# The Johns Hopkins Adult Reconstruction Fellowship

#### Overview

The Johns Hopkins Joint Replacement Fellowship program is designed to provide comprehensive training for the individual who wishes to practice hip and knee replacement surgery in either private practice or an academic setting. The Fellow will have a diverse experience in both the clinic and operating room with the opportunity to diagnose and treat a wide spectrum of pathology. A balanced, evidence-based, patient-centric, value-drive approach is emphasized in all phases of patient care.

The Fellow will gain experience in the evaluation and management of arthroplasty patients throughout the entirety of their treatment course. The Fellow will be afforded progressive responsibility in both the operating room and clinic. The Fellow is expected to learn a systematic approach to the arthritic patient and to the patient with a poorly performing arthroplasty. The Fellow will learn to develop a comprehensive treatment plan including work-up, implant selection, approach, and post-operative plan. The Fellow will develop confidence in surgical approaches for primary hip (anterior and posterior), primary knee (quad split and vastus split) as well as revision hip (extended trochanteric osteotomy) and revision knee (patellar peel, quad snip, and tibial tubercle osteotomy). The Fellow will be expected to be independent in the performance of primary hip and knee arthroplasty.

The Fellow will take independent call approximately 1 in 8 weekends during the year and will be compensated for this service. The Fellow will be operate independently on call cases.

## **Clinical Practice**

Johns Hopkins Bayview Medical Center is a level II trauma center with 550+ inpatient beds. It is a tertiary referral center for complex revision hip and knee replacement cases. Faculty see patients in four faculty practice sites including Johns Hopkins at Greenspring Station, Johns Hopkins at Whitemarsh, Johns Hopkins at Odenton, and at Johns Hopkins Bayview Medical Center.

The Fellow will work directly with each of the Joint Reconstruction Division Faculty. The Fellow can expect to participate in a range of joint reconstruction cases from primary hip and knee (including unicompartmental knee) replacement to complex revision surgery for failed or infected arthroplasty. The Fellow should expect to be in the operating room 4 days per week with 1 day reserved for seeing patients in the outpatient clinic and research.

# **Educational Program**

The Fellow will be expected to participate in all of the Joint Service conferences as well as the regular Departmental Conferences.

Weekly conferences:

Monday: Indications (review of the following week's cases)

Wednesday: Resident Education (10 week rotating education curriculum)

Thursday: Orthopaedic Department Grand Rounds (2x/month)

## Monthly conferences:

Department Morbidity & Mortality

Department Journal Club

Joint Practice Council (representatives from all phases of care meet to discuss process improvements; anesthesia, administration, nursing, ASU/PACU, OR, ...)

All providers meeting (physicians, PA/NP from the Dept review processes and areas for OI)

Research updates

Joint Clinical Community (meeting of representative from all JH hospitals to discuss harmonization projects within the Joint Replacement programs)

In addition to the regular scheduled conferences, there are three scheduled resident education didactic sessions and two motor skills labs per year in which the Fellow will participate.

#### Research

The Fellow is required to complete at least one research project to be submitted for publication prior to graduation. There are numerous opportunities for clinical, biomechanical, and bench research depending on the individual interests of the Fellow. Inter-departmental collaboration is encouraged. The department has a full time editorial staff to help facilitate publication of all manuscripts generated during the fellowship year.

## **Benefits**

The Fellow will be credentialed as an attending and will receive salary and benefits at the PGY-6 level based on the Johns Hopkins salary scale. The Fellow will have the opportunity to travel on an Operation Walk medical mission trip with the faculty to perform free hip and knee replacement on poor patients. Operation Walk MD has completed trips to Peru, Ecuador, India, and El Salvador. The Fellow will attend the AAHKS Annual Meeting at the Divisions expense.

#### **Assessment method**

Fellow performance will be subject to daily formative evaluation in the operating room, and the clinic. The Fellow will receive specific formative evaluation bi-annually from the Fellowship Director.

## Requirements

Must be eligible for a Maryland State License. Personal DEA and Maryland Controlled Substance Registration is required. Foreign medical graduates must have two years of clinical training in the United States per Maryland Regulations. Please visit the Maryland Board of Physicians website for details at <a href="http://www.mbp.state.md.us/pages/phys/html">http://www.mbp.state.md.us/pages/phys/html</a> under download forms and under Physician- Initial License.

## PROGRAM COMPETENCY & OBJECTIVES

## **Patient Care**

## **Competency**

The Fellow must be able to provide patient care that is compassionate, appropriate, patient-centered and effective for the diagnosis treatment of orthopaedic pathology, degenerative arthritis and the promotion of health. The Fellow is expected to:

## **Objectives**

- 1. Demonstrate caring and respectful behaviors (verbal and non-verbal) with patients and families
- 2. Elicit complete patient medical history information using effective questioning and listening skills
- 3. Perform a comprehensive orthopedic evaluation and physical exam for degenerative, inflammatory, and post traumatic arthritis and deformities, with special attention to pain, range-of-motion, instability, and function.
- 4. Formulate a medical and surgical problem list delineating goals to be achieved, and complications to be avoided when reconstructive surgery is performed.
- 5. Learn to prevent intra-operative technical complications during hip and knee arthroplasty.
- 6. Make an early diagnosis and provide prompt treatment of acute post-operative complications, including hypotension, nerve palsy, DVT, PE, wound dehiscence and infection.
- 7. Integrate the clinical presentation of hip and knee pain with imaging data to make decisions regarding operative care.
- 8. Assess post-operative progress of arthroplasty patients
- 9. Follow developed care pathways
- 10. Counsel patients and families and caregivers about the plan of care.
- 11. Be a vital part of the inpatient team under the supervision of attending faculty
- 12. Identify and provide post-arthroplasty precautions and goals for therapists.
- 13. Diagnose and treat hip implant dislocations in the emergency department, when appropriate, under faculty supervision.
- 14. Utilize treatment algorithms for the work up and treatment of the infected arthroplasty
- 15. Be capable of independently performing primary hip and knee arthroplasty
- 16. Plan and perform revision total hip and knee arthroplasty under supervision

# Medical Knowledge

## **Competency**

The Fellow 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. The Fellow is expected to be able to:

## **Objectives:**

- 1. Understand and use the classification systems for periprosthetic fractures and bone loss in hip and knee arthroplasty.
- 2. Discuss and understand the biomechanics of hip and knee arthroplasty.
- 3. Know and describe the surgical steps and relevant anatomy during the anterior and posterior approaches to the hip.
- 4. Know and describe various approaches for total knee arthroplasty (quad split, subvastus, vastus split, rectus snip, etc).
- 5. Know and understand implant options for hip and knee arthroplasty, based on anatomical and patient characteristics.
- 6. Know and understand evaluation of patients with failed arthroplasty and post-traumatic arthritis.
- 7. Promptly identify common post-arthroplasty complications and discuss their prevention

- **8.** Know and be able to cite outcome studies, and factors that predispose to complications for hip and knee arthroplasty
- **9.** Know appropriate study design for the evaluation of an arthroplasty technique or specific implant.
- 10. Differentiate patients who are best treated by non-operative means.

# **Practice- Based Learning and Improvement**

## **Competency**

The Fellow 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 life long learning. The Fellow is expected to develop skills and habits to be able to:

#### **Objectives:**

- 1. Evaluate one's own knowledge, incorporating feedback from others, especially faculty and chief resident(s).
- 2. Modify self-directed learning appropriately
- 3. Appraise and assimilate evidence from scientific studies to enhance patient care, especially as it relates to hip and knee arthroplasty and reconstructive diagnoses and treatments
- 4. Effectively use information technology to access and manage patient information
- 5. Effectively use information technology and other resources to support one's own ongoing self-education (Arthroplasty DVDs, CDs, Vumedi etc)
- 6. Contribute to discussions concerning patient care with other health care professionals, attendings, and consultants
- 7. Attend and participate in teaching conferences and rounds.

# **Systems Based Practice**

#### Competency

The Fellow must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as be able to effectively call on other resources in the system to provide optimal health care. The Fellow expected to:

#### **Objectives**

- 1. Collaborate with and maintain appropriate professional attitudes and behaviors toward other medical professionals and allied health personnel
- 2. Assess how one's own actions affect others, especially in the arthroplasty service setting
- 3. Integrate the care of arthroplasty patients in inpatient settings. Use clinical pathways.
- 4. Use diagnostic and therapeutic procedures appropriately and judiciously
- 5. Carefully and thoughtfully evaluate the risks, benefits, limitations, and costs of patient care
- 6. Provide data for M&M conferences to positively affect patient care
- 7. Participate in clinical pathways designed to improve patient outcomes
- 8. Serve as patient advocates in dealing with system complexities
- 9. Serve as patient advocates for quality patient care
- 10. Work effectively with other services, health care agencies, and case managers
- 11. Work to improve the system of medical care at all service locations
- 12. Provide information on systems issues that may improve patient care (this performed at department meetings)
- 13. Learn about different health care delivery models (ACO, bundled payment system)

## **Professionalism**

#### **Competency**

The Fellow must demonstrate commitment to carrying out professional responsibilities and an adherence to ethical principles. The Fellow is expected to:

#### **Objectives**

- 1. Exemplify and display an observable respect and compassion toward patients
- 2. Exemplify reliability, punctuality, integrity, and honesty
- 3. Accept responsibility for one's own actions and decisions
- 4. Apply sound ethical principles in medical practice, including issues of patient confidentiality, informed consent, provision for the withholding of care, and interactions with insurance companies and disability agencies
- 5. Consider the effects of personal, social, and cultural factors in the disease process and patient management
- 6. Demonstrate non-judgmental sensitivity and responsiveness to the age, culture, disability status, and gender of patients and colleagues

# **Interpersonal and Communication Skills**

## **Competency**

The Fellow must demonstrate interpersonal and communication skills that result in the effective exchange of information and teaming with patients, their families, and professional associates. The Fellow is expected to:

## **Objectives**

- 1. Establish trust and maintain rapport with patients and families
- 2. Complete dictations and chart notes in a timely manner (monitored by medical records department and rotation coordinator)
- 3. Discuss diagnoses, prognoses, and treatment options clearly and accurately to patients
- 4. Synthesize information and present clinical and diagnostic information clearly to colleagues,
- 5. Utilize effective listening skills
- 6. Communicate and interact with staff/team in respectful, responsive manner
- 7. Promote teamwork, and coordinate the work up and treatment of patients on the arthroplasty service.