1. Introduction

The following comprises the goals and objectives for various electives taken by Plastic Surgery residents. These goals and objectives are described using the CANMEDs format.

1.1 CANMEDS Format - Essential Roles and Key Competencies of Specialist Physicians

Medical Expert

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

Communicator

establish therapeutic relationship with patients/families
obtain and synthesize relevant history from patients/families/communities
listen effectively
discuss appropriate information with patients/families and the health care team

Collaborator

consult effectively with other physicians and health care professionals
contribute effectively to other interdisciplinary team activities

Manager

utilize resources effectively to balance patient care, learning needs, outside activities
allocate finite health care resources wisely
work effectively and efficiently in a health care organization
utilize information technology to optimize patient care, life-long learning, other activities

Health Advocate

identify the important determinants of health affecting patients
contribute effectively to improved health of patients and communities
recognize and respond to those issues where advocacy is appropriate

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

Professional

deliver highest quality care with integrity, honesty and compassion exhibit appropriate personal and interpersonal professional behaviours practise medicine ethically consistent with obligations of a physician

2. Goals and Objectives for the Plastic Surgery Resident on the Oral and Maxillofacial Rotation

General

Understand the anatomy, physiology and pathophysiology of the jaws and oral cavity. Demonstrate the ability to surgically manage these areas when warranted.

Medical Expert / Clinical Decision Maker

Knowledge: Basic Science and Anatomy:

1. Describe and understand the anatomy of the facial skeleton and the associated soft tissue structures.
2. Understand the anatomic changes that occur with growth and development.
3. Understand and be able to evaluate the harmonious arrangement of the jaws, teeth with respect to the facial appearance.
4. Understand the principles of bone healing and how they are clinically applied.

Knowledge: General Clinical

1. Be able to evaluate a new patient with thorough history and physical as well as ordering appropriate tests such as plain radiographs, panorex, cephalograms, CT/MRI and biopsies.
2. Formulate a diagnostic work-up and treatment plan including collaboration with appropriate colleges such as dentists, orthodontists, head and neck surgeons and otolaryngologists.

Knowledge: Specific Clinical

1. Principles of managing trauma to the facial skeleton including:
   - Airway
   - Bleeding
   - Safe surgical approaches to the facial skeleton
   - Mandibular fractures with the application of arch bars and open or closed reduction with internal/external fixation as required
2. Do an appropriate evaluation and treatment plan for patients requiring orthognathic surgery including the appropriate collaboration with dentists, orthodontists and oral surgeons. Carry out the appropriate LeFort and mandibular osteotomies and genioplasty as required.

3. Carry out appropriate physiotherapy for patients following mandibular injuries or pathology.

4. Describe the characteristics, diagnosis and therapy of benign and malignant jaw tumours including but not limited to:
   - Benign non-odontogenic tumours
   - Fibrous dysplasia
   - Osteoblastoma
   - Chondroma
   - Osteoma
   - Tori and exostosis
   - Coronoid/condylar hyperplasia
   - Inflammatory Jaw lesions
   - Acute and chronic osteomyelitis
   - Malignant non-odontogenic tumours
   - Osteosarcoma
   - Chondrosarcoma
   - Ewings' sarcoma
   - Metastatic carcinoma
   - Metabolic and genetic jaw diseases
   - Paget's disease
   - Hyperparathyroidism
   - Acromegaly
   - Cherubism
   - Odontogenic tumours
   - Ameloblastoma
   - Odotoma
   - Dentigerous cyst
   - Keratocyst

5. Understand distraction osteogenesis with regards to biological principles and be able to apply it appropriately to the patient population.

Knowledge: Technical Skills

1. Application of arch bars, ivy loops and MMF.
2. Treat mandibular fractures appropriately with open or closed reduction and internal or external fixation.
3. Perform LeFort and mandibular osteotomies and genioplasties.
4. Carry out distraction osteogenesis with appropriate osteotomies and application of the distracter.
5. Simple extraction of teeth.
6. Carry out alveolar bone grafting.

**Communicator**

Develop therapeutic relationships with patients and their families through effective listening and dissemination of information. Be able to identify specific concerns of the patient/families, in particular relating to orthognathic surgery so the goals of surgery are clearly identified. Discuss information appropriately with other members of the health care team.

**Collaborator**

Consult and interact effectively with other health care professionals, in particular dentists and orthodontists.

**Manager**

Be able to manage the diagnosis and treatment of maxillofacial problems in a sound manner with respect to the utilization of health care resources.

**Health Advocate**

Awareness of the health and preventive measures related to various disease processes.

**Scholar**

Participate in academic rounds and prepare for surgical cases by understanding the nature of the problem and the proposed surgical treatment.

**Professional**

Deliver health care to patients in an honest, ethical and professional manner.

3. Goals and Objectives for the Plastic Surgery Resident on the Cosmetic Surgery Rotation

Exposure to aesthetic surgery is important in the application of its principles and techniques to general restoration and reconstruction even if aesthetic surgery is not to be a part of the resident's future practice.

**Medical Expert / Clinical Decision Maker**

**Knowledge: Basic Science and Anatomy:**
1. The anatomy, embryology and physiology of:
   - Integumentary system including the breast.
   - Extravisceral soft tissue including the subcutis, fascia, muscle, bone and cartilage
2. Basic science as it relates to biomaterials and alloplastic tissue substitutes
3. Understand the effects of sun-damage, nicotine and environmental factors on the normal aging process as well as the anatomic changes that accompany the normal aging process.

**Knowledge: General Clinical:**

1. Be able to evaluate the cosmetic patient with a proper history and physical as well as obtaining appropriate tests and referrals depending on the patient's needs.
2. Appropriate documentation including photographs when required for treatment planning.
3. Formulating an appropriate treatment plan based on realistic patient goals.

**Knowledge: Specific Clinical**

1. The influences on patient perception of normalcy including:
   - Ethnicity
   - Age
   - Peer pressure
   - Psychosocial circumstances
2. Methods of skin restoration including;
   - Dermabrasion
   - Chemical peels
   - Laser treatment
   - Use of retinoids
3. Methods of ablating major crease lines including:
   - Augmentation techniques such as collagen injections and fat grafts
   - Surgical excision of muscle/ nerve
   - Use of Botox
4. Methods of re-contouring facial features by
   - Augmentation with autogenous tissues including fat, dermis, fascia, cartilage and bone
   - Augmentation with alloplastic materials
   - Surgical redistribution of skin and subcutis, and platysma
   - Direct excision of excess skin and subcutis, cartilage and bone
   - Reposition and suspension of deeper structures
   - SAL
5. Methods of rhinoplasty including open and closed techniques including:
   - Septoplasty
   - Cartilage, bone, soft tissue grafts
   - Osteotomies
o Suture techniques
6. Breast reduction, mastopexy and augmentation
7. Panniculectomy, abdominoplasty and recontouring upper and lower limbs
8. Liposuction
9. Non-surgical or medical modalities to improve appearance

Knowledge: Technical Skills
There is no expectation that residents will have independently performed each of the common esthetic procedures. This simply reflects the nature of the patient population. The expectation is that residents will gain experience by performing all parts of all common aesthetic procedures but in a segmental and sequential fashion and as with all procedures under appropriate supervision. Combined with the opportunity to be first assist at complete procedures and participating in post-surgical care, residents should be competent to establish their own aesthetic practices.

Communicator

Develop therapeutic relationships with patients through effective listening and dissemination of information
Be able to identify specific concerns of the patient relating to cosmetic surgery so the goals of surgery are clearly identified.

Collaborator

Consult and interact effectively with other health care professionals making appropriate referrals as part of the treatment planning process.

Manager

Be able to manage the diagnosis and treatment of maxillofacial problems in a sound manner with respect to the utilization of health care resources.

Health Advocate

Awareness of the health and preventive measures related to various disease processes.

Scholar

Participate in academic rounds and prepare for surgical cases by understanding the nature of the problem and the proposed surgical treatment.

Professional

Deliver health care to patients in an honest, ethical and professional manner.
4. Goals and Objectives for the Plastic Surgery Resident on a Head and Neck Rotation (SJHH)

**Medical Expert/Clinical Decision Maker**

**Knowledge-Anatomy**
Know the anatomy and surgical approach to:
1. The inferior parathyroid glands
2. The superior parathyroid glands
3. Thyroid gland/A retrosternal goiter
4. Anterior and posterior cervical triangles and their contents

**Knowledge-General and Specific Clinical Problems**
Be able to demonstrate diagnostic and therapeutic skills in the following topics

1. Thyroid
   - normal physiology, benign and malignant conditions - ESSENTIAL
   - solitary thyroid nodule, multinodular thyroid gland, Thyrotoxicosis, Thyroid "storm", Grave's disease/Hashimoto's disease
   - a decreased sensitive thyroid stimulating hormone (TSH) level
2. Parathyroid
   - normal physiology, benign and malignant conditions - ESSENTIAL
   - primary, secondary and tertiary hyperparathyroidism
   - be aware of the preoperative preparation/management of the following:
     - Hypercalcemic crisis
3. Benign and Malignant Conditions of the Lymphatic System of the Head and neck Region - ESSENTIAL
4. Benign and Malignant Conditions of the Nasal, Oral and Hypopharynx - DESIRABLE
5. Laryngeal Pathology - AWARENESS
6. Salivary Gland - normal physiology, benign and malignant conditions - DESIRABLE
   - Major-parotid, submandibular, sublingual
   - Minor gland
7. Understand the significant issues in the management of anesthesia in endocrine surgery, including airway management during neck surgery!!!

**Technical Skills**

**Preoperative/Postoperative**

1. Know the indications for and how to perform a fine needle aspiration
2. Indications and timing of change of tracheostomy
3. Know and appreciate the appropriate care for Head and Neck Surgery including being aware of possible complications
Intraoperative

1. Be able to position a patient for a specific operative approach
2. Know the incisions necessary for various operative procedures
3. Procedures
   - Tracheostomy - ESSENTIAL
   - Thyroidectomy - ESSENTIAL
   - Parathyroid Exploration - ESSENTIAL
   - Limited lymph node dissection - ESSENTIAL
   - Various modified and radical lymph node dissections - DESIRABLE
   - Laryngectomy - AWARENESS
   - Radical and ablative surgery of Head and Neck - AWARENESS
   - Reconstruction of Ablative surgery of Head and Neck - AWARENESS

Communicator

Listen and be able to take a complete history from patients and their families
Be able to discuss with patients and their families, in lay terms, the assessment,
approach and management (both surgical and non-surgical) of disease processes
as they relate to the Head and neck region.
Be able to obtain informed consent on surgical procedures from patients and their
families discussing the risk/benefits of operative and non-operative approaches.
Communicate in an effective manner with Health Care colleagues.
Communicate in a timely manner to Most Responsible Physicians changes in
conditions of their patients.

Collaborator

Participate in interdisciplinary team meetings regarding patient care issues.
Cooperate with all members of the health care team to facilitate patient care.

Manager

Effectively manage most aspects of patient care within the Emergency
department, ward and Operating Room at St. Joseph's Hospital to insure effective
and streamlined care.

Health Advocate

Be able to identify operative risk factors in individual patients.
Identify risk factors for head and neck disease and counsel patients on these risk
factors

Scholar
Review texts, recommended reading and review articles in preparation for OR cases.
Be able to critically review and appraise information as it relates to Head and Neck-Pathology
Read around consults seen in the ER, clinics, and on the ward.

**Professional**

Interact with patients, families, nurses and other health care personnel in a professional manner.
Respect all opinions of health care workers as well as the patient and their family.
Provide care in an ethical manner.

**Selected Bibliography**


5. Emergency Medicine Rotation Objectives for Plastic Residents

**Medical Expert/Clinical Decision Maker**

**Knowledge: Basic Science and Anatomy**
The resident is expected to have a good comprehension of basic and normal physiology as well as anatomy for the patients that are seen in the Emergency Department with medical and surgical problems.

**Knowledge: General Clinical**
The resident is expected learn how to perform a rapid assessment of the emergency department patient as well as rapid formulation of a management plan
The resident is expected to have an understanding of the pathophysiology of common medical and surgical diseases that are seen in the Emergency Department.

**Knowledge: Specific Clinical Problems**
These include myocardial infarction, pulmonary edema, otitis media, bronchitis, eye emergencies, pharyngitis, pneumonia, acute abdominal pathologies, orthopaedic emergencies, as well as major and minor soft tissue injuries.

**Knowledge: Technical**
The resident is expected to be able to take care of outpatient wounds, drainage of abscess, and procedures related to treatment of traumatic injuries including suturing.

**Communicator**
The resident will communicate well via written and oral forms to present information to consultants, nurses as well as family physicians.

**Collaborator**
The resident will communicate with and collaborate in a professional manner nurses, family doctors as well as consultants.

**Manager**
The resident should demonstrate an ability to manage medical problems in the Emergency Department in an algorithmic fashion and provide timely management of decisions with a philosophy of cost containment and good standard of care.

**Health Advocate**
Residents should participate in the counselling of patients in modifying of lifestyle issues to avoid or modify diseases.

**Scholar**
The resident should actively read around patients seen in the Emergency department especially surgically oriented problems.

**Professional**
The resident should behave in an honest, ethical and professional manner in the Emergency department in dealing with patients as well as health care professional.

### 6. Objectives for Plastic Surgery Residents on ICU Rotation

**Medical Expert/Clinical Decision-Maker**

**Knowledge: Basic Science and Anatomy**
The resident will have an advanced knowledge of cardiorespiratory physiology and anatomy pertinent to critical care.
The resident will understand renal physiology to assist in the management of fluid and electrolytes.

**Knowledge: General Clinical**

The resident will learn the differences in history and physical examination in critically ill patients.

The resident should understand the use and limitations of investigations commonly used in the ICU.

**Knowledge: Specific Clinical Problems**

1. The resident will learn the management of system failures:
   - CNS: non-operative support of the patient with cerebral edema or spinal cord injury trauma or operation, including the use of osmotic diuretics, intracranial pressure monitoring corticosteroids and determination of brain death.
   - Pulmonary: acute and chronic respiratory failure, need for evaluation of patients in regard to ventilatory support, management of all aspects of ventilatory support; application of monitoring parameters for patients on a ventilator (ABG's arterial venous O2 consumption, oxygen content, compliance) management of blunt and penetrating trauma to the chest.
   - Cardiac: causes of cardiac failure, and pre and post operative evaluation of cardiac reserve by measurement of cardiac output (response to fluid challenge and inotropic agents); monitoring of right and left ventricular function, oxygen consumption, CVP, and PWP to evaluate cardiac failure and pulmonary edema in surgical patients.
   - Renal: causes of failure - acute, chronic, polyuric and anuric states; monitoring, preventing, recognizing and treating renal failure when it occurs.
   - Resuscitation in Shock: knowledge of pathophysiology, types, institution and application of the various monitoring methods available and resuscitation options.
   - Fluid and Electrolyte Abnormalities and Acid Base Disorders.
   - Immune System: infection, sepsis, and septic shock like states, management of the immunocompromised critically ill patient, interpretation of cultures and appropriate antibiotic use.
   - GI diseases: recognition, investigation, and management of stress bleeding, massive upper GI bleeding, ischemic bowel disease, toxic colitis, GI obstruction and ileus in the critically ill, management of acute and chronic liver failure.
   - Endocrine: knowledge of stress states, management of hyper and hypo endocrine states in the critically ill.
- Metabolic: energy and protein requirements, nutritional support of the critically ill.
- Wound Management

**Multiple System Failure**
The resident will develop knowledge surrounding the recognition, management and integration of therapy for the patient with multiple failing organs.

**Management of End of Life Issues**
The resident will develop an appreciation of the ethics of "do not resuscitate" orders; the ethics of managing both a patient and their family when death in the ICU is imminent; the issues surrounding organ donation.

**Knowledge: Technical**
The resident should become facile in the insertion of central venous catheters, pulmonary artery catheters, arterial lines, jugular venous monitoring, intubation, chest tube insertion, insertion of feeding tubes, as well as have exposure to bronchoscopy.

**Communicator**
The resident will serve as the major link between nurses, attending staff, and other surgical and medical specialties. The resident will develop skills to communicate with a patient on a ventilator. The resident will be an important communicator to the families of these critically ill patients.

**Collaborator**
The resident, in a similar manner, will collaborate and coordinator care of the intensive care unit patient.

**Manager**
The resident will participate in bed management issues and enable efficient care of the critically ill patient by using investigations appropriately.

**Health Advocate**
The resident will educate the families of critically ill patients on the life-style and health issues that have led to the illnesses of their family members. Understand note of health professional in organ procurement for transplantation.

**Scholar**
The resident is expected to read around the cases that he or she sees in the ICU.

Professional

It is expected that the resident will perform in an ethical and professional manner when dealing with other health care professionals, patients, and their families.

7. Vascular Surgery Rotation Objectives for Plastic Surgery Residents

Definition

Vascular surgery is concerned with the diagnosis and management of congenital and acquired diseases of the arterial, venous, and lymphatic circulatory systems, exclusive of the vessels intrinsic to the heart, the intracranial vessels, and the thoracic aorta where surgery would require cardiopulmonary pump support.

General Objectives

In the course of the Vascular Surgery rotation, residents must learn the methodology for the safe management of the patient with vascular problems and the knowledge necessary to: assess the patient's condition efficiently and accurately; prioritize the patient's needs; determine whether patient's needs exceed their capacity and ensure that optimal care is provided at all times.

Medical Expert/Clinical Decision Maker

Knowledge: Basic Science and Anatomy

The anatomy, physiology, and pathophysiology of the circulatory system in health and disease, including arterial wall and cell biology, hemodynamics, and ischemia-related organ dysfunction.

Knowledge: General Clinical

Elicit a history that is relevant, concise, accurate and appropriate to the patient's problem(s).
Perform physical examination that is relevant, sufficiently thorough, and appropriate and meets specialty specific standards and, if necessary, exceeds these standards.
Develop an understanding of the natural history of vascular disease and management of risk factors, and how non-surgical treatment, percutaneous and/or surgical intervention can alter this.
To familiarize the vascular trainee with the diagnostic and therapeutic procedures available in imaging such as: Plain films, Angiography, Therapeutic angiographic procedures, Arteriothrombolysis, Doppler Ultrasound and Duplex Imaging, CT, MRI, Venography
The resident should become aware of knowledge and indications for arterial catheterization techniques, contrast, risks and complications, and the use of nuclear medicine imaging in the course of arterial disease including infection of arterial grafts.
An understanding of pre-operative risk assessment and exposure to critical care.

**Knowledge: Specific Clinical Problems**

Assessment of acute and chronic limb ischemia and arterial trauma.
Assessment of the abdominal aortic aneurysm, indications
Indications for arterial reconstruction, endovascular techniques, thrombolytic therapy and other non-interventional therapies.
The place of non-invasive vascular investigation and angiography. Technical training in the use of duplex and hand held Doppler.
Understanding of non-atherosclerotic vascular disease

**Venous Disease**

Etiology, assessment and management of common venous disorders, including varicose veins, post phlebitic syndrome and leg ulcerations.
The place of non-invasive venous investigations, including hand held Doppler. The indications for, and an understanding of venous reconstruction.
Understanding of the prevention, risk factors, diagnosis and treatment of deep vein thrombosis and coagulation.

**Lower Limb Arterial and claudication**

An appreciation of the various modalities of treatment, including exercise, pharmacological manipulation, and endoluminal techniques
Assessment of patients with critical limb ischemia
Understanding the role of arteriography in lower limb vascular disease
An understanding of duplex graft surveillance.
An understanding of graft technology and composition.

**Acute Ischemia**

Clinical assessment of the ischemic leg and angiography.
Appreciation of the indications for thrombolysis and involvement in the cases.
An understanding of the place of fasciotomy.
An assessment of possible need for urgent intervention

**The Diabetic Foot**

An appreciation of the role of revascularization of the diabetic limb.

**Communicator**
Effective consultation skills in presenting well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care provider.

**Collaborator**

Demonstrate effective consultation services with respect to patient care, and education.

**Manager**

Select medically appropriate investigative tools in a cost-effective, ethical and useful manner.

**Health Advocate**

Demonstrate an ability to identify risk factors that predispose to or worsen established pathology.

**Scholar**

Access and apply relevant information to clinical practice.
The capacity to access and apply relevant information as well as new and current therapeutic options to clinical practice.
Knowledge of recent changes in operative indications as a result of publication of results of controlled trials.

**Professional**

Demonstrate diagnostic and therapeutic skills for ethical and effective patient care.

**Ward Responsibilities**

The resident is expected to gain sufficient knowledge and skill to independently round on all patients admitted to the vascular surgery service. These include ward and ICU patients. Patient management plans should be reviewed with the vascular fellow or responsible consultant. Fellows and staff are expected to provide ongoing teaching on the ward and in the OR.

Residents are expected to participate in all consultations to the service. Their participation in the weekly vascular rounds is voluntary. On call, residents are expected to see new consultations and to manage inpatients. A vascular fellow or consultant is available for assistance.
8. Objectives for the Plastic Surgery Resident on the Urology Service

Knowledge: Basic Science and Anatomy
The resident on Urology will understand normal renal physiology and bladder physiology as well as the normal anatomy of the kidney, ureter, bladder, and urethra as well as the vascular supply to these organs. The relationship of the ureter and its normal course from kidney to bladder is very important.

Knowledge of the normal anatomy of the genital tract.

Knowledge: General Clinical
- Perform adequate prostate and testicular examination
- The resident will become competent in evaluating and treating patients with common urologic problems.
- The resident will become competent in diagnosis and treatment of complications seen post-operatively in both the urologic patient and non-urologic patient
- The resident will understand the pharmacological of urologic disease and the use of diagnostic equipment used for understanding urologic disease.
- The residents should learn about transplantation principles especially at St. Joseph's healthcare
- The essentials of pre and post-operative management for urologic patients.
- The principles and follow-up as well as prognosis for urologic surgical patients.
- The pathological basis of urologic disease.

Knowledge: Specific Clinical Problems
- The resident will demonstrate knowledge in common abnormalities founding the urogenital tract which may be congenital or acquired, the acquisition and interpretation of data from radiologic studies.
- Understand the issues for organ harvesting and participate in those cases especially at the Hamilton General Hospital.
- Understand the situations in which operative and non-operative approach should occur traumatic injuries to the urogenital system.
- Benign and malignant tumours of the kidney, ureter, and bladder.
- Should be able to assess, diagnose and provide initial management of a neurogenic bladder following rectal surgery.
- Should understand the rationale, performance, and complication of lithotripsy.
- Understand the indications, performance, and complications of renal transplant surgery as well as exposure to dialysis patients.

Knowledge: Technical
- The principles of the endoscopic examination of the urogenital tract.
Performance of a vasectomy and circumcision.
Performance of surgery related diseases of the inguinal canal including hydroceles and varicoceles.
Perform/assist with intra-abdominal urologic procedures.
Perform of difficult urinary catheterization including the use of urethral instrumentation.

**Communicator**
The resident should learnt he specific communication issues dealing with families and patients that have urologic problems.

**Collaborator**
The resident should learn the unique collaboration that the urologist has with general surgeons and internal medicine colleagues such as nephrologists.

**Manager**
The resident should learn the basics of the health care system as it applies to patients with urological problems.

**Health Advocate**
The resident should be able to provide guidance to patients as well as families with regards to early detection of urological conditions.

**Scholar**
The resident should design with the assistance of the urologists a tutorial/study program for their 2-3 month rotation on urology.

**Professional**
The resident is expected to behave in an honest and ethical manner when dealing with patients, families, the urologists as well as other health care personnel.

### 9. Pediatric Surgery Rotation Objectives For Plastic Surgery Residents

**Preamble**
A rotation in Pediatric Surgery will give residents the opportunity to become familiar with the unique needs of infants and children as surgical patients. Some of the surgical diseases encountered in children are similar in their presentation, management and outcome with their adult counterparts; others are quite different. The fundamental principles of surgical care, however, are similar to those that govern surgical practice in other age groups.
Aims

Define the principles of investigation and management of infants and children requiring surgical treatment.
Gain practical experience in the assessment, management, and indications for surgical treatment of common pediatric conditions.
Learn to perform certain pediatric surgical procedures.
Learn the principles of decision-making regarding the timing of surgery for infants and children with complex pediatric surgical problems, including the preparation and transport to a pediatric surgical centre for neonates requiring correction of congenital anomalies.

Medical Expert/Clinical decision Maker

Knowledge: Basic Science and Anatomy

Embryology is an important basic science of pediatric surgery and so it is expected that the resident review embryology (and anatomy) as it relates to clinical problems. Know the normal physiology of the premature and full term infant, as well as the infant and child.

Knowledge: General clinical

Know the principles of pre- and post-operative care, fluid therapy, nutrition and metabolism, wound care, investigation of surgical conditions in infants and children and the issues of heat regulation in babies.
Recognize the unique natural history of surgical diseases in children and use the information in reaching a diagnosis.
Recognize the limited host resistance and high risk of nosocomial infections in newborns, and the need for aseptic protocols to minimize environmental hazards.
Recognize the need to individualize drug dosage and fluid administration on the basis of weight, and be able to calculate expediently fluid and electrolyte requirements using standard formulas.
Recognize and accommodate for the altered physiological systems (such as immature hepatic and renal function) that affect drug and anesthetic administration.
Recognize the differences between types of sutures and choose the appropriate type and size for various wounds.
Predict the risk of apnea post anesthesia and post narcotic administration in small infants.
Practice correct assessment and initial management of the traumatized child.
Apply pediatric trauma principles in the initial resuscitation and management of traumatized children.

Communicator
Demonstrate the unique communication skills necessary to obtain thorough, focused pediatric histories from children, parents or other care-givers; elicit key physical signs in children despite potential poor compliance.

"Convey pertinent information from the history and physical examination in different circumstances (over the phone, during ward rounds and conferences).

**Collaborator**

Understand the importance of collaboration with family physicians, pediatricians, surgical colleagues, nurses and other hospital and community health care providers in achieving optimal comprehensive care for children with surgical problems.

It is expected that in the cases of Pediatric Trauma that the surgical resident will, with the assistance of the pediatric surgeon, coordinate all surgical aspects of the patients care i.e. directly talk to the orthopedic surgeons or plastic surgeons.

**Manager**

Recognize that many surgical problems, although conceptually and technically within the realm of expertise of general surgeons, are more appropriately managed where there are special pediatric facilities (special pediatric expertise in anesthesia, intensive care, diagnostic imaging, nursing, and laboratory facilities).

**Health Advocate**

Be aware of the life-long significance of surgical management decisions in children and their impact on quality of life.

**Scholar**

Prepare for teaching rounds, ward rounds and operating room cases with adult learning principles and evidence-based medicine

Pose questions that will provide the basis for clinical research

**Professional**

Appreciate the unique emotional and ethical issues surrounding the care of a sick child and the need to involve parents, children's advocates and other health caregivers in many difficult situations.

Appreciate the sometimes-complicated issues surrounding informed consent and refusal of treatment in children, especially in situations where "quality of life" is a major issue.

Value the critical need of ongoing systems of peer review, maintenance of competence, and evaluation of outcomes in the surgical management of sick children.
Appraise the ethics of research concerning children.

10. Orthopedic Rotation Objectives for Plastic Surgery Residents

**Medical Expert/Clinical decision Maker**

**Knowledge: Basic Science and Anatomy**

The resident is to have and acquire the knowledge of anatomy and physiology as it relates to the musculoskeletal system.

**Knowledge: General clinical**

To develop an understanding of the principles of fracture healing and how orthopedic interventions can affect fracture healing.
To understand the principles of soft tissue management as it relates to musculoskeletal injury.
To Develop Skills in the assessment of the axial skeleton in trauma and non-trauma pain.
To develop an approach to the assessment of a musculoskeletal injury.

**Knowledge: Specific Clinical Problems**

Learn the assessment and treatment of orthopedic emergencies such as:

- Compound wounds
- Neurovascular injury with fractures/dislocations
- Spinal Fractures
- Compartment Syndrome
- Pelvic Fractures and associated injuries
- Long bone fractures-know the initial treatment as well as principles of definitive management

Learn the indications for closed reduction of fractures as well as open reduction and internal/external fixation.
Learn the assessment and treatment of fracture complications:

- Infection
- Delayed and Mal-Union
- Non-union
- Compartment Syndrome
- Soft tissue defects

**Knowledge: Technical**

Closed Fracture treatment
External Skeletal fixation  
Operative Treatment of common fractures-hip and ankle  
Amputations  
Surgical management of the multiply traumatized patient  
Common upper extremity elbow/shoulder/wrist pathology

**Communicator**

The resident is to communicate with the orthopedic residents, staff and emergency physicians in a collegial manner  
The resident is also to communicate with families, patients as well as nurses in a professional manner

**Collaborator**

Collaboration with other health care personnel will be demonstrated

**Manager**

Wise and efficient management of health care resources will be demonstrated

**Health Advocate**

The resident will provide guidance to families and patients alike regarding lifestyle choices with respect to the young trauma victim as well as the elderly fall victim

**Scholar**

The Resident is encouraged and expected to participate in weekly fracture/trauma rounds as well as the monthly orthopedic journal club

**Professional**

The resident will demonstrate honest and ethical behaviour throughout the rotation

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11. Internal Medicine Rotation Objectives for Plastic Surgery Residents

**Medical Expert/Clinical decision Maker**

**Knowledge: Basic Science and Anatomy**

Know basic anatomy and physiology of the systems that are listed in the specific clinical problem list

**Knowledge: General clinical**

Ability to take a thorough and relevant history efficiently
Demonstration of appropriate physical examination skills
Ability to synthesize information and formulate an adequate problem list
Ability to design, execute and follow-up diagnostic and therapeutic plans with judicious consideration of costs and benefits
Ability to assess and managing acute emergency presentations of the conditions listed

Knowledge: Specific Clinical Problems
Knowledge of the diagnostic approach, the physiology and management of key symptoms and signs such as:

- Cardiorespiratory: chest pain, dyspnea, cough, wheeze, hemoptysis, hypotension/shock, cardiac arrest, murmurs, palpations
- Gastroenterology: ascites, abdominal pain, hematemesis, jaundice, weight loss, dysphagia, melena, nausea/vomiting, diarrhea
- Hematology: fatigue, bleeding diathesis, lymphadenopathy, unilateral leg swelling, pallor
- Infectious diseases: fevers/chills, fever in an immunocompromised host, night sweats, sepsis syndrome/septic shock, skin erythema, vaginal discharge
- Nephrology: oliguria, dysuria, hematuria, common electrolyte abnormalities, proteinuria, polyuria
- Neurology: decreased level of consciousness, confusion, ataxia, coma, headache, dizziness, weakness, tremor, syncope, seizure, sensory loss
- Psychiatry: anxiety, depression, psychosis, somatization
- Rheumatology: joint pain, back pain
- Miscellaneous: edema, rash, pruritis, hirsuitism, breast mass, neck mass

Knowledge: Technical

- Techniques of paracentesis and thoracentesis
- Acquisition of blood gas samples

Communicator

- Maintenance of concise, organized and clear problem oriented records
- Sensitivity to the needs of patience and families and the ability to listen and communicate with them

Collaborator

- Understand and use of a multidisciplinary approach to medical care with effective interaction with all health care personnel

Manager
Ability to plan efficiently for discharge using adequate communication with primary physicians and consultants about follow-up

Health Advocate

Awareness of the health and preventative issues related to various disease processes.

Scholar

Ability and willingness to supervise and educate clinical clerks in a manner, which promotes a positive and supportive learning experience
Uses evidence based medicine

Professional

Sensitivity to the ethical issues in medicine, which includes placing limits on care where appropriate
Professional attitude with positive interaction with team members & colleagues

12. General Surgery Rotation Goals and Objectives for Plastic Surgery Residents

Medical Expert/Clinical Decision Maker

Knowledge: Basic Science and Anatomy
The resident is expected to apply basic science and anatomy knowledge to clinical problems.

Knowledge: General clinical
The resident is expected to use medical history, physical examination, diagnostic lab and imaging and apply this to the clinical decision making process. Treatment plans are to incorporate treatment in the form of clinical pharmacology as well as surgical treatment. The resident is expected to actively participate in pre, intra and post-operative decision-making.

It is expected that a resident will be able to assess and document fully using history and physical examination

Pre-operative assessment should include risk factors for general anesthetic as well as preparation for specific operative interventions. It is expected that the resident will use lab and diagnostic imaging modalities to complete the pre-operative assessment. Intra-operative decision-making should develop over the five years so that advanced problem solving can occur as a chief resident in situations that have not been seen before.
Postoperative care should include fluid/electrolytes, prevention and treatment of infections specific to general surgery cases. Also peri-operative assessment and management should be comprehensive including all medical conditions including congestive heart failure, myocardial infarction, thrombotic complications/pulmonary embolism and respiratory complications.

**Knowledge: Specific Clinical Problems**

Acute abdomen (all aspects of diagnosis and treatment)
- Differentiation of surgical from non-surgical abdominal pain

Esophagogastrointestinal tract
- True and False Diverticulum of the GI tract
- Gastroesophageal Reflux
- Motility disorders of the GI tract
- Neoplasia (benign and malignant) of stomach, small bowel, colon and rectum
- Vascular disease of the GI tract
- Obstruction of GI tract from GI and non GI causes

Liver, biliary tract, pancreas, and spleen
- Cholelithiasis/choledocholithiasis
- Cholecystitis/cholangitis
- Pancreatitis
- Neoplasia (benign and malignant) of liver, biliary tract, pancreas
- Splenic manifestations of Hematologic problems

Breast
- Neoplasia-benign and malignant
- Mastalgia

Lymphatic System
- Infection
- Neoplasia

Endocrine system
- Adrenal gland
- Endocrine pancreas

Skin and soft tissue-
- Neoplasia
  - Benign tumours-Wart, Keratosis, Keloid, Vascular tumours, Fat tumours, Neural tumours, pigmented lesions
  - Malignant tumours-Malignant melanoma, Basal cell carcinoma, Squamous cell carcinoma
  - Kaposi’s sarcoma
- Infection -recognition and treatment of necrotizing fasciitis

Hernias of the abdominal wall and diaphragm
- Inguinal
- Ventral

Trauma of the torso
Knowledge: Technical
The Resident should be able to do by the end of PGY-2 the following procedures as well as operations of equivalent difficulty:

Procedures Comfortable Doing Without Supervision

- Inserting central lines
- Inserting chest tubes
- Incision and drainage of uncomplicated subcutaneous abscesses

**Biliary Tree**

- Perform all parts of a simple elective cholecystectomy

**Abdominal Wall**

- Perform all parts of an elective inguinal, umbilical, and incisional hernia repair
- Should be able to open and close the abdomen

**Breast**

- Perform all parts of a lumpectomy and mastectomy (not axillary dissection)

**Bowel**

- Perform all parts of an open or laparoscopic appendectomy
- Perform some/all parts of small and large bowel anastomosis using suturing or stapling

**Anal Canal**

- Perform all parts of a hemorrhoidectomy

The Resident (in addition to the PGY-2 skills) should develop from PGY-3 to 5 the abilities to perform the following procedures as well as operations of equivalent difficulty:

**Biliary Tree**

- Laparoscopic and Open Cholecystectomy for acute inflammation/perforation
- Common Bile Duct exploration
- Intra-operative Cholangiogram

**Pancreas**
Distal Pancreatectomy  
Pancreaticoduodenectomy

**Splenectomy**

**Duodenal Management Maneuvers**

**Gastric Surgery**

**Trauma Laparotomy**

**Breast**

Sentinel Lymph Node Dissection  
Axillary Lymph Node dissection  
Inguinal Lymph Node dissection

**Advanced Laparoscopy**

Inguinal hernia  
Colon  
Spleen  
Fundoplication

**Liver**

Wedge resection  
Exposure of the portal triad

**Distal Colon and Rectum Surgery**

Trans anal excisions  
Altemeier Procedure  
Total Mesenteric Excision

**Communicator**

Resident is expected to demonstrate communication skills in both verbal and written manner with

1. **Patients' and Their Families**
   - Explain general surgical disease processes  
   - Obtain informed consent related to surgical procedures

2. **Health Care Professionals including Physicians**
   - Family physician  
   - Emergency physicians  
   - Internists  
   - Radiologists  
   - Other Surgical Specialties  
   - Medical students
- Nurses
- Occupational therapists/Physiotherapists
- Other Health care professionals

Collaborator

Be willing to participate in interdisciplinary teams, considering and respecting the opinions of other team members and contributing expertise as a general surgeon. Identify and understand the roles, expertise and limitations of all members of an interdisciplinary team working to achieve a goal related to patient care, an educational program, a research project or an administrative activity. Work with the other members of the interdisciplinary team to develop a plan for a general surgery patient; this may include preoperative and postoperative investigations, treatments and continuing care both in hospital and in ambulatory settings.

Manager

To achieve these competencies, upon of a general surgery rotation the resident will:

Understand how the General Surgeon functions within the confines of the structure, financing and operation of the Canadian health system
Understand how the General Surgeon functions effectively in health care organizations, ranging from an individual clinical practice to organizations at the local, regional, and national levels
Understand how the General Surgeon makes sound clinical decisions based on evidence for the benefit to the individual patient and larger populations
Understand how the General Surgeon works effectively as part of a team whether she/he is a leader or member, being respectful of the other members and striving to accomplish the collective goals of the team

Health Advocate

Be able to identify operative risk factors in individual patients
Identify risk factors for gastrointestinal tract disease, Breast disease, and factors that deleteriously affect operative risk factors and counsel patients on these risk factors

Scholar

While on the general surgery service the resident should be starting to assess clinical problems by (under the following headings)

Review texts, recommended reading and review articles in preparation for OR cases.
Be able to critically review and appraise information as it relates to abdominal surgery including GI pathology, Breast pathology
Read around consults seen in the ER, clinics, and on the ward.
Clinical

Generate a clinical question
Identify her/his own knowledge and recognize deficits in knowledge about the question
Develop a plan to remedy the deficit by
  o Conducting an appropriate literature search
  o Assimilating and critically evaluating the literature
  o Consulting other physicians and health care professionals
Propose a solution to the clinical question
Implement this solution in her/his practice
Evaluate the outcome of this solution
Generate new clinical questions...

Research

Start the process of generating a research question (basic science, clinical, population health or some combination)
Develop a proposal to answer the research question by
  o Conducting an appropriate literature search
  o Assimilating and critically evaluate the literature
  o Identify, consult and collaborate with appropriate experts to
  o Undertake the research proposal
Propose appropriate methods for conducting the research
Undertake the proposed research
Propose a solution to the clinical question
Disseminate and defend the results of the research
Identify future research opportunities and questions that arise from the results

Education

Demonstrate an understanding of the concepts of adult learning (in addition to the application) with respect to herself/himself and others
Demonstrate an understanding of preferred learning methods in working with colleagues, residents, medical and nursing students and other health professionals

Professional

Interact with patients, families, nurses and other health care personnel in a professional manner with appropriate attitudes.
Work to maintain and advance professional competence.
Respect all opinions of health care workers as well as the patient and their family
Provide care in an ethical manner
Examine and resolve interpersonal difficulties in professional relationships
Strive to balance personal and professional roles and responsibilities, and to demonstrate ways to resolve conflicts in these areas
Constantly evaluate her/his knowledge, skills and abilities, and recognize the limits of her/his professional competence

13. General Surgery Rotation Objectives for Residents

Understand knowledge of the anatomy, physiology and pathophysiology of the breast.
Demonstrate the ability to surgically manage diseases of the breast.

Medical Expert/Clinical Decision Maker

Knowledge: Basic Science and Anatomy

Junior and Senior Level

1. Describe the anatomy of the breast.
2. Explain the hormonal regulation of the breast.
3. Summarize the physiologic changes associated with pregnancy, including breast problems peculiar to pregnancy.

Knowledge: General Clinical

Junior Level

1. Take an appropriate history to evaluate breast patients to include:
   - Pertinent risk factors
   - Previous history of breast problems
   - Current breast symptoms
2. Demonstrate an increasing level of skill in the physical examination of the breast, including recognition of the range of variation in the normal breast.
3. Explain the steps in the clinical decision tree that are involved in the work up of a breast mass.
4. Discuss the role of mammography (the general indications, uses and limitations), needle aspiration, fine-needle biopsy, open biopsy and mammographic needle localization and biopsy.

Senior Level

1. Independently evaluate a new breast patient through history and physical examination, ordering appropriate and cost-effective tests such as mammogram, ultrasound or fine-needle aspiration (FNA).
2. Formulate a diagnostic work up and treatment plan for most common breast problems, including the common types of breast carcinomas.
3. Evaluate the physical status of patients and assess the general surgical issues in patients who report for evaluation of augmentation and reduction mammoplasties.
Knowledge: Specific Clinical Problems

Junior Level

1. Summarize the incidence, epidemiology and risk factors associated with breast cancer.
2. Distinguish between these common entities in the differential diagnosis of breast masses:
   - Fibroadenomas
   - Fibrocystic disease
   - Cysts
   - Fat necrosis
   - Abscesses
   - Cancer
3. Discuss the principles for the treatment of breast cancer such as:
   - Radical mastectomy
   - Modified mastectomy
   - Lumpectomy and axillary dissection
4. Outline the genetic and environmental factors associated with carcinoma of the breast.
5. Describe the following pathological types of breast cancer, including the biology, natural history and prognosis of each:
   - Infiltrating ductal carcinoma
   - Ductal carcinoma in situ
   - Infiltrating lobular carcinoma
   - Lobular carcinoma in situ
   - Nonepithelial breast tumours
6. Describe the presentation, natural history, pathology and treatment of the following benign breast diseases:
   - Lactational breast abscess
   - Chronic recurring subareolar abscess
   - Intraductal papilloma
   - Atypical epithelial hyperplasia
   - Fibroadenoma
7. Interpret signs suspicious for malignancy on mammogram such as stellate masses or suspicious microcalcifications.
8. Outline the diagnostic work up and the differential diagnosis of various forms of nipple discharge.
9. Demonstrate the ability to satisfactorily orient the surgical specimen for pathologic examination.
10. Determine the indications and special requirements for tissue processing for estrogen and progesterone receptors.
11. Explain the use of tumor, nodes and metastases (TNM) staging in the treatment of breast cancer.

Senior Level
1. Describe the characteristics, diagnosis and therapy of less common lesions of the breast such as:
   - Inflammatory carcinoma
   - Paget's Disease
   - Lactiferous duct fistula
   - Mondor's Disease
   - Cystosarcoma phyloides
   - Bilateral breast carcinoma
   - Male breast carcinoma

2. Summarize the role of adjuvant chemotherapy and radiation therapy for the treatment of primary breast carcinoma.

3. Outline the importance of estrogen and progesterone receptors in the prognosis and treatment of breast cancer.

4. Understand the evolving role of bone marrow transplantation in the management of selected breast cancer patients.

5. Describe the basic issues in the staging and treatment of metastatic breast cancer, including the role of:
   - Chemotherapy
   - Radiation therapy
   - Hormonal therapy
   - Biologic response modifiers

6. Theorize appropriate management of breast cancer diagnosed in pregnant and non-pregnant patients.
   - Formulate plans for basic patient care, including pre-, intra-, and post-operative care.
   - Summarize the major considerations for post-mastectomy breast reconstruction.
   - Identify and analyze the data addressing controversial areas of breast disease such as:
     - Current concepts in the management of cancer
     - Role of various adjuvant therapy programs
     - Biological behavior of lesions such as lobular carcinoma in situ
   - Relationship of mammographic parenchymal patterns to the risk of subsequent malignancy.

7. Review and evaluate the following areas of research in breast disease:
   - The role of breast cancer susceptibility genes
   - Monoclonal antibodies
   - Other breast markers, including Her-2/neu, cathepsin D and flow cytometry with chromosomal analysis.

**Knowledge: Technical**

**Junior Level**

1. Perform simple procedures such as:
   - Diagnostic fine-needle aspiration of cysts
   - Drainage of simple breast abscesses
Cutting-needle biopsy of breast masses

2. Open biopsy of superficial masses

3. Perform open breast biopsies and other operative procedures such as simple mastectomy and excision of intraductal papillomas, under direct supervision.

4. Explain the mechanics and potential value of the stereotaxic needle biopsy

**Senior Level**

1. Perform, under direct supervision, more advanced procedures on the breast such as:
   - Radical mastectomy
   - Modified mastectomy
   - Lumpectomy and axillary dissection
   - Excision of lactiferous duct fistula
   - Needle-localized breast biopsy

2. Acquire basic experience with breast reconstruction and cosmetic surgical techniques.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>PGY1</th>
<th>PGY3</th>
<th>PGY5</th>
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<tbody>
<tr>
<td>Aspiration breast cyst</td>
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<tr>
<td>Incision and drainage breast abscess</td>
<td>S</td>
<td>S</td>
<td>S</td>
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<tr>
<td>Excision benign breast tumour</td>
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<tr>
<td>Partial mastectomy</td>
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<tr>
<td>Total mastectomy - simple</td>
<td>A</td>
<td>S</td>
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<tr>
<td>Modified radical mastectomy</td>
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<td>S</td>
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<tr>
<td>Axillary dissection</td>
<td>A</td>
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<tr>
<td>Sentinel node biopsy</td>
<td>A</td>
<td>A/S</td>
<td>S</td>
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<tr>
<td>Needle breast biopsy</td>
<td>A</td>
<td>S</td>
<td>S</td>
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<tr>
<td>Nipple duct &amp; biopsy</td>
<td>A</td>
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</table>

**Communicator**

Develop therapeutic relationship with patients with breast problems and their families by listening. Discuss and explain options to the newly diagnosed breast cancer patient and their families. Be able to obtain informed consent for surgical interventions related to

**Collaborator**

**Junior Level**

Understand the rationale for using a team approach to facilitate the complex discussions and explanation of options for the newly diagnosed breast cancer patient prior to definitive treatment (e.g., team of oncologist, surgeon, plastic surgeon and therapist).

**Senior Level**
Consult and interact with other members of the professional cancer team in explaining options to the newly diagnosed breast cancer patient.

**Manager**
Be able to manage diagnosis and treatment of breast disease in a sound manner consider the multifaceted decision making process in complex situations.

**Health Advocate**
- Educate patients to perform breast self-examination.
- Understand the benefit of screening mammograms and know an appropriate frequency
- Cancer prevention techniques

**Scholar**
- Participate in academic rounds and read around cases

**Professional**
- Behave honestly and in a professional manner

**Selected Bibliography**


**14. General Surgery Rotations - Henderson Hospital**

**14.1 Pro's & Con's**
- Lots of clinical exposure to a wide variety of general surgical cases
- Emphasis on early and increasing operative experience for all levels of training
- Opportunity for exposure to a busy urological cancer service
Excellent gastroenterology and radiology support services
Limited exposure to complex laparoscopic procedures. All surgeons do lap choles.
Dr. Gagic does lap hernias
Limited exposure to endoscopy except on Dr. Menon's service. There is access to G.I. service endoscopy lists
Limited exposure to head and neck surgery other than lymph node biopsies, tracheostomy and occasional thyroidectomies
Staff are supportive of resident research projects but generally have not taken a leadership role in research
Busy ambulatory clinics including lumps and bumps, toenails, hemorrhoid injection and banding, varicose vein injection.

14.2 Rotation Specific Goals at the Henderson
These goals are suggested emphasis for all residents with some emphasis for various levels of residents based at the Henderson and are not meant to be inclusive nor exclusive. Please refer to the goals and objectives for Breast, Abdominal and Colorectal.

Medical Expert/Clinical Decision Maker

Knowledge: Basic Science and Anatomy

The resident should know physiology as well as anatomy to deal with general and specific clinical problems

Knowledge: General clinical

The junior resident should have sufficient assessment skills to deal with the specific problems mentioned below.

Knowledge: Specific Clinical Problems

The junior resident should be able to deal with problems that involve: Fluids & electrolytes, Wound care, General medical care, Sepsis, Bleeding, Coagulation and Thrombosis, Hernias, Biliary Tract, Pancreas, Breast & G.I. malignancies, Other G.I. disease entities, Lymphoma
The resident should be able to deal with severely ill patients including patients with sepsis, cardiac & respiratory failure, and hypotension.
The resident should be able to obtain central venous access as well as initial airway management skills.
All causes of abdominal pain but especially situations in which peritonitis, pancreatitis, appendicitis, biliary tract disease, G.I. obstruction and perforation, abdominal pain with comorbid illness especially malignant disease and orthopaedic patients

Seniors
Should include the same Emergency Room and Ward management goals as the juniors but at a greater depth of knowledge and also needs to include a greater breadth of those problems seen infrequently or rarely. Very detailed knowledge including recent literature in common problems such as breast and G.I. malignancy as well as biliary tract, pancreatic and splenic disease. Knowledge of head and neck, endocrine, hepatic and trauma surgery should be at least at the "textbook" level. These areas will be emphasized at other sites.

Knowledge: Technical

Technical Expectations at the Henderson

Sample Cases and Cases of Equivalent Difficulty

By the end of the PGY 2: Residents should be comfortable with doing the majority of the following cases with staff or chief assisting in the operating room:

1. Non-acute lap cholecystectomies
2. Non adherent right colon or small bowel resections
3. Most appendectomies
4. Non-recurrent hernias
5. Lymph node biopsies
6. Breast surgery with some facility at axillary dissection

Outpatients - lumps and bumps, sigmoidoscopy, fine needle aspiration, hemorrhoid banding, wedge resection of toenails.

Emergency Room - Central lines and chest tubes

By the end of PGY 4:

1. Most colorectal cases with the assistance of staff including perforated and obstructed cases and obese patients
2. Acute cholecystectomies with assistance
3. Supervise juniors with simple elective cases, i.e. cholecystectomy, appendectomies and hernias
4. With staff assistance should be able to complete biliary bypass, splenectomy, tracheostomy, gastric resection and recurrent and difficult ventral hernias

Communicator

Residents should be to document and present their clinical findings, investigations as well as their plan of management

Collaborator

The resident at the Henderson hospital needs to demonstrate the ability to collaborate with their medical oncology colleagues in patient care

Manager
The resident needs to learn the appropriate management of diagnostic tests in workup of patients

**Health Advocate**

In dealing with general surgery problems at the Henderson the resident needs to advise patients on lifestyle choices for prevention of diseases as well as screening techniques to detect disease early

**Scholar**

The resident should prepare for clinical cases as well as have an educational environment for the clinical clerks on the service. The resident should start to pose research questions in preparation for answering clinical questions.

**Professional**

The resident needs to demonstrate ethical and professional attitudes in dealing with patients, their families and other health care workers.

15. Henderson Services

**15.1 Dr. Menon**

Office: 905-389-2275

**Schedule**
Thursday: All Day O.R.
Friday: 1/2 Day O.R.
Extras: Large volume outpatient services including varicose veins, perianal problems, endoscopy and endoscopic and skin laser surgery

**15.2 Dr. Gagic**

Office: 905-387-6460

**Schedule**
Monday: All Day O.R.
Tuesday: All Day O.R.
Wednesday: Ambulatory Care
Thursday: All Day Office
Extras: Busy service with some exposure to pancreatic surgery and laparoscopic hernia repairs.
15.3 Dr. Sanders
Office: 905-387-1367

Schedule
Monday: All Day Office (9 - 3)
Tuesday: All Day Office (9 - 3)
Wednesday: All Day O.R. (9 - 3)
Thursday: Ambulatory Care (9 - 1)
Friday: All Day O.R. (8 - 3)
Extras: Large volume breast cancer, lymphoma bx, occasional splenectomy

15.4 Dr. Simunovic
Office: 905-575-6365 Pager: 905 546-9033

Schedule
Friday: Half Day O.R.
Extras: Intense interest in colorectal malignancy, Academic Surgeons, O.R. days are usually Chief Resident material. Junior residents cover the service in addition to one of the busy services; thus it is an add-on responsibility for a resident with academic or colorectal interest.

15.5 Dr. Liaconis
Office: (905) 389-4411 ext 43375

Schedule
Schedule information to be made available.

Weekly Schedule: Clinics
Surgical ward rounds are an integral part of bedside teaching. There are 6 minor procedure ambulatory clinics weekly. There are 5 office/clinics conducted by the supervisors each week. There are 6 Breast Cancer screening clinics per month (Dr. Sanders, Dr. Gagic). Appropriate dress is required for clinic attendance.

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<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
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<tr>
<td>AM 9:00 – 12:00</td>
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<td>9:00 – 12:00</td>
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<tr>
<td>Colorectal Oncology Clinic</td>
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<td>Follow-up</td>
<td>Teaching Rounds with Chief Resident</td>
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<tr>
<td>PM 12:00 – 17:00</td>
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<td>GI Endoscopy Clinic, Dr. Menon</td>
<td>13:00 - 15:00 GI Endoscopy Clinic</td>
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<tr>
<td>Colorectal Oncology Clinic</td>
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<td>Follow-up</td>
<td>13:00 - 16:00 Follow-up</td>
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<td>Outpatient Clinic, Dr. Menon</td>
<td>GI Endoscopy Clinic</td>
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<td>15:00 - 16:00 Follow-up</td>
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<td>Rounds At Henderson</td>
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</table>
| **Daily**  | Morning resident rounds  
Clinical Clerk teaching rounds are often appropriate for junior residents |
| **Weekly** | Monday noon – Breast Cancer Radiology/Pathology Rounds (Pathology Library)  
Tuesday 1630 – G.I./Surgery Rounds (Board Room)                          |
| **Biweekly** | Wednesday 1630 – Morbidity Rounds (Board Room)                                 |
| **Monthly** | Wednesday 1630 – Mortality Rounds (Board Room)  
Friday 0830 – Grand Medical Rounds (Auditorium)                              |

Academic Half Day which is Surgical Grand Rounds @ 0730 4 E 20 - McMaster Division followed by Core and Senior teaching sessions all of which are mandatory.