2013 - 2014
Pediatric Orthopaedic Surgery
Fellowship Information

Addendum to University of Minnesota
Department of Orthopaedic Surgery
Part B Manual
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Purpose
The pediatric orthopaedic surgery fellowship at Gillette Children’s Specialty Healthcare serves to provide appropriate subspecialty training for the individual who has previously completed an orthopaedic surgery residency and is interested in obtaining additional experience in the field of pediatric orthopaedics. At the completion of the fellowship, the fellow should be able to serve their community as a resource for matters pertaining to this subspecialty.

Description
The twelve-month fellowship is based at Gillette Children’s Specialty Healthcare in St. Paul, Minnesota and is affiliated with the Department of Orthopaedic Surgery at the University of Minnesota. The fellowship received ACGME accreditation in 2006. For the 2013 - 2014 academic year, the fellowship has been organized into six two-month rotations. The fellow will work closely with one or two faculty during each rotation in both the outpatient clinic setting and in the operating room. Due to the wide breadth of clinical interest and diverse practice patterns, many of the faculties have patients with a wide range of clinical conditions. Moreover, there is a significant amount of overlap between physicians such that several or perhaps all of the physicians may see patients with the same diagnoses (example: hip dysplasia, cerebral palsy, etc.) By the end of the twelve month experience, it would be our hope and expectation that the fellow will have been exposed to a wide range of conditions within the pediatric orthopaedic spectrum.

Responsibilities
The fellow will work closely with the faculty in the outpatient clinic and also in the operating room. The fellow will attend daily morning rounds on the inpatient ward and will be involved in the care of any inpatient that he or she admits or in whose surgery he or she participates. The fellow will also interact with the orthopaedic surgery residents in the outpatient clinic, in the operating room and on the inpatient service. There should be a sufficient volume of work that the fellow will not detract from the residents’ experience. Rather, the fellow can provide a degree of mentorship as well as an additional teaching resource for the residents and medical students on the service. He or she will be available to assist them in patient care and also to provide counsel or advice if needed. The fellow will also attend the daily morning conference during the fellowship. The fellow will be asked to give some of the morning lectures as well. The fellow will also be asked to give one grand rounds presentation at the Friday morning grand rounds conference held at the University of Minnesota.

The fellow will have one day a week set aside from clinical duties for scholarly activities. This may include meeting with faculty for teaching, for reading or for working on a research project. The fellow will be expected to complete at least one research project of publishable quality during their fellowship.

The fellow will take call at Children’s Hospital and Clinics of Minneapolis with the Gillette based orthopaedic attending staff physicians. The fellow will participate in surgical cases and in the orthopaedic outpatient clinic one day per week and be on-call one night per week. He or she will cover call one in four weekends as well.
The pediatric orthopedic surgery fellowship program is a one-year training experience based primarily at Gillette Children’s Specialty Healthcare in St. Paul, Minnesota. When working with different faculty, the fellow also may spend a limited amount of time at one of the other Gillette associated outpatient clinics or at one of the other children’s hospitals in the Twin Cities. There are eleven pediatric orthopaedic surgeons who are full-time faculty at Gillette. In addition, there are nine faculties who are either part-time at Gillette or community-based who come to Gillette on a part-time basis. The fellow will interact with the part-time faculty periodically, when teaching or educational opportunities present themselves.

We believe in a family-centered model of care. The patient and their family are the center of the team and the fellow will learn how to interact with and partner with them. In addition, the fellow will learn how to effectively communicate with other physicians involved in patient care. This may be in the form of a request from other physicians seeking assistance from an orthopaedist as well as when we are seeking input or consultation from other physicians. This also includes communication with other members of the team including nurses, therapists, radiographers and receptionists or ward secretaries.

Goals of Pediatric Orthopaedic Surgery Fellowship:

1) First and foremost, to provide an experience by which the fellow will become a competent, compassionate and capable pediatric orthopaedic surgeon who will be able to serve their patients and their physician colleagues in the community when they leave the fellowship and go into practice.

2) To educate the fellow about the broad range of disorders and conditions which comprise the field of pediatric orthopaedics in a supportive and collegial environment.

3) To improve the fellow’s physical examination skills, to hone their clinical judgment and to advance their surgical skills in order to enable them to provide effective, efficient and safe patient care.

4) To advance their ability to communicate with and to collaborate with all members of the healthcare team including patients and their families, nurses, physicians, allied-health professionals and administrators.

5) To provide the opportunity for self-directed learning and to instill in the fellow the desire for life-long, practice-based learning and quality-improvement.

6) To provide adequate resources and support for clinical research and scholarship so that the fellow is able to complete a research project of publishable quality and to have the opportunity to present their research at a national or international meeting.

7) To provide mentorship from experienced staff physicians in order to instill in the fellow a personal sense of professionalism and to develop a relationship that can continue after the fellowship is complete.

8) To provide feedback to the fellow regarding his/her performance in the form of evaluations from faculty, nurses, residents, patients and/or their families and other health professionals in a meaningful way and on a regular basis.

9) To strive for improvement and to be constantly looking for ways in which we can alter and enhance the fellowship experience for the fellow, the residents and the faculty.

The training year is divided into six two-month rotations. Each rotation pairs the fellow with one or two faculty members. During the rotation, teaching will take place through a variety of methods including one-on-one teaching with the faculty physicians in the outpatient clinic and in the operating room setting, didactic teaching in morning conferences as well as dedicated time in the fellow’s schedule for scholarly activity including self-directed learning. The fellow will work closely with the orthopaedic residents in a collaborative and supportive manner to ensure a mutually
beneficial experience for all parties involved in education. Hopefully, the fellow can assume a
teaching role in some situations in the outpatient clinic and in the operating room to augment the
resident learning experience.

ACGME Core Competencies: Each learning objective is referenced to one or more of the
ACGME core competencies. PC=Patient care, MK=medical knowledge, Prof=professionalism,
CS=communication skills, SBP=systems based practice, PBLI=practice-based learning and
improvement.

The domain of pediatric orthopaedic surgery focuses on disorders of the musculoskeletal system
that affect the growing child. Within the broader scope of pediatric orthopaedics, there are certain
topics of concentration. The rotation schedule for the fellowship is not centered around specific
topics but rather specific faculty. Therefore, through the course of the fellowship we will strive to
expose the fellow to the principles of care for these areas of interest with a number of faculties.
Specific objectives have been identified for the fellow’s educational experience for these specific
areas of interest.

**Topic 1: Cerebral Palsy**

**Faculty:** Dr. Novacheck, Dr. Quanbeck, Dr. Healy, Dr. Koop, Dr. Walker, Dr. Sundberg, Dr.
Weber, Dr. Novak

The fellow will be exposed to numerous faculties who care for children with cerebral palsy and
other disabilities. He or she will learn about the care of ambulatory and nonambulatory patients.
The fellow will gain exposure to the Motion Analysis Laboratory and will learn how to evaluate
and treat lower extremity deformities related to neuromuscular disorders. This will specifically
include rotational deformities of the lower extremities as well as spine disorders, foot disorders
and hip disorders including acetabular dysplasia. This experience will also include the evaluation
and care of patient with other neurologic, genetic, syndromic or acquired disorders.

**Objectives:**

1) Evaluate a patient with a physical disability secondary to cerebral palsy or other
neuromuscular disorder and to develop an appropriate treatment plan for that patient (PC,
MK).
2) Demonstrate an understanding of the types of deformities most frequently encountered (PC).
3) Demonstrate competence in the surgical treatment of the deformities or conditions associated
with cerebral palsy including the following procedures: (PC)
   - femoral osteotomy,
   - pelvic osteotomy, tibial osteotomy,
   - calcaneal osteotomy,
   - psoas intramuscular lengthening,
   - hamstring lengthening,
   - rectus femoris transfer,
   - patellar tendon advancement,
   - gastrocnemius lengthening and
   - muscle transfer procedures about the foot.
4) Participate in the postoperative care and management of patients following multiple lower
extremity procedural surgery (PC).
5) Demonstrate an understanding of the different types of orthoses that are prescribed for
patients with neurologic conditions (PC).
6) Demonstrate the competence in the surgical treatment of the lower extremity deformities
associated with cerebral palsy and other neuromuscular disorders (PC).
7) Evaluate patients with other pediatric orthopaedic disorders including pediatric foot disorders,
developmental dysplasia of the hip and acetabular dysplasia as well as spinal deformities
(PC).
8) Effectively manage patients in the inpatient setting with appropriate faculty supervision including caring for patients following Single Event Multiple Level surgery (PC).

9) Understand the classifications of cerebral palsy, including different types of motor disorders (spasticity, mixed tone, dystonia, ataxia, etc.) as well as different physical patterns: hemiplegia, triplegia, diplegia, quadriplegia (MK, PC).

10) Accurately describe different physical features associated with each pattern of involvement (MK).

11) Evaluate patients across a wide spectrum of neurologic and musculoskeletal involvement, ranging from mildly involved to profoundly handicapped, with particular attention to the different physical exam findings that one should look for or anticipate finding with patients from a large spectrum of disease involvement (PC).

12) Develop an awareness of the role of adjunctive therapies in the treatment of patients with spasticity including the role of Botulinum toxin and phenol for focal tone reduction by the physical medicine and rehabilitation physicians as well as procedures to address abnormal tone such neurosurgical procedures as selective dorsal rhizotomy and intrathecal baclofen pump therapy (PC).

13) Understand the role of soft-tissue surgery and bony procedures for surgical treatment of the patient with a neurologic hip subluxation/dislocation (MK, PC).

14) Understand the basic components of gait analysis in the evaluation of ambulatory patients with cerebral palsy and other neuromuscular disorders (PC).

15) Understand the relative merits and considerations of using gait analysis in the evaluation and treatment of patients with neuromuscular disorders, including understanding which patients are appropriate candidates for gait analysis, discussion within the pediatric orthopaedic community regarding the validity of gait analysis, issues pertinent to healthcare systems, insurance companies and third party payors regarding the usefulness and expense of gait analysis (PC, MK, SBP).

16) Effectively listen to and to communicate with the physical therapist that performs the initial gait analysis (PC, CS, SBP).

17) Interpret gait analysis studies with specific attention to kinematic plots, kinetic plots, electromyelograms, muscle length graphs, pedobarographs and energy expenditure measurements.

18) Display awareness of the appropriate and cost-effective use of laboratory tests and radiographic studies such as x-rays, ultrasound, CT scans and MRI’s (PC, SBP).

19) Demonstrate appropriate skills for accessing information to learn more about their patients’ conditions through printed or electronic media such as journals, textbooks, online searches and relevant websites (PBLI, MK).

20) Demonstrate personal responsibility, integrity, professionalism and ethical practice (Prof).

21) Develop an awareness of physician-industry relationships and the possible conflicts of interest they may present (Prof, PC)

22) Develop the appropriate clinical sensitivity for interacting with and dealing with patients with specialized needs and their families (PC, CS, Prof).
Topic 2: Spine Disorders

Faculty: Dr. Koop, Dr. Novacheck, Dr. Walker, Dr. Perra, Dr. Lonstein, Truong, Guillaume

During the fellowship, the fellow will interact with numerous staff who treats children with disorders of the spine. The fellow will gain experience in diagnosing and treating spine disorders including idiopathic, neuromuscular and congenital scoliosis, spondylolysis/spondylolisthesis and other spine conditions.

Objectives:

1) Demonstrate knowledge of the nature history of congenital, early-onset and adolescent idiopathic scoliosis as well as neuromuscular scoliosis (MK, PC).
2) Understand the role and effectiveness of nonoperative treatment (bracing) for idiopathic and neuromuscular scoliosis (PC, MK).
3) Appropriately prescribe a spinal orthosis, using the proper terminology and descriptive information necessary to communicate effectively with the orthotist (PC, SBP).
4) Formulate an algorithm for surgical treatment decision making, including the role for posterior spinal fusion, anterior spinal fusion and combined anterior/posterior spinal fusion and appropriate fusion levels for each (MK, PC).
5) Demonstrate competence in the surgical techniques used in the operative treatment of scoliosis including exposure, instrumentation and bone-grafting for anterior and posterior spinal fusion (PC).
6) Understand the natural history of other forms of pediatric spine disorders including spondylolysis and spondylolisthesis (PC).
7) Evaluate patients with these disorders (PC).
8) Order appropriate imaging studies in order to investigate the status of these disorders.
9) Accurately describe an algorithm for formulating treatment decisions of patients with spondylolysis/spondylolisthesis (PC).
10) Discuss the role of nonoperative (brace) treatment for these conditions and be able to properly prescribe an appropriate orthosis (PC, MK).
11) Be aware of and familiar with the surgical treatment of these disorders, the different techniques available and the risks associated with each (PC, MK).

Topic 3: Lower Extremity Alignment Deformities

Faculty: Dr. Dahl, Dr. Sundberg, Dr. Weber, Dr. Schiffern

The fellow will work with several faculties who are experienced in the evaluation and treatment of children with lower extremity alignment disorders.

Objectives:

1) Explain the normal alignment for children at different ages and different stages of development (MK, PC, CS).
2) Evaluate patient for rotational alignment deformities including performing a rotational profile (PC, MK).
3) Evaluate alignment deformities in the coronal plane including congenital, acquired and post-traumatic deformities (MK, PC).
4) Perform the radiographic evaluation of lower extremity deformities including measuring the mechanical axis, the distal lateral femoral mechanical angle, and the proximal tibial mechanical angle (PC).
5) Assess the patient both clinically and radiographically for limb length inequalities (PC, MK).
6) Understand the different methods of correcting rotational deformities, angular deformities and limb length differences (MK, PC).

7) Participate in surgeries addressing deformities or limb length differences including: hemiepiphyseodeses, epiphyseodeses, and acute corrections using osteotomies. As well as different methods of performing gradual corrections including Ilizarov and Taylor-Spatial Frame methodology (PC, MK).

8) Understand such congenital conditions as: congenital pseudarthrosis of the tibia, congenital short femur, proximal femoral focal deficiency, infantile and adolescent tibia vara, fibular hemimelia and tibial hemimelia (MK, PC).

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**Topic 4: Pediatric Hip Conditions**

Faculty: Dr. Novacheck, Dr. Sundberg, Dr. Healy, Dr. Quanbeck, Dr. Koop, Dr. Walker, Dr. Weber, Dr. Truong, Dr. Laine

Many of the faculty has an interest in childhood hip disorders. By working with all of the faculty, the fellow should be exposed to a wide range of hip disorders and multiple perspectives on their evaluation and treatment.

**Objectives:**

1) Understand the risk factors, pathology and natural history of developmental dysplasia of the hip (DDH) (MK)

2) Understand the role of DDH with regard to the risk of potential future osteoarthritis of the hip in adulthood (MK).

3) Effectively communicate with primary care providers including pediatricians, family physicians and nurse practitioners regarding the role of screening for DDH in newborn children (CS, PC, MK).

4) Examine the newborn child for features of developmental dysplasia of the hip (PC).

5) Understand the role of ultrasound in the infant and be able to interpret ultrasound images of the infant hip (MK, PC).

6) Develop the ability apply and adjust the Pavlik harness in the treatment of DDH in the infant (PC).

7) Evaluate the older child for clinical evidence of developmental dislocation of the hip (PC).

8) Describe the radiographic findings associated with DDH at different stages of development, including in untreated as well as in treated patients (PC, MK).

9) Explain the different treatment options available for patients of different ages and how treatment decisions are made (PC, MK, CS).

10) Classify the different types of pelvic osteotomies available to address hip dysplasia and explain the important differences between them (PC, MK).

11) Exhibit knowledge of the various risk factors or possible complications associated with the different treatments available (PC, MK).

12) Perform the most-frequently performed procedures for developmental hip dysplasia including an open reduction of the hip (anterior and medial), as well as the following pelvic osteotomies: Salter Innominate, Dega or Pemberton and salvage type procedures such as a Staheli shelf procedure or Chiari procedure (PC).

13) Exhibit the clinical judgment to decide which of the above procedures is appropriate and be able to discuss with patients’ parents the relative merits and recommendations of each (PC).

14) Review a radiograph for findings suggestive of Legg-Calve-Perthes (Perthes) disease (MK, PC).

15) Discuss the radiographic stages of Perthes (PC, MK).

16) Describe the different classification systems used in Perthes (MK, PC).

17) Understand the treatment principles for Perthes, including maintaining range-of-motion and achieving containment of the femoral head (PC, MK).
18) Apply these principles to clinical decision making in patients with Perthes at different ages (PC, MK).
19) Demonstrate the surgical ability to perform a femoral osteotomy, pelvic osteotomy or combined femoral and pelvic osteotomy in the treatment of Perthes (PC).
20) Identify clinical symptoms and signs suggestive of a Slipped Capital Femoral Epiphysis (SCFE), including stable and unstable SCFE (PC).
22) Understand and be able to explain the role of proximal femoral osteotomy for realignment after previous SCFE (PC, MK).
23) Discuss the risks associated with SCFE and its treatment, including the risk of avascular necrosis, chondrolysis, future hip disorders including femoral-acetabular impingement, labral tears and degenerative joint disease (MK, PC).

**Topic 5: Foot Disorders**

Faculty: Dr. Quanbeck, Dr. Sundberg, Dr. Koop, Dr. Healy, Dr. Walker, Dr. Novacheck, Dr. Weber

Foot disorders in children are a frequent condition seen by pediatric orthopaedic surgeons. They may occur as a single specific disorder, such as a congenital “clubfoot”, or as part of a more systemic condition such as cerebral palsy. Try working with many staff surgeons, the fellow will be exposed to a variety of patients with foot disorders as well as multiple perspectives on how to treat them.

**Objectives:**

1) Describe and identify the most common foot deformities in the newborn child, including clubfoot, congenital vertical talus, metatarsus adductus and congenital calcaneovalgus foot deformities (PC, MK).
2) Understand the incidence, etiology and pathoanatomy of the clubfoot deformity (PC, MK, PBLI).
3) Demonstrate competence in the Ponseti casting method of clubfoot correction (PC).
4) Participate in a percutaneous heelcord tenotomy procedure for treatment of equinus contracture associated with clubfoot deformity (PC).
5) Recognize the difference between an idiopathic clubfoot and the teratologic clubfoot associated with myelomeningocele or arthrogryposis (MK, PC).
6) Discuss the role of complete peritalar release type surgery in the treatment of clubfeet and its current role in the treatment of rigid clubfoot deformities (PC).
7) Describe and identify features associated with congenital vertical talus (CVT) deformity of the foot. Become familiar with casting treatment for CVT (PC, MK).
8) Describe the different surgical approaches to CVT (PC, MK).
9) Physically exam a pediatric patient with a flatfoot deformity and determine the difference between a flexible flatfoot and a rigid flatfoot (PC).
10) Identify the potential causes of a rigid flatfoot deformity (PC, MK).
11) Know what are appropriate imaging studies to order to evaluate the patient with a rigid flatfoot deformity (MK, PC).
12) Discuss the different types of tarsal coalition and the appropriate treatment options relative to each (PC, MK).
13) Adequately examine the patient with a cavovarus foot deformity (PC, MK).
14) Identify and discuss the underlying causes associated with cavovarus foot deformities in pediatric patients (PC, MK).
15) Describe treatment options for the long-term follow-up of patients with residual deformity of pediatric foot deformities (PC, MK).
Treating children with urgent or emergent problems is a frequent component of the practice of many pediatric orthopaedic surgeons. This may include everything from a child who falls and sustains an elbow fracture to a child who is refusing or unable to walk due to septic arthritis of the hip joint. The staff at Gillette cares for a number of children each day with acute needs. However, as Gillette staff physicians increase their involvement with the other children’s hospitals in Minneapolis and St. Paul, there will be an opportunity to significantly improve the educational experience for the fellow in this area.

Objectives:

1. Participate in the evaluation of patients with acute problems or acute care needs, such as limping, refusing to walk, joint pain in the setting of a fever or other illness (PC).
2. Perform an appropriate physical exam of a patient with hip pain (PC).
3. Discuss the role of different imaging modalities of the patient with joint pain or illness including: plain radiographs, ultrasound, nuclear medicine scans and MRI scans (PC, MK).
4. Understand the appropriate laboratory studies to order in the evaluation of a patient with acute joint pain or swelling (PC, MK).
5. Produce an appropriate differential diagnosis for a child with acute joint pain and swelling and be able explain how to include or exclude possible diagnoses on the list (PC, MK).
6. Perform a hip joint aspiration and open surgical drainage for septic arthritis of the hip (PC).
7. Participate in the evaluation and treatment of children with trauma-related injuries of the musculoskeletal system (PC, MK).
8. Perform a thorough musculoskeletal examination including a detailed neurologic exam of a patient with an orthopaedic injury including: an upper extremity fracture, a lower extremity fracture, suspected spine trauma or possible pelvic injury or fracture (PC).
9. Safely and satisfactorily perform a closed reduction and application of a well-fitting cast for the following injuries: forearm fracture, distal radius fracture, metacarpal or finger phalanx fractures, pediatric femur fracture and tibia fracture (PC).
10. Describe the indications and technique for operative treatment of the following: supracondylar elbow fractures, unstable forearm fractures, completely displaced distal radius fractures, pediatric femur fractures, tibia fractures and distal tibia fractures involving the ankle joint (PC, MK).
12. Discuss the treatment options and the relative merits of each option in the surgical treatment of pediatric femur fractures (PC, MK).
13. Perform the evaluation and stabilization of patients with multi-trauma related injuries (PC).
14. Evaluate and treat patients with open fractures (PC, MK).
15. Recognize the symptoms and signs of compartment syndromes in the pediatric patient, including in the upper extremity and the lower extremity (MK, PC).
16. Evaluate and treat the patient with possible compartment syndrome (PC, MK).
Please note: this is not intended to be an all-inclusive list of topics. Rather, it is intended to be an overview of the topics that the fellow will be exposed to and that he or she should be familiar with during the course of the fellowship. The teaching faculty can also refer to this list. However, they may choose to cover additional topics as opportunities avail themselves. Moreover, the pediatric orthopaedic surgery department is not compartmentalized into defined services based on subject (i.e. there is no foot service, CP service, hip service, etc.) The teaching services are based on teams of staff physicians. Many of the staff physicians see patients with conditions across a wide spectrum of disorders. The fellow will be assigned to a group of one or two principle surgeons at any one time with whom he or she will be working in clinic and in surgery for four month periods.

Evaluation: Fellow performance will be assessed by rotation faculty during each of the rotations using a global performance evaluation. Each faculty surgeon will be asked to complete a formal evaluation at the end of each rotation. In addition, we will attempt to conduct informal evaluations with the faculty at the mid-point of each rotation in order to identify any areas of concern or issues that warrant further evaluation.

The program director will conduct periodic evaluation sessions with the fellow in whom he will review the results of the rotation evaluations and also solicit input and feedback from all members of the teaching service, including nursing staff, administrative assistants, therapists, orthotists and physicians from other services as well. The fellowship director will conduct a formal summary review at the completion of the year in an “exit interview” format to review the performance of the fellow as well as to solicit comments from the fellow regarding his or her experience in order to improve the fellowship for future participants.
Education and Research

Educational Methods
The goal of the fellowship program is to teach the fellow sufficiently in order to enable him or her to enter any community at the completion of the fellowship and to practice pediatric orthopaedic surgery safely and competently. The education of the fellow will take place through various methods. The fellow will receive didactic teaching in the form of the morning conference lecture schedule. Moreover, the fellow will receive individual teaching through working closely with the faculty in the outpatient setting and in the operating room. During the course of each rotation, as the fellow and the faculty work together, it would be anticipated that the fellow will be given greater degrees of responsibility and involvement based on his or her abilities and performance. The fellow will also be expected to pursue opportunities of self-directed learning based on material that may be encountered in the course of the daily clinical activities.

Evaluations
The fellow will be evaluated through a number of different methods and by different personnel.

Teaching Faculty
A formal evaluation will be completed at the end of each rotation. In addition, we will attempt to conduct informal evaluations with the faculty at the mid-point of each rotation in order to identify any areas of concern or issues that warrant further evaluation.

Program Director
The fellowship director will review the results of evaluations with the fellow at the completion of each rotation and more often if the need arises. The director and the fellow will also meet again at the completion of the year in an “exit interview” format to review the performance of the fellow as well as to solicit comments from the fellow regarding his or her experience in order to improve the fellowship for future participants.

360 Evaluations
The program director will solicit input and feedback from other members of the healthcare team, including nursing staff, administrative assistants, therapists, allied health professionals, orthopaedic residents and physicians from other services.

Patients and Families
Throughout the course of the year, we will solicit feedback about the performance of the fellow from patients and their families in the outpatient clinic as well as during inpatient admissions.

Self-evaluations
The fellow will be asked to evaluate his or her own performance.

Fellow evaluations
The fellow will evaluate the teaching faculty at the completion of each rotation.
Research
The fellow will be expected to complete at least one clinical research project during the course of the fellowship that will be submitted for presentation at a national meeting. The project should be of sufficient quality to be submitted for publication in a peer reviewed journal.

The program director and the clinical faculty will work with the fellow to generate a list of possible projects at the beginning of the fellowship. An attempt will be made to decide on a project as early as possible in order to provide adequate time to develop the idea, to obtain IRB approval, to collect data and to complete the project during the twelve month fellowship. The fellow will work closely with the Research Department at Gillette Children’s Specialty Healthcare to facilitate this process.
Clinical Responsibilities

Medical Records
The fellow will be responsible for the completion of all medical records for patients under his or her care during the rotation to which he or she is assigned. This includes outpatient clinic notes, operative notes and discharge summaries. These should be completed promptly and in a timely fashion by the fellow. Satisfactory completion of all medical records is considered a prerequisite for consideration for successful completion of all responsibilities included in the fellowship. Outstanding incomplete medical records will result in failure to receive a certificate at the completion of the fellowship.

Case Log
The fellow will be required to maintain a case log of all surgical cases in which he or she participates. This should include the patient’s age, diagnosis and the procedure(s) performed. The fellow will submit this information to the ACGME on-line surgical case log. Satisfactory submission of the ACGME-supported surgical case log will be considered a prerequisite for satisfactory completion of the fellowship.

Moonlighting
The pediatric orthopaedic surgery fellow is not permitted to “moonlight”. If the fellow wishes to do so, he or she must discuss this with the program director in advance.

Clinical Responsibilities
During each rotation, the fellow will be working closely with two or three faculty. The fellow will discuss with the faculty on a daily basis with whom he or she will be working for that day in order to try to avoid confusion or miscommunication. When possible, the fellow will be assisting in surgery on procedures that are felt to be appropriate for a trainee at the fellow level. The fellow will be expected to prepare for surgical cases in advance and to come to the operating room prepared to first-assist with surgery. Attendance at morning conference may preclude the fellow being present at the commencement of the operation. However, in the case in which it is beneficial or appropriate for the fellow to be present for patient positioning and preparation, the fellow will be excused from the morning lecture schedule.

Morning Rounds
The fellow will be expected to participate in the weekday morning inpatient rounds when possible and appropriate. If the fellow participated in surgery on a patient, then he or she should manage that patient’s care during their inpatient admission. The fellow should be present during morning rounds and should also be prepared to present that patient to the teaching faculty on rounds. If the fellow can not be present, then he or she should make an arrangement for an alternate member of the staff to round on the patient. All patient care management decisions or questions should be brought to the attention of the attending staff surgeon or the staff member on call.

If the fellow is not going to be available, either due to illness or vacation, he or she is responsible for informing the faculty with whom they are rotating as well as the program coordinator as early as possible. All vacation requests need to be approved in advance.

Duty Hours
It is the policy and practice of the program to maintain fair and reasonable scheduling for the fellow at all times. It is not expected that he or she will exceed the duty hour restrictions. More importantly, the fellowship is designed to provide the fellow with adequate time to pursue self-directed educational reading as well as research and other areas of scholarship.
Supervision
The fellow works closely with and under the direct supervision of the clinical faculty. The fellow will be afforded progressively greater responsibility according to his or her level of ability and experience. When appropriate and at the determination of the teaching staff, an effort will be made to balance some degree of autonomy for the fellow with the need for physician oversight. The teaching faculty will also closely monitor the fellow for any signs of fatigue or stress. If it is felt that the fellow is showing signs of any emotional strain or fatigue, the fellow will be immediately excused from their clinical responsibilities and the appropriate physician support resources will be contacted.
Benefits

The salary, health and dental insurance and vacation benefits are provided through the Department of Orthopaedic Surgery at the University of Minnesota at the Post-Graduate Year 6 level. Please see the appropriate section of the Part B Manual for further information.

Vacation
All vacation requests must be approved in advance. The fellow may take up to three weeks (15 working days) of vacation as well as one week (5 working days) of meeting/Continuing Medical Education leave per year.

Meetings
The fellow will be entitled to travel to one national meeting during the year. The meeting should be of an appropriate pediatric nature or pertain significantly to pediatric orthopaedics. This would include the following:

- POSNA (Pediatric Orthopaedic Society of North America)
- SRS (Scoliosis Research Society)
- AACPDM (American Academy of Cerebral Palsy and Developmental Medicine)
- IPOS (International Pediatric Orthopaedic Symposium)
- AAOS (American Academy of Orthopaedic Surgeons)

The fellow will have airfare (economy class), hotel accommodation and meeting registration fees provided as a stipend.

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