

# Elective: Neurosurgery

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## OVERVIEW

The Section of Neurosurgery is the only neurosurgical centre in the province of Manitoba and provides tertiary care for all neurosurgical problems for the population of Manitoba and northwest Ontario, as well as areas of Saskatchewan. The aim is to expose students to common neurosurgical disorders in a holistic manner so as to gain experience in both outpatient, as well as inpatient services and to obtain some exposure to the surgical management of neurological illnesses.

## INTRODUCTION

### Location(s):

Health Sciences Centre

### Preceptors:

#### Attending Surgeons

Dr. Michael West, Professor  
Section Head for Neurosurgery

Dr. Neil Berrington, Assistant Professor  
Dr. Patrick McDonald, Assistant Professor  
Dr. Derek Fewer, Associate Professor  
Dr. Anthony Kaufman, Associate Professor  
Dr. Jerry Krcek, Associate Professor  
Dr. Joseph Silvaggio, Assistant Professor  
Dr. Owen Williams, Assistant Professor  
Dr. Colin Kazina, Assistant Professor  
Dr. Zul Kaderali, Assistant Professor

### Contact Person:

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## LEARNING OBJECTIVES (CanMEDS)

### Medical Expert

As Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills and professional attitudes in their provision of patient-centered care.

Clinical clerks should develop skills in the following areas:

### *Specific Objectives*

Clinical Clerks will be able to:

- Demonstrate a basic knowledge and understanding of the more common neurosurgical problems.

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- Develop clinical skills pertaining to the evaluation of neurological patients when presenting in an ambulatory setting, as well as obtaining an appropriate history and focused physical examination on these patients.
- Develop the basic technical skills required of surgeons, such as hemostasis and skin closure.
- Develop the skills associated with the holistic management of patients, including diagnostic and therapeutic interventions, as well as management of patients in the operative setting.
- Develop skills relating to interpersonal relationships, especially with patients and colleagues in order to communicate knowledge and to educate others.

## **Communicator**

Physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

As Communicators, students will facilitate the doctor-patient relationship:

- Establish rapport, trust and a therapeutic relationship with patients and families.
- Listen effectively.
- Elicit relevant information and perspectives of patients, families, and the health care team.
- Convey relevant information and explanations to patients, families and the health care team.
- Convey effective oral and written information about a medical encounter.
- Maintain clear, accurate, appropriate, and timely records of clinical encounters and operative procedures
- Address challenging communication issues effectively
  - Obtain informed consent
  - Deliver bad news
  - Disclose adverse events
  - Discuss end-of-life care
  - Discuss organ donation
- Address anger, confusion and misunderstanding using a patient centric approach

## **Collaborator**

Physicians effectively work within a healthcare team to achieve optimal patient care.

As Collaborators, students will work effectively within the surgical team to achieve optimal patient care:

- Demonstrate a team approach to health care
- Participate effectively in an interprofessional and interdisciplinary health care team.
- Recognize and respect the diversity of roles, responsibilities, and competences of other health professionals in the management of the surgical patient.
- Work with others to assess, plan, provide, and integrate care of the surgical patient.

## **Leader**

Physicians engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers.

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As Leaders, students will participate in the activities of the surgical service, making decisions, allocating resources, and contributing to the effectiveness of the health care team:

- Employ information technology appropriately for patient care.
- Allocate finite health care resources

## **Health Advocate**

Physicians responsibly use their expertise and influence to advance the health and well-being of individual patients, communities and populations.

As Health Advocates, students will responsibly use their expertise and influence to advance the health and well-being of individual patients, communities and populations:

- Concern for the best interest of patients
- Identifying health needs of individual patients, and advocate for the patient in cases where appropriate
- Promote and participate in patient safety

## **Scholar**

Physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

As Scholars, students will demonstrate a lifelong commitment to learning:

- Demonstrate the ability for continuing self-learning
- Discuss the principles of surgery and the application of basic sciences to surgical treatment.
- Demonstrate appropriate presentation skills, including formal and informal presentations.
- Critically evaluate medical information and its sources and apply this appropriately to clinical decisions.
- Critically appraise the evidence in order to address a clinical question.
- Integrate critical appraisal conclusions into clinical care.

## **Professional**

As Professionals, physicians are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

As Professionals, students are committed to health and well-being of individuals through ethical practice, profession-led regulation and high personal standards of behavior:

- Exhibit professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism.
- Demonstrate a commitment to delivering the highest quality care.
- Recognize and respond appropriately to ethical issues encountered in practice.
- Recognize and respect patient confidentiality, privacy and autonomy.
- Participation in peer review
- Manage conflicts of interest
- Maintain appropriate relations with patients.
- Demonstrate awareness of industry influence on medical training and practice

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- Recognition of personal and clinical limitation
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## INFORMATION

*These are locations, readings, evaluations, call responsibilities, etc.*

### Required Reading

Lawrence, *Essentials Of Surgical Specialties*, 2nd ed.

Chapters of particular relevance to this rotation include:

- Chapter 8 - Neurosurgery: Diseases Of The Nervous System

Lawrence, *Essentials of General Surgery*, 3rd ed.

Chapters of particular relevance to this rotation include:

- Chapter 2 - Preoperative Medical Evaluation of Surgical Patients
- Chapter 3 - Fluid & Electrolytes
- Chapter 5 - Surgical Bleeding & Blood Replacement
- Chapter 6 - Shock
- Chapter 7 - Wounds & Wound Healing
- Chapter 8 - Surgical Infections
- Chapter 9 - Trauma
- Chapter 26 - Surgical Procedures, Techniques & Skills

*Cecil Essentials Of Medicine.*

### Suggested Reading

W.B. Saunders, *Aids to the Examination of the Peripheral Nervous System.*

### Teaching Unit

The Neurosurgery ward and step-down unit is located at HSC on GA5.

The Neurosurgery clinic is located at GB103, HSC.

### Evaluations

Students will meet with Dr. Kazina and Natalie Rodriguez the last day of the rotation to go over evaluation at 1400 in GB105A.

Service evaluation by student is to be handed in at the end of your rotation.

### Call Responsibilities

The students are expected to do a call once a week and a time will be allocated by the preceptor on a day mutually convenient to both student and staff person. The call will be done in direct supervision of the neurosurgical resident on call for that day. The student is expected to have direct contact with the patients in the Emergency Room with the resident in attendance.

The student is expected to then follow-up on the further outcomes of patients seen in the Emergency

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Room following their course in hospital, any operative procedures that they would undergo, and post-operative follow-up.

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## **WARD ACTIVITIES**

*These are examples of schedules, expectations, rotation details, etc. All the details below are subject to change.*

### **Expectations**

- The students should meet their preceptor at the beginning of their rotation and further evaluations during the period of service will be arranged directly with the student.
- The student will function under supervision of the preceptor, as well as associated attending staff.
- The students are expected to attend all ward rounds, clinics as allocated, relevant surgeries as suggested and partake of their academic half days.
- All student tutorials are mandatory and students are excused from any other activities during this time.
- The service evaluation will be completed and returned to the surgical evaluation office at the end of the students' rotation.
- The evaluation will take place with the preceptor before conclusion of the rotation.

### **Operating Room Schedule**

*Monday*

0800-1600 Operating room

*Tuesday*

0800-1600 Operating room

0800-1600 Pediatric operating room

*Wednesday*

0900-1600 Operating room

*Thursday*

0800-1600 Operating room

### **Ambulatory Care Experience**

*Tuesday*

0800-1600 Outpatient ambulatory clinic, GB103 (Dr. Berrington & Dr. West)

*Wednesday*

0900-1600 Outpatient ambulatory clinic, GB 103 (Dr. Fewer & Dr. Krcek)

*Thursday*

0800-1600 Outpatient ambulatory clinic, GB 103 (Dr. Williams)

### **Clinic Schedule**

*Wednesday*

0900-1600 Pediatric clinic

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## Teaching Sessions

### *Thursday*

0700-end Clerkship Seminar Series, BMS 626 (Follow the schedule in OPAL)

### *Friday*

1030-1200 Youman's Session, GB105A, Conference Room, with neurosurgery residents

1300-1700 Academic half-day

## Service Rounds

### *Monday*

0700-0800 Ward rounds, GA5

### *Tuesday*

0700-0800 Ward rounds, GA5

### *Wednesday*

0700-0800 Ward rounds, GA5

0800-0900 X-Ray Rounds, GB105A, Conference Room

### *Thursday*

0700-0800 Ward rounds, GA5

0700-end Clerkship Seminar Series, BMS 626 (Follow the schedule in OPAL)

### *Friday*

0700-0800 Ward rounds, GA5

0800-0900 X-ray Rounds, Manitoba Room, GH228

0800-0900 Neurosciences Rounds, Chown Room