

**Medical Student Rotation Guide
Adult Reconstruction Service**

Overview

Welcome to the medical student rotation on the Adult Reconstruction service in the Department of Orthopaedic Surgery at Rush University Medical Center! We are excited to have you on service and hope you enjoy the rotation. Our goal is for you to learn more about our program and orthopaedics. On your rotation you will spend time in our ambulatory clinics, the operating room, as well as on call. You will work with our residents, fellows, and faculty all of whom are available to answer any questions or address any concerns you may have.

Faculty, Residents, & Fellows

During your rotation on the Adult Reconstruction service, you will work with the following faculty, fellows, and residents:

Faculty

Brett R. Levine, M.D.	brettlevinemd@gmail.com	(312)519-8927
Joshua J. Jacobs, M.D.		
Craig J. Della Valle, M.D.		
Tad L. Gerlinger, M.D.		
Scott M. Sporer, M.D.		
Richard A. Berger, M.D.		
Wayne G. Paprosky, M.D.		
Aaron Rosenberg, M.D.		
Denis Nam, M.D.		

Rotation Schedule

Each day, you will be assigned to work with an attending in either the operating room or the ambulatory clinic. On the Adult Reconstruction rotation, all ambulatory clinics that you will be covering are located in the Midwest Orthopaedics (MOR) building at Rush University Medical Center (RUMC). The MOR building is directly across the street from RUMC. You can access the building via the 4th floor of the parking garage. Our Adult Reconstruction faculty operate at RUMC exclusively on the 7th floor in the tower.

Below is your typical weekly schedule barring any adjustments for vacations or other obligations.

Rotation Schedule						
STUDENT	SERVICE	M	T	W	Th	Fr
#1	Joints	Dr. Gerlinger OR	Dr. Della Valle Clinic/Levine Clinic	Dr. Della Valle OR	Dr. Della Valle Clinic	Dr. Jacobs OR / Rush OR
#2	Joints	Dr. Nam/Jacobs Clinic	Dr. Nam / Gerlinger Clinic	Dr. Della Valle OR	Dr. Levine OR	Levine PMC Clinic

Each week, your senior resident will confirm your daily schedule. You will typically begin your day preparing the patient list on the 13th floor of the tower building at RUMC. There are typically 2 students on the service at a time and you should work as a team to get the job done. You and one of the residents will then round on all adult reconstruction inpatients prior to our intake. All residents and medical students attend intake each morning on the 13th floor to review the call cases that came in the day prior. Intake starts between 6:15a – 6:45a each morning, depending on the day of the week. After intake, residents and medical students then work with our faculty in the operating rooms and clinics. More details about your schedule will be provided upon arrival.

Responsibilities & Expectations

Operating Room

To prepare for the operating room, students should know what cases they will be assisting in each week. Residents will typically tell you what your cases are, however, students should not hesitate to ask what the cases are for the coming week. In the operating room, we expect students to understand the relevant anatomy for each case and the indication for surgery. We do not expect students to know the steps of the case or how to do the case. If something is unclear, please feel free to ask questions. To assist in the OR, pay particular attention to draping and the workflow so that you can help after observing the first few cases. Please introduce yourself to the OR staff and be respectful of them at all times. Write your name on the white board so the circulator knows who you are. The OR staff can be your biggest advocates and will provide us feedback on how you are doing throughout the rotation. We expect that you assist with all scheduled cases each day. You will be excused from the operating room for required conferences, but please always check that the OR is adequately covered prior to leaving the hospital.

Clinic

In the clinic, we expect all students to dress appropriately and assist when asked. For men, please wear a clean pressed shirt and tie with a clean white coat. For females, please wear business casual attire with a clean white coat. Please do not wear any low cut shirts or skirts above the knee. Please introduce yourself to all support staff including PAs, NPs, nurses, and administrative assistants. Our support staff will be extremely helpful and will also provide us feedback on your performance.

We hope that through your experience in our ambulatory clinics you will be able to perform a detailed history and physical examination for a patient presenting to an orthopaedic adult reconstruction clinic. Each physician will have different responsibilities for you in the clinic. Some faculty will allow you to see patients independently, perform a detailed history and physical, present the patient, and dictate the note. Other physicians will ask that you work with a resident or fellow while in clinic. Please ask your attending physician at the start of clinic what his or her expectations are for you. Please download the EMDAT application from the Apple Store prior to the rotation. If you are not given the opportunity to see patients independently or dictate you can still help with workflow and learn a significant amount about the clinical exam and indications for surgery.

Conferences & Presentations

In addition to resident didactic conference on Monday evening, medical student conference on Tuesday evening, and Grand Rounds on Wednesday morning, the Adult Reconstruction service has conferences on Tuesday and Thursday mornings that you are expected to attend.

On Tuesday morning at 6:30AM in the resident library, a case presentation is given by one of the residents. Each conference begins with a case presentation followed by a short review of the topic. Questions will be asked to all involved in the conference in a Socratic method style. The topics rotate on a 10-week cycle and include:

1. Cementless Total Hip Arthroplasty – Indications, Technique & Implant Design
2. Cemented Total Hip Arthroplasty – Indications, Technique & Implant Design
3. Cruciate Retaining v. Posterior Stabilizing Total Knee Arthroplasty
4. Cemented v. Cementless Total Knee Arthroplasty
5. Osteonecrosis of the Hip – Etiologies, Classification & Treatment
6. Rheumatoid & Inflammatory Arthritis – Diagnosis & Management
7. Avoiding Complications in Total Joint Arthroplasty
8. Diagnosis and Management of a Painful Total Joint Arthroplasty
9. Revision Total Hip Arthroplasty – Indications, Techniques & Implants
10. Revision Total Knee Arthroplasty – Indications, Techniques & Implants

You will be asked to give one of these presentations during your four week rotation. Your Chief Resident on service will discuss with you expectations for the presentation. Any resident or fellow on service would be happy to assist you in preparing your presentation. A syllabus of recommended readings for each conference are provided at the end of this guide.

On Thursday morning at 7:00AM in Café 7 (RUMC 7th Floor Tower), residents meet with Dr. Levine for journal club. Residents and students give a short presentation on each article discussing its purpose, methods, results, as well as strengths and weaknesses to the study. You will be asked to present once or twice during this conference.

Chief Residents & Program Director

Once again welcome to the Adult Reconstruction service! If you have any additional questions or concerns throughout your rotation please do not hesitate to reach out to our Chief residents or our Program Director, Dr. Monica Kogan.

Monica Kogan, M.D.	Program Director	monica.kogan@rushortho.com
Greg Cvetanovich, M.D.	PGY – 5	gregory.cvetanovich@gmail.com
Yale Fillingham, M.D.	PGY – 5	yale.fillingham@gmail.com
Nate Wetters, M.D.	PGY – 5	nwetters@gmail.com
Brandon Erickson, M.D.	PGY – 5	berickso.24@gmail.com

Adult Reconstruction Syllabus

Below is a list of recommended readings for each conference on the adult reconstruction service. If you have difficulty obtaining any of these resources, please contact one of the residents on service who would be happy to assist you in getting a copy.

Week #1:

Tuesday: Cementless THA—Indications, technique, implant design

Suggested Readings:

1. *Adult Hip—Chapter 58: Primary THA: Indications and Contraindications*
2. *Chapters 15, 66-71: Cementless femoral components*
3. *Chapter 64: Cementless acetabular components*
4. *Articles:*
 - a. Do monoblock cups improve survivorship, decrease wear, or reduce osteolysis in uncemented total hip arthroplasty? Halma JJ, Vogely HC, Dhert WJ, Van Gaalen SM, de Gast A. Clin Orthop Relat Res. 2013 Nov;471(11):3572-80.
 - b. Highly-porous metal option for primary cementless acetabular fixation. What is the evidence? Banerjee S, Issa K, Kapadia BH, Pivec R, Khanuja HS, Mont MA. Hip Int. 2013 Nov-Dec;23(6):509-21.
 - c. Has total hip arthroplasty in patients 30 years or younger improved? A systematic review. Adelani MA, Keeney JA, Palisch A, Fowler SA, Clohisy JC.
 - d. Cost comparison of cementless versus cemented hemiarthroplasty for displaced femoral neck fractures. Tripuraneni KR, Carothers JT, Junick DW, Archibeck MJ
 - e. Considerations in the comparison of cemented and cementless total hip prostheses. Michelson JD, Riley LH Jr. J Arthroplasty. 1989 Dec;4(4):327-34.

Thursday: Review Journal articles

Suggested Readings:

1. *Curbside Consultations: Question 25, Question 32*
2. *Relevant articles: Cementless stem, Cementless cup*

Week #2:

Tuesday: Cemented THA—Indications, technique, implant design

Suggested Readings:

1. *Adult Hip—Chapter 60: Preoperative Planning*
2. *Adult Hip—Chapter 61: General Principles of Surgical Technique*
3. *Chapters 14, 62: The cemented femoral component*
4. *Chapter 63: Cementless acetabular component*

Thursday: Review Journal articles

Suggested Readings:

1. *Curbside Consultations: Question 8, Question 12*
2. *Relevant articles: Cemented stem, Cemented cup*

Week #3:

Tuesday: CR v. PS TKA—Indications, technique, implant design

Suggested Readings:

1. *Adult Knee—Chapter 24: Physical Examination of the Knee*
2. *Adult Knee—Chapter 70: Indications of TKA*
3. *Chapters 77-79: CR, PS, Mobile Bearing*

Thursday: Review Journal articles

Suggested Readings:

1. *Curbside Consultations: Question 1, Question 7*
2. *Relevant articles: CR Knee, PS or Mobile Bearing Knee*

Week #4:

Tuesday: Cemented v. Cementless TKA—Indications, technique, implant design

Suggested Readings:

1. *Adult Knee—Chapter 72: Implant Fixation—Cement*
2. *Chapters 73: Cementless Fixation in Primary TKA*
3. *Chapter 74-75: Technique and Exposures*
4. *Articles:*
 - a. Cementless and cemented total knee arthroplasty in patients younger than fifty five years. Which is better? Kim YH, Park JW, Lim HM, Park ES. *Int Orthop*. 2014 Feb;38(2):297-303.
 - b. Cementless fixation in total knee arthroplasty: past, present, and future. Meneghini RM, Hanssen AD. *J Knee Surg*. 2008 Oct;21(4):307-14. Review.
 - c. Comparison of cemented and uncemented fixation in total knee arthroplasty. Brown TE, Harper BL, Bjorgul K. *Orthopedics*. 2013 May;36(5):380-7. doi: 10.3928/01477447-20130426-10. Review.
 - d. Hybrid total knee arthroplasty revisited: midterm followup of hybrid versus cemented fixation in total knee arthroplasty. Pelt CE, Gililland JM, Doble J, Stronach BM, Peters CL. *Biomed Res Int*. 2013;2013:854871.

Thursday: Review Journal articles

Suggested Readings:

1. *Curbside Consultations: Questions 13-15*
2. *Relevant articles: Cementless Tibia, Cementless Femur*

Week #5:

Tuesday: Osteonecrosis of the Hip—Etiologies, Classification, Treatment

Suggested Readings:

1. *Adult Hip—Chapter 32 and 33, 75: Osteonecrosis*
2. *Chapters 51-52: Proximal femoral osteotomy*
3. *Chapter 64: Cementless acetabular screws*

Thursday: Review Journal articles

Suggested Readings: Osteonecrosis of the Knee

1. *Adult Knee—Chapter 32: AVN and OCD*
2. *Relevant articles: Osteonecrosis of Knee—SPONK V. Secondary—Review article*

Week #6:

Tuesday: RA/Inflammatory Arthritis—Diagnosis and Management

Suggested Readings:

1. *Adult Hip—Chapter 38: Arthritis and Allied Conditions*
2. *Adult Knee—Chapter 31, 36: Arthritides*
3. *AAOS review articles (treatment and medication management)*

Thursday: Review Journal articles

Suggested Readings:

1. *Article 1: HLA B27 disorders--Review*
2. *Article 2: Lupus--Review*

Week #7:

Tuesday: Avoiding Complications in THA/TKA

Suggested Readings:

1. *Adult Hip—Chapter 76-77: Early and Late Complications*
2. *Adult Knee--Chapters 96-98: Complications TKA*

Thursday: Review Journal articles

Suggested Readings:

1. *Curbside Consultations Knee: Question 26-30*
2. *Curbside Consultations Hip: Question 20, 27, 37, 39*

Week #8:

Tuesday: Work up of a Painful TJA

Suggested Readings:

1. *Adult Hip—Chapter 89-90: WU of Painful THA*
2. *Adult Knee--Chapters 102-103: WU of Painful TKA*

Thursday: Review Journal articles

Suggested Readings:

1. *Curbside Consultations Hip: Question 13, 19*
2. *Curbside Consultations Knee: Question 34, 35*

Week #9:

Tuesday: Revision THA—Indications, technique, implant design

Suggested Readings:

1. *Adult Hip—Chapter 91, 92, 93, 97, 98*

Thursday: Review Journal articles

Suggested Readings: Periprosthetic Fractures of Hip

2. *Adult Hip--Chapter 82*
3. *Relevant articles: Periprosthetic hip fx*

Week #10:

Tuesday: Revision TKA—Indications, technique, implant design

Suggested Readings:

1. *Adult Knee—Chapter 104-110: Revision TKA*
2. Thursday: Review Journal articles

Suggested Readings:

1. *Adult Knee---Chapter 99*
2. *Relevant articles: Periprosthetic knee fx*