

Updated 2/8/10

Columbia/NYOH Department of Orthopaedics Spine Surgery Service Competency Requirements

Patient Care

Faculty will evaluate the resident's ability to obtain an H&P and appropriate diagnostic studies (ie radiograph, CT myelogram, MRI, discography, etc) and formulate a treatment plan for outpatients and inpatient consults.

In the Tuesday weekly spine indications conference, the faculty will review the pre-operative cases for the upcoming week with all residents on the spine service and evaluate the resident's familiarity with the patient, the indications for surgery, understanding of the surgical treatment plan, and understanding of the post-operative treatment plan. Tuesday conference will also be used to discuss post operative cases from the prior week.

In the operating room, the faculty will reinforce topics discussed at the indications conference for the particular patient and evaluate the ability of the resident to execute the operative plan..

Residents will be evaluated by mid-cycle and end of rotation faculty feedback, on-the-fly faculty feedback, case presentations, operative case log, 360 degree surveys, and self assessment.

PGY 2,3 Resident Goals & Objectives:	PGY 4,5 Resident Goals and Objectives
<p>The resident will</p> <ol style="list-style-type: none">1. Effectively be able to evaluate the following conditions via a thorough H&P:<ol style="list-style-type: none">a. Cervical<ol style="list-style-type: none">i. Degenerative spondylosisii. Radiculopathy/Disk herniationiii. Myelopathyiv. Rheumatoid arthritisb. Thoracic and Lumbar<ol style="list-style-type: none">i. Degenerative spondylosisii. Spinal stenosisiii. Disk herniation/radiculopathyiv. Scoliosisv. Spondylolisthesisc. Systemic<ol style="list-style-type: none">i. Spinal osteomyelitis	<p>In addition to obtaining competency in the PGY 2,3 goals and objectives, the resident will:</p> <ol style="list-style-type: none">1. Effectively be able to evaluate the following conditions via a thorough H&P:<ol style="list-style-type: none">a. Complex deformity<ol style="list-style-type: none">i. Post-traumatic kyphosisii. Flatback syndromeb. Failed back syndromec. Pseudoarthrosisd. Adjacent segment degeneration2. Demonstrate ability to interpret advanced imaging studies such as MRI/CT myelogram3. Discuss various surgical approaches relevant to spinal disorders and formulate an appropriate surgical plan4. Perform surgical procedures:<ol style="list-style-type: none">a. Halo application

<ul style="list-style-type: none"> ii. Metastatic spine tumor iii. osteoporosis d. Fractures and dislocations 2. Effectively demonstrate that he/she can competently: <ul style="list-style-type: none"> a. Obtain a comprehensive history b. Perform any relevant condition-specific physical examination including specific provocative maneuvers and tests (eg., Hoffman's sign, femoral stretch test, etc.) c. Formulate a differential diagnosis d. Identify appropriate radiographic imaging studies and discuss the pros and cons of each study vis a vis the suspected diagnosis e. Perform basic radiographic interpretation of spinal radiographs, CT and MRI studies f. Outline the etiology, or possible etiologies of the specific condition g. Outline the natural history of the specific condition with and without surgical treatment h. Describe appropriate non-operative treatment options (if they exist) i. Describe appropriate operative treatment options (if they exist) j. Describe possible complications of non-operative and operative treatment k. Outline the rehabilitation program involved in non-operative and operative treatment 3. Demonstrate competence in the operating room to: <ul style="list-style-type: none"> a. Position patients for anterior and posterior procedures b. Application of Gardner Wells tongs/Mayfield headrest c. Prep and drape of the operative field d. Close the surgical wound e. Apply post-operative dressing 4. Be able to perform simple invasive procedures including: <ul style="list-style-type: none"> a. Perform initial surgical dissection of the posterior approach to cervical or lumbar spine b. Iliac crest bone graft harvest c. Insertion of lumbar pedicle screws excluding scoliosis 	<ul style="list-style-type: none"> b. Lumbar microdiscectomy c. Anterior cervical discectomy d. Lumbar laminectomy e. 1 or 2 level instrumented lumbar fusion f. posterior cervical fusion with lateral mass screws between C3 and C6 5. Select appropriate diagnostic and therapeutic interventions for patients with postoperative complications: <ul style="list-style-type: none"> a. Postoperative neurologic deficit b. Epidural hematoma c. Postoperative wound infection d. DVT/pulmonary embolism e. Dural tear
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<p>5. Evaluate and communicate the status of postoperative patients:</p> <ol style="list-style-type: none"> a. Neurologic status b. Wound status c. Wound drainage d. Laboratory studies 	
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Medical Knowledge

Faculty will evaluate the resident's knowledge on an ongoing basis in the clinic and operating room.

Residents will be evaluated by mid-cycle and end of rotation faculty feedback, on-the-fly faculty feedback, pre-op conference assessments, case presentation evaluation forms, journal club evaluation forms, OITE scores, 360 degree surveys, self assessment.

PGY 3 Resident Goals and Objectives:	PGY 4 Resident Goals and Objectives:
<p>The resident will:</p> <ol style="list-style-type: none"> 1. Demonstrate knowledge of appropriate emergent care for patients with acute neurological syndromes associated with: <ol style="list-style-type: none"> a. Fractures and dislocations b. Spinal infections c. Metastatic tumors 2. Demonstrate knowledge of the indications for surgical procedures: <ol style="list-style-type: none"> a. cervical and lumbar decompression b. spinal fusion <ol style="list-style-type: none"> i. degenerative conditions ii. spondylolisthesis iii. scoliosis iv. traumatic instability 3. Identify relevant anatomy during surgical procedures involving the spine from both anterior and posterior approaches 4. Demonstrate an understanding of potential complications of intraoperative positioning related to spinal procedures 5. Demonstrate familiarity and understanding of the classic and contemporary literature pertaining to the spine through self-guided study and participation in Journal club 	<p>In addition to obtaining competency in the PGY-3 goals and objectives, the resident will:</p> <ol style="list-style-type: none"> 1. Possess knowledge and demonstrate expertise in the discussion of the natural history of the systemic and specific conditions listed above 2. Demonstrate an advanced understanding of pathology, surgical anatomy and operative exposures 3. Assume a leadership role in planning patient care and teaching conferences

Practice Based Learning and Improvement

Residents will be evaluated based upon awareness of background and recent advances in common treatments, surgical indications, and surgical principles through participation in weekly pre-operative conference, morning trauma intake rounds, Chairman’s conference, monthly M&M conference, and Journal club.

Residents will be evaluated by mid-cycle and end of rotation faculty feedback, on-the-fly faculty feedback, pre-op conference assessments, case presentation evaluation forms, journal club evaluation forms, M&M assessments, 360 degree surveys, self assessment.

PGY 3 Resident Goals & Objectives:	PGY 4 Resident Goals & Objectives:
<p>The resident will:</p> <ol style="list-style-type: none">1. Demonstrate familiarity and understanding of reading materials describing the systemic and specific conditions listed2. Demonstrate an understanding of the role of other health care providers and ancillary services in the care of patients with spinal pathology3. Accurately locate, appraise and assimilate evidence from scientific studies relating to the patient’s orthopaedic condition. This requires knowledge of the pertinent recent literature as may be obtained in:<ol style="list-style-type: none">a. American JBJSb. Spinec. Journal of Spinal Disorders and Techniquesd. Journal of the AAOS4. Present pre-operative patient histories at weekly teaching conferences and be familiar with the details of the particulars of the case to be performed relating to:<ol style="list-style-type: none">a. Symptom onsetb. Durationc. Previous treatmentd. Neurological status5. Collect and maintain imaging studies so that they are available for teaching conferences and operating room	<p>In addition to obtaining competency in the PGY-3 goals and objectives, the resident will:</p> <ol style="list-style-type: none">1. Apply critical thinking in the appraisal of clinical studies read in the peer reviewed literature as well as in the treatment of patients2. Direct the education for the more junior residents on the service3. Prepare and organize the weekly pre-operative conference

Interpersonal & Communication Skills, Professionalism, Systems-based Practice

See common program competencies