



PROSTHETICS AND ORTHOTICS REHABILITATION ROTATION OVERVIEW

OVERVIEW

Welcome to your P&O rehabilitation rotation. This document contains pertinent information regarding the prosthetics aspect of the rotation, as well as important responsibilities.

KEY STAFF MEMBERS

Click [here](#) for more dictation instructions.

Site	Physiatrist	Contact
FMC, PLC, Sheldon Chumir	Dr. Michael Poscente	To be provided at start of rotation
FMC, Fanning	Dr. Ranita Manocha	To be provided at start of rotation
RGH, Glenmore Park	Dr. Chris Grant	To be provided at start of rotation
SHC	Dr. Stephanie Plamondon Dr. Dan McGowan	To be provided at start of rotation

SCHEDULE

	AM	PM
Mon	9am: Glenmore Park Amputee Inpatient Rounding with Dr. Grant	Community Prothetist Teaching at Various Shops
Tues	8am: Teaching with Dr. Manocha (may be done on Fridays at 12pm) 9am: Bracing Clinic with Dr. Manocha	1pm: Bracing Clinic with Dr. Manocha
Wed	9am: PLC: inpatient consults with Dr. Poscente 10am: PLC North CAR patients outpatient gym (main floor) with Dr. Lam	1pm: PLC: inpatient consults with Dr. Poscente
Thurs	8am: Weekly Prosthetics teaching with Dr. Poscente 9am: Amputee Outpatient Clinic (FMC) with Dr. Poscente	1pm: Academic Half Day *May attend Amputee Outpatient Clinic (FMC) with Dr. Poscente in place of Academic Half Day dependent on volume/experience during rotation
Fri	DCNS Rounds 8-10am and Amputee Outpatient Clinic (FMC), Dr. Poscente, 10am 12pm: Weekly Teaching with Dr. Manocha	FMC: Prosthesis/orthotist shops Fanning Centre, Wheelchair Seating clinic with Dr. Manocha (once per month)



SITES

Site	Description	Key Persons/Individuals
FMC	Amputee Clinic Thursday mornings and Friday mornings after DCNS Rounds Inpatient P&O consults on Friday afternoons	Dr. Michael Poscente Dr. Michael Poscente or Dr. Gentson Leung
PLC	Inpatient P&O consults on Wednesdays	Dr. Michael Poscente
Glenmore Park	6 beds dedicated to amputee rehabilitation Inpatient P&O consults on Mondays	Ms. Ana Tinoco, RN (Nurse Clinician), responsible for admissions to Glenmore Park <ul style="list-style-type: none"> • 403.258.7666 • ana.tinoco@ahs.ca Dr. Chris Grant – consult service

PROTOCOL FOR ASSIGNING PROSTHETISTS

New trans-tibial amputees will require a prosthetist immediately post-operatively for casting of a semi-rigid removable dressing (eg. ‘stump’ protector). The protocol is as follows:

1. Provide AADL approved list of prosthetists for patient to choose
2. If patient prefers to be assigned a prosthetist, then refer to the [spreadsheet](#) (you will be given access to this document at the beginning of your rotation)

KEY RESPONSIBILITIES & LEARNING OPPORTUNITIES

	Activity	Description
1	clinical (inpatient & outpatient amputees)	<ul style="list-style-type: none"> • complete consults on all new amputee bracing patients • round on inpatient amputees weekly and write notes
2	Visit prosthetic shops, meet prosthetists Visit orthotic shops, meet orthotists	<ul style="list-style-type: none"> • AADL prosthetist vendor list, orthotist vendor list • Goal to visit all prosthetic shops by end of 3 block rotation
3	Shadow wound care specialist	<ul style="list-style-type: none"> • Ms. Jane Crosley, RGH • Attend at least one full day clinic (can arrange for this on a Monday, discuss with Dr. Grant)
4	Limb Salvage Clinic, Podiatry	<ul style="list-style-type: none"> • Dr. Ken Unger, kenunger@me.com • attend at least one half day clinic
5	Amputee Rehabilitation Rounds (currently on hold)	<ul style="list-style-type: none"> • Present a case once during rotation • Rounds are broadcasted via telehealth to other sites
6	Hand Clinic - Community Accessible Rehabilitation	<ul style="list-style-type: none"> • Pat McDonald & other occupational therapists at PLC CAR on Monday afternoon or Thursday afternoon
7	Targeted Muscle Reinnervation and other surgical innovations in amputees	<ul style="list-style-type: none"> • Dr. Kate Elzinga, Plastic Surgery



WEEKLY PROSTHETIC TEACHING TOPICS FOR THURSDAYS

Week	Topic & Resources
Prior to start and/or during orientation	<ul style="list-style-type: none"> • Components of amputee consultation and follow up • Overview of amputee rehabilitation phases, estimated timelines
1	<ul style="list-style-type: none"> • Components of a prosthesis prescription
2	<ul style="list-style-type: none"> • Trans-tibial amputation (vascular and non-vascular) & prostheses
3	Pain issues post-amputation <ul style="list-style-type: none"> • approach to residual limb pain • approach to phantom limb pain
4	Wound care management <ul style="list-style-type: none"> • epidemiology • surgical considerations
5	<ul style="list-style-type: none"> • Skin issues in residual limb
6	<ul style="list-style-type: none"> • Prosthetic gait deviations
7	<ul style="list-style-type: none"> • Trans-femoral amputation & prostheses
8	Other lower limb amputation levels Epidemiology, indications, benefits, challenges, prosthetic fitting <ul style="list-style-type: none"> • partial foot • symes • knee disarticulation • rotationplasty (Van Ness) • hip disarticulation
9	Upper limb amputation Epidemiology, indications, benefits, challenges, prosthetic fitting <ul style="list-style-type: none"> • partial hand • wrist disarticulation • trans-radial • elbow disarticulation • trans-humeral • shoulder disarticulation • forequarter amputation
10	<ul style="list-style-type: none"> • Body-powered prostheses
11	<ul style="list-style-type: none"> • Myoelectric prostheses
12	<ul style="list-style-type: none"> • Targeted Muscle Reinnervation (TMR) and other technological advances in prosthetics

ROYAL COLLEGE OBJECTIVES

At the completion of a three (3) month rotation in Amputee Rehabilitation, the physiatry resident should:



SPECIFIC OBJECTIVES:

MEDICAL EXPERT/CLINICAL DECISION-MAKER

- Demonstrate diagnostic and therapeutic skills for ethical and effective patient care.
 - Access and apply relevant information to clinical practice.
 - Demonstrate effective consultation services with respect to patient care, education and legal opinions.
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1. Demonstrate understanding of basic sciences relevant to Amputee rehabilitation (including anatomy, physiology, pathology, normal and abnormal gait), and the application of these basic science principles to clinical care.
 2. Demonstrate understanding of clinical features, diagnostic criteria, epidemiology, natural history, pathophysiology, complications and functional consequences of clinical problems commonly encountered in Amputee rehabilitation, such as:
 - a) vascular system of the extremities and peripheral vascular disease,
 - b) residual limb care and post-operative care
 - c) principles of myoelectric prostheses
 - d) prosthetic components for upper and lower limb prosthetics
 - e) common amputee gait deviations for transtibial and transfemoral amputees
 - f) diabetes mellitus and evaluation of the diabetic foot
 - g) etiology of amputations, and related risk factors).
 1. Perform a focus and relevant physical examination with special emphasis on the assessment of the cardiopulmonary, cognitive, neurological, musculoskeletal, gait, vascular systems and functional abilities of the amputee.
 2. Perform diagnostic and therapeutic procedures as required (including but not limited to arthrocentesis, intra-articular injections, shoulder sling applications, soft tissue injections, superficial surgical debridement of wounds, silver nitrate stick application, and residual limb wrapping or shrinker application).
 3. Formulate a comprehensive physical, medical, surgical, functional and psychosocial problem list for a given amputee patient and an appropriate plan for management with consideration of all factors including age, gender, social situation, and cultural background.
 4. Select and appropriately prescribe orthoses and prostheses, exercise programs, physical modalities, rehabilitation therapies and drugs for patients with amputations.

COMMUNICATOR

Establish therapeutic relationships with patients and families. Obtain and synthesize relevant history from patients/families/communities.

1. Discuss appropriate information with patients/families and the health care team.
2. Gather the data necessary for diagnosis and treatment of a particular amputee patient through history taking, interviews with family members and review of relevant documentation.



3. Communicate clearly, concisely, effectively, and in a timely manner to amputee patients, families, allied health professionals and other physicians.
4. Prepare complete, informative and timely consultation and progress reports.
5. Demonstrate a patient centered, compassionate and empathetic approach to amputee patients and their families that includes concern for psychosocial, cultural and economic issues while promoting abilities and participation.

COLLABORATOR

1. Consult effectively and appropriately with other physicians and health care professionals.
2. Contribute effectively to interdisciplinary team activities.
- 3.
4. Discuss the principles of interdisciplinary and transdisciplinary team functioning, the special training and roles of its members (such as physiatrists, family physicians, physiotherapists, occupational therapists, nurses, speech and language pathologists, social workers, orthotists and prosthetists) and the relationship of the patient and family to the team.
5. Demonstrate understanding and respect for the role of other members of the interdisciplinary team, a willingness to deal with differences of opinion in a professional and sensitive manner, and use team members' expertise appropriately for optimal patient outcomes.
6. Assume a leadership role on the interdisciplinary rehabilitation team and effectively lead team and family conferences when appropriate.
7. Demonstrate the desire to promote autonomy and the involvement of patients and their families in decision making.

MANAGER

1. Utilize resources effectively to balance patient care, learning needs, and outside activities.
 2. Allocate finite health care resources wisely.
 3. Work effectively and efficiently in a health care organization.
 4. Utilize information technology to optimize patient care, life-long learning and other activities.
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1. Prepare and maintain complete and informative clinical records on a regular basis in a timely fashion.
 2. Acknowledge the increased strains of health care economics by appropriately ordering diagnostic tests and resources, as well as facilitating timely patient discharges/optimizing inpatient length of stay.
 3. Understand the government organizations in Alberta involved with providing equipment and services to amputees, including orthoses, prostheses, and wheelchairs.



4. Understand the ethical and medicolegal issues of working with public and private allied health team members such as orthotists and prosthetists.

HEALTH ADVOCATE

- Identify the important determinants of health affecting amputee patients.
 - Contribute effectively to improved health of amputees and their communities.
 - Recognize and respond to those issues where advocacy is appropriate.
1. Demonstrate sensitivity to special issues of gender, body image, culture, spirituality and social bias in dealing with amputee patients and their families.
 2. Discuss the role of local/national organizations such as The War Amps and Alberta Amputee Sport & Recreation Association in shaping public policy on care for the amputee and promotion of activity and participation in the community.
 3. Assist patients and families in accessing health and social resources in the community including patient support groups, rehabilitation services and financial assistance.
 4. Promote a heightened public awareness of the challenges and abilities of amputee patients.

SCHOLAR

- Develop, implement and monitor a personal continuing education strategy.
 - Critically appraise sources of medical information.
 - Facilitate learning of patients, housestaff/students and other health professionals.
 - Contribute to development of new knowledge.
1. Demonstrate understanding of critical appraisal as applied to review of the amputee rehabilitation literature and basic research methodology.
 2. Develop basic research skills necessary to develop and evaluate research if applicable.
 3. Teach effectively in a variety of settings and to diverse groups of learners such as students, residents, physicians, allied health professionals, patients, families and the lay public about amputee rehabilitation.
 4. Accurately assess professional and personal strengths and weaknesses and make changes in knowledge, skills and behavior where necessary through actively seeking feedback.
 5. Demonstrate a commitment to self-directed learning and the application of new information to clinical practice using the principles of evidence based medicine.

PROFESSIONAL

- Deliver highest quality care with integrity, honesty and compassion.
- Exhibit appropriate personal and interpersonal professional behaviours.



- Practice medicine ethically consistent with obligations of a physician.
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1. Demonstrate a commitment to the application of exemplary bioethical standards to clinical practice and research in such areas as truth-telling, consent, advanced directives, confidentiality, end-of-life issues, conflict of interest, resource allocation and research ethics.
 2. Display attitudes commonly accepted as essential to professionalism, such as punctuality, follow-through, respect for allied health and support staff.
 3. Continually evaluate one's abilities, knowledge and skills, and know the limitations of professional competence.
 4. Recognize the principles and effects of a balanced lifestyle on one's practice and ability to provide optimal care for patients.
 5. Know and understand the professional, legal and ethical codes to which physicians are bound, especially in the provision of medical equipment to amputee patients.
 6. Analyze and know how to deal with unprofessional behaviours in clinical practice, taking into account local and provincial regulations.