



Preamble

The focus is on surgical oncology, especially breast and melanoma and exposure to endocrine /head and neck surgery. There is also exposure to bariatric surgery and acute care surgery. On completion of the rotation, residents should achieve competency appropriate to their level in the clinical and operative management of ambulatory core general surgery cases general oncologic surgery cases, in particular, in benign and malignant breast disease.

MEDICAL EXPERT

CLINICAL/KNOWLEDGE BASE – JUNIOR RESIDENT

- Through clinic, inpatient ward and outpatient experience the junior resident will develop an approach patients presenting with common problems surgical oncology, surgical endocrinology, bariatrics and emergency surgery. The junior resident should understand the relevant anatomy and physiology; be able to perform a focused, accurate and complete history and physical exam; interpret clinical information and integrate it appropriately; organize a strategy for appropriate investigations; set management priorities; and arrive at an appropriate treatment plan for the following:

AMBULATORY CORE GENERAL SURGERY

- common surgical skin/ subcutaneous disorders: recognition of common conditions like sebaceous cysts, lipomas, naevi; understanding of reasons for biopsy or removal
- hernias: umbilical, inguinal, femoral, ventral- recognition, knowledge of anatomy, understanding of complications, knowledge of treatment options
- pilonidal disease: recognition, understanding of pathogenesis, knowledge of treatment
- elective anorectal conditions: hemorrhoids, fissure/ fistula-in-ano- recognition, understanding of pathogenesis, knowledge of treatment

GENERAL ONCOLOGIC SURGERY

- thyroid nodules: assessment of thyroid function, recognition and assessment of nodules, differential diagnosis of nodules, technique and interpretation of FNAC, knowledge of investigations/ mainly ultrasound, assessment of associated neck nodes, knowledge of treatment and its complications
- melanoma: clinical recognition, knowledge of staging systems, basic understanding of treatment of primary and associated nodes
- gastric malignancies: a very basic knowledge of types and treatment
- sarcoma: a very basic knowledge of types and treatment



- lymph node diseases: an ability to examine the lymphatic system, a very basic knowledge of diseases involving the nodes and ways to biopsy the nodes- FNAC, open biopsy, sentinel node biopsy, a basic understanding of the diagnosis and work-up of lymphoma
- diseases involving the spleen: a very basic knowledge of types of disorders that might result in surgery to the spleen, notably ITP

BENIGN AND MALIGNANT BREAST DISEASES

- understanding of routine breast care/ well woman, breast/ regional examination, purpose and nature of routine screening
- recognition of “high-risk” patients and knowledge of their management
- full understanding of the range of breast investigations including ultrasound, mammography, image-directed core needle biopsy, some understanding of breast MRI
- understanding of indications for image-directed core needle biopsy and management of findings including atypical ductal hyperplasia, lobular neoplasia, intra-ductal carcinoma, invasive carcinoma
- benign breast disease (BBD): recognition and management of common palpable diseases like breast cysts, fibroadenomas, “fibrocystic disease”; a basic knowledge of types of premalignant forms of BBD/ understanding of their degrees of risks/ understanding of the significance of terms “proliferative” and “atypia” in this context
- non-invasive breast cancer: understanding of the pathology of intra-ductal cancer (DCIS), recognition of the presentation of DCIS, assessment of the extent of DCIS and knowledge of its treatment; awareness of lobular carcinoma in-situ and knowledge of the significance of its diagnosis
- invasive breast cancer (IBC): understanding of epidemiology and risk factors for IBC, awareness of invasive ductal cancer (IDC) and invasive lobular cancer (ICC) and their presentations in the screen-detected and clinically evident settings, knowledge of the staging and treatment options for IBC including the commonly performed operative procedures, recognition and understanding of management of locally advanced breast cancer (LABC) and inflammatory breast cancer



BARIATRIC SURGERY

- Calculate the Body Mass Index and identify those who are at high risk
- Know basic surgical approaches for weight reduction surgery
- Appreciate some of the complications of surgical procedures
- Be able to recognize and promptly treat post-operative anastomotic leaks
- Understand the value of long-term follow-up of morbidly obese patients
- Develop understanding of various diet and caloric management systems including how they work and short- and long-term outcomes
- Determine whether a patient is fit for surgery based on an understanding of the determinants of operative risk

Apply such knowledge in evaluating obese patients for appropriate management, understand appropriate evaluation of the obese patient including end-organ by-products of the disease

- a. Cardiac Disease
- b. Pulmonary Disease
- c. Musculoskeletal Disease
- d. Psychological Disease
- e. Metabolic Diseases

Manage common in-patient problems in the postoperative period such as:

- Pain
- Sepsis
- Fluid and electrolyte support
- Bowel obstruction
- Nutritional support
- DVT prophylaxis and pulmonary embolus

Technical skills:

The junior resident must become proficient quickly in performing minor (clinic) surgery and skin closure. At as early a stage as possible they will be taught opening and closing skills and trochar skills for abdominal operations, and in the planning and orienting of skin incisions for breast and extremity melanomas. Suturing can be taught but must be practiced independently, and all the above skills need mastery to allow for progress. Depending on circumstances, the junior resident must be able to function from the very start as the assistant to staff and to senior residents at most operations. Again from the start the junior resident must make every effort to understand surgical anatomy and conduct of operations by preliminary reading, presence in the OR and teaching in the OR. Depending on the acquisition of the more basic skills of making incisions and suturing, a major effort will be made to integrate



the junior resident into greater participation in operations performed on the service, following the principles of graded responsibility.

Clinical/ knowledge base: Senior residents

Please refer to the knowledge objectives for junior residents. The senior resident must have essentially the same objectives but understandably at a more in-depth level because of their added years of experience and proximity to independent practice. In addition, the following highlights some of the added competencies specific to the senior resident.

GENERAL ONCOLOGIC SURGERY

- resident must be able to manage nodular thyroid disease to the point of deciding on the need for and the type of operation to recommend, must have a clear knowledge of relevant surgical anatomy, and must be aware of the controversies surrounding operative management of thyroid cancer
- resident must be able to manage the melanoma site, must have a clear understanding of staging systems and metastatic work-up, must be able to decide on the necessity for sentinel node biopsy and lymphadenectomy of the regional nodes
- resident must be able to assess and manage gastric malignancies to the point of making an independent decision on deciding on operative management and type of operation, must understand the role of neoadjuvant therapy, must have a clear understanding of the surgical anatomy required to perform various gastric resections and associated lymphadenectomies
- resident must be able to fully assess soft-tissue sarcomas and other sarcoma-like soft-tissue tumours and develop an approach to whether preliminary biopsy is appropriate or unnecessary

BENIGN AND MALIGNANT BREAST DISEASES

- resident must be able to manage breast lesions detected by imaging or clinical examination to the point of making a definitive treatment decision independently
- resident must understand the indications for needle-localized lumpectomy for investigative purposes, principally situations of concern about the adequacy of decision-making based on image-directed core needle biopsy
- resident must be able to manage a diagnosis of non-invasive breast cancer to the point of making a definitive treatment decision independently, and in particular must be able to decide and advise on the relative merits of conservative surgery versus mastectomy



- resident must be able to manage a diagnosis of invasive breast cancer to the point of making a definitive treatment decision independently, and in particular must be able to decide and advise on the relative merits of conservative surgery versus mastectomy
- resident must have a clear understanding of the roles of chemotherapy and endocrine therapy and radiation therapy in the management of breast cancer, and must develop an approach to consideration of neoadjuvant systemic therapy in non-inflammatory LABC
- resident must be able to identify and diagnose inflammatory breast cancer, and be clear on how it must be treated

Technical skills: : Senior residents

Functions independently as a Surgeon (I)

Function as an assistant (A)

The senior resident is expected to take a major role in operations performed on the service and to take a major role in the technical education of the junior resident. Below are a list of procedures fairly commonly done on the service and in brackets is the expected role of the senior resident with “I” implying ability to operate independently with supervision or oversight and “A” implying more direct help from the staff. The list is not exclusive of course and because of the service’s focus on breast, this surgery is emphasized. As with other operations, breast surgery is often made up of components, and sometimes it is best to concentrate on one component at a time till comfortable. The senior resident role may vary according to level, experience, case variation and so forth, but the list provides a reasonable guide.

- thyroid lobectomy (I, A)
- re-excision melanoma (I)
- inguinal sentinel node biopsy (I)
- inguinal lymph node dissection (I, A)
- splenectomy (I, A)
- open breast biopsy or lumpectomy (I)
- needle localized breast biopsy or lumpectomy (I)
- simple mastectomy (I)
- axillary sentinel node biopsy (I)
- axillary lymph node dissection (I, A)
- modified radical mastectomy (I, A)



Communicator

1. Demonstrate effective communication with patients and families characterized by understanding, trust, respect, empathy and confidentiality;
2. Gather information not only about disease but the patient’s belief, concerns and expectations about his/her illness;
3. Be aware of the influential factors such as age, gender, ethnic, cultural and socio economic background and spiritual values that may affect the illness;
4. Ensures that consistent messages are delivered to the patient and the family by various members of the health care team;
5. Establish good relationship with peers and other health professionals;
6. Effectively provide and receive information;
7. Prepares documents, summaries, operative reports that are accurate and timely;
8. Demonstrates the ability to handle conflict situations.

Collaborator

1. Demonstrate effective interaction with health professionals recognizing their roles within the care of the patient;
2. Consult effectively with other physicians and health care professionals;
3. Contribute effectively to the inter-disciplinary team activity and meetings;
4. Develop care plan for the patient including investigation, treatment, and continued care in collaboration with other member of inter-disciplinary team.

Manager

1. Understand the concept of resource utilization and the need for prioritization of health care delivery.
2. Allocate such resources wisely.
3. Utilize various technologies such as OACIS and PACS systems to optimize patient care and using such information to assist in decision-making
4. Demonstrate effective leadership with appropriate delegation of responsibilities to other members of the house staff.
5. Plan for the weekly service rounds with the assignment of responsibility for presentation of subject matter and cases.
6. Select cases for the weekly morbidity and mortality rounds with specific emphasis on identification of systemic issues.



Health Advocate

1. Understand the specialist role to intervene on behalf of patients on issues that may impact on their health
2. Identify the important determinants of health affecting the patient;
3. Utilize such information in the prioritization of cases for urgent, emergent or elective access to the operating room;
4. Understand the social demographic issues which affect patient hospital stay and evaluate the patient’s ability to access various support services within the health and social systems;
5. Understand the issues related to disease prevention and identification of risk factors which may be modified through lifestyle change.

Scholar

1. Commitment as a specialist to engage in lifelong learning in the pursuit of mastery;
2. Recognize and identify gaps in one’s own knowledge and develop a personal learning project to correct such deficiency;
3. Participate actively in the CAGS evidence based Journal Club;
4. Critically appraise medical information and successfully integrate this information into the discussion at M&M rounds, Grand rounds and service rounds
5. Contribute to the development of new knowledge through involvement in a research project while on the service;
6. Utilize an evidence-based approach to the resolution of clinical problems.

Professional

1. Recognize the responsibility for the overall care of the surgical patient;
2. Deliver the highest quality of care with integrity, understanding and compassion. Practice of surgery must be ethically consistent;
3. Have knowledge of and understanding of the professional legal and ethical codes to which surgeons are bound;
4. Develop ability to recognize, analyze and deal with unprofessional behaviors in clinical practice through knowledge of local and provincial regulations;
5. Demonstrate appropriate personal and inter-personal behavior.

