



ACGME International

**Advanced Specialty Program Requirements for
Graduate Medical Education in
Pediatric Orthopaedic Surgery
(Orthopaedic Surgery)**

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Int. Introduction

Background and Intent: Programs must achieve and maintain Foundational Accreditation according to the ACGME-I Foundational Requirements prior to receiving Advanced Specialty Accreditation. The Advanced Specialty Requirements noted below complement the ACGME-I Foundational Requirements. For each section, the Advanced Specialty Requirements should be considered together with the Foundational Requirements.

Int. I. Definition and Scope of the Specialty

Pediatric orthopaedic surgery includes the study and prevention of musculoskeletal diseases, disorders, injuries, and deformities, and their treatment by medical, surgical, and non-surgical methods in children and adolescents younger than 18 years of age.

Int. II. Duration of Education

Int. II.A. The educational program in pediatric orthopaedic surgery must be 12 or 24 months in length.

I. Institution

I.A. Sponsoring Institution

I.A.1. A fellowship in pediatric orthopaedic surgery must function as an integral part of an ACGME-I-accredited residency in orthopaedic surgery.

I.B. Participating Sites

I.B.1. When orthopaedic residents and fellows are being educated at the same participating site, the residency director and fellowship director must jointly prepare and utilize a written agreement, which must specify:

I.B.1.a) the educational relationship between the residency and fellowship programs;

I.B.1.b) the roles of the residency and fellowship directors in determining the educational program of residents and fellows;

I.B.1.c) the roles of the residents and fellows in patient care; and,

I.B.1.d) how clinical and educational resources will be shared equitably.

II. Program Personnel and Resources

II.A. Program Director

- II.A.1. Prior to appointment, the program director must demonstrate:
 - II.A.1.a) completion of a pediatric orthopaedic surgery fellowship;
 - II.A.1.b) at least three years of post-residency practice experience in clinical pediatric orthopaedic surgery;
 - II.A.1.c) three years as a faculty member in an Accreditation Council for Graduate Medical Education (ACGME)-accredited, or ACGME-I-accredited orthopaedic surgery residency or pediatric orthopaedic surgery fellowship program; and,
 - II.A.1.d) evidence of periodic updates of knowledge and skills to discharge the roles and responsibilities for teaching, supervision, and formal evaluation of fellows.
- II.A.2. The program director must ensure that all fellows are evaluated within six weeks following entry into the program for expected entry-level skills so that additional education and training can be provided in a timely manner to address identified deficiencies.
- II.A.3. The program directors of the orthopaedic residency and pediatric orthopaedic surgery fellowship programs should together closely monitor the relationship between resident and fellow education.

II.B. Faculty

- II.B.1. There must be at least two core faculty members, including the program director.
- II.B.2. Core faculty members must:
 - II.B.2.a) have completed a residency in orthopaedic surgery and a fellowship in pediatric orthopaedic surgery; and,
 - II.B.2.b) be actively involved in the education and supervision of fellows during the 12 or 24 months of accredited education.

II.C. Other Program Personnel

See International Foundational Requirements, Section II.C.

II.D. Resources

- II.D.1. The program must have the following:
 - II.D.1.a) inpatient, ambulatory care, and laboratory facilities;
 - II.D.1.b) operating suites with appropriate equipment and staffing; and,

- II.D.1.c) comprehensive clinical care services, including imaging; laboratory medicine; surgical, medical, physical, and occupational rehabilitation; and pediatric consultation.
- II.D.2. A sufficient number and variety of new and follow-up patients must be available to ensure adequate inpatient and outpatient experience for each fellow without adversely diluting the educational experience of orthopaedic surgery residents if present.

III. Fellow Appointment

III.A. Eligibility Criteria

- III.A.1. Prior to appointment in the program, fellows should have completed an ACGME-I-accredited residency program in orthopaedic surgery, or an orthopaedic surgery residency program acceptable to the Sponsoring Institution's Graduate Medical Education Committee.

III.B. Number of Fellows

See International Foundational Requirements, Section III.B.

IV. Specialty-Specific Educational Program

IV.A. ACGME-I Competencies

- IV.A.1. The program must integrate the following ACGME-I Competencies into the curriculum.

IV.A.1.a) Professionalism

- IV.A.1.a).(1) Fellows must demonstrate a commitment to professionalism and an adherence to ethical principles.

IV.A.1.b) Patient Care and Procedural Skills

- IV.A.1.b).(1) Fellows must provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows must demonstrate competence in:

IV.A.1.b).(1).(a) appropriate and judicious use of diagnostic tests;

IV.A.1.b).(1).(b) collecting, interpreting, and using patient data;

IV.A.1.b).(1).(c) interpreting imaging examinations of the musculoskeletal system;

IV.A.1.b).(1).(d) recognizing and managing complications of treatment; and,

- IV.A.1.b).(1).(e) managing post-operative recovery and rehabilitation.
- IV.A.1.b).(2) Fellows must demonstrate competence in the performance of pediatric orthopaedic operative and non-operative procedures, including procedures for:
- IV.A.1.b).(2).(a) cerebral palsy;
- IV.A.1.b).(2).(b) clubfoot;
- IV.A.1.b).(2).(c) developmental dysplasia of the hip (DDH) prior to walking age;
- IV.A.1.b).(2).(d) femoral shaft fracture (open treatment);
- IV.A.1.b).(2).(e) foot and ankle deformity, excluding clubfoot;
- IV.A.1.b).(2).(f) hip reconstruction and other, excluding DDH;
- IV.A.1.b).(2).(g) limb deformity, to include length discrepancy and deranged growth;
- IV.A.1.b).(2).(h) lower extremity deformity;
- IV.A.1.b).(2).(i) lower limb trauma;
- IV.A.1.b).(2).(j) slipped capital femoral epiphysis (SCFE);
- IV.A.1.b).(2).(k) soft tissue transfer, lengthening, and release;
- IV.A.1.b).(2).(l) spine deformity, to include idiopathic scoliosis;
- IV.A.1.b).(2).(m) supracondylar fracture;
- IV.A.1.b).(2).(n) treatment of infection;
- IV.A.1.b).(2).(o) upper limb deformity; and,
- IV.A.1.b).(2).(p) upper limb trauma.

IV.A.1.c) Medical Knowledge

- IV.A.1.c).(1) Fellows must demonstrate knowledge of established and evolving biomedical clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care. Fellows must demonstrate knowledge of:

- IV.A.1.c).(1).(a) the indications, risks, and limitations of the commonly performed procedures in pediatric orthopaedic surgery;
- IV.A.1.c).(1).(b) the natural history of pediatric orthopaedic disorders, the effectiveness of treatment programs, and the impact of growth on these disorders;
- IV.A.1.c).(1).(c) the role of physical therapy, occupational therapy, orthotics, prosthetics, and other manipulative and splinting techniques in the rehabilitation and ongoing management of pediatric orthopaedic disorders;
- IV.A.1.c).(1).(d) the familial, social, and emotional aspects of caring for sick and injured pediatric patients;
- IV.A.1.c).(1).(e) pediatric orthopaedic disorders and conditions, including:
 - IV.A.1.c).(1).(e).(i) cerebral palsy;
 - IV.A.1.c).(1).(e).(ii) clubfoot;
 - IV.A.1.c).(1).(e).(iii) DDH prior to walking age;
 - IV.A.1.c).(1).(e).(iv) idiopathic scoliosis;
 - IV.A.1.c).(1).(e).(v) musculoskeletal disease and neuromuscular conditions, to include muscular dystrophy, Down Syndrome, and osteogenesis imperfecta;
 - IV.A.1.c).(1).(e).(vi) SCFE; and,
 - IV.A.1.c).(1).(e).(vii) upper and lower limb deformity.
- IV.A.1.c).(1).(f) the application of research methods, including the ability to critically analyze research reports and to design and implement clinical or basic research in the field of pediatric orthopaedic surgery.

IV.A.1.d) Practice-based Learning and Improvement

- IV.A.1.d).(1) Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning.

IV.A.1.e) Interpersonal and Communication Skills

IV.A.1.e).(1) Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

IV.A.1.f) Systems-based Practice

IV.A.1.f).(1) Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, including the social determinates of health, as well as the ability to call effectively on other resources in the system to produce optimal care.

IV.B. Regularly Scheduled Educational Activities

IV.B.1. The didactic curriculum must emphasize normal physiologic mechanisms, natural history, and pathogenesis and treatment of pediatric orthopaedic disorders.

IV.B.1.a) Didactic sessions must emphasize continuity of care for pediatric orthopaedic surgery patients.

IV.B.2. The program must regularly hold subspecialty conferences with active faculty member and fellow participation, including at least:

IV.B.2.a) one weekly teaching conference;

IV.B.2.b) one monthly morbidity and mortality conference; and,

IV.B.2.c) one monthly journal club in pediatric orthopaedic surgery.

IV.C. Clinical Experiences

IV.C.1. The program must provide advanced education to ensure that each fellow develops special expertise in pediatric orthopaedic surgery, including operative and other technical skills.

IV.C.1.a) The curriculum must emphasize a scholarly approach to clinical problem solving, self-directed study, teaching, development of analytic skills and surgical judgement, and research.

IV.C.2. The curriculum must include providing operative and non-operative care for a variety of pediatric orthopaedic conditions, including:

IV.C.2.a) acute and reconstructive trauma;

IV.C.2.b) amputations and prosthetics;

IV.C.2.c) athletic injuries;

- IV.C.2.d) foot and ankle conditions;
- IV.C.2.e) general pediatric orthopaedics;
- IV.C.2.f) hand disorders;
- IV.C.2.g) hip conditions;
- IV.C.2.h) metabolic and genetic conditions;
- IV.C.2.i) neuromuscular conditions;
- IV.C.2.j) spinal conditions; and,
- IV.C.2.k) tumors.
- IV.C.3. Fellows must continue to provide care for their own post-operative patients until discharge or until the patients' post-operative conditions are stable and the episode of care is concluded.
- IV.C.4. The curriculum must include instruction and experience in multimodal pain treatment, including non-narcotic pain medications and alternative pain-reducing modalities.
- IV.C.5. Clinical experience should emphasize use of both appropriate laboratory procedures and collaboration with allied medical personnel.
- IV.C.6. Clinical experiences must include:
 - IV.C.6.a) a major role in the continuing care of both acutely and chronically ill patients, including progressive responsibility for patient assessment, decisions regarding treatment, pre-operative evaluation, operative experience, non-operative management, post-operative management, rehabilitation, long-term follow-up, and other outpatient care;
 - IV.C.6.b) observation and treatment of both inpatients and outpatients with a wide variety of pediatric orthopaedic disorders; and,
 - IV.C.6.b).(1) Fellows should have at least 10 new and 20 follow-up patients per week, averaged over four weeks.
 - IV.C.6.c) the opportunity to provide consultation with faculty member supervision.
- IV.C.7. Fellows must have clearly defined teaching responsibilities for residents, medical students (if present), and allied health personnel.
 - IV.C.7.a) These teaching experiences must correlate basic biomedical knowledge with the clinical aspects of pediatric orthopaedic surgery.

IV.C.8. Fellows must document their operative experience in a timely manner by reporting all cases in the ACGME-I Case Log System.

IV.D. Scholarly Activity

IV.D.1. Fellows Scholarly Activity

IV.D.1.a) Each fellow must participate in basic and/or clinical hypothesis-based research.

IV.D.1.b) The program must provide scheduled and protected time and facilities for fellows' research activities.

IV.D.1.b).(1) Protected time for research activities should be a minimum of two days a month, averaged over the length of the educational program.

IV.D.1.c) Each fellow should also demonstrate scholarship during the program through one or more of the following: peer-reviewed publications; abstracts, posters, or presentations at international, national, or regional meetings; publication of book chapters; or lectures or formal presentations (such as grand rounds or case presentations).

IV.D.2. Faculty Scholarly Activity

See International Foundational Requirements, Section IV.D.2.

V. Evaluation

See International Foundational Requirements, Section V.

VI. The Learning and Working Environment

See International Foundational Requirements, Section VI.