
• arterial blood gas sampling
• suturing of surgical sites (chest tube)
• bladder catheterization
• suprapubic aspiration
• chest tube insertion
• nitric oxide infusion
• functional echocardiology
• paracentesis
• ECMO
• phlebotomy
• newborn resuscitation,
• intraosseous access,
• procedural sedation,
• Basic Life Support (BLS)
• Neonatal Resuscitation Program (NRP)
• Osteopathic manipulative treatment (OMT)

5.3.2. Bio-psychosocial knowledge and skills shall be taught in both formal and informal settings throughout the fellowship. These shall include such factors as medical sociology, doctor/patient/parent/guardian/family communication, crisis recognition and intervention, the effects of psychological components of health states, interviewing skills, recognition and management of uncomplicated metabolic disorders, substance abuse care, and death and dying.

5.3.3. All elective training must be approved by the program director.

5.3.4. Follow-up Care: Training must enable the fellow to develop skills in counseling and guidance, developmental appraisal, referral, consultation, health maintenance assessment and the management of a practice as well as to prepare the fellow to assist in the continuing care of the developmentally disabled child. Participation in the activities of follow-up clinic department as they pertain to the neonatal patient.

5.3.5. Inpatient Care: To include the management and understanding of functional and organic diseases of preterm, term, post term neonates and infants. Training shall enable the fellow to appraise and react to the rapidly changing clinical status of the patient as well as to handle multiple or conflicting consultations and coordinate services for individual patients requiring multidisciplinary care.

5.3.6. Experience in the delivery room with newborn care and resuscitation, enabling the fellow to become skilled in the process of newborn stabilization. The fellow must be capable of stabilizing the seriously ill newborn.

5.3.7. Experience in the neonatal intensive care unit to enable the fellow to become proficient in the management of the preterm, term and post term neonates with and without congenital anomalies. The fellow shall demonstrate knowledge of the normal growth and development of the fetus and the effects of drugs, infection and malnutrition.

5.3.8. The training program shall make available neonatal board review opportunities to each fellow, either in the form of weekly programs (such as Avery’s, Pollen and Fox,
Martain and Fanaroff, and or Journal Club), or by sponsoring the fellow's attendance at a neonatology board review course.

5.3.9. Fellows must attend at least one ACOP meeting prior to completing their fellowship.

5.3.10. Training in both the inpatient and neonatal follow-up clinics shall be provided to enable the fellow to do complete histories and physicals, plan comprehensive care and mobilize available community resources in the holistic care of the patient.

5.3.11. Provide training to make sound medical judgments with an understanding of ethical and legal considerations as well as cultural diversities and the care of the patient.

5.3.12. Fellows must have the ability to identify a high-risk pregnancy, be familiar with the methods used to evaluate fetal well-being and maturation. Fellows should also must be competent and understand the factors that compromise a fetus during the antenatal and intrapartum period. In addition 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.

5.3.13. Fellows must demonstrate a competence in the coordination of the transport of the sick neonate. The fellow should demonstrate a proficiency in communicating with the referring medical team, organizing transport of neonates. Fellows need to have a understanding of the impact on transport resource management.

5.3.14. Fellows must demonstrate competence and effective participation in team-based care of critically-ill patients whose primary problem is surgical. Demonstrating an ability to coordinate care and maintain a collegial relationship between pediatric surgeons, neonatologists, and critical care intensivists concerning the management of medical problems in these complex critically ill patients are essential.

5.4. Advanced Placement

5.4.1. Mechanism to request advanced placement. A request for advanced placement must be received from both the fellow and the current fellowship program director and must include:
   a. A letter requesting advanced placement standing from the fellow.
   b. A letter requesting advanced placement standing from program director.
   c. ACOP fellow annual report for previous training.
   d. AOA program director report for previous training.
   e. Determination of advanced placement within these guidelines shall be made by the ACOP GME Committee based on the concept of equivalency.

5.5. At least fifteen (15) months of training must include actual clinical neonatal patient responsibility, with the remainder of the months during the 36 month fellowship training be assigned to scholarly and/or clinical activities.

5.6. The program shall provide exposure to medical research/review skills and methods of presentation which include:
   • How to read and understand the medical literature,
   • Research types, methodology and statistics,
   • Evidence based medicine,
   • Quality, performance improvement and patient safety initiatives,
5.7. Each resident must participate in scholarly activity as determined by the program director. Options for meeting this requirement shall be determined by the program director.

5.8. Neonatology Training

5.8.1. Follow-up Clinic
The curriculum must include at least four (4) months in general follow-up high risk clinics to include but not restricted to bronchopulmonary dysplasia (BPD), addiction, neonatal seizure, and pulmonary hypertension.

5.8.2. Inpatient Care
Neonatal rotations must be a minimum of fifteen (15) months.

The list of diagnoses and patient data requested in the program information forms must show evidence of a sufficient number and variety of complex and diverse pathologic conditions to ensure that the fellow has experience with patients who have acute and chronic illnesses as well as those with life-threatening conditions in the neonatal groups.

A first-year fellow must be responsible for a number of patients, depending on the average length of stay and the nature and severity of illness. Second- and third-year fellows must be involved in the care of more patients than first-year fellows. Neonatology faculty with broad experience in the practice of neonatal medicine shall actively participate in the education of fellows in inpatient settings through inpatient rounds.

ARTICLE VI – Program Director/Faculty

6.1. Qualifications: The program director of a fellowship program shall possess the following qualifications:

6.1.1. Board certification or board eligibility in neonatology and maintain recertification in neonatology by the AOA through the AOBP;

6.1.2. Have practiced neonatology for a minimum of three (3) years;

6.1.3. Be a practicing neonatologist or a pediatric subspecialist;

6.1.4. Attend an ACOP chairman’s/program director’s meeting at least once every three years.

6.2. Responsibilities

6.2.1. The program director must provide the ACOP with yearly electronic evaluation reports of the residents in the training program within thirty (30) days of completion of the contract year at www.acopeds.org.

The program director shall require the resident to apply for Candidate-in-Training status with the ACOP during the training program.
ARTICLE VII - Fellow Requirements

7.1. During the training program the fellow must:

7.1.1. Electronically submit Resident's Annual Report to the ACOP within thirty (30) days of completion of each contract year at [www.acopeds.org](http://www.acopeds.org).

7.1.2. Perform scientific research and scholarly writing with the oversight and approval of the program director;

7.1.3. Attend all meetings as directed by the program director, including the educational portion of the department/division of neonatology, and participate in major committee meetings.

7.1.4. Complete a comprehensive reading program as assigned by the program director, including participation in a journal club;

7.1.5. Maintain a record of educational and postgraduate work completed outside the training institution, listing dates, locations, subjects and speakers.

7.1.5.1. During the training program the fellow must attend at least one ACOP CME meeting during 36 months of neonatal fellowship training.

ARTICLE VIII – Evaluations

A. The program director shall complete an evaluation of each fellow, each year. The evaluation form is located on the ACOP website ([www.acopeds.org](http://www.acopeds.org)).

B. The fellow shall be required to complete a fellow’s report each year. The evaluation form is located on the ACOP website ([www.acopeds.org](http://www.acopeds.org)). The fellow shall also be required to complete a quarterly 360 degree evaluation as supplied by the training institution.