

Hennepin County Medical Center Rotation Manual



Welcome to the HCMC Rotation! Congratulations on your acceptance and get ready for an incredible experience.

About Hennepin County Medical Center

Hennepin County Medical Center is#:

- Minnesota's premier Level 1 Adult Trauma Center and Level 1 Pediatric Trauma Center with many nationally recognized programs and specialties
- An essential teaching hospital and
- A safety net hospital providing care for low-income, the uninsured and vulnerable populations.

HCMC's mission is:

- to provide the best possible care to every patient we serve today;
- to search for new ways to improve the care we will provide tomorrow;
- to educate health care providers for the future; and
- to ensure access to healthcare for all.

Quick facts:

2011 Statistics http://www.hcmc.org/medcenter/documents/2011stats.pdf	http://www.hcmc.org/medcenter/documents/2011stats.pdf
Operating Beds	462
Discharges (Adults and Pediatrics)	21,315
Patient Days	118,334
Births	2,291
Clinic Visits	353,872
Emergency Services visits	97,540

Emergency Medical Services (Ambulance Runs)	58,882
Surgeries	15,298
Acute Psychiatric Services visits	10,471
Poison Information Center contacts	71,138
Hyperbaric Chamber treatments	3,335
Licensed Beds	894
Average Daily Census	324

Overall Rotation Description:

The HCMC Rotation is a 10-week program in which you will follow in 9 different specialties: Burn and Wound, General Surgery, Pediatrics, Radiology, Traumatic Brain Injury and Physical Medicine and Rehabilitation (TBI and PM&R), Psychiatry, Orthopedic Surgery, OB-GYN, and ER. Each rotation provides new challenges and different opportunities. Keep an open-mind as the opportunity that you are most looking forward to might not be what you expect. You might find you enjoy a rotation that you were not expecting to like.

Some general advice:

1. Ask questions! The more questions you ask the more you will learn. Do some research early so you can ask more specific questions and be able to understand the terminology of the specialty you are going into. This manual should serve as a launching point to some research you can do to prepare.
2. Hear different perspectives: Over the course of the 10-week program you will get opportunities to talk to a wide variety of health care providers including PAs, RNs, medical students, residents, new practitioners and chiefs of departments. Take the opportunity to get a

variety of perspectives on different health care issues as well as what to expect in terms of lifestyle for each career choice. You might also get some good advice on the application process and what medical schools are looking for.

3. Make notes: Use your down time or a little time at the end of each day to jot down new terms and procedures you observe. Take advantage of the Internet to do a little research to learn more about what you saw.

4. Keep a journal: Not only will you be learning medical procedures and vocabulary, but you will also be learning about yourself and how your personality does or does not match up with the medical profession.

Write down stories and what you learned from them. This will be a great asset both for medical school interviews and for life in general. The more aware and self-reflective you are, the more you will take out of your experience.

Rotation Specifics

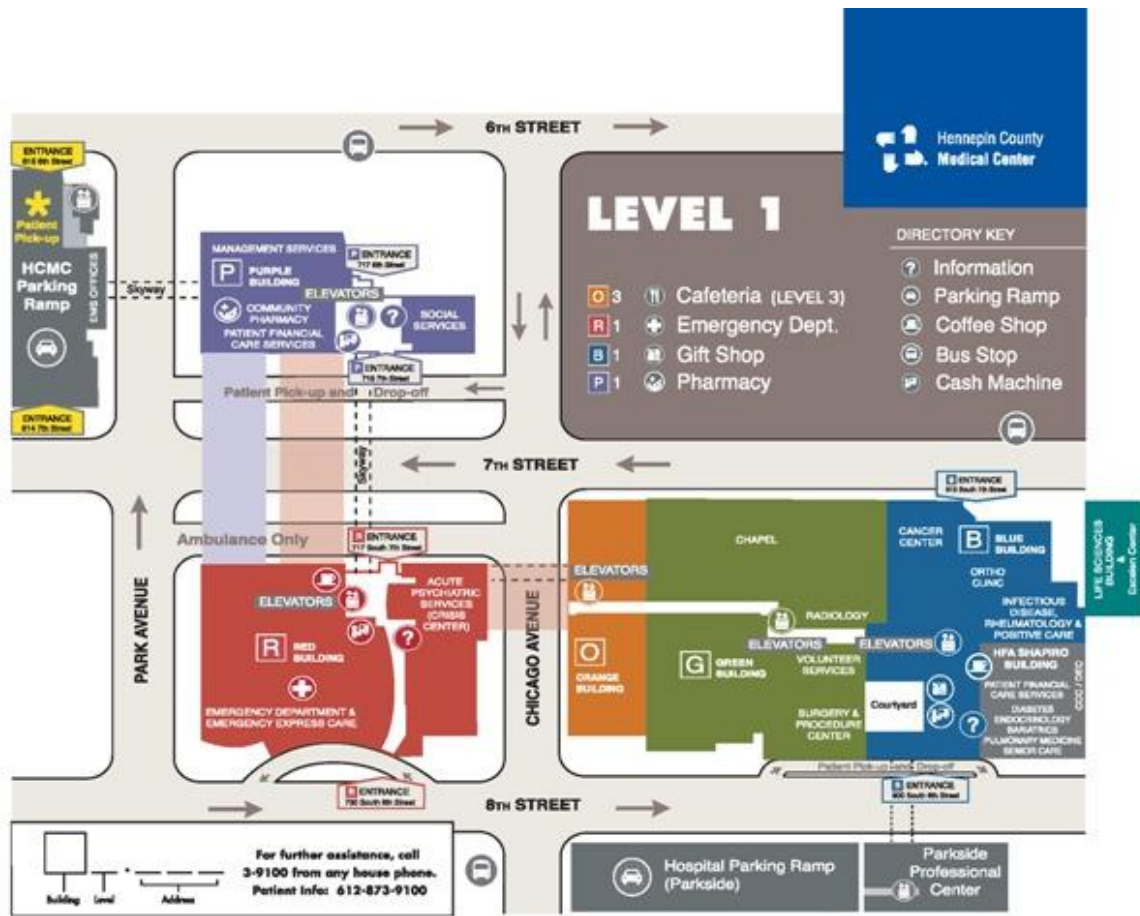
1. Stipend: The HCMC rotation comes with a \$4,300 stipend for the 10-week program.

2. Housing: In addition to the stipend, housing is provided (up to \$400 per month). Begin searching for an apartment or place to stay early.

3. Parking: Parking is available in the Hospital Parking Ramp at the corner of Chicago and 8th (see map below). Parking costs \$2.50 per day with the parking forms provided through the HCMC program.

4. Meals: One meal a day is provided by the program at the Cafeteria, located on the third floor of the Orange building.

5. Home base: The surgery office, located on the 5th floor of the purple building, will serve as a meeting place for the rotation. If you have a question or are uncertain where you are supposed to go, Tami Hauff in the surgery office is a great resource. This is where you will begin your experience. It is also where you will meet with Gaylan Rockswold MD, the doctor responsible for this program.



Specialty Rotations

Burn and Wound

From the website: “The Hennepin County Medical Center Burn Center provides intensive, acute, and rehabilitative care to children and adults from the Twin Cities and surrounding states who have sustained burn injuries and other complex wounds, including frostbite, necrotizing soft tissue infections, Stevens-Johnson Syndrome, Toxic Epidermal Necrolysis, pressure wounds, and inhalation injuries.

“Comprised of an 17-bed inpatient unit and the Acute Burn and Wound Clinic, the Burn Center occupies a newly remodeled, 16,000-square-foot space on our downtown Minneapolis campus...Treating an average of 10 inpatients per day and 20+ patients per day in the clinic, HCMC’s Burn Center is one of the busiest centers in the nation – and also one of the

finest. It is verified by the American Burn Association and the American College of Surgeons.”

During your rotation in the Burn Center you will interact with patients, both adults and children, with a variety of different burns, from small deep wounds to, possibly, burns that cover more than 50% of the victims body. You will see wound debridements, skin grafts, skin transplants, and long-term wound care.

For your time in the Operating Room (OR), especially if this is your first time, make sure to eat a good breakfast and do not hesitate to sit down if you feel faint or light-headed. It happens to a lot of people in their first OR experience and the surgeons don't need another issue to deal with. Write your name on the whiteboard in the OR when you first come in. Make sure not to touch any of the sterile set-up and ask about where might be the best place to stand. It is ok to ask questions during the surgery as the surgeons are often willing to explain what they are doing.

In order to prepare for your rotation you might want to look at the difference between split-thickness and full-thickness skin grafts, the thickness levels of burns, or some statistics about burns and frostbite in Minnesota or your home state. This rotation might offer you some ethical dilemmas as well. One man was brought in during my rotation with burns over 70% of his body. When brought in, the man had expressed a desire to be allowed to die, but he also had a high BAC (blood alcohol content). His family was distant and hard to get in contact with. The man was uninsured and homeless and it was uncertain whether the burns were the result of an attack or if they were self-inflicted. What kind of treatment should the man receive? There was a pretty good chance that he would not survive, although there was still some possibility that he could make it. When the doctors and nurses rounded on the man, the discussion came up about what the ethical implications were of treating this man. If he did survive he could never live the same (he had lost both legs past the knees along with serious burns to his chest and face). How should his request to die be considered given his mental state due to alcohol? How would you as a doctor treat this man? What information would you want to know to inform your decision?

General Surgery

Several different surgical teams rotate through on-call duties, each specializing in a different area of surgery. You will be spending your internship with the red team, which specializes in cancer and laparoscopic surgery. To give you an idea, during my rotation I saw many different surgeries including several lumpectomies, mastectomies, an emergency appendectomy (laparoscopic), a cholecystectomy (laparoscopic), and several laparoscopic hernia repairs.

Two of the best experiences of the surgery rotation, and in fact of the whole internship, were getting to scrub in and staying a night on-call. Scrubbing into a surgery is dependent on the surgeon and how pressed they are for time, but learning sterile technique and getting to stand near the surgery and hold retractors vastly improved my knowledge of what was happening during the surgery. Get to know the residents and the medical students and arrange a time when you can join them on-call for a night at the hospital. This will give you a better idea of what the third year of medical school and your time as a resident might look like.

As always, make sure to ask questions but also to respect the surgeon during the surgery. Introduce yourself to the surgeon and explain who you are. Don't forget to write your name on the surgery board when you come in and listen to all instructions from nurses and scrub techs about where to stand.

Radiology

From the website: "Radiologists interpret studies involving x-rays, CT Scans, mammography, angioplasty, ultrasound, MRI, interventional and other special procedures."

Radiology is an integral part of most every other medical discipline. All images that are taken at HCMC must be read by a radiologist (with some exceptions for doctors like Orthopedic Surgeons who have been specially trained to read images). From plain films (x-ray film) taken by a pediatrician to a mammogram taken by the surgery department to a CT scan on a trauma patient, a radiologist interacts with many levels of

health treatment in a hospital.

During the radiology portion of your internship you will get a small taste of many different types of radiology: fluoroscopy, CT, MRI, x-ray, interventional and ultrasound. Reading CT, MRI and x-ray images often takes place in a separate room with no contact with the patient, however, imaging like ultrasound, fluoroscopy and interventional involves direct contact with the patient.

To prepare for your rotation, it would be helpful to get a basic idea of the mechanics of the imaging and the differences between the images (especially CT and MRI - what does gray mean in one versus the other?). Also, be forming some questions about what you want to learn during this rotation, especially if you are not thinking about radiology as a career choice. Some ideas: what criteria should a doctor have for taking images (how do cost and care balance)? What novel ways might imaging be used to improve other areas of medicine?

TBI/PM&R

From the website: “An estimated 1.7 million people sustain a Traumatic Brain Injury (TBI) each year in the United States. TBI can be mild (commonly called a concussion), moderate or severe.

The Traumatic Brain Injury Center at Hennepin County Medical Center offers comprehensive, multidisciplinary patient care...Our expertise spans the entire continuum of care for adult and pediatric TBI patients, from prevention to emergency care, neurosurgery, critical care, rehabilitation & the Mild to Moderate Traumatic Brain Injury Clinic. Each year, the staff within the Traumatic Brain Injury Center cares for more than 2,000 patients.”

Two areas you will be shadowing in are:

“The **Miland E. Knapp Rehabilitation Center**, an on-site, acute rehabilitation program, has the Commission on Accreditation of Rehabilitation Facilities (CARF) accreditation to be an inpatient brain injury rehabilitation program for adults and adolescents.

“The **Mild to Moderate Traumatic Brain Injury Clinic** at Hennepin County Medical Center offers a unique system of diagnosing, treating and caring for patients who are experiencing post-traumatic effects of an injury to the brain.”

The TBI/PM&R rotation has two particularly interesting features. First, it allows you to see comprehensive care, the rehabilitation and therapy that follow a diagnosis. You get to interact with therapists and nurses who work with patients long-term to help them achieve previous levels of ability. It is an aspect of treatment you don't see in other rotations such as surgery. Second, TBI's are frequent and commonly misunderstood. Studies are just discovering now the effect of repeated mild TBI's. In clinic, you may get the opportunity to see a doctor deliver hard news to an athlete or particularly active individual who can no longer do the things they want to do.

Some things to consider/do before the rotation. Read the attached article on TBIs and brain function and do any outside research you feel necessary to understanding TBIs as a whole, including recent research on possible treatment (progesterone and hyperbaric oxygen). Also, be thinking about how you as a physician might approach a conversation in which you have to deliver bad news about returning to physical activity. For example, during my time, a female lacrosse player came in with a concussion who had a history of repeated concussions. The doctor had to inform the player that she could no longer play. During the conversation, the girl stormed out of the room. How do you deliver a potentially devastating message in a compassionate and understanding, but still firm, way? What is your reaction if your patient storms out on you? How do you change someone's mindset about the severity of a health situation?

Pediatrics

From the website: “Hennepin County Medical Center (HCMC) has been serving the needs of children for over a century. The care provided has extended from treating the tiniest of neonates in our Newborn Nursery and [Newborn Intensive Care Unit](#) to teenagers and young adults up to age 21 in our clinics, [Inpatient Unit](#), and [Pediatric Intensive Care Unit](#).”

“This includes the care we have provided to critically ill and injured children as a Level I Trauma Center, a designation we have held since 1989 and reinforced in 2010 with our verification as a [Level I Pediatric Trauma Center](#). This separate pediatric verification recognizes our distinctive expertise in caring for children in emergency situations.”

Your rotation in Pediatrics will last two weeks and will include a variety of different experiences. Mornings will be spent in different areas of inpatient care. These include the NICU (Newborn Intensive Care Unit) where babies born in the hospital who need special attention due to birth complications are cared for 24/7, the PICU (Pediatric ICU) which serves children brought in with severe trauma that need constant monitoring and critical care, the Ward which serves children brought in who need to stay in the hospital but do not need as constant attention as the PICU, and the Nursery where all of the new babies are brought and checked. Make sure to ask the residents and medical students if you can accompany them in to see patients. The more you ask and put yourself forward the more you will be able to see.

In the afternoons you will shadow pediatricians in the clinic. These visits will range from well-child check-ups to spider bites, from whooping cough to fractures. Each doctor will have slightly different ideas about what you can be present for during the check-ups. Be flexible and respect the rules of the pediatrician that you are following.

In addition to your shadowing experiences, you will have the opportunity to sit in on presentations and case studies that residents and medical students are required to attend. These are good ways to become more familiar with the language and tools that pediatricians use.

To prepare for this rotation take a look at common vaccinations and illnesses in children. More importantly, bring a small notebook and pen and write down some of the acronyms and terms you hear used, especially during the case studies. As you familiarize yourself with these terms, you should find yourself understanding more of the conversations and decision making for diagnoses. Another thing to be thinking about is the role of the family in the health of the child. Last year, the other intern had an experience in the PICU in which a little girl had been critically

wounded and required a feeding tube. The family made the decision, due to the influence of culture and a grandma, to bring her home with the feeding tube still in. How would you handle a family's decision regarding a child's health that you don't think is the right one due to tradition or culture? How important is it to respect cultural differences when it comes to the treatment of a child? How might you interact with patients of a different religious background on an issue of infant mortality?

Psychiatry

From the website: "The Inpatient Psychiatric services consist of five inpatient units, with two of the units being intensive in nature and forensic. There are a total of 87 psychiatric beds.

"The most frequent diagnoses of the psychiatric patients admitted to inpatient are: Schizophrenia, Bipolar Affective Disorder, or Major Depression. The various inpatient areas are adult units serving a culturally diverse population 18 years of age and older.

During your Psychiatry rotation you will get a small taste of the various fields of Psychiatry and see how they overlap with other areas of care. Similar to Radiology, Psychiatry plays a role in many other specialties. During your time in Consultations and MedPsych you will see some of the ways this happens. Also possible during your time in psychiatry are a trip to the jail, ECT, in-patient care and both adult and pediatric clinic.

In addition, you will spend a day in the HCMC APS (Acute Psychiatric Services) center, which serves as part of the emergency department. Here is a description from the HCMC website:

"HCMC's Acute Psychiatric Services center serves those in emotional crisis with 24-hour, seven-day-a-week crisis counseling, assessment, and referral. More than 42,000 calls and drop-in visits each year are handled by the Acute Psychiatric Services staff of psychiatrists, social workers, and psychiatric nurses. The APS is supported by Hennepin County funds and state grants, provides these services to any person in need."

To prepare for your rotation in Psychiatry, see attached handout on common psychiatric drugs and research a couple that interest you (some

ones I saw prescribed were trazadone, clozaril, seroquel, and depakote). Also, consider looking into ECT and some of the controversy around that treatment.

Orthopedic Surgery

From the website: “Orthopaedic staff cares for inpatients and outpatients, including those with multiple trauma and long-term bone disease. Among the services are fixation of bone fractures, total joint replacement, complicated back management, treatment of bone infections, and problems of the shoulder, hip, knee, hand, or foot. Research on bone infections and prostheses is conducted in the department.”

About half your time in Orthopaedics is spent in clinic and the other half is spent in the OR. Depending on whether or not there are any medical students in the department at the time of your rotation, you might get the opportunity to scrub-in and hold retractors during the surgery. It is very important to follow sterile technique and make sure to follow all of the surgeon’s and scrub tech’s instructions.

Orthopaedic surgery is similar to carpentry as so much depends on the structures you are inserting into the body and how these interface with each other and the bones in your body. The most common surgeries that you will see are joint replacements, but you might also get the chance to see some trauma surgeries from the setting of bones to stabilizing a femur that has been shattered with a bullet.

Going into and coming out of this rotation are good times to brush up on your anatomy, especially joints and muscles. If you know that you are going to see a hip replacement the next day, looking over some diagrams or your Anatomy and Physiology notes the night before could be very helpful. Again, days that you are going to be in the OR, make sure to get a good breakfast and lunch and sit down if you ever feel light headed.

OB-GYN

From the website: “Ob/Gyn physicians offer a range of services,

including expertise in maternal and fetal medicine and gynecologic oncology. Staff provides identification and management of high-risk pregnancies, colposcopy, laser surgery, gynecologic pathology, extended pelvic surgery, pelviscopic surgery, and treatment of infections. Physicians provide prenatal genetic counseling, ultrasound, amniocentesis, alpha-fetoprotein determination, and other services for complex pregnancies. The Urogynecology Program evaluates and manages pelvic floor dysfunction in the female genital tract.”

I was not sure what to expect as a guy going into the OB-GYN rotation, but it was both informative and an incredible privilege. I saw both a C-section and a normal birth for the first time in my life. During the rotation you get invited into the position of the doctor and get to see how private and weighty that position is. You get to see the process of medical care in pregnancy from trying to get pregnant to the time of childbirth.

You will also get to observe a number of gynecological surgeries which might include hysteroscopies and pelvic laparoscopies. You will also participate in circumcisions on newborn children. One thing to be potentially looking into are the ethics of circumcision. This is an area of medicine that might become more of an issue in the near future, as demonstrated by Germany’s decision recently to ban circumcision. Whatever your ideas on what you want to specialize in, keep an open mind and enjoy the new experiences for what they are and as a chance to learn.

Emergency Medicine

2009 HCMC Emergency Services Statistics

Emergency Service Visits (Including Urgent Care) **102,271**

Acute Psychiatric Services Visits **10,316**

Ambulance Runs **55,102**

Hyperbaric Chamber Treatments **2,845**

The Emergency Department is definitely one of the busiest at HCMC. During my rotation I saw everything from heart attacks to trauma from car accidents to overdosing. The department, including urgent care, gets around 280 people every day leading to a potentially hectic environment.

To prepare for this rotation be thinking about some of the bigger issues in healthcare today. One big issue for the US, and especially safety net hospitals like HCMC is the inappropriate use of the ER. Many patients lack a primary care provider and instead use the ER for every problem. How might this problem be overcome? What are the most common complaints in the ER? How many patients are actual emergencies?

Also, this rotation was the first time I had ever seen another person die. I was not prepared for how sudden it might be nor for how lightly some of the doctors would take it. Obviously they had seen it happen many times before. How might years of experience affect your ability to empathize with your patients? What might be the challenges of constantly interacting with sick and dying people? How might this affect your perception of life?

Conclusion

The Hennepin County Medical Center Rotation offers a wide spectrum of new experiences. The more reflection you allow yourself during your time, pausing to think and wrestle with what you have seen, the more you will take more from your experience.

HCMC serves as a safety net hospital for Minneapolis. As a result, it ends up serving a diverse population. Hispanic and Somali populations make up significant portions of the patient body and many patients are uninsured. Most of the patients come from a vastly different cultural and financial background than many St. Olaf students. The rotation is not only an opportunity to experience many new and different medical procedures, but also to interact with a diverse patient base. It is an opportunity to think about empathetic medical service and the challenges underserved medical areas face. Also, it is a chance to think about what communities you as a doctor might want to serve. What will be most important to you as a physician?

I hope that your experience gives you a more accurate idea about what it means to be a health care professional and what empathetic medical care truly means.