Goals:

The Loma Linda Veterans' Administration Medical Center will provide a learning environment for the management and care of the surgical oncology patient. Surgical basic science, including fluids and electrolytes, wound healing and nutrition, will be emphasized. Clinically, residents will assess surgical pathology pre-operatively, develop clinical judgment on managing these issues, and learn operative skills to address the problem. Careful postoperative care and follow up will be emphasized. In addition, residents will participate in the various tumor boards and become familiar with the different adjuvant treatment options. Residents will develop cognitive and technical skills in dealing with complex oncological issues.

Objectives:

MEDICAL KNOWLEDGE

Discuss frequency/death rates of the top five benign and malignant neoplasms in men, women, and children in the United States.

Describe trends of increasing, decreasing, and high incidence for certain solid neoplasms.

Explain the implications of the heterogeneous cellular makeup of most solid neoplasms with reference to clinical behavior and response to adjuvant treatment.

Discuss the mechanisms of cellular apoptosis and the potential feasibility for therapeutic applications.

Identify genetic factors associated with neoplastic disease in regard to known protooncogenes.

Differentiate between current theories of carcinogenesis.
Summarize the tenets of tumor biology, including the biochemical events of invasion and metastasis; describe the natural history of these lesions.

Identify and differentiate between the diagnostic features of benign versus malignant neoplasms (gross and microscopic).

Predict patterns of presentation of malignant neoplasms.

Describe the characteristics of the various staging systems and explain their use in evaluating malignant neoplasms.

Outline the appropriate usage of tumor markers, tumor excretory metabolites, and diagnostic cytologic techniques.

Describe the principles of surgical technique for operative procedures designed for cure of malignant diseases and their application to endoscopic operative techniques.

Summarize the nutritional requirements for cancer patients, and describe how they differ from those recommended for a healthy patient.

Describe indications for curative versus palliative treatment, and formulate therapeutic plans for each approach.

Outline the status of the current predominant investigative work in cancer immunotherapy.

Explain the rationale for the use of Heat Shock Proteins in conjunction with immunology.

Summarize current techniques of genetic screening for cancer. Describe the biologic rationale, mechanisms, and current status of gene therapy for malignancy.

Describe the enzymatic determinants of prognosis for epithelial derived cancers and their biologic sources.

Understand the role of various biopsy techniques (open, needle localization, stereotactic, core, FNA)
Know the major prognostic factors and staging system for malignant cutaneous melanoma.

Know the major prognostic factors and staging system for adult soft-tissue sarcoma.

Understand the clinical syndromes associated with excess peptide production for gastrin, VIP, somatostatin, glucagons and insulin.

Describe the evaluative sequence (including pertinent elements of history and physical examination) for patients with a new palpable breast mass.

Describe the evaluative sequence (including pertinent elements of history and physical examination) for patients with a new mammographically detected breast mass.

Describe the key clinical features associated with tumors producing excessive gastrin, insulin, glucagons, somatostatin, and VIP.

**PATIENT CARE**

Perform a complete history and physical examination on patients with cancer.

Formulate an appropriate differential cancer diagnosis, and record an independent, written diagnosis for each cancer patient assigned.

Excise benign lesions of skin, dermal appendages, and breast. Demonstrate proper wound care and follow-up management.

Excise skin cancers, demonstrating proper wound margins and appropriate wound closure and follow-up management.

Close wounds following major resections.

Manage colostomies and ileostomies.

Design an appropriate nutritional support program for a cancer patient both pre- and postoperatively.

Outline the indications for, complications of, and expected results from carotid endarterectomy in those over age 75.

First assist on colostomies, ileostomies, and wedge resections of lung and liver.
Perform lymph node biopsies, breast biopsies, and procedures of similar magnitude.

Interpret frozen section slides with supervision.

Perform nutritional assessments and plan nutritional support programs.

Describe methods of bowel preparation for colon and rectal resection

Describe the management sequence for a patient with a malignant small bowel obstruction

Describe the biochemical and metabolic alterations that occur following major liver resection

Explain the role of percutaneous drains in the management of postoperative abscess and fluid collection

Describe the biology of late radiation change to small bowel and soft tissue

Describe a fluid replacement strategy for a patient with a pancreatic fistula, small bowel fistula

Describe the appropriate management of the axillary drain following axillary dissection.

**PROFESSIONALISM**

Learn to communicate clearly, effectively and compassionately with patients, family, team members and staff

Understand the principles of efficient and accurate medical communication for sign outs and hand offs

Learn to place patients reactions to illness within their larger social and cultural Backgrounds

Learn the principles of informed patient decision making

Respect patient confidentiality

Demonstrate consistent, clear communication with patients and families

Demonstrate composure and equanimity under stress
Demonstrate a spirit of helpfulness

Demonstrate the ability to carefully and thoughtfully describe operative procedures to patients.

INTERPERSONAL AND COMMUNICATION SKILLS

Work as effective team members

Cultivate a culture of mutual respect with members of nursing and support staff

Develop patterns of frequent and accurate communication with team members and attending staff

Gain an appreciation for both verbal and non-verbal communication from patients and staff

Demonstrate consistent respectful interactions with members of nursing and support staff

Demonstrate consistent, accurate and timely communication with members of the surgical team

Demonstrate sensitivity and thoughtfulness to patients concerns, and anxieties.

PRACTICE-BASED LEARNING

Accept responsibility for all dimensions of routine patient management on the Wards

Apply knowledge of scientific data and best practices to the care of the surgical Patient

Facilitate learning of medical students and physician assistant students on the team.

Use the VA library, databases on on-line resources to obtain up to date information and review recent advances in the care of the surgical patient.

Demonstrate a consistent pattern of responsible patient care and application of new knowledge to patient management
Demonstrate teaching efforts with medical students and physician assistant
Students

Demonstrate a command and facility with online educational tools.

**SYSTEMS-BASED PRACTICE**

Understand, review, and contribute to the refinement of clinical pathways

Understand the cost implications of medical decision making

Partner with health care management to facilitate resource efficient utilization of VA
hospital resources

Describe in general terms the benefits of clinical pathway implementation

Demonstrate consistency in working with healthcare management personnel in discharge planning