**New Application: Musculoskeletal Radiology**

**Review Committee for Radiology**

**ACGME**

**Participating Sites**

1. Name and 10-digit program ID of ACGME-accredited diagnostic radiology program with which the fellowship program is associated. [PR I.B.3.]

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1. Briefly describe how the fellowship director and residency program director will accomplish close cooperation. [PR I.B.3.a)]

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**Program Personnel and Resources**

**Program Director**

What percentage of time does the program director spend in the subspecialty? [PR II.A.4.] # %

**Other Program Personnel**

1. Is there a program coordinator available to the program?  YES  NO

If no, explain.

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1. Does the program coordinator have sufficient time and resources to support the administration and educational conduct of the program? [PR II.C.1.]  YES  NO

If no, explain.

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1. Are ACGME-accredited residency programs in the following specialties available in the primary clinical site? [PR II.C.2.]

a) Orthopaedic Surgery  YES  NO

b) Rheumatology  YES  NO

1. Will the program provide fellows with shared experiences with residents and fellows in the following specialties? [PR II.C.3.]
2. Orthopaedic surgery  YES  NO
3. Pathology  YES  NO
4. Rheumatology  YES  NO
5. Surgical subspecialties specify here  YES  NO
6. Others: specify here  YES  NO

Explain any “no” responses.

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1. Indicate whether faculty in each of the following disciplines will be available to supervise and teach fellows. [PR II.C.3.]

|  | **Site #1** | | **Site #2** | | **Site #3** | |
| --- | --- | --- | --- | --- | --- | --- |
| **YES**  **(Include Number)** | **NO** | **YES**  **(Include Number)** | **NO** | **YES**  **(Include Number)** | **NO** |
| Rheumatologist | # |  | # |  | # |  |
| Orthopaedic surgeon | # |  | # |  | # |  |
| Pathologist | # |  | # |  | # |  |
| Surgical subspecialties | # |  | # |  | # |  |
| Other: specify | # |  | # |  | # |  |

Explain any “no” responses.

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1. Will fellows have the following types of assistance available to them for research: [PR II.C.4.-5.]
2. Secretarial  YES  NO
3. Literature searches  YES  NO
4. Editing  YES  NO
5. Statistics  YES  NO
6. Photography  YES  NO

Explain any “no” responses.

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**Resources**

1. Briefly describe the facilities and space, including study space, conference space, and access to computers, available for the education of fellow. [PR II.D.1.-II.D.1.a)]

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1. Describe resources available for point of service teaching and learning utilized during read out session. The description should include the availability of electronic resources. [PR II.D.1.-II.D.1.a)]

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1. Equipment [PR II.D.2.]

| **Equipment** | **Site #1** | | **Site #2** | | **Site #3** | |
| --- | --- | --- | --- | --- | --- | --- |
| **# of Units** | **Year of most recent installation** | **# of Units** | **Year of most recent installation** | **# of Units** | **Year of most recent installation** |
| Radiographic units (include chest units) | # | Year | # | Year | # | Year |
| Fluoroscopic units | # | Year | # | Year | # | Year |
| CT Units | # | Year | # | Year | # | Year |
| Fewer than 16 detector rows | # | Year | # | Year | # | Year |
| 16 or 32 detector rows | # | Year | # | Year | # | Year |
| 64 or more detector rows | # | Year | # | Year | # | Year |
| Ultrasound Units | # | Year | # | Year | # | Year |
| MRI Units | # | Year | # | Year | # | Year |
| Less than 1.5 T | # | Year | # | Year | # | Year |
| 1.5 T | # | Year | # | Year | # | Year |
| 3.0 T | # | Year | # | Year | # | Year |
| SPECT | # | Year | # | Year | # | Year |
| SPECT/CT | # | Year | # | Year | # | Year |
| PET | # | Year | # | Year | # | Year |
| PET/CT | # | Year | # | Year | # | Year |
| Single plane Angio Suite | # | Year | # | Year | # | Year |
| Bi-plane Angio Suite | # | Year | # | Year | # | Year |

1. Patient Data [PR II.D.3-II.D.4.]

Provide the following information for the most recent 12-month period.

|  |  |  |
| --- | --- | --- |
| Inclusive Dates | From: Click here to enter a date. | To: Click here to enter a date. |

| **Patient Examination Data** | **Site #1** | | **Site #2** | | **Site #3** | |
| --- | --- | --- | --- | --- | --- | --- |
| **Outpatient** | **Inpatient** | **Outpatient** | **Inpatient** | **Outpatient** | **Inpatient** |
| Diagnostic examinations in the Radiology department | | | | | | |
| Total number of examinations | # | # | # | # | # | # |
| Adult | # | # | # | # | # | # |
| Pediatric | # | # | # | # | # | # |
| Musculoskeletal exams | # | # | # | # | # | # |
| Number of emergency room radiology exams. (included above) | | | | | | |
| Adult | # | # | # | # | # | # |
| Pediatric | # | # | # | # | # | # |
| Total | # | # | # | # | # | # |

1. For the most recent 12-month period, provide the data requested below regarding the number of procedures performed at each site that will participate in the program. [PR II.D.3.]

| **Exam/Procedure** | **CPT** | **Site #1** | **Site #2** | **Site #3** | **Site #4** |
| --- | --- | --- | --- | --- | --- |
| **Magnetic Resonance Imaging** | | | | | |
| Lower extremity | 73721, 73722, 72723 | # | # | # | # |
| Shoulder | 73221, 73222, 73223 | # | # | # | # |
| Pelvis/hips | 72195, 72196, 72197 | # | # | # | # |
| Elbow | 73221, 73222, 73223 | # | # | # | # |
| Wrist | 73221, 73222, 73223 | # | # | # | # |
| Total |  | # | # | # | # |
| **Computed Tomography** | | | | | |
| Upper extremity | 73200, 73201, 73202 | # | # | # | # |
| Lower extremity | 73700, 73701, 73702 | # | # | # | # |
| Total |  | # | # | # | # |
| **Nuclear/PET** | | | | | |
| Bone and joint | 78300 | # | # | # | # |
| Whole body | 78306 | # | # | # | # |
| Three phase | 78315 | # | # | # | # |
| SPECT | 78320 | # | # | # | # |
| PET limited area | 78811 | # | # | # | # |
| PET whole body | 78813 | # | # | # | # |
| PET/CT limited area | 78814 | # | # | # | # |
| PET/CT whole body | 78816 | # | # | # | # |
| Total |  | # | # | # | # |
| **Ultrasound** | | | | | |
| Extremity | 76881, 76882 | # | # | # | # |
| **Bone Mineral Density** | | | | | |
| Hip/Spine | 77080 | # | # | # | # |
| Wrist | 77081 | # | # | # | # |
| Total |  | # | # | # | # |
| **Arthrograms** | | | | | |
| Shoulder | 73040 | # | # | # | # |
| Elbow | 73085 | # | # | # | # |
| Hand/wrist | 73115 | # | # | # | # |
| Hip | 73525 | # | # | # | # |
| Knee | 73580 | # | # | # | # |
| Total |  | # | # | # | # |
| **Diagnostic/Therapeutic Injections, Aspirations** | | | | | |
| Shoulder | 23350 | # | # | # | # |
| Hip | 27093 | # | # | # | # |
| Knee | 27370 | # | # | # | # |
| Aspirations-Small joint | 20600 | # | # | # | # |
| Aspirations-Intermediate joint | 20605 | # | # | # | # |
| Aspirations-Major joint | 20610 | # | # | # | # |
| Total |  | # | # | # | # |
| **Image Guided Biopsies** | | | | | |
| Bone | 20225 | # | # | # | # |
| Soft tissue | 20206 | # | # | # | # |
| Total |  | # | # | # | # |

**Fellow Appointments**

1. How will the program director ensure the subspecialty program in nuclear radiology will not dilute or detract from the educational opportunities available to residents in the core diagnostic radiology resident program? [PR III.B.3.]

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1. Explain the distinction between the diagnostic radiology residents and the fellows in terms of clinical activities and level of responsibility. [PR III.B.4.]

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**Educational Program**

**Patient Care**

1. For the patient care and procedural areas listed in the table below, identify the learning activities, settings and evaluation methods for the fellows.

| **CORE CURRICULUM** | **List in Bulleted Format the Learning Activities and Settings Used to Address the Core Knowledge Areas for Patient Care and Procedures** | **List in Bulleted Format the Method(s) Used to Evaluate Fellow Competency\*** |
| --- | --- | --- |
| Consult with referring physicians or services  [PR IV.A.2.a).(1).(a). | * Click here to enter text. | * Click here to enter text. |
| Educate diagnostic residents, and if appropriate, medical students and other professional personnel, in the care and management of patients  [PR IV.A.2.a).(1).(b). | * Click here to enter text. | * Click here to enter text. |
| Follow standards of care for practicing in a safe environment, attempt to reduce errors, and improve patient outcomes  [PR IV.A.2.a).(1).(c). | * Click here to enter text. | * Click here to enter text. |
| Demonstrate an understanding of proper imaging protocols to ensure that excessive or inappropriate examinations are not ordered and performed  [PR IV.A.2.a).(1).(d). | * Click here to enter text. | * Click here to enter text. |
| Interpret all specified exams and/or invasive studies under close, graded responsibility and supervision  [PR IV.A.2.a).(1).(e). | * Click here to enter text. | * Click here to enter text. |
| Apply low dose radiation techniques for both adults and children  [PR IV.A.2.a).(2).(a). | * Click here to enter text. | * Click here to enter text. |
| Perform all specified exams and/or invasive studies under close, graded responsibility and supervision  [PR IV.A.2.a).(2).(b). | * Click here to enter text. | * Click here to enter text. |
| Document the types of image-guided interventions that he/she performs  [PR IV.A.2.a).(2).(c). | * Click here to enter text. | * Click here to enter text. |
| Demonstrate graduated responsibility as competence increases for invasive procedures; such responsibility should include pre-procedural and post-procedural patient care  [PR IV.A.2.a).(2).(d). | * Click here to enter text. | * Click here to enter text. |
| Closely coordinate and cooperate with referring physicians, including orthopaedic surgeons, rheumatologists, and emergency department specialists  [PR IV.A.2.a).(2).(e). | * Click here to enter text. | * Click here to enter text. |

\*Examples of evaluation methods for competence may include: direct observation, global assessment, multisource assessment, practice/billing audit, patient survey, record/chart review, review of patient outcomes, simulations/models, structured case discussion, in-house written examination, In-training examination, oral examination and computer-based learning.

1. Briefly describe how fellows will provide consultation with referring physicians or services.  
   [PR IV.A.2.a).(1).(a)]

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| Click here to enter text. |

1. Briefly describe how fellows will be provided with increasing experience with invasive procedures, including preprocedural and postprocedural patient care. [PR IV.A.2.a.(2).(d)]

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**Medical Knowledge**

1. Describe the activities and settings in which fellows will be given opportunities to develop knowledge in the following topics and evaluation methods used.

| **CORE CURRICULUM** | **List in Bulleted Format the Learning Activities and Settings Used to Address the Core Knowledge Area** | **List in Bulleted Format the Method(s) Used to Evaluate Fellow Competency\*** |
| --- | --- | --- |
| Demonstrate special skills and knowledge in the subspecialty that consists of both cognitive and technical components  [PR IV.A.2.b).(1)] | * Click here to enter text. | * Click here to enter text. |
| Demonstrate an understanding in low-dose radiation techniques for both adults and children, and demonstrate prevention and treatment of complications of contrast administration  [PR IV.A.2.b).(2)] | * Click here to enter text. | * Click here to enter text. |
| Demonstrate skills in preparing and presenting educational material for medical students, graduate medical staff, and allied health personnel  [PR IV.A.2.b).(3)] | * Click here to enter text. | * Click here to enter text. |
| Actively participate in the formulation of a diagnosis and/or the generation of an imaging protocol  [PR IV.A.2.b).(4)] | * Click here to enter text. | * Click here to enter text. |
| Demonstrate and understanding of proper imaging protocols to ensure that excessive or inappropriate examinations are not ordered and performed  [PR IV.A.2.b).(5)] | * Click here to enter text. | * Click here to enter text. |

\*Examples of evaluation methods for competence may include: direct observation, global assessment, multisource assessment, practice/billing audit, patient survey, record/chart review, review of patient outcomes, simulations/models, structured case discussion, in-house written examination, In-training examination, oral examination and computer-based learning.

1. Briefly describe how fellows’ active participation in the formulation of a diagnosis and/or the generation of the imaging protocolwill be used by the program director and other faculty members to judge the fellow’s progress. [PR IV.A.2.b).(4))

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**Interpersonal and Communication Skills**

Describe the activities and settings in which fellows will be given opportunities to develop knowledge in the following topics and evaluation methods used.

| **CORE CURRICULUM** | **List in Bulleted Format the Learning Activities and Settings Used to Address the Core Knowledge Area** | **List in Bulleted Format the Method(s) Used to Evaluate Fellow Competency\*** |
| --- | --- | --- |
| Communicate effectively with patients, colleagues, referring physicians, and other members of the health care team, concerning imaging and procedure appropriateness, informed consent, safety issues, and the results of imaging tests or procedures  [PR IV.A.2.d).(1)] | * Click here to enter text. | * Click here to enter text. |
| Competence in oral communication  [PR IV.A.2.d).(2)] | * Click here to enter text. | * Click here to enter text. |
| Competence in written communication  [PR IV.A.2.d).(3)] | * Click here to enter text. | * Click here to enter text. |

\*Examples of evaluation methods for competence may include: direct observation, global assessment, multisource assessment, practice/billing audit, patient survey, record/chart review, review of patient outcomes, simulations/models, structured case discussion, in-house written examination, In-training examination, oral examination and computer-based learning.

**Professionalism**

Describe the activities and settings in which fellows will be given opportunities to develop knowledge in the following topics and evaluation methods used.

| **CORE CURRICULUM** | **List in Bulleted Format the Learning Activities and Settings Used to Address the Core Knowledge Area** | **List in Bulleted Format the Method(s) Used to Evaluate Fellow Competency\*** |
| --- | --- | --- |
| Demonstrate compassion, integrity, and respect for others  [PR IV.A.2.e).(1)] | * Click here to enter text. | * Click here to enter text. |
| Demonstrate responsiveness to patient needs  [PR IV.A.2.e).(2)] | * Click here to enter text. | * Click here to enter text. |
| Demonstrate respect for patient privacy and autonomy  [PR IV.A.2.e).(3)] | * Click here to enter text. | * Click here to enter text. |
| Demonstrate accountability to patients, society and the profession  [PR IV.A.2.e).(4)] | * Click here to enter text. | * Click here to enter text. |
| Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation  [PR IV.A.2.e).(5)] | * Click here to enter text. | * Click here to enter text. |
| Demonstrate compliance with institutional and departmental policies (HIPAA, the Joint Commission, patient safety, infection control, etc.)  [PR IV.A.2.e).(6)] | * Click here to enter text. | * Click here to enter text. |

\*Examples of evaluation methods for competence may include: direct observation, global assessment, multisource assessment, practice/billing audit, patient survey, record/chart review, review of patient outcomes, simulations/models, structured case discussion, in-house written examination, In-training examination, oral examination and computer-based learning.

**Systems-based Practice**

Describe the activities and settings in which fellows will be given opportunities to develop knowledge in the following topics and evaluation methods used.

| **CORE CURRICULUM** | **List in Bulleted Format the Learning Activities and Settings Used to Address the Core Knowledge Area** | **List in Bulleted Format the Method(s) Used to Evaluate Fellow Competency\*** |
| --- | --- | --- |
| Work in interprofessional teams to enhance patient safety and improve patient care quality  [PR IV.A.2.f).(1)] | * Click here to enter text. | * Click here to enter text. |
| Participate in identifying system errors and implementing potential systems solutions  [PR IV.A.2.f).(2)] | * Click here to enter text. | * Click here to enter text. |

\*Examples of evaluation methods for competence may include: direct observation, global assessment, multisource assessment, practice/billing audit, patient survey, record/chart review, review of patient outcomes, simulations/models, structured case discussion, in-house written examination, In-training examination, oral examination and computer-based learning.

**Curriculum Organization and Fellow Experiences**

1. Briefly describe how the program will provide fellows with clinical experience and didactic sessions encompassing the entire spectrum of musculoskeletal diseases, including both the axial and appendicular skeletons of both adult and pediatric patients. [PR IV.A.3.a)-a).(1)]

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1. Describe fellow responsibility for interpretation and performance of image guided interventions, including image-guided percutaneous biopsy procedures, arthrograms, and diagnostic/therapeutic injections. [PR IV.A.3.b)]

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1. Briefly describe fellow experience in interpreting, under appropriate supervision, the following diagnostic examinations. [PR IV.A.3.b)-c)]
2. routine radiography
3. computed tomography
4. ultrasonography
5. bone mineral density
6. radionuclide scintigraphy
7. magnetic resonance
8. arthrography
9. diagnostic/therapeutic injections
10. image-guided percutaneous biopsy techniques

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1. Indicate whether didactic conferences and teaching sessions provide coverage of musculoskeletal concepts related to: [PR IV.A.3.d)]
2. Anatomy  YES  NO
3. Physiology  YES  NO
4. Pathology  YES  NO
5. Orthopedic Surgery  YES  NO
6. Rheumatology  YES  NO
7. Other surgical specialties  YES  NO
8. Will fellows attend and participate in department conferences, such as daily image interpretation sessions? [PR IV.A.3.d).(1)]  YES  NO
9. Indicate whether each of the following disciplines participate in regularly-scheduled interdepartmental conferences: [PR IV.A.3.e).(1)]
10. Neurological surgery  YES  NO
11. Oncology  YES  NO
12. Orthopaedic Surgery  YES  NO
13. Pathology  YES  NO
14. Rheumatology  YES  NO
15. Other surgical specialties (Specify here)  YES  NO
16. Do conferences include: [PR IV.A.3.f)]
17. Intradepartmental conferences [PR IV.A.3.f).(1).(a)]  YES  NO

If yes, how frequently does this occur? [Frequency]

1. Departmental grand rounds [PR IV.A.3.f).(1).(b)]  YES  NO

If yes, how frequently does this occur? [Frequency]

1. At least one interdisciplinary conference per week [PR IV.A.3.f).(1).(c)]  YES  NO
2. Peer review case conference and/or M&M conference [PR IV.A.3.f).(1).(d)]  YES  NO

If yes, how frequently does this occur? [Frequency]

1. Briefly describe the policy for fellow attendance and participation at local and national meetings. Indicate whether the program will provide reimbursement. [PR IV.A.3.g)-IV.A.3.g).(1)]

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| Click here to enter text. |

1. Formal didactic sessions

Enter the schedule of planned conferences and lectures. The specific title of lectures/sessions is requested. Add rows as necessary. [PR IV.A.3.a.-IV.A.3.h).(1)]

|  |  |  |
| --- | --- | --- |
| Reporting Period (Planned 12-month period): | From: Click here to enter a date. | To: Click here to enter a date. |

| **Type and Frequency** | **Title** |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |

**Fellows’ Scholarly Activities**

1. Describe how fellows will be instructed in the fundamentals of experimental design, performance, and interpretation of results. [PR IV.B.1.]

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2. Briefly describe the laboratory facilities used to support research projects. [PR IV.B.3.]

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**Evaluation**

**Fellow Formative Evaluation**

1. Will fellow evaluations include at least a quarterly review? [PR V.A.1.b).(3).(a)]  YES  NO

2. Does the quarterly review include the following? [PR V.A.1.b).(3).(a).(i)]

a) review of the faculty’s evaluations of the fellow  YES  NO

b) review of the fellow’s procedure log  YES  NO

c) documentation of compliance with institutional and department policies (e.g. HIPAA, the JC, patient safety, infection control, etc.]  YES  NO

Explain any “no” responses.

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**Faculty Evaluation**

1. Will faculty evaluations include a written confidential evaluation by the fellows? [PR V.B.3.]  
     YES  NO
2. Will faculty receive annual feedback from these evaluations? [PR V.B.3.]  YES  NO

Explain any “no” responses.

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| --- |
| Click here to enter text. |