



King George's Medical University

Department of Orthopaedic Surgery

Lucknow (U.P.), -226018.

Ref No.....

Date.....


To,

The Head,
Department of Orthopaedic Surgery,
King George's Medical University UP,
Lucknow.

Dear Sir,

I wish to state that in view of increasing number of patients in the field of Arthroplasty, there is essential need of trained orthopaedic surgeons in the field of Arthroplasty. So i want to start one year PDCC course in Arthroplasty. I am submitting my proposal for the same for kind approval from Board of Studies.

Yours-sincerely


(Prof. Santosh Kumar)
Professor

55

1) Name of the Course –

Post Doctoral Certificate Course (PDCC) In Arthroplasty, Department Of Orthopaedics, KGMU LKO

2) No of Seats Per course – 2

Eligibility -MS /Dip/DNB (orthopaedics) passed from Medical Council of India (MCI) recognised institutes. Applicants with educational excellence and a keen interest in participating in the research program will be given priority.

Duration of Course- One year

Selection & assessment – As per University guidelines

3) Introduction and Overview

The Department Of Orthopaedics, KGMU LKO, Arthroplasty PDCC 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 student will have a diverse experience in both the clinical 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 Student will gain experience in the evaluation and management of arthroplasty patients throughout the entirety of their treatment course. The Student will be afforded progressive responsibility in both the operating room and clinic. The Student is expected to learn a systematic approach to the arthritic patient and to the patient with a poorly performing arthroplasty. The Student will learn to develop a comprehensive treatment plan including workup, implant selection, approach, and post-operative plan. The Student 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 Student will be expected to be independent in the performance of primary hip and knee arthroplasty.

4) Aims and Objectives / Goals and Principles**a) Patient Care**

The Student 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. Demonstrate caring and respectful behaviours (verbal and non-verbal) with patients and families.

b) Medical Knowledge

The Student must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioural sciences, as well as the application of this knowledge to patient care.

56



c) Practice- Based Learning and Improvement

The Student 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.

d) Systems Based Practice

The Student 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.

e) Professionalism

The Student must demonstrate commitment to carrying out professional responsibilities and an adherence to ethical principles.

f) Interpersonal and Communication Skills

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

5) Infrastructure to run the course - Clinical Practice and Expertise Available

Course Coordinator – Dr. Santosh Kumar

Faculty -All the faculty in our department

Facilities & Resources- The Department Of Orthopaedics, KGMU LKO is a tertiary level teaching cum referral autonomous institute. It is one of the few institutes in this countries. At present this institute is around 160 bedded department with 60 bedded Arthroplasty unit sanctioned by the State Government. The footfall in out patient department is around 300 to 400 patients per day in Orthopaedics Department Out patient department. At our department we operate around 6 to 10 joint replacement every week.

We have crossed 700 arthroplasties in last year and since last year our numbers have exponentially increased because of commission of new theatre complex and increase in bed strengths. Department of Orthopaedics will have three tables per day 5 days a week for elective theatres and one 24 hour trauma theatre apart from one theatre dedicated to life and limb threatening injuries.

The Student will work directly with each of the Joint Reconstruction Division Faculty. The Student can expect to participate in a range of joint reconstruction cases from primary hip and knee replacement to complex revision surgery for failed or infected arthroplasty. The Student should expect to be in the operating room at least 2 days per week with 2 day reserved for seeing patients in the outpatient clinic and 1 day for research.

We have all the supporting departments running full-fledged to support our courses -

1. Department of Radiology with Xray units, CT Scan, MRI, DSA and USG
2. Department of Internal Medicine with Endocrinology Support
3. Department of Pain and palliative Medicine
4. Department of Cardiology to support high risk patients

57

gk

5. Fully equipped ICU and HDU set ups
6. Facility of Private wards and Isolation rooms for special needs
7. Upgraded department of Physiotherapy with all modern equipment – CPM, UST, TENS, IFT
8. Department of Community and Family Medicine – to support our research
9. Department of Anatomy and Forensic Medicine with state of the art facility for cadaveric Dissection and training

6) Teaching Schedule (Organisation Of Training/ How Will You Train)
Educational Program and Syllabus

Theatre: twice per week

Weekly meetings: The Student will be expected to participate in all of the Joint Service meetings as well as the regular Departmental meetings.

1. Monday Orthopaedic Department Grand Rounds (2x/month)
2. Friday: Indications (review of the following week's cases)
3. Saturday: Resident Education and journal club and seminar (alternate week)

Monthly meetings:

1. Department Morbidity & Mortality – once every three months
2. Department Journal Club specific to Lower Limb Arthroplasty to be presented by PDCC Student – every month
3. Joint Practice Council (representatives from all phases of care meet to discuss process improvements; Anaesthesiologist, Physician, Cardiologists, Physiatrist, Rheumatologist, Pulmonologists and Endocrinologists, ICU incharge/ HDU incharge) once every three months
4. All providers meeting (from the Dept of Physiotherapy, Occupation Therapy, administration, nursing, review processes and areas for Quality Improvement) – Once every three months
5. Research updates - Joint Clinical Community (meeting of representative from all concerned department who are part of research projects which are undergoing or any new or upcoming project proposals, to discuss harmonization projects within the Joint Replacement programs)
6. The Student is required to present a poster/oral presentation in a speciality conference and complete at least one research project which should be published / submitted for publication in a Pubmed indexed journal to make him eligible to appear in the exit exam. There are numerous opportunities for clinical, biomechanical, and bench research depending on the individual interests of the Student. Inter-departmental collaboration is encouraged. The department has an understanding with department of Community and Family Medicine and they have full time editorial staff to help facilitate publication of all manuscripts generated during the Studentship year.
7. Student performance will be subject to daily formative evaluation in the operating room, and the clinic. The Student will receive specific formative evaluation bi-annually from the Studentship Director.

50

7) Syllabus:

1. Elicit complete patient medical history information using effective questioning and listening skills
2. Perform a comprehensive orthopaedic evaluation and physical exam for degenerative, inflammatory, and post traumatic arthritis and deformities, with special attention to pain, range of-motion, instability, and function.
3. Formulate a medical and surgical problem list delineating goals to be achieved, and complications to be avoided when reconstructive surgery is performed.
4. Learn to prevent intra-operative technical complications during hip and knee arthroplasty.
5. Make an early diagnosis and provide prompt treatment of acute post-operative complications, including hypotension, nerve palsy, DVT, PE, wound dehiscence and infection.
6. Integrate the clinical presentation of hip and knee pain with imaging data to make decisions regarding operative care.
7. Assess post-operative progress of arthroplasty patients
8. Follow developed care pathways
9. Counsel patients and families and caregivers about the plan of care.
10. Be a vital part of the inpatient team under the supervision of attending faculty
11. Identify and provide post-arthroplasty precautions and goals for therapists.
12. Diagnose and treat hip implant dislocations in the emergency department, when appropriate, under faculty supervision.
13. Utilize treatment algorithms for the work up and treatment of the infected arthroplasty
14. Be capable of independently performing primary hip and knee arthroplasty
15. Plan and perform revision total hip and knee arthroplasty under supervision
16. Understand and use the classification systems for periprosthetic fractures and bone loss in hip and knee arthroplasty.
17. Discuss and understand the biomechanics of hip and knee arthroplasty.
18. Know and describe the surgical steps and relevant anatomy during the anterior and posterior approaches to the hip.
19. Know and describe various approaches for total knee arthroplasty (quad split, subvastus, vastus split, rectus snip, etc).
20. Know and understand implant options for hip and knee arthroplasty, based on anatomical and patient characteristics.
21. Know and understand evaluation of patients with failed arthroplasty and post-traumatic arthritis.
22. Promptly identify common post-arthroplasty complications and discuss their prevention
23. Know and be able to cite outcome studies, and factors that predispose to complications for hip and knee arthroplasty
24. Know appropriate study design for the evaluation of an arthroplasty technique or specific implant.
25. Differentiate patients who are best treated by non-operative means.
26. Evaluate one's own knowledge, incorporating feedback from others, especially faculty and chief resident(s).
27. Modify self-directed learning appropriately
28. 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

59



29. Effectively use information technology to access and manage patient information
30. Effectively use information technology and other resources to support one's own ongoing self education (Arthroplasty DVDs, CDs, Vumedi etc)
31. Contribute to discussions concerning patient care with other health care professionals, physiotherapists, and consultants
32. Attend and participate in teaching departmental meetings and rounds.
33. Collaborate with and maintain appropriate professional attitudes and behaviours toward other medical professionals and allied health personnel
34. Assess how one's own actions affect others, especially in the arthroplasty service setting
35. Integrate the care of arthroplasty patients in inpatient settings. Use clinical pathways.
36. Use diagnostic and therapeutic procedures appropriately and judiciously
37. Carefully and thoughtfully evaluate the risks, benefits, limitations, and costs of patient care
38. Provide data for Morbidity & Mortality conferences to positively affect patient care
39. Participate in clinical pathways designed to improve patient outcomes
40. Serve as patient advocates in dealing with system complexities
41. Serve as patient advocates for quality patient care
42. Work effectively with other services, health care agencies, and case managers
43. Work to improve the system of medical care at all service locations
44. Provide information on systems issues that may improve patient care (this performed at department meetings)
45. Exemplify and display an observable respect and compassion toward patients
46. Exemplify reliability, punctuality, integrity, and honesty
47. Accept responsibility for one's own actions and decisions
48. 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
49. Consider the effects of personal, social, and cultural factors in the disease process and patient management
50. Demonstrate non-judgmental sensitivity and responsiveness to the age, culture, disability status, and gender of patients and colleagues
51. Establish trust and maintain rapport with patients and families
52. Complete dictations and chart notes in a timely manner (monitored by medical records department and rotation coordinator)
53. Discuss diagnoses, prognoses, and treatment options clearly and accurately to patients
54. Synthesize information and present clinical and diagnostic information clearly to colleagues,
55. Utilize effective listening skills
56. Communicate and interact with staff/team in respectful, responsive manner
57. Promote teamwork, and coordinate the work up and treatment of patients on the arthroplasty service.

8) Suggested Readings

1. Low friction arthroplasty by John Charnley.
2. Surgery of the knee by John Insall.

60

