SURGICAL MIX BLOCK
ROTATION GUIDE

Introduction

The purpose of this manual is to act as a guide in preparing for and proceeding through the Surgical Mix block in Foundations of Discipline. It is a living document such that each resident that goes through can add clinical opportunities and learning objectives so that we can optimize this block for our learning.

Rotation Description

The rotation will consist of 1 month spent in primarily various outpatient settings under the supervision of various surgical specialists. Experience in the operating room or procedures will occur at the discretion of the supervising faculty, and centered around the relevant EPAs.

Please note that there is no on-call requirement for surgical specialties during this rotation, and thus you will get called back for physiatry call on the Tertiary NeuroRehabilitation unit for evenings and weekends.

This is a self-scheduled rotation. If there are any questions about this block, please contact the program director.

Rotation Goals

The overall goals of the rotation are to gain a broad exposure to a number of key outpatient surgical specialties and their procedures relevant to PM&R patient populations. This includes:

1. Urology
2. Wound care/Plastic Surgery

3. Neurosurgery
4. Spinal surgery
5. Vascular surgery

It is the resident's responsibility to reach out to potential surgical preceptors to arrange clinic and/or surgical OR experiences.

Relevant EPAs

FOD 1: Assessing and managing patients with non-emergent commonly encountered medical and surgical issues
FOD 2: Identifying, assessing, and providing initial management of patients with emergent and urgent medical issues, and recognizing when to ask for assistance
FOD 3: Performing procedures

FoD - Surgical Mix

An example for Clinic Bookings (you may change this depending on availability of clinics or scheduling modifications):

	Mon	Tue	Wed	Thu	Fri
Week 1	Vascular (PLC)	Vascular (PLC)	Vascular (PLC)	Vascular (PLC) and AHD	Vascular (PLC)
Week 2	Plastics	Plastics	Plastics	Plastics and AHD	Plastics
Week 3	Neurosurg	Burn Clinic with Dr. Gabriel am, Burn Wounds in pm	Burn Clinic with Dr. Gabriel am, Burn Wounds in pm	Neurosurg and AHD	Urology/ Urodynamics
Week 4	Neurosurg	Burn Clinic with Dr. Gabriel am, Burn Wounds in pm	Burn Clinic with Dr. Gabriel am, Burn Wounds in pm	Neurosurg and AHD	Urology/ Urodynamics

Preparing for the block

This is a self-scheduled block, meaning that you will be responsible for scheduling your own learning opportunities. Dr. Francis will review your schedule with you.

When: At least two blocks in advance (also reach out to Dr. Francis at this time to see if there are any new updates to the rotation)

What:

- ☐ Use the following shared, schedule template for your rotation for suggestions. Do NOT directly type on the spreadsheet from this link, but instead make a duplicate copy for yourself: https://docs.google.com/spreadsheets/d/1JEJn-KRqZs6IcgYsbO-SZ5pPvI2Zi300AYvq8zt1Z5g/edit#gid=0

- ☐ Draft a template introducing yourself, and the block itself, along with your request
    - e.g. : My name is _____ and I am one of the PGY-2s in Physiatry. I have an upcoming block in Block ___ (write dates) where I am required to schedule clinical/OR experiences in different surgical specialities that are might be relevant or useful to gain exposure to in physiatry.
    - In addition to this intro, mention how you got their contact info (past learners, program director, other staff), and then make your request for specific experiences (examples in “Clinical Opportunities” below).
    - Give dates where possible based on your template - or request their clinic days vs. OR days and then go from there
- ☐ Use the contacts in “Clinical Experiences” below to reach out to preceptors. If you have any other contacts from previous rotations/roles/clinical experiences feel free to use those as well, and add them below if that person is agreeable to having our residents reach out to them

Clinical Experiences

Dept.	Name	Email	Location	Experiences
Plastics	Dr. Kate Elzinga Dr. Brett Byers Dr. Christiaan Schrag Dr. Donald Graham	Kate.Elzinga@ahs.ca Brett.Byers@ahs.ca cschrag@me.com dgraha@ucalgary.ca	Elzinga - SHC Byers - RGH Peripheral Nerve Clinic - South Health Campus 5th floor RGH Hand Clinic	Peripheral nerve clinic (Thurs, 1/mo) Ulnar nerve decompressions Carpal Tunnel releases Elective nerve transfers General plastics clinic - can email Elzinga the week before to see if any nerve patients Dr. Schrag does facial nerve clinic 1-2 times a month A number of plastic surgeons (Dr. Byers, Dr. Graham, etc.) are around RGH Hand Clinic on Monday AMs so you can bounce around between their cases
Neurosurgery	Dr. Raj Midha (Currently on Sabbatical 2023-2024) Dr. Stephan DuPlessis	rajiv.midha@ahs.ca stephan.duplessis@ahs.ca Dr. DuPlessis admin: maryeve.behagan@ahs.ca	 STAC clinic - 12th floor ORs - McCaig tower	Nerve transfers - Dr. Midha (email to be connected w MOA) Spine / STAC clinic and spine surgeries - he is happy for us to join on any ORs, contact his admin for what procedures he has booked
Urology	Dr. Baverstock	richard.baverstock@ahs.ca	RGH for	Cystoscopy with

			cystoscopes, cystoscopy suite in basement, follow signs	vesicular botox injections Urodynamics (book directly with urologists)
Vascular	**Dr. Kenton Rommens** Dr. Greg Samis	kenton.rommens@ahs.ca Gregory.Samis@albertahealthservices.ca	PLC - 5th floor	Limb Preservation Clinic - **just let Dr. Rommens know via email and then you can drop in for clinics.** Very flexible. Both said don't worry too much about official scheduling - said to book the rest of the block and just let them know which days I'd like to join them for since there's always multiple clinics/ORs per day
Podiatry	Dr. Karim Manji Dr. Francois Harton	karim.manji2@ucalgary.ca (got connected through Dr. Manji)	PLC - 5th floor	Limb Preservation Clinic Various Podiatrists rotate through the ZLPC, if you reach out to one they will be flexible in scheduling you to join essentially any day with whichever Podiatrist is around
Burns & Wound Care	Dr. Vince Gabriel (PM&R) Tracy Perreault - Nursing	vince.gabriel@ahs.ca tracy.perreault@ahs.ca	FMC	Burn clinic Tues & Wed (case rounds Wed morning) FMC wound care - Nursing

General booking guidelines

based on personal experience, this is subject to change based on feedback

Previous residents suggest starting with the higher yield experiences, or clinics that may only occur one time per month. For example, find out from Plastics or Neurosurg (Elzinga, Byers, Midha) when the monthly Adult Peripheral Nerve Clinic is, and fill this into your schedule. Do the same with Pediatric Brachial Plexus clinic (with Dr. Elzinga).

➔ **Urology experiences**

- ◆ Cystoscopy/vesicular botox injections: 1 day
- ◆ Urodynamic studies: 1-2 days

➔ **Neurosurgery experiences**

- ◆ Spine Triage Assessment Clinic (STAC): 2-3 days (with the neurosurgeon - do not spend time with the clinical assistants or physiatrists)
- ◆ Useful ORs (2 full OR days, will depend on preceptors slate for the day, but use examples below so that they may be able to suggest a day that is more relevant)
    - Cervical decompression
    - Lumbar decompression
    - Discectomy
    - Baclofen pump insertion
        - Contact janice.smith@albertahealthservices.ca - pump nurse that books these patients in
    - Nerve transfers (Dr. Midha - also done by plastics, see below)
        - Reach out to Dr. Midha to be connected to his MOA
        - Dr Midha is on sabbatical this year (2023-2024)

➔ **Plastic Surgery experiences**

- ◆ Peripheral Nerve Clinic: 1 day, as it only runs 1x/month on a Thursday
- ◆ Brachial plexus clinic: 1 day, as it only runs 1x/month on a Wednesday
- ◆ General plastics clinic: 2 clinics, can depend on whether preceptor has nerve patients booked into their week
- ◆ Hand Clinic: 3 clinics (ortho or plastics or both)

- Minor surgery: 2 days
- Wound clinic: 1-2 half days, Jane Crosley, PT will guide this

➔ **Vascular Surgery**

- Limb preservation clinic: 2-3 days between vascular surgeons & podiatrists
- Relevant ORs: 2 procedures depending on availability
  - Limb amputation
  - Bypass surgeries for PAD

On rotation: Suggested reading topics / learning resources

General preparation

➔ **Physical Exam**

- Evidence Based Musculoskeletal Physical Examination
- https://www.rheumtutor.com/msk-examination/

➔ **Anatomy**

- https://www.teachmeanatomy.com/ - has great clinical correlations that likely reflect something you might see in your clinical experiences

Case logs, reading topics, and suggested resources

Please add to this table below during your rotation so that future residents on rotation can reference what they might see in a particular clinic to guide preparation/expectations.

Clinical experience	Case log	Learning objectives/reading topics
Cytoscopy/botox	- Overactive bladder - Neurogenic bladder - Mixed incontinence - Microscopic hematuria - Complex catheter changes	CUA Guidelines on Neurogenic Bladder https://www.cua.org/system/files/Guideline-Files/1877.pdf SCIRE section on Bladder Management: https://scireproject.com/evidence/rehabilitation-evidence/bladder-management/

Hand Clinic / minor hand surgery	- Carpal tunnel - Tendonitis - Ulnar sided wrist pain - Carpal tunnel release - Nerve repair - digital nerve - CMC injections - TFCC injections - Nerve repairs - D4 digital nerve repair	- DDx for ulnar sided wrist pain - Extensor compartments - Components of the carpal tunnel - Principles for nerve transfers - Natural history of SLAC arthritis
Spine Ortho	- Foot drop - Post-op follow ups for trauma: (e.g. burst fractures, fusions) - Metastasis from breast cancer causing spinal cord compression - Surgical consultation for radiculopathies, cervical myelopathy, lumbar stenosis	- DDx for low back pain / approach to back pain - DDx for foot drop (see QNAP for Jacqui's presentation on Foot Drop!) - Red flags for low back pain / yellow flags for LBP - Neurogenic vs. vascular claudication - Indications for operative management of cervical or lumbar stenosis - History elements to differentiate between cervical myelopathy vs cervical radiculopathy vs peripheral nerve - Myofascial pain criteria - What constitutes a good quality referral to a spine surgeon (a good quesiton to ask while in clinic) - TOP guidelines: https://actt.albertadoctors.org/CPGs/Lists/CPGDocumentList/LBP-guideline.pdf
Peripheral Nerve Clinic/brachial plexus clinic	- Erb's palsies from birth trauma (shoulder dystocia) - Acute flaccid myelitis - Klumpke's palsy	https://geekymedics.com/nerve-supply-to-the-upper-limb/ https://teachmeanatomy.info/upper-limb/nerves/brachial-plexus/

		* *Aids to the peripheral nerve examination** this textbook will be your best friend, by Michael O'brien For brachial plexus clinic, Pediatric scales used: - Active Movement Scale - Mallet Score Procedures: - Oberlins - L'Episcopo - "Nerve Transfers to Restore Upper Extremity Function in Cervical Spinal Cord Injury: Update and Preliminary Outcomes" -- https://pubmed-ncbi-nlm-nih-gov.ezproxy.lib.ucalgary.ca/26397252/
Podiatry	Diabetic foot ulcers Forefoot amputation Foot amputation Osteomyelitis	
Vascular Surgery	PAD Carotid stenosis Thoracic outlet syndrome	PAD - indications for intervention, limb saving attempts vs amputation, impact of PAD on stump healing and prosthetic candidacy/rehab Carotid stenosis - indications for surgical intervention for primary and secondary stroke prevention TOS - distinguishing between arterial, venous, and neurogenic, understanding the limitations of physical exam and imaging studies (++ false positives), indications for surgery (arterial pathology/limb

		threat, UE DVTs, almost never for neurogenic)

Educational (CanMEDS) Objectives

Medical Expert/Clinical Decision-Maker

1. Demonstrate effective consultation skills by performing and presenting well-documented assessments of rehabilitation patients with clearly justified recommendations in written and/or verbal form in response to a request from another healthcare professional

2. Identify and explore issues to be addressed in a patient encounter effectively, including the patient's context and preferences:
    a. assess a patient for the need of a surgical consultation and surgical procedures relevant to physiatry

3. Elicit an accurate history from the patient and collateral sources, perform a relevant physical exam, and select medically appropriate investigations

4. Describe tools and scales used by surgeons, physiatrists, and allied health in surgical specialties, and interpret their results including, but not limited to:

Urology	-
Wound care/Plastic Surgery	● Braden Pressure Ulcer Risk Assessment ● Pressure Ulcer Staging ● Peripheral nerve (pediatric) ○ AMS (active movement scale) ○ Mallet score
Neurosurgery	
Spinal surgery	
Vascular surgery	- Ankle brachial indices, Toe brachial indices

5. Demonstrate effective clinical problem solving and judgement to address patient problems, including the ability to interpret and integrate the clinical and laboratory data collected in order to generate differential diagnoses and management plans:
    a. understand the etiology of the patient's problem(s), and devise an effective and efficient approach to dealing with clinical complexity by prioritizing the problems in consultation with the patient and other health care providers, when appropriate

b. demonstrate the ability to tailor health promotion/disease prevention activities to the person's functional status, goals, and preferences
c. demonstrate the ability to plan and implement rehabilitation in collaboration with the patient, family, attending physician, consultants and other health care professionals. This would include setting treatment goals, predicting likely outcome, and determining the likely duration of the course of rehabilitation
d. assess older patients for their need for community-based and/or facility-based continuing care

6. Implement an effective management plan in collaboration with a patient and their family:
    a. demonstrate an understanding of family dynamics and those factors which cause family dysfunction
    b. identify the presence and capabilities of caregivers for disabled patients.
    c. demonstrate the ability to detect and manage caregiver stress

7. Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal patient care. Identify when other health care practitioners should be utilized in effectively assessing and/or managing the health problem(s) of an individual patient

8. Demonstrate knowledge of specific geriatric rehabilitation needs in the elderly, including but not limited to:
    a. Stroke
    b. Musculoskeletal
    c. Deconditioning
    d. Use of mobility aids and assistive devices

9. Arrange appropriate follow-up care services for a patient and their family

Communicator

1. Maintain clear, accurate, and appropriate records (e.g. written or electronic) of clinical encounters and plans

2. Present verbal reports of clinical encounters and plans

3. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty, empathy and confidentiality

4. Gather information about a disease and about a patient's beliefs, concerns, expectations and illness experience. Integrate the patient's beliefs and value structure in the development of a treatment plan

5. Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers and other professionals

6. Deliver information to the patient and family, colleagues and other professionals/health care workers in a humane manner and in such a way that it is understandable, encourages discussion and promotes the patient's participation in decision-making to the degree that they wish.

7. Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care

8. Demonstrate clear and concise communication in written and oral forms to the referring physician and to other team members

Collaborator

1. Clearly describe the subspecialist roles and responsibilities to other professionals. Acknowledge that their primary responsibility is to the patient. In order to provide exemplary care, this frequently requires the ability to determine when to involve consultants and to work effectively within a team setting.

2. Identify and describe the training, role, expertise, limitations and regulations governing the practice of members of the core multidisciplinary/interprofessional team used in the care of patients. Members of this core team include individuals with expertise in clinical nutrition, nursing, occupational therapy, pharmacy, physiotherapy, social work, and speech language pathology

3. Recognize and respect the diversity of roles, responsibilities and competencies of other professionals in relation to their own. Help develop and maintain a team environment that respects and appreciates the skills of other health care professionals and informal caregivers

4. Work with other members of the team to assess, plan, provide and integrate care for older patients (or groups of patients):
    a. this includes investigation, treatment/management and follow-up care. This must be done with the input of the older patients or their proxy if the patients are unable to consent to health care
    b. Demonstrate principles of case management
    c. assure that individual responsibilities in a specific care plan are explicit
    d. demonstrate the ability to work effectively with the family physician and primary health care providers. Respect the role of the attending family physician, actively soliciting their input in the assessment and care of older patients.

5. Enter into interdependent relationships with other professions for the provision of quality care

6. Demonstrate a respectful attitude towards colleagues and members of an interprofessional team

7. Demonstrate abilities in conflict management and negotiation

8. Respect differences and address misunderstandings and limitations in other professionals

9. Reflect on interprofessional team function

Leader

1. Access and apply a broad base of information to the care of rehabilitation patients in the hospital
    a. demonstrate the ability to promote integrated care of patients (especially those with complex needs) and ease transitions across the variety of settings where they may receive services: home, ambulatory care, hospitals, rehabilitation facilities, long-term care facilities and other health care settings
    b. describe (local) resources and agencies that provide health and social care
    c. demonstrate the ability to identify opportunities and challenges, consider alternative strategies, and select the preferred means of healthcare service provision for older adults

2. Employ information technology appropriately for patient care

3. Recognize the importance of just allocation of health care resources, balancing effectiveness, efficiency and access with optimal patient care. Balance the proper use of investigations and therapies for individual patients with the social obligation to control health care costs

Health Advocate

1. Identify specific patient vulnerabilities to accessing services and therefore increase the risk that the health care system will be unable to meet the patient's needs, including but not limited to lack of family support, chronic mental health issues, lack of family physician

2. Advocate on behalf of older individuals with respect to negative attitudes including but not limited to ageism and stereotyping the older adult with cognitive or functional limitations

Scholar

1. Recognize and reflect on learning issues in practice

2. Recognize and identify gaps in knowledge and expertise around a clinical question and formulate a plan to fill the gap

3. Access and interpret the relevant evidence

4. Integrate new learning into practice

5. Critically appraise retrieved evidence in order to address a clinical question - demonstrate an awareness of the limitations of the scientific literature with regards to generalizability and applicability to a frail older population

6. Integrate critical appraisal conclusions into clinical care

Professional

1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism

2. Demonstrate a commitment to delivering the highest quality care and maintenance of competence

3. Demonstrate a willingness to receive and act upon both positive and negative feedback from colleagues, other health care workers, patients, and their families and their caregivers