ONCOLOGY

Academic Director: Dr. Lawrence Jacobs
Undergraduate Curriculum Administrator: Kelly Ducharme
PHONE: 519-253-3000 Ext 4303
EMAIL: kducharm@uwindsor.ca
OFFICE LOCATION: Medical Education Building

A) General Description:

The Windsor Regional Cancer Centre offers Clinical Science Electives to undergraduates in fourth year providing a more focused outpatient and inpatient ward experience in Medical or Radiation Oncology with clinical assignments.

Additionally, there is excellent opportunity to do a number of diagnostic/therapeutic procedures under the supervision of the consultants within the Clinic, i.e. lumbar punctures, bone marrows, thoracentesis.

At the end of this elective - students will:
- Have an understanding of an approach to the management of common malignancies
- Be comfortable with oncology as expected of an undifferentiated physician
- Have an understanding of how cancer care is delivered in Ontario/Canada
- Be aware of oncology as a career choice.

B) Objectives:

1. Medical Expert

   GENERAL
   a. Demonstrate knowledge of different types of antineoplastic therapy modalities (radiation, chemotherapy, hormonal therapy, combined modality Rx, immunotherapy, targeted therapy; adjuvant, neoadjuvant, definitive and palliative regimens)
   b. Know what primary site, metastasis, stage, grade, and histological type mean, and be able to give examples of each.
   c. Know of the following oncological emergencies/urgencies, how to diagnose them, what to do acutely (Febrile neutropenia / SVCO/Cord compression/Increased ICP/Hypercalcemia – including knowledge of calculating calcium corrections based on albumin/Tumour lysis syndrome/SIADH)
   d. Demonstrate knowledge of common side effects of chemotherapy and radiotherapy in general (myelosuppression, nausea, mucositis etc)
   e. Know the steps required for radiation therapy (simulation, dosimetry)

   LUNG, ESOPHAGEAL, HEAD AND NECK CANCER
   a. Know treatment modalities for early stage (resectable) and advanced lung (small cell/non-small cell) and esophageal cancer.
   b. Clinical exam for, and treatment indications and options for malignant effusion
BREAST CANCER
a. Know screening procedures for breast cancer, and a workup strategy for a breast lump
b. Perform \textit{patient-centred} breast exam including examination of axillary lymph nodes
c. Know available forms of treatment for breast cancer (hormonal therapy, chemotherapy, radiation, targeted therapy) for both early and advanced stages.

PROSTATE, BLADDER, TESTICULAR, RENAL CANCER
a. Screening for prostate cancer – know the differential of an elevated PSA
b. Treatment options for early (hormones, radiation, surgery) and late prostate cancer (hormones, chemotherapy)
c. Invasive bladder cancer – surgical and nonsurgical therapy options
d. Know the treatment modalities for testicular cancer in general (chemotherapy, radiation, resection of residual)
e. Demonstrate knowledge of palliative treatment options for metastatic renal cell cancer

COLORECTAL, GASTRIC, PANCREATIC CANCER
a. Be aware of options and rationale for screening for colorectal cancer -
b. Know of adjuvant treatment for certain stages of resectable colon cancer (chemotherapy) and rectal cancer (perioperative chemoradiation)
c. Demonstrate knowledge of a treatment approach for unresectable pancreaticobiliary cancer (chemotherapy, radiation) and other palliative measures (stent insertion etc.)

MELANOMA, SARCOMA, CNS PRIMARY CANCER
a. Melanoma
   I. Know of the concerning skin lesion features (ABCD)
   II. Palliative therapy – know options besides supportive care alone (e.g. Interferon, chemotherapy)
b. Know two sarcoma types (soft tissue, osteogenic), and be aware of the role of adjuvant therapy with osteogenic sarcoma
c. Name two types of primary CNS tumours
d. Be aware of the presentation of increased intracranial pressure clinically, and how to examine for signs of it.

SUPPORTIVE CARE
a) Demonstrate a systematic approach to pain assessment by type (visceral, somatic, neuropathic) and to management using the WHO ladder for pain control
b) Demonstrate knowledge of the equianalgesic ratios for PO/parenteral morphine, hydromorphone, oxycodone, fentanyl patch, codeine
c) Demonstrate an approach to managing opioid side effects: nausea, constipation, sedation
d) Demonstrate an approach to breaking bad news e.g. SPIKES (setting, perception, invitation knowledge, empathy, summary and strategy)
e) Demonstrate knowledge of the treatment for malignant neuropathic pain, including indications and the starting doses of the various co-analgesics including steroids, tricyclic antidepressants, GABA acting anticonvulsants, and cannabinoids.
2. Communicator
a) Conduct patient-centered interviews that explore the patient's feelings, ideas, impact on function, and expectations.
b) Develop relationships with patients characterized by compassion, empathy, respect, and genuineness, demonstrating a willingness to collaborate with the patient about management.
c) Perform a physical examination without causing the patient embarrassment.
d) Adapt treatment plans to the individual with consideration for the patient's age, general health, special needs, expectations, cultural background, progress, or changes in condition.
e) Demonstrate skill in communication of information with clear, concise explanations that are understandable to patients.
f) Recognize risk factors and be able to counsel patients on risk reduction.

3. Collaborator
a) Demonstrate the ability to work effectively as a member of a team, as participant or leader.
b) Collaborate effectively with patients and families without having to take charge.
c) Demonstrate skill in finding common ground when differences of opinion exist.
d) Establish effective relationships with colleagues and other member of the health care team by:
   i. Considering their suggestions and criticisms.
   ii. Tactful handling of differences of opinion.

4. Manager
a) Assist patients in accessing the health care system for physical, psychological, social, and economic rehabilitation or long-term care.
b) Use the concepts of evidence-based medicine to guide patient care decisions.
c) Identify potential conflict between individual and population interests and seek advice from others.

5. Health Advocate
a) Identify the rights and legal responsibilities of physicians to patients and the community.
b) Describe the determinants of health and apply them appropriately to enhance individual and community well-being.
c) Apply the concept of cost-effectiveness to public health interventions.

6. Scholar
a) Demonstrate skill in self-directed learning by:
   i. Ability to identify areas of deficiency in one's own knowledge and skills.
   ii. Ability to find appropriate educational resources.
   iii. Ability to evaluate personal learning progress.
   iv. Ability to use new knowledge in the care of patients.
b) Determine the validity and applicability of published data through critical appraisal.

7. Professional
a) Demonstrate commitment to one’s teachers, classmates, patients, the profession and society through ethical behavior
b) Demonstrate social accountability through a commitment to one’s colleagues, patients, the profession and society.
c) Demonstrate a commitment to personal health, balancing the goal of excellence in education with a sustainable work ethic.
d) Demonstrate a commitment to reflective practice.
a) Demonstrate honesty and trustworthiness in assessment, study and learning.
b) Demonstrate responsibility and respect.
c) Recognize personal biases and ensure that they do not interfere with the patient's best interests.
d) Be willing to seek help, advice or consultation when needed.
e) Respond to personal and family needs and develop effective support systems

**ELECTIVE DESCRIPTION SUMMARY:**

This is a 2 week Elective rotation consists of 1 week Radiation Oncology and 1 week Medical Oncology.

i) **Radiation Oncology**
   - 1 week rotation
   - 1 student assigned to a **Radiation Oncologist** for one week
   - attends O.P. clinics and MDT rounds
   - to cover main tumour sites
   - performs in-hospital consultations
   - learns about the indications for and side effects of radiotherapy
   - attends simulations
   - attends all rounds
   - inpatient care as per attending
   - attend O.R. **Brachytherapy**

ii) **Medical Oncology**
   - 1 week rotation
   - emphasis on outpatient clinic experience
   - *see/participate in Lumbar Puncture and Bone Marrow Biopsy*
   - attendance at follow-up and new patient clinics for common malignancies
   - attendance and participation in multi-disciplinary rounds
   - learns about the indications for and side effects of chemotherapy for common malignancies.

**C) Type of Clinical Experience:** Out-patient

**Night and Weekend Call - No**

**EVALUATION:** Summative Clinical Elective Assessment compiled by your Primary Preceptor

**Registration for Oncology rotations - note:** Registration is NOT through the 4th Year Electives Lottery. Requests are only processed via the Windsor Non-Lottery 4th Year Elective Request form located on the Medicine 5401 – Year 4 Clinical Sciences Electives web page

**REGISTRATION:**
https://www.schulich.uwo.ca/medicine/undergraduate/academic_resources/year_4/windsor_nonlottery_4th_year_elective.html