

Medical Student Objectives for 2-week rotation:

1. Clinic:

- a. be able to performed a focused history and physical exam
- b. use a SOAP (subjective, objective, assessment and plan) format to present to residents and staff
- c. be able to work with other team members (nurses, hand therapists, occupational therapists, speech therapists, social workers, other medical students)

2. Operating Room:

- a. understand proper sterile technique and roles of the surgical team (anaesthesia, scrub nurse, circulating nurse, OR aide, surgeon, residents, medical students)
- b. assist in preparation and positioning of patient at beginning of operation
- c. become familiar with local anaesthetics, type and dosage
- d. become familiar with different types of sterile scrub (chlorhexidine vs betadine)
- e. become familiar with names of common instruments (needle drivers, forceps, small retractors, scalpel blade sizes)
- f. learn different types of sutures (material, indications, absorbability)
- g. learn basic suture techniques (simple interrupted, horizontal and vertical mattress, deep buried sutures, subcuticular suture)
- h. learn common dressings for different wounds
- i. be a good assistant in operating room, help surgeons and nurses when able, learn to anticipate what is needed, be interested
- j. learn about post-operative orders and doses of common medications (analgesia, antibiotics, antiemetics)

3. Other:

- a. read around cases daily, find out what cases are in the OR the following day
- b. work as a team – offer help, ask questions, be supportive
- c. mornings rounding – be early, write notes, have list ready for team, fill out CCAC forms when necessary
- d. general history and physical exam relevant for:
 - i. hand injury
 - ii. facial trauma
 - iii. skin lesion
- e. general principles of:
 - i. skin anatomy
 - ii. stages of wound healing
 - iii. factors affecting wound healing
 - iv. basic reconstructive ladder

- v. physiology of skin grafts
- vi. differentiate: BCC, SCC, melanoma
- vii. differentiate: common nevus, AK, SK
- viii. hand anatomy
- ix. depth of burn injuries

4. Specific Clinical Encounters for Medical Students:

i) Patient with changing pigmented lesion:

- Take a history to appropriately assess a pigmented lesion and demonstrate knowledge of risk factors for malignancy including:
 - Change in size
 - Change in colour
 - Itching/bleeding
 - Sun exposure and other environmental risk factors
 - Family history
- Complete an appropriate physical examination including:
 - Assessment of borders (size, irregularity)
 - Assessment of colour (variegation etc)
 - Assessment of ulceration, irregular contours
 - Assessment of appropriate draining nodal basins
 - Assessment of potential sites of distant metastases
- Synthesize the above to form a management plan including:
 - Provisional and differential diagnoses
 - Biopsy
 - Appropriate and timely referral where indicated

ii) Patient with hand/wrist laceration: At the conclusion of the patient encounter, the student will be able to:

- Take a history appropriate to the injury including:
 - Mechanism of injury (crush, penetrating, etc)
 - Handedness
 - Injury environment (farm, factory, etc)
 - Subjective symptoms including localized parathesiae, pain, etc
 - Tetanus status
 - Drug allergies (especially antibiotics)
 - Past medical history (DM, immunosuppression, etc)
 - Social factors: work status, social support etc
- Complete an appropriate physical examination to arrive at specific anatomic diagnoses:
 - Assessment of median, ulnar, radial and digital nerves including motor and sensory examination
 - Assessment of all flexor and extensor tendons individually
 - Assessment of vascular status of hand/fingers
 - Assessment of all joints in the hand

- Assessment for possible fractures including point tenderness etc
- Form a management plan based on the above including:
 - Wound irrigation & debridement
 - Wound closure (?primary vs delayed primary vs secondary intention; if appropriate to close, technique of closure)
 - Appropriate and timely referral (urgent vs emergent vs not necessary)

iii) Biopsy of suspicious lesion including punch and excisional biopsy:

- Punch biopsy: Indications, equipment required, specific technical skills, transport of specimen, appropriate follow-up (pathology, patient notification etc)
- Excisional biopsy: Indications, planning of excision, technical skills required to excise and close biopsy site, transport of specimen, appropriate follow-up (pathology, patient notification etc)

iv) Two layer closure of traumatic laceration:

- Infiltration anesthesia including technique, agents, etc
- Wound irrigation
- Debridement of wound edges where appropriate
- Indications for one vs two layer closure
- Suture materials:
 - Deep layer
 - Skin
 - Choices in children
 - Appropriate suture sizes
- Indications for, and techniques of, skin closure:
 - Simple interrupted
 - Horizontal mattress
 - Vertical mattress
 - Subcuticular
- Timing of suture removal

v) Breast cancer patients:

- History of treatment of cancer
- Physical exam as related to reconstruction
- Become familiar with treatment options
- Postoperative care
- Ancillary procedures

5. CanMEDS Roles:

You will be assessed according to your level of training in regards to the CanMEDS roles:

- a. Medical Expert
 - i. History taking and physical exam focused to problem
 - ii. Developing differential diagnosis and appropriate tests to order
 - iii. Developing treatment plan
 - iv. Technical skills

- b. Communicator
 - i. Communication skills with patient and family
 - ii. Presentation skills to residents and staff
 - iii. Record keeping – concise, legible, pertinent

- c. Collaborator
 - i. Working relationships with surgical team
 - ii. Working with interdisciplinary medical teams and various therapists and social workers

- d. Manager
 - i. Time management skills
 - ii. Use of effective information technology

- e. Health Advocate
 - i. Consideration of wishes and best interest of patient and family
 - ii. Participate in promotion of preventative medicine (sunscreen, burn prevention and safety)

- f. Scholar (self improvement and educational initiative)
 - i. Enthusiasm and motivation to learn
 - ii. Use of literature and evidence based medicine
 - iii. Aware of limitations and accepting of teaching

- g. Professional
 - i. Reliability and punctuality
 - ii. Appropriate behavior with patients, staff, team members
 - iii. Sense of responsibility