# Radiation Therapy

## COMPETENCY PROFILE

**November 2006**
Revised February 2008

## Revised Profile
**for use with the development of the**
## September 2011 Certification exams

Prepared by the Radiation Therapy Competency Profile Task Group



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# COMPETENCY PROFILE - RADIATION THERAPY

## Competencies for Entry Level Radiation Therapists

This document describes the essential competencies required for an entry-level radiation therapist in Canada to provide best practice as defined by safe, competent and ethical practice of radiation therapy in a variety of clinical environments. The profile defines competencies reflecting the integration of knowledge, skills, attitudes and judgment necessary to practice in an environment that requires the therapist to use effective organizational skills and critical thinking. This requires the ability to assess, adapt, modify, analyse and evaluate in a variety of situations and environments in the practice of radiation therapy. Critical decision-making is, therefore, inherent to the practice of radiation therapy and is demonstrated in the competencies required of entry-to-practice therapists.

The competency profile defines the standard for certification and registration of entry-level radiation therapists in Canada.

The document is also used to:

- provide direction to entry-level education programs to assist in developing curriculum;
- inform Ministries of Health and Education of the standard expected from entry-level radiation therapists;
- inform the public and employers of the standard expected from entry-level radiation therapists;
- assist CMA Conjoint Committee with accreditation of education programs;
- provide guidance by identifying professional development needs for practicing radiation therapists
- develop a blueprint for CAMRT certification examination.

Accredited programs must ensure that their certification candidates possess all the competencies listed in the profile. Education programs are encouraged to include additional skills at their discretion.

In the development of the competencies, the following assumptions have been made.

That the Radiation Therapist:

- has completed an accredited Canadian educational program, or is eligible for certification by another recognized process;
- has acquired the theoretical knowledge required to achieve a wide range of competencies;
- has developed a broad knowledge base that has been assessed prior to the certification examination;
- commits to the principle that their primary role and function is to serve the public interest;
- is a member of the inter-professional health care team, collaborating with other health care professionals to provide appropriate patient care in the planning and delivery of radiation therapy treatments;
- is responsible for the safe and effective application of ionizing radiation;
- is responsible for the production, assessment, optimization and archiving of images;
- is responsible for the performance of therapeutic planning and treatment procedures;
- participates in interventional procedures;
- is responsible for the education of patients, public and other health care providers regarding ionizing radiation for medical use;
- performs effectively encompassing physical, psychological, social, economic and cultural factors that interact in predictable and unpredictable ways;
- recognizes patients as unique individuals, treating them with dignity and respect;

- practices in accordance with legislation, regulatory and professional bodies' standards of practice, scope of practice, codes of ethics and other relative documents;
- performs in a manner consistent with public interest, employment philosophies and practices, current research and advancing technology;
- seeks guidance from experienced practitioners, colleagues and employers to enhance the therapist's individual experience and knowledge;
- promotes and participates in the advancement of this dynamic profession through active involvement, continuous learning, professional development and research;
- adheres to and promotes professional standards.

The Radiation Therapy Competency Profile is divided into twenty modules:

| | |
|---|---|
| **Module A** | **Professional Practice** |
| **Module B** | **Patient Management** |
| **Module C** | **Radiation Health and Safety** |
| **Module D** | **Quality Management** |
| **Module E** | **Practical Applications** |
| **Module F** | **Breast Cancer** |
| **Module G** | **Genitourinary Cancers** |
| **Module H** | **Respiratory Cancers** |
| **Module I** | **Gastrointestinal Cancers** |
| **Module J** | **Head & Neck Cancers** |
| **Module K** | **Gynecologic Cancers** |
| **Module L** | **Lymphoreticular Cancers** |
| **Module M** | **Central Nervous System Cancers** |
| **Module N** | **Pediatric Cancers** |
| **Module O** | **Hematologic Malignancies** |
| **Module P** | **Cancers of the Endocrine System** |
| **Module Q** | **Sarcomas of the Bone & Soft Tissue** |
| **Module R** | **Skin Cancers** |
| **Module S** | **Benign Conditions** |
| **Module T** | **Palliative and Supportive Care** |

## EXAMINABLE COMPETENCIES & COMPETENCY LEVELS

**All competencies listed in the competency profile must be achieved by graduates of an accredited medical radiation technology program.** This will be assessed for compliance during the accreditation survey conducted by the CMA Conjoint Accreditation Services. It is realized that due to regional and institutional differences level of achievement for some competencies may vary based on evolving changes in technology, practice and facility policies.

## Not all competencies will be tested on the CAMRT certification exam.

**The EXAMINABLE COMPETENCIES are those competencies that have a competency level indicated in the column to the right of the written competency.**

The EXAMINABLE COMPETENCIES were established by the discipline specific workgroups working both within their disciplines and together as a core group using the feedback received from stakeholders during the competency profile revision process.

There are **three** competency levels (**CL**)

- **HIGH (H)**
- **MEDIUM (M)**
- **LOW (L)**

Competency levels were determined through a survey done by technologists/therapists and managers of Diagnostic Imaging and Radiation Therapy Departments. The survey requested a rating of the examinable competencies for frequency of application, importance and future significance in the healthcare work environment. The results of the survey were analyzed and the **examinable competencies** rated either **H, M, L** based on the response to frequency, importance and significance for the future.

**The competency levels provide a guide (blue print) for certification exam development.** More weighting will be placed on the development and use of questions associated with a HIGH level competency as opposed to a MEDIUM or LOW rated level competency where emphasis on question development and use on the certification exam will reflect the competency level.

Validation of all competencies, including identification of examinable competencies and their associated competency levels will be conducted at least every five years. Due to rapid changes in technology and practice certain portions of the profile may be validated more frequently to ensure the profiles are reflective of practice and workplace needs.

## MODULE A PROFESSIONAL PRACTICE

*Whenever both national and provincial regulations/codes of ethics are in place, only the national standards will be tested on the CAMRT certification examination.*

| | | | CL | |
|---|---|---|---|---|
| **A 1** | **Demonstrates Critical Thinking** | | | |
| | A 1.1 | Apply critical thinking and problem solving strategies to ensure best practices | | |
| **A 2** | **Practice in accordance with legislation, regulations and ethical guidelines related to the profession** | | | |
| | A 2.1 | Practice patient care that protects the patient's legal rights | H | |
| | A 2.2 | Demonstrate an understanding of the current and emerging issues in the Canadian Healthcare System | | |
| | A 2.3 | Perform all duties in compliance with sexual abuse prevention guidelines | | |
| | A 2.4 | Practice in accordance with national association's/provincial regulatory body's code of ethics | | |
| | A 2.5 | Practice within scope of practice in accordance with national association and provincial regulatory body's legislation requirements | | |
| | A 2.6 | Practice in accordance with the national association's and provincial regulatory body's standards of practice | | |
| | A 2.7 | Practice in accordance with legislation, regulations/by-laws regulating radiation therapists | | |
| | A 2.8 | Provide a diagnostic/therapeutic impression to healthcare professionals to assist in patient care management | H | |
| **A 3** | **Demonstrate professional behaviors** | | | |
| | A 3.1 | Demonstrate respect and sensitivity in both patient and professional interactions | | |
| | A 3.2 | Utilize stress management techniques | | |
| | A 3.3 | Utilize conflict management techniques | | |
| | A 3.4 | Manage change within the evolving healthcare system | | |
| | A 3.5 | Exchange knowledge/skills with other members of health care teams to promote collaborative practice | | |
| | A 3.6 | Provide clinical instruction, guidance, and evaluation for students | | |
| | A 3.7 | Assume a lead role during diagnostic/therapeutic procedure when working with the healthcare team | | |
| | A 3.8 | Present a professional appearance and manner | | |
| **A 4** | **Participate in professional development** | | | |
| | A 4.1 | Engage in reflective practice, self-assessment to identify a learning plan that will promote best practices | | |
| | A 4.2 | Demonstrate a basic understanding of current and emerging imaging, planning and therapeutic technologies used by interdisciplinary practices | H | |

| | | | CL | |
|---|---|---|---|---|
| **A 5** | **Participate in research for the purpose of evidence based decision-making** | | | |
| | A 5.1 | Demonstrate an understanding of: how to review current literature, research methodology, data collection and analysis of statistics in order to promote evidence based practice | | |
| | A 5.2 | Participate in a research-based project | | |
| | A 5.3 | Discuss the ethical issues involved with research | | |
| **A 6** | **Understand the application of resource management principles** | | | |
| | A 6.1 | Differentiate between capital and operating budgets | | |
| | A 6.2 | Recognize implications of practice on budgets | | |
| **A 7** | **Participate in resource management** | | | |
| | A 7.1 | Prioritize workflow to optimize patient outcomes | H | |
| | A 7.2 | Monitor inventory of material and supplies | | |

## MODULE B PATIENT MANAGEMENT

| | | | CL | |
|---|---|---|---|---|
| **B 1** | **Provide a safe environment to minimize the risk of adverse events to the patients and to the staff** | | | |
| | B 1.1 | Provide a safe, clean and comfortable environment | | |
| | B 1.2 | Transport the patient safely, using equipment based on the patient's physical and cognitive status and resources available | H | |
| | B 1.3 | Transfer the patient safely, using equipment and techniques based on the patient's physical and cognitive status | H | |
| | B 1.4 | Employ proper body mechanics to prevent harm to self and patient | H | |
| | B 1.5 | Implement immobilization techniques based on age, physical and cognitive status of the patient and type of procedure | H | |
| | B 1.6 | Adjust the patient's position to prevent harm, promote comfort and optimize procedure outcomes | H | |
| | B 1.7 | Verify patient identity following a standardized protocol | | |
| | B 1.8 | Assess documentation for compliance with legal requirements | | |
| | B 1.9 | Complete documentation in compliance with legal requirements | | |
| **B 2** | **Interact within the healthcare environment** | | | |
| | B 2.1 | Establish patient rapport | | |
| | B 2.2 | Use various forms of communication to provide/obtain relevant, accurate and complete information | | |
| | B 2.3 | Exchange information regarding details of the procedure with patients and their support persons, to enable them to make informed decisions | | |
| | B 2.4 | Assess and respond to cultural, ethnic, linguistic, religious and socioeconomic variables affecting communication | | |
| **B 3** | **Perform patient assessments and medical interventions within scope of practice in accordance with provincial regulatory body's legislation requirements.** | | | |
| | B 3.1 | Perform patient assessments | H | |
| | B 3.2 | Assess, monitor and respond to various levels of patient status | H | |
| | B 3.3 | Participate /perform therapeutic interventions | H | |
| | B 3.4 | Assess, monitor and respond to therapeutic and supportive devices in order to ensure the patient's safety and comfort | H | |
| | B 3.5 | Ensure that the patient's needs are met prior to release from the radiation therapist's care | H | |
| **B 4** | **Implement infection control practices** | | | |
| | B 4.1 | Understand transmission modes of nosocomial infections (host, agent, and environment) | H | |
| | B 4.2 | Utilize established practices for preventing the transmission of infection in health care | H | |
| | B 4.3 | Apply principles of asepsis | H | |

| | | | CL | |
|---|---|---|---|---|
| | B 4.4 | Follow established protocols when handling and disposing contaminated and biohazardous materials such as sharps and body fluids | H | |
| | B 4.5 | Adhere to protective environment protocols for patients with compromised immunity | H | |
| | B 4.6 | Adhere to protocols when caring for patients with antibiotic resistant organisms | H | |
| | B 4.7 | Adhere to transmission based precautions for airborne, droplet and contact transmissions | H | |
| **B 5** | **Respond to patient hygiene needs** | | | |
| | B5.1 | Assist the patient with personal care | | |

## MODULE C RADIATION HEALTH, SAFETY AND PROTECTION

| | | | CL | |
|---|---|---|---|---|
| **C 1** | **Apply radiation safety practices to self, patients, care givers and the general public** | | | |
| | C 1.1 | Use protective devices/apparel according to radiation standards | H | |
| | C 1.2 | Use imaging accessory devices following established radiation safety guidelines | H | |
| | C 1.3 | Determine patient's pregnancy status and take appropriate action | M | |
| | C 1.4 | Apply ALARA (As Low As Reasonably Achievable) principle during the practice of radiation therapy | H | |
| | C 1.5 | Use protective practices specific to each radiation source/equipment | H | |
| | C 1.6 | Recognize emergency situations and implement appropriate procedures | M | |
| **C 2** | **Monitor radiation exposure dose to self, patients, care givers and the general public** | | | |
| | C 2.1 | Operate and monitor equipment and handle radioactive sources in compliance with national and provincial radiation safety legislation | | |
| | C 2.2 | Monitor personal radiation exposure | H | |
| | C 2.3 | Adhere to radiation dose limit standards | H | |
| | C 2.4 | Interpret radiation exposure dose reports | M | |
| | C 2.5 | Participate in radiation safety surveys | | |
| **C 3** | **Advocate Radiation Safety** | | | |
| | C 3.1 | Educate individuals regarding radiation risks and practices | H | |
| | C 3.2 | Apply protective practices according to organ sensitivities | H | |
| | C 3.3 | Determine relative dose measurements using thermoluminescent dosimeters, diodes and other monitoring equipment | | |
| **C 4** | **Identify the regulatory agencies responsible for radiation protection** | | | |
| | C 4.1 | Adhere to standards set by provincial radiation protection agency | | |
| | C 4.2 | Adhere to standards set by federal radiation protection agency | | |
| | C 4.3 | Explain the CNSC regulations for radiation dose limits | H | |

## MODULE D QUALITY MANAGEMENT

| | | | CL | |
|---|---|---|---|---|
| **D 1** | **Participate in Quality Assurance Programs** | | | |
| | D 1.1 | Participate in quality assurance program activities | | |
| | D 1.2 | Apply principles of risk management | H | |
| | D 1.3 | Adhere to Workplace Hazardous Materials Information System (WHIMS) regulations and Occupational Health and Safety (OH&S) regulations | H | |
| **D 2** | **Participate in Quality Control Program** | | | |
| | D 2.1 | Identify the primary purpose and function of components of imaging and treatment equipment | H | |
| | D 2.2 | Evaluate the performance of treatment planning and treatment delivery equipment according to the manufacturer's specification | | |
| | D 2.3 | Monitor and maintain image management equipment | | |
| | D 2.4 | Perform basic trouble shooting | | |
| | D 2.5 | Initiate corrective actions to address equipment issues | | |
| | D 2.6 | Perform quality assurance procedures and initiate corrective action on clinical aspects of treatment delivery, patient care and patient education | | |

## MODULE E PRACTICAL APPLICATIONS

| | | | CL | |
|---|---|---|---|---|
| **E 1** | **Explain the radiobiological rationale for** | | | |
| | E 1.1 | Time, dose and fractionation | M | |
| | E 1.2 | Combined treatment modalities | M | |
| | E 1.3 | Radiation induced cellular damage | M | |
| | E 1.4 | Response of normal tissue | M | |
| | E 1.5 | Five radiobiological factors | M | |
| | E 1.6 | Relative Biological Effectiveness (RBE) | | |
| | E 1.7 | Linear Energy Transfer (LET) | | |
| | E 1.8 | Linear Quadratic module for tissues | | |
| | E 1.9 | Radioprotectors/radiosensitizers | M | |
| | E 1.10 | Acute effects of total body irradiation | M | |
| | E 1.11 | Effects on embryo and fetus | M | |
| **E 2** | **Perform planning procedures for appropriate technique** | | | |
| | E 2.1 | Assess patient for pre-existing medical conditions that may contraindicate the procedure | H | |
| | E 2.2 | Assist the patient as required to prepare for the procedure | H | |
| | E 2.3 | Educate patient regarding the planning procedure | H | |
| | E 2.4 | Select optimum patient position and immobilization | H | |
| | E 2.5 | Construct immobilization device if required | | |
| | E 2.6 | Fit immobilization device if required | | |
| | E 2.7 | Initiate corrective actions for improper fit of immobilization device | H | |
| | E 2.8 | Operate conventional simulator for the purposes of field localization and verification | M | |
| | E 2.9 | Operate CT Simulator for the purposes of field localization and verification | H | |
| | E 2.10 | Transfer treatment parameters to immobilization device, shell, or patient | H | |
| | E 2.11 | Obtain consent for marking/tattooing patient | H | |
| | E 2.12 | Determine placement and type of skin markings/tattoos that are appropriately referenced to the patient's anatomical landmarks | H | |
| | E 2.13 | Perform skin markings/tattoos that are referenced to patient's anatomical landmarks | H | |
| | E 2.14 | Document and/or photograph the critical parameters of treatment setup | H | |
| | E 2.15 | Display and critique analog/digital images | H | |
| | E 2.16 | Complete post-procedural tasks | H | |
| **E 3** | **Perform Dosimetry** | | | |
| | E 3.1 | Determine appropriate planes and levels for contours/measurements | H | |

| | | | CL | |
|---|---|---|---|---|
| | E 3.2 | Produce contours identifying critical and other structures for dosimetric calculation | H | |
| | E 3.3 | Transfer applicable contours to planning computer | | |
| | E 3.4 | Identify the benefits contributed by image fusion to optimize the dosimetry plan | H | |
| | E 3.5 | Identify parameters for an acceptable dose distribution | H | |
| | E 3.6 | Identify acceptable dose/fractionation regimes for the treatment site | H | |
| | E 3.7 | Implement plan in consultation with radiation oncologist | H | |
| | E 3.8 | Generate an optimal dose distribution for various external beam techniques | | |
| | E 3.9 | Generate an optimal dose distribution for various brachytherapy techniques | | |
| | E 3.10 | Modify plan parameters to optimize dose distributions | H | |
| | E 3.11 | Perform calculations for various external beam procedures | H | |
| | E 3.12 | Perform calculations for various brachytherapy procedures | L | |
| | E 3.13 | Identify situations which require calculation modification and perform appropriate recalculation | H | |
| **E 4** | **Fabricate Accessory Devices as necessary** | | | |
| | E 4.1 | Construct and mount shielding blocks | | |
| | E 4.2 | Prepare block positioning templates | | |
| | E 4.3 | Construct lead/ electron cut-out | | |
| | E 4.4 | Prepare bolus material | | |
| | E 4.5 | Construct mouthbite | | |
| | E 4.6 | Construct compensator | | |
| | E 4.7 | Create multi leaf collimator settings | | |
| **E 5** | **Perform treatment procedures for various techniques** | | | |
| | E 5.1 | Assess and prepare technical parameters prior to commencing treatment | H | |
| | E 5.2 | Educate patient regarding treatment procedures | H | |
| | E 5.3 | Align patient and equipment for treatment delivery | H | |
| | E 5.4 | Determine acceptability of daily set-ups and perform trouble shooting | H | |
| | E 5.5 | Generate portal images for clinical mark ups, clinical trial purposes, and/or field verification as required for the appropriate technique | | |
| | E 5.6 | Critique portal images to establish accuracy of patient's treatment field and optimal image quality | H | |
| | E 5.7 | Initiate corrective action if patient's treatment field image is unacceptable as per prescription parameters | H | |
| | E 5.8 | Obtain oncologist approval where required | | |
| | E 5.9 | Administer external beam radiation therapy as per the prescribed technique | H | |

| | | | CL | |
|---|---|---|---|---|
| | E 5.10 | Administer brachytherapy as necessary as per the prescribed technique | L | |
| | E 5.11 | Monitor the patient while receiving radiation treatment | H | |
| | E 5.12 | Document the technical aspects of care | H | |
| | E 5.13 | Determine that a treatment setup requires a thermoluminescent diode measurement | L | |
| **E 6** | **Assess and respond to patient's needs** | | | |
| | E 6.1 | Discuss the possible general side effects of radiation therapy | H | |
| | E 6.2 | Discuss the possible acute reaction/side effects of the selected technique | H | |
| | E 6.3 | Identify methods to minimize the acute reactions | H | |
| | E 6.4 | Discuss the possible chronic reactions/side effects of the selected technique | H | |
| | E 6.5 | Identify methods to minimize the chronic reactions | H | |
| | E 6.6 | Perform holistic patient assessments | M | |
| | E 6.7 | Develop individualized patient care plans | M | |
| | E 6.8 | Discuss, educate and counsel regarding care plan with patient/support person(s) | H | |
| | E 6.9 | Implement care plan | | |
| | E 6.10 | Collaborate with other health care providers for continuity of care | H | |
| | E 6.11 | Document to ensure continuity | H | |
| | E 6.12 | Evaluate outcomes | M | |
| | E 6.13 | Revise strategies as required | H | |
| | E 6.14 | Understand the role of complimentary and alternative medicine within the cancer experience | L | |
| **E7** | **Explain the fundamental principles underlying radiation therapy physics** | | | |
| | E 7.1 | Explain structure of matter | | |
| | E 7.2 | Explain radioactive decay | M | |
| | E 7.3 | Explain the production of x-rays | M | |
| | E 7.4 | Explain the production of electrons | M | |
| | E 7.5 | Explain dose distributions and scatter analysis attenuation processes | | |
| | E 7.6 | Explain the various interactions of ionizing radiation in air and in a standard phantom | M | |
| | E 7.7 | Discuss the processes of measuring ionizing radiation | | |
| | E 7.8 | Describe the criteria behind the quality of x-ray beams | M | |
| | E 7.9 | Describe the criteria behind the quality of electron beams | M | |
| | E 7.10 | Differentiate between the various methods of absorbed dose measurement | | |
| | E 7.11 | Analyse dose and scatter distributions | M | |
| **E 8** | **Describe the physical properties of radiation therapy equipment** | | | |

| | | | CL | |
|---|---|---|---|---|
| | E 8.1 | Explain the components of various external beam treatment machines | | |
| | E 8.2 | Explain the components of various brachytherapy units | | |
| | E 8.3 | Explain the components of various radiation therapy treatment planning units | | |
| | E 8.4 | Explain the nature of impact of digital imaging technologies on radiation therapy | | |
| **E9** | **Prevention and Early Detection** | | | |
| | E 9.1 | Explain Cancer prevention strategies | | |
| | E 9.2 | Explain the purpose and criteria of effective screening programs | | |

**** It is recognized that some of the following sites are not routinely treated with radiation therapy, however it is necessary to have a basic understanding of these sites in order to ensure comprehensive care ****

## MODULE F BREAST CANCER

| | | | CL | |
|---|---|---|---|---|
| **F 1** | **Radiation Treatment of Breast Cancer** | | **H** | |
| | F 1.1 | State the epidemiology of breast cancer | H | |
| | F 1.2 | State the etiology of breast cancer | H | |
| | F 1.3 | Explain the prognostic indicators of breast cancer | H | |
| | F 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the thorax in relation to breast cancer | H | |
| | F 1.5 | Discuss the natural history of breast cancer | H | |
| | F 1.6 | Identify the clinical presentation of breast cancer | H | |
| | F 1.7 | Identify the various detection and diagnostic methods of breast cancer | H | |
| | F 1.8 | Describe the pathology and staging of breast cancer as it relates to treatment | H | |
| | F 1.9 | Describe the routes of spread of breast cancer | H | |
| | F 1.10 | Explain the rationale for using surgery to treat breast cancer specific to the stage and pathology of the disease | H | |
| | F 1.11 | Explain the rationale for using systemic therapy to treat breast cancer specific to the stage and pathology of the disease | H | |
| | F 1.12 | Explain the rationale for using radiation therapy to treat breast cancer specific to the stage and pathology of the disease | H | |
| | F 1.13 | Explain the rationale for using combined modalities to treat breast cancer specific to the stage and pathology of the disease | H | |
| | F 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | F 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | F 1.16 | Discuss the emerging technologies relevant to the management of breast cancer | H | |
| | F 1.17 | Explain the predicted results of breast treatment based on the stage/grade | H | |
| | F 1.18 | Explain the predicted results of breast treatment based on treatment modalities | H | |
| | F 1.19 | Plan radiation treatment for the patient with breast cancer as per Module E2, E3, & E4 | H | |
| | F 1.20 | Perform treatment procedures for the patient with breast cancer as per Module E5 | H | |
| | F 1.21 | Perform patient care for the patient with breast cancer as per Module E6 | H | |

## MODULE G GENITOURINARY CANCER

*The following have been listed in order of the sites most commonly treated with radiation therapy*

| | | | CL | |
|---|---|---|---|---|
| **G 1** | **Treatment of Prostate Cancer** | | **H** | |
| | G 1.1 | State the epidemiology of prostate cancer | H | |
| | G 1.2 | State the etiology of prostate cancer | H | |
| | G 1.3 | Explain the prognostic indicators of prostate cancer | H | |
| | G 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as landmarks of the pelvis in relation to prostate cancer | H | |
| | G 1.5 | Discuss the natural history of prostate cancer | H | |
| | G 1.6 | Identify the clinical presentation of prostate cancer | H | |
| | G 1.7 | Identify the various detection and diagnostic methods of prostate cancer | H | |
| | G 1.8 | Describe the pathology and staging of prostate cancer as it relates to treatment | H | |
| | G 1.9 | Describe the routes of spread of prostate cancer | H | |
| | G 1.10 | Explain the rationale for using surgery to treat prostate cancer specific to the stage and pathology of the disease | H | |
| | G 1.11 | Explain the rationale for using systemic therapy to treat prostate cancer specific to the stage and pathology of the disease | H | |
| | G 1.12 | Explain the rationale for using radiation therapy to treat prostate cancer specific to the stage and pathology of the disease | H | |
| | G 1.13 | Explain the rationale for using combined modalities to treat prostate cancer specific to the stage and pathology of the disease | H | |
| | G 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process. | H | |
| | G1.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | G 1.16 | Discuss the emerging technologies relevant to the management of prostate cancer | H | |
| | G 1.17 | Explain the predicted results of prostate treatment based on stage/grade | H | |
| | G 1.18 | Explain the predicted results of prostate treatment based on treatment modalities | H | |
| | G 1.19 | Plan radiation treatment for the patient with prostate cancer as per Module E2, E3, & E4 | H | |
| | G 1.20 | Perform treatment procedures for the patient with prostate cancer as per Module E5 | H | |
| | G 1.21 | Perform patient care for the patient with prostate cancer as per Module E6 | H | |
| **G 2** | **Treatment of Bladder and Urethral Cancer** | | **H** | |

| | | | CL | |
|---|---|---|---|---|
| | G 2.1 | State the epidemiology of bladder cancer | H | |
| | G 2.2 | State the etiology of bladder cancer | H | |
| | G 2.3 | Explain the prognostic indicators of bladder cancer | H | |
| | G 2.4 | Apply the knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the pelvis in relation to bladder cancer | H | |
| | G 2.5 | Discuss the natural history of bladder cancer | H | |
| | G 2.6 | Identify the clinical presentation of bladder cancer | H | |
| | G 2.7 | Identify the various detection and diagnostic methods of bladder cancer | H | |
| | G 2.8 | Describe the pathology and staging of bladder cancer as it relates to treatment | H | |
| | G 2.9 | Describe the routes of spread of bladder cancer | H | |
| | G 2.10 | Explain the rationale for using surgery to treat bladder cancer specific to the stage and pathology of the disease | H | |
| | G 2.11 | Explain the rationale for using systemic therapy to treat bladder cancer specific to the stage and pathology of the disease | H | |
| | G 2.12 | Explain the rationale for using radiation therapy to treat bladder cancer specific to the stage and pathology of the disease | H | |
| | G 2.13 | Explain the rationale for using combined modalities to treat bladder cancer specific to the stage and pathology of the disease | H | |
| | G 2.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | G 2.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | G 2.16 | Discuss the emerging technologies relevant to the management of bladder cancer | H | |
| | G 2.17 | Explain the predicted results of bladder treatment based on stage/grade | H | |
| | G 2.18 | Explain the predicted results of bladder treatment based on treatment modalities | H | |
| | G 2.19 | Plan radiation treatment for the patient with bladder cancer as per Module E2, E3, & E4 | H | |
| | G 2.20 | Perform treatment procedures for the patient with bladder cancer as per Module E5 | H | |
| | G 2.21 | Perform patient care for the patient with bladder cancer as per Module E6 | H | |
| **G 3** | **Treatment of Testicular Cancer** | | **L** | |
| | G 3.1 | State the epidemiology of testicular cancer | L | |
| | G 3.2 | State the etiology of testicular cancer | L | |
| | G 3.3 | Explain the prognostic indicators of testicular cancer | L | |

| | | | CL | |
|---|---|---|---|---|
| | G 3.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the pelvis in relation to testicular cancer | L | |
| | G 3.5 | Discuss the natural history of testicular cancer | L | |
| | G 3.6 | Identify the clinical presentation of testicular cancer | L | |
| | G 3.7 | Identify the various detection and diagnostic methods of testicular cancer | L | |
| | G 3.8 | Describe the pathology and staging of testicular cancer as it relates to treatment | L | |
| | G 3.9 | Describe the routes of spread of testicular cancer | L | |
| | G 3.10 | Explain the rationale for using surgery to treat testicular cancer specific to the stage and pathology of the disease | L | |
| | G 3.11 | Explain the rationale for using systemic therapy to treat testicular cancer specific to the stage and pathology of the disease | L | |
| | G 3.12 | Explain the rationale for using radiation therapy to treat testicular cancer specific to the stage and pathology of the disease | L | |
| | G 3.13 | Explain the rationale for using combined modalities to treat testicular cancer specific to the stage and pathology of the disease | L | |
| | G 3.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | L | |
| | G 3.15 | Interpret protocols for clinical studies and impact on radiation treatment | L | |
| | G 3.16 | Discuss the emerging technologies relevant to the management of testicular cancer | L | |
| | G 3.17 | Explain the predicted results of testicular treatment based on stage/grade | L | |
| | G 3.18 | Explain the predicted results of testicular treatment based on treatment modalities | L | |
| | G 3.19 | Plan radiation treatment for the patient with testicular cancer as per Module E2, E3, & E4 | L | |
| | G 3.20 | Perform treatment procedures for the patient with testicular cancer as per Module E5 | L | |
| | G 3.21 | Perform patient care for the patient with testicular cancer as per Module E6 | L | |
| **G 4** | **Treatment of Kidney Cancer** | | | |
| | G 4.1 | State the epidemiology of kidney cancer | | |
| | G 4.2 | State the etiology of kidney cancer | | |
| | G 4.3 | Explain the prognostic indicators of kidney cancer | | |
| | G 4.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the abdomen/pelvis in relation to kidney cancer | | |
| | G 4.5 | Discuss the natural history of kidney cancer | | |

| | | | CL | |
|---|---|---|---|---|
| | G 4.6 | Identify the clinical presentation of kidney cancer | | |
| | G 4.7 | Identify the various detection and diagnostic methods of kidney cancer | | |
| | G 4.8 | Describe the pathology and staging of kidney cancer as it relates to treatment | | |
| | G 4.9 | Describe the routes of spread of kidney cancer | | |
| | G 4.10 | Explain the rationale for using surgery to treat kidney cancer specific to the stage and pathology of the disease | | |
| | G 4.11 | Explain the rationale for using systemic to treat kidney cancer specific to the stage and pathology of the disease | | |
| | G 4.12 | Explain the rationale for using radiation therapy to treat kidney cancer specific to the stage and pathology of the disease | | |
| | G 4.13 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | | |
| | G 4.14 | Interpret protocols for clinical studies and impact on radiation treatment | | |
| | G 4.15 | Discuss the emerging technologies relevant to the management of kidney cancer | | |
| | G 4.16 | Explain the predicted results of kidney treatment based on stage/grade | | |
| | G 4.17 | Explain the predicted results of kidney treatment based on treatment modalities | | |
| | G 4.18 | Plan radiation treatment for the patient with kidney cancer as per Module E2, E3, & E4 | | |
| | G 4.19 | Perform treatment procedures for the patient with kidney cancer as per Module E5 | | |
| | G 4.20 | Perform patient care for the patient with kidney cancer as per Module E6 | | |
| **G 5** | **Treatment of Cancer of the Penis** | | | |
| | G 5.1 | State the epidemiology of penile cancer | | |
| | G 5.2 | State the etiology of penile cancer | | |
| | G 5.3 | Explain the prognostic indicators of penile cancer | | |
| | G 5.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the pelvis in relation to penile cancer | | |
| | G 5.5 | Discuss the natural history of penile cancer | | |
| | G 5.6 | Identify the clinical presentation of penile cancer | | |
| | G 5.7 | Identify the various detection and diagnostic methods of penile cancer | | |
| | G 5.8 | Describe the pathology and staging of penile cancer as it relates to treatment | | |
| | G 5.9 | Describe the routes of spread of penile cancer | | |
| | G 5.10 | Explain the rationale for using surgery to treat penile cancer specific to the stage and pathology of the disease | | |

| | | CL | |
|---|---|---|---|
| G 5.11 | Explain the rationale for using systemic therapy to treat penile cancer specific to the stage and pathology of the disease | | |
| G 5.12 | Explain the rationale for using radiation therapy to treat penile cancer specific to the stage and pathology of the disease | | |
| G 5.13 | Explain the rationale for using combined modalities to treat penile cancer specific to the stage and pathology of the disease | | |
| G 5.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | | |
| G 5.15 | Interpret protocols for clinical studies and impact on radiation treatment | | |
| G 5.16 | Discuss the emerging technologies relevant to the management of penile cancer | | |
| G 5.17 | Explain the predicted results of penile treatment based on stage/grade | | |
| G 5.18 | Explain the predicted results of penile treatment based on treatment modalities | | |
| G 5.19 | Plan radiation treatment for the patient with penile cancer as per Module E2, E3, & E4 | | |
| G 5.20 | Perform treatment procedures for the patient with penile cancer as per Module E5 | | |
| G 5.21 | Perform patient care for the patient with penile cancer as per Module E6 | | |

## MODULE H RESPIRATORY CANCER

| | | | CL | |
|---|---|---|---|---|
| **H 1** | **Treatment of Respiratory Cancer** | | **H** | |
| | H 1.1 | State the epidemiology of lung cancer | H | |
| | H 1.2 | State the etiology of lung cancer | H | |
| | H 1.3 | Explain the prognostic indicators of lung cancer | H | |
| | H 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the thorax in relation to lung cancer | H | |
| | H 1.5 | Discuss the natural history of lung cancer | H | |
| | H 1.6 | Identify the clinical presentation of lung cancer | H | |
| | H 1.7 | Identify the various detection and diagnostic methods of lung cancer | H | |
| | H 1.8 | Describe the pathology and staging of lung cancer as it relates to treatment | H | |
| | H 1.9 | Describe the routes of spread of lung cancer | H | |
| | H 1.10 | Explain the rationale for using surgery to treat lung cancer specific to the stage and pathology of the disease | H | |
| | H 1.11 | Explain the rationale for using systemic therapy to treat lung cancer specific to the stage and pathology of the disease | H | |
| | H 1.12 | Explain the rationale for using radiation therapy to treat lung cancer specific to the stage and pathology of the disease | H | |
| | H 1.13 | Explain the rationale for using combined modalities to treat lung cancer specific to the stage and pathology of the disease | H | |
| | H 1.14 | Assess data available from images and/or reports of previous medical studies | H | |
| | H 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | H 1.16 | Discuss the emerging technologies relevant to the management of lung cancer | H | |
| | H 1.17 | Explain the predicted results of lung cancer treatment based on stage/grade | H | |
| | H 1.18 | Explain the predicted results of lung cancer treatment based on treatment modalities | H | |
| | H 1.19 | Plan radiation treatment for the patient with lung cancer as per Module E2, E3, & E4 | H | |
| | H 1.20 | Perform treatment procedures for the patient with lung cancer as per Module E5 | H | |
| | H 1.21 | Perform patient care for the patient with lung cancer as per Module E6 | H | |

## MODULE I GASTROINTESTINAL CANCER

*The following have been listed in order of the sites most commonly treated with radiation therapy*

| | | | CL | |
|---|---|---|---|---|
| **I 1** | **Treatment of Colorectal Cancer** | | **H** | |
| | I 1.1 | State the epidemiology of colorectal cancer | H | |
| | I 1.2 | State the etiology of colorectal cancer | H | |
| | I 1.3 | Explain the prognostic indicators of colorectal cancer | H | |
| | I 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the abdomen/pelvis in relation to colorectal cancer | H | |
| | I 1.5 | Discuss the natural history of colorectal cancer | H | |
| | I 1.6 | Identify the clinical presentation of colorectal cancer | H | |
| | I 1.7 | Identify the various detection and diagnostic methods of colorectal cancer | H | |
| | I 1.8 | Describe the pathology and staging of colorectal cancer as it relates to treatment | H | |
| | I 1.9 | Describe the routes of spread of colorectal cancer | H | |
| | I 1.10 | Explain the rationale for the use of surgery to treat colorectal cancer specific to the stage and pathology of the disease | H | |
| | I 1.11 | Explain the rationale for the use of systemic therapy to treat colorectal cancer specific to the stage and pathology of the disease | H | |
| | I 1.12 | Explain the rationale for the use of radiation therapy to treat colorectal cancer specific to the stage and pathology of the disease | H | |
| | I 1.13 | Explain the rationale for the use of combined modalities to treat colorectal cancer specific to the stage and pathology of the disease | H | |
| | I 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | I 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | I 1.16 | Discuss the emerging technologies relevant to the management of colorectal cancer | H | |
| | I 1.17 | Explain the predicted results of colorectal treatment based on stage/grade | H | |
| | I 1.18 | Explain the predicted results of colorectal treatment based on treatment modalities | H | |
| | I 1.19 | Plan radiation treatment for the patient with colorectal cancer as per Module E2, E3, & E4 | H | |
| | I 1.20 | Perform treatment procedures for the patient with colorectal cancer as per Module E5 | H | |
| | I 1.21 | Perform patient care for the patient with colorectal cancer as per Module E6 | H | |
| **I 2** | **Treatment of Cancer of the Esophagus** | | **H** | |

| | | CL | |
|---|---|---|---|
| I 2.1 | State the epidemiology of esophageal cancer | H | |
| I 2.2 | State the etiology of esophageal cancer | H | |
| I 2.3 | Explain the prognostic indicators of esophageal cancer | H | |
| I 2.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the thorax in relation to esophageal cancer | H | |
| I 2.5 | Discuss the natural history of esophageal cancer | H | |
| I 2.6 | Identify the clinical presentation of esophageal cancer | H | |
| I 2.7 | Identify the various detection and diagnostic methods of esophageal cancer | H | |
| I 2.8 | Describe the pathology and staging of esophageal cancer as it relates to treatment | H | |
| I 2.9 | Describe the routes of spread of esophageal cancer | H | |
| I 2.10 | Explain the rationale of using surgery to treat esophageal cancer specific to the stage and pathology of the disease | H | |
| I 2.11 | Explain the rationale of using systemic therapy to treat esophageal cancer specific to the stage and pathology of the disease | H | |
| I 2.12 | Explain the rationale of using radiation therapy to treat esophageal cancer specific to the stage and pathology of the disease | H | |
| I 2.13 | Explain the rationale of using combined modalities to treat esophageal cancer specific to the stage and pathology of the disease | H | |
| I 2.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| I 2.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| I 2.16 | Discuss the emerging technologies relevant to the management of esophageal cancer | H | |
| I 2.17 | Explain the predicted results of esophageal treatment based on stage/grade | H | |
| I 2.18 | Explain the predicted results of esophageal treatment based on treatment modalities | H | |
| I 2.19 | Plan radiation treatment for the patient with esophageal cancer as per Module E2, E3, & E4 | H | |
| I 2.20 | Perform treatment procedures for the patient with esophageal cancer as per Module E5 | H | |
| I 2.21 | Perform patient care for the patient with esophageal cancer as per Module E6 | H | |
| **I 3** | **Treatment of Cancer of the Anal Canal** | **M** | |
| I 3.1 | State the epidemiology of anal canal cancer | M | |
| I 3.2 | State the etiology of anal canal cancer | M | |
| I 3.3 | Explain the prognostic indicators of anal canal cancer | M | |

| | | | CL | |
|---|---|---|---|---|
| | I 3.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the pelvis in relation to anal canal cancer | M | |
| | I 3.5 | Discuss the natural history of anal canal cancer | M | |
| | I 3.6 | Identify the clinical presentation of anal canal cancer | M | |
| | I 3.7 | Identify the various detection and diagnostic methods of anal canal cancer | M | |
| | I 3.8 | Describe the pathology and staging of anal canal cancer as it relates to treatment | M | |
| | I 3.9 | Describe the routes of spread of anal canal cancer | M | |
| | I 3.10 | Explain the rationale for using surgery to treat anal canal cancer specific to the stage and pathology of the disease | M | |
| | I 3.11 | Explain the rationale for using systemic therapy to treat anal canal cancer specific to the stage and pathology of the disease | M | |
| | I 3.12 | Explain the rationale for using radiation therapy to treat anal canal cancer specific to the stage and pathology of the disease | M | |
| | I 3.13 | Explain the rationale for using combined modalities to treat anal canal cancer specific to the stage and pathology of the disease | M | |
| | I 3.14 | Demonstrate and understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | M | |
| | I 3.15 | Interpret protocols for clinical studies and impact on radiation treatment | M | |
| | I 3.16 | Discuss the emerging technologies relevant to the management of anal canal cancer | M | |
| | I 3.17 | Explain the predicted results of anal canal treatment based on stage/grade | M | |
| | I 3.18 | Explain the predicted results of anal canal treatment based on treatment modalities | M | |
| | I 3.19 | Plan radiation treatment for the patient with anal canal cancer as per Module E2, E3, & E4 | M | |
| | I 3.20 | Perform treatment procedures for the patient with anal canal cancer as per Module E5 | M | |
| | I 3.21 | Perform patient care for the patient with anal canal cancer as per Module E6 | M | |
| **I 4** | **Treatment of Gastric Cancer** | | **M** | |
| | I 4.1 | State the epidemiology of gastric cancer | M | |
| | I 4.2 | State the etiology of gastric cancer | M | |
| | I 4.3 | Explain the prognostic indicators of gastric cancer | M | |
| | I 4.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the abdomen in relation to gastric cancer | M | |
| | I 4.5 | Discuss the natural history of gastric cancer | M | |

| | | | CL | |
|---|---|---|---|---|
| | I 4.6 | Identify the clinical presentation of gastric cancer | M | |
| | I 4.7 | Identify the various detection and diagnostic methods of gastric cancer | M | |
| | I 4.8 | Describe the pathology and staging of gastric cancer as it relates to treatment | M | |
| | I 4.9 | Describe the routes of spread of gastric cancer | M | |
| | I 4.10 | Explain the rationale for using surgery to treat gastric cancer specific to the stage and pathology of the disease | M | |
| | I 4.11 | Explain the rationale for using systemic therapy to treat gastric cancer specific to the stage and pathology of the disease | M | |
| | I 4.12 | Explain the rationale for using radiation therapy to treat gastric cancer specific to the stage and pathology of the disease | M | |
| | I 4.13 | Explain the rationale for using combined modalities to treat gastric cancer specific to the stage and pathology of the disease | M | |
| | I 4.14 | Demonstrate and understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | M | |
| | I 4.15 | Interpret protocols for clinical studies and impact on radiation treatment | M | |
| | I 4.16 | Discuss the emerging technologies relevant to the management of gastric cancer | M | |
| | I 4.17 | Explain the predicted results of gastric treatment based on stage/grade | M | |
| | I 4.18 | Explain the predicted results of gastric treatment based on treatment modalities | M | |
| | I 4.19 | Plan radiation treatment for the patient with gastric cancer as per Module E2, E3, & E4 | M | |
| | I 4.20 | Perform treatment procedures for the patient with gastric cancer as per Module E5 | M | |
| | I 4.21 | Perform patient care for the patient with gastric cancer as per Module E6 | M | |
| **I 5** | **Treatment of Cancer of the Pancreas** | | | |
| | I 5.1 | State the epidemiology of pancreatic cancer | | |
| | I 5.2 | State the etiology of pancreatic cancer | | |
| | I 5.3 | Explain the prognostic indicators of pancreatic cancer | | |
| | I 5.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the abdomen in relation to pancreatic cancer | | |
| | I 5.5 | Discuss the natural history of pancreatic cancer | | |
| | I 5.6 | Identify the clinical presentation of pancreatic cancer | | |
| | I 5.7 | Identify the various detection and diagnostic methods of pancreatic cancer | | |
| | I 5.8 | Describe the pathology and staging of pancreatic cancer as it relates to treatment | | |

| | | | CL | |
|---|---|---|---|---|
| | I 5.9 | Describe the routes of spread of pancreatic cancer | | |
| | I 5.10 | Explain the rationale for using surgery to treat pancreatic cancer specific to the stage and pathology of the disease | | |
| | I 5.11 | Explain the rationale for using systemic therapy to treat pancreatic cancer specific to the stage and pathology of the disease | | |
| | I 5.12 | Explain the rationale for using radiation therapy to treat pancreatic cancer specific to the stage and pathology of the disease | | |
| | I 5.13 | Explain the rationale for using combined modalities to treat pancreatic cancer specific to the stage and pathology of the disease | | |
| | I 5.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | | |
| | I 5.15 | Interpret protocols for clinical studies and impact on radiation treatment | | |
| | I 5.16 | Discuss the emerging technologies relevant to the management of pancreatic cancer | | |
| | I 5.17 | Explain the predicted results of pancreas treatment based on stage/grade | | |
| | I 5.18 | Explain the predicted results of pancreas treatment based on treatment modalities | | |
| | I 5.19 | Plan radiation treatment for the patient with pancreas cancer as per Module E2, E3, & E4 | | |
| | I 5.20 | Perform treatment procedures for the patient with pancreas cancer as per Module E5 | | |
| | I 5.21 | Perform patient care for the patient with pancreas cancer as per Module E6 | | |
| **I 6** | **Treatment of Cancer of the Hepatobiliary Tract** | | | |
| | I 6.1 | State the epidemiology of hepatobiliary cancer | | |
| | I 6.2 | State the etiology of hepatobiliary cancer | | |
| | I 6.3 | Explain the prognostic indicators of hepatobiliary cancer | | |
| | I 6.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the abdomen in relation to hepatobiliary cancer | | |
| | I 6.5 | Discuss the natural history of hepatobiliary cancer | | |
| | I 6.6 | Identify the clinical presentation of hepatobiliary cancer | | |
| | I 6.7 | Identify the various detection and diagnostic methods of hepatobiliary cancer | | |
| | I 6.8 | Describe the pathology and staging of hepatobiliary cancer as it relates to treatment | | |
| | I 6.9 | Describe the routes of spread of hepatobiliary cancer | | |
| | I 6.10 | Explain the rationale for using surgery to treat hepatobiliary cancer specific to the stage and pathology of the disease | | |

| | | CL | |
|---|---|---|---|
| I 6.11 | Explain the rationale for using systemic therapy to treat hepatobiliary cancer specific to the stage and pathology of the disease | | |
| I 6.12 | Explain the rationale for using radiation therapy to treat hepatobiliary cancer specific to the stage and pathology of the disease | | |
| I 6.13 | Explain the rationale for using combined modalities to treat hepatobiliary cancer specific to the stage and pathology of the disease | | |
| I 6.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | | |
| I 6.15 | Interpret protocols for clinical studies and impact on radiation treatment | | |
| I 6.16 | Discuss the emerging technologies relevant to the management of hepatobiliary cancer | | |
| I 6.17 | Explain the predicted results of hepatobiliary treatment based on stage/grade | | |
| I 6.18 | Explain the predicted results of hepatobiliary treatment based on treatment modalities | | |
| I 6.19 | Plan radiation treatment for the patient with hepatobiliary cancer as per Module E2, E3, & E4 | | |
| I 6.20 | Perform treatment procedures for the patient with hepatobiliary cancer as per Module E5 | | |
| I 6.21 | Perform patient care for the patient with hepatobiliary cancer as per Module E6 | | |

## MODULE J HEAD AND NECK CANCER

*The following have been listed in order of the sites most commonly treated with radiation therapy*

| | | | CL | |
|---|---|---|---|---|
| **J 1** | **Treatment of Cancer of the Nasopharynx** | | **H** | |
| | J 1.1 | State the epidemiology of nasopharyngeal cancer | H | |
| | J 1.2 | State the etiology of nasopharyngeal cancer | H | |
| | J 1.3 | Explain the prognostic indicators of nasopharyngeal cancer | H | |
| | J 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the head and neck in relation to nasopharyngeal cancer | H | |
| | J 1.5 | Discuss the natural history of nasopharyngeal cancer | H | |
| | J 1.6 | Identify the clinical presentation of nasopharyngeal cancer | H | |
| | J 1.7 | Identify the various detection and diagnostic methods of nasopharyngeal cancer | H | |
| | J 1.8 | Describe the pathology and staging of nasopharyngeal cancer as it relates to treatment | H | |
| | J 1.9 | Describe the routes of spread of nasopharyngeal cancer | H | |
| | J 1.10 | Explain the rationale for using surgery to treat nasopharyngeal cancer specific to the stage and pathology of the disease | H | |
| | J 1.11 | Explain the rationale for using systemic therapy to treat nasopharyngeal cancer specific to the stage and pathology of the disease | H | |
| | J 1.12 | Explain the rationale for using radiation therapy to treat nasopharyngeal cancer specific to the stage and pathology of the disease | H | |
| | J 1.13 | Explain the rationale for using combined modalities to treat nasopharyngeal cancer specific to the stage and pathology of the disease | H | |
| | J 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | J 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | J 1.16 | Discuss the emerging technologies relevant to the management of nasopharyngeal cancer | H | |
| | J 1.17 | Explain the predicted results of nasopharyngeal cancer treatment based on stage/grade | H | |
| | J 1.18 | Explain the predicted results of nasopharyngeal cancer treatment based on treatment modalities | H | |
| | J 1.19 | Plan radiation treatment for the patient with nasopharyngeal cancer as per Module E2, E3, & E4 | H | |
| | J 1.20 | Perform treatment procedures for the patient with nasopharyngeal cancer as per Module E5 | H | |

| | | | CL | |
|---|---|---|---|---|
| | J 1.21 | Perform patient care for the patient with nasopharyngeal cancer as per Module E6 | H | |
| **J 2** | **Treatment of Cancers of the Oropharynx** | | **H** | |
| | J 2.1 | State the epidemiology of cancers of the oropharynx | H | |
| | J 2.2 | State the etiology of cancers of the oropharynx | H | |
| | J 2.3 | Explain the prognostic indicators of cancers of the oropharynx | H | |
| | J 2.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the head and neck in relation to cancers of the oropharynx | H | |
| | J 2.5 | Discuss the natural history of cancers of the oropharynx | H | |
| | J 2.6 | Identify the clinical presentation of cancers of the oropharynx | H | |
| | J 2.7 | Identify the various detection and diagnostic methods of cancers of the oropharynx | H | |
| | J 2.8 | Describe the pathology and staging of cancers of the oropharynx as it relates to treatment | H | |
| | J 2.9 | Describe the routes of spread of cancers of the oropharynx | H | |
| | J 2.10 | Explain the rationale for using surgery to treat cancers of the oropharynx specific to the stage and pathology of the disease | H | |
| | J 2.11 | Explain the rationale for using systemic therapy to treat cancers of the oropharynx specific to the stage and pathology of the disease | H | |
| | J 2.12 | Explain the rationale for using radiation therapy to treat cancers of the oropharynx specific to the stage and pathology of the disease | H | |
| | J 2.13 | Explain the rationale for using combined modalities to treat cancers of the oropharynx specific to the stage and pathology of the disease | H | |
| | J 2.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | J 2.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | J 2.16 | Discuss the emerging technologies relevant to the management of cancers of the oropharynx | H | |
| | J 2.17 | Explain the predicted results of cancers of the oropharynx treatment based on stage/grade | H | |
| | J 2.18 | Explain the predicted results of cancers of the oropharynx treatment based on treatment modalities | H | |
| | J 2.19 | Plan radiation treatment for the patient with cancer of the oropharynx as per Module E2, E3, & E4 | H | |
| | J 2.20 | Perform treatment procedures for the patient with cancer of the oropharynx as per Module E5 | H | |
| | J 2.21 | Perform patient care for the patient with cancer of the oropharynx as per Module E6 | H | |
| **J 3** | **Treatment of Cancers of the Oral Cavity** | | **H** | |

| | | | CL | |
|---|---|---|---|---|
| | J 3.1 | State the epidemiology of cancers of the oral cavity | H | |
| | J 3.2 | State the etiology of cancers of the oral cavity | H | |
| | J 3.3 | Explain the prognostic indicators of cancers of the oral cavity | H | |
| | J 3.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the head and neck in relation to cancers of the oral cavity | H | |
| | J 3.5 | Discuss the natural history of cancers of the oral cavity | H | |
| | J 3.6 | Identify the clinical presentation of cancers of the oral cavity | H | |
| | J 3.7 | Identify the various detection and diagnostic methods of cancers of the oral cavity | H | |
| | J 3.8 | Describe the pathology and staging of cancers of the oral cavity as it relates to treatment | H | |
| | J 3.9 | Describe the routes of spread of cancers of the oral cavity | H | |
| | J 3.10 | Explain the rationale for using surgery to treat cancers of the oral cavity specific to the stage and pathology of the disease | H | |
| | J 3.11 | Explain the rationale for using systemic therapy to treat cancers of the oral cavity specific to the stage and pathology of the disease | H | |
| | J 3.12 | Explain the rationale for using radiation therapy to treat cancers of the oral cavity specific to the stage and pathology of the disease | H | |
| | J 3.13 | Explain the rationale for using combined modalities to treat cancers of the oral cavity specific to the stage and pathology of the disease | H | |
| | J 3.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | J 3.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | J 3.16 | Discuss the emerging technologies relevant to the management of cancers of the oral cavity | H | |
| | J 3.17 | Explain the predicted results of cancers of the oral cavity treatment based on stage/grade | H | |
| | J 3.18 | Explain the predicted results of cancers of the oral cavity treatment based on treatment modalities | H | |
| | J 3.19 | Plan radiation treatment for the patient with cancer of the oral cavity as per Module E2, E3, & E4 | H | |
| | J 3.20 | Perform treatment procedures for the patient with cancer of the oral cavity as per Module E5 | H | |
| | J 3.21 | Perform patient care for the patient with cancer of the oral cavity as per Module E6 | H | |
| **J 4** | **Treatment of Cancers of the Hypopharnyx** | | **H** | |
| | J 4.1 | State the epidemiology of cancers of the hypopharynx | H | |
| | J 4.2 | State the etiology of cancers of the hypopharynx | H | |
| | J 4.3 | Explain the prognostic indicators of cancers of the hypopharynx | H | |

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| | J 4.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the head and neck in relation to cancers of the hypopharynx | H | |
| | J 4.5 | Discuss the natural history of cancers of the hypopharynx | H | |
| | J 4.6 | Identify the clinical presentation of cancers of the hypopharynx | H | |
| | J 4.7 | Identify the various detection and diagnostic methods of cancers of the hypopharynx | H | |
| | J 4.8 | Describe the pathology and staging of cancers of the hypopharynx as it relates to treatment | H | |
| | J 4.9 | Describe the routes of spread of cancers of the hypopharynx | H | |
| | J 4.10 | Explain the rationale for using surgery to treat cancers of the hypopharynx specific to the stage and pathology of the disease | H | |
| | J 4.11 | Explain the rationale for using systemic therapy to treat cancers of the hypopharynx specific to the stage and pathology of the disease | H | |
| | J 4.12 | Explain the rationale for using radiation therapy to treat cancers of the hypopharynx specific to the stage and pathology of the disease | H | |
| | J 4.13 | Explain the rationale for using combined modalities to treat cancers of the hypopharynx specific to the stage and pathology of the disease | H | |
| | J 4.14 | Demonstrate and understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | J 4.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | J 4.16 | Discuss the emerging technologies relevant to the management of cancers of the hypopharynx | H | |
| | J 4.17 | Explain the predicted results of cancers of the hypopharynx treatment based on stage/grade | H | |
| | J 4.18 | Explain the predicted results of cancers of the hypopharynx treatment based on treatment modalities | H | |
| | J 4.19 | Plan radiation treatment for the patient with cancer of the hypopharynx as per Module E2, E3, & E4 | H | |
| | J 4.20 | Perform treatment procedures for the patient with cancer of the hypopharynx as per Module E5 | H | |
| | J 4.21 | Perform patient care for the patient with cancer of the hypopharynx as per Module E6 | H | |
| **J 5** | **Treatment of Cancers of the Larynx** | | **H** | |
| | J 5.1 | State the epidemiology of cancers of the larynx | H | |
| | J 5.2 | State the etiology of cancers of the larynx | H | |
| | J 5.3 | Explain the prognostic indicators of cancers of the larynx | H | |
| | J 5.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the head and neck in relation to cancers of the larynx | H | |
| | J 5.5 | Discuss the natural history of cancers of the larynx | H | |

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| | J 5.6 | Identify the clinical presentation of cancers of the larynx | H | |
| | J 5.7 | Identify the various detection and diagnostic methods of cancers of the larynx | H | |
| | J 5.8 | Describe the pathology and staging of cancers of the larynx as it relates to treatment | H | |
| | J 5.9 | Describe the routes of spread of cancers of the larynx | H | |
| | J 5.10 | Explain the rationale for using surgery to treat cancers of the larynx specific to the stage and pathology of the disease | H | |
| | J 5.11 | Explain the rationale for using radiation therapy to treat cancers of the larynx specific to the stage and pathology of the disease | H | |
| | J 5.12 | Explain the rationale for using combined modalities to treat cancers of the larynx specific to the stage and pathology of the disease | H | |
| | J 5.13 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | J 5.14 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | J 5.15 | Discuss the emerging technologies relevant to the management of cancers of the larynx | H | |
| | J 5.16 | Explain the predicted results of cancers of the larynx treatment based on stage/grade | H | |
| | J 5.17 | Explain the predicted results of cancers of the larynx treatment based on treatment modalities | H | |
| | J 5.18 | Plan radiation treatment for the patient with cancer of the larynx as per Module E2, E3, & E4 | H | |
| | J 5.19 | Perform treatment procedures for the patient with cancer of the larynx as per Module E5 | H | |
| | J 5.20 | Perform patient care for the patient with cancer of the larynx as per Module E6 | H | |
| **J 6** | **Treatment of Cancers of the Nasal Cavity and Paranasal Sinuses** | | **M** | |
| | J 6.1 | State the epidemiology of these cancers | M | |
| | J 6.2 | State the etiology of these cancers | M | |
| | J 6.3 | Explain the prognostic indicators of these cancers | M | |
| | J 6.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the head and neck in relation to these cancers | M | |
| | J 6.5 | Discuss the natural history of these cancers | M | |
| | J 6.6 | Identify the clinical presentation of these cancers | M | |
| | J 6.7 | Identify the various detection and diagnostic methods of these cancers | M | |
| | J 6.8 | Describe the pathology and staging of these cancers as it relates to treatment | M | |
| | J 6.9 | Describe the routes of spread of these cancers | M | |

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| | J 6.10 | Explain the rationale for using surgery to treat these cancers specific to the stage and pathology of the disease | M | |
| | J 6.11 | Explain the rationale for using radiation therapy to treat these cancers specific to the stage and pathology of the disease | M | |
| | J 6.12 | Explain the rationale for using combined modalities to treat these cancers specific to the stage and pathology of the disease | M | |
| | J 6.13 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | M | |
| | J 6.14 | Interpret protocols for clinical studies and impact on radiation treatment | M | |
| | J 6.15 | Discuss the emerging technologies relevant to the management of these cancers | M | |
| | J 6.16 | Explain the predicted results of these cancers treatment based on stage/grade | M | |
| | J 6.17 | Explain the predicted results of these cancers treatment based on treatment modalities | M | |
| | J 6.18 | Plan radiation treatment for the patient with these cancers as per Module E2, E3, & E4 | M | |
| | J 6.19 | Perform treatment techniques for the patient with these cancers as per Module E5 | M | |
| | J 6.20 | Perform patient care for the patient with these cancers as per Module E6 | M | |
| **J 7** | **Treatment of Cancer of the Salivary Glands** | | **M** | |
| | J 7.1 | State the epidemiology of cancers of the salivary glands | M | |
| | J 7.2 | State the etiology of cancers of the salivary glands | M | |
| | J 7.3 | Explain the prognostic indicators of cancers of the salivary glands | M | |
| | J 7.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the head and neck in relation to cancers of the salivary glands | M | |
| | J 7.5 | Discuss the natural history of cancers of the salivary glands | M | |
| | J 7.6 | Identify the clinical presentation of cancers of the salivary glands | M | |
| | J 7.7 | Identify the various detection and diagnostic methods of cancers of the salivary glands | M | |
| | J 7.8 | Describe the pathology and staging of cancers of the salivary glands as it relates to treatment | M | |
| | J 7.9 | Describe the routes of spread of cancers of the salivary glands | M | |
| | J 7.10 | Explain the rationale for using surgery to treat cancers of the salivary glands specific to the stage and pathology of the disease | M | |
| | J 7.11 | Explain the rationale for using systemic therapy to treat cancers of the salivary glands specific to the stage and pathology of the disease | M | |
| | J 7.12 | Explain the rationale for using radiation therapy to treat cancers of the salivary glands specific to the stage and pathology of the disease | M | |

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| J 7.13 | Explain the rationale for using combined modalities to treat cancers of the salivary glands specific to the stage and pathology of the disease | M | |
| J 7.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | M | |
| J 7.15 | Interpret protocols for clinical studies and impact on radiation treatment | M | |
| J 7.16 | Discuss the emerging technologies relevant to the management of cancers of the salivary glands | M | |
| J 7.17 | Explain the predicted results of cancers of the salivary glands treatment based on stage/grade | M | |
| J 7.18 | Explain the predicted results of cancers of the salivary glands treatment based on treatment modalities | M | |
| J 7.19 | Plan radiation treatment for the patient with cancer of the salivary glands as per Module E2, E3, & E4 | M | |
| J 7.20 | Perform treatment procedures for patient with cancer of the salivary glands as per ModuleE5 | M | |
| J 7.21 | Perform patient care for the patient with cancer of the salivary glands as per Module E6 | M | |

## MODULE K GYNECOLOGICAL CANCERS

*The following have been listed in order of the sites most commonly treated with radiation therapy*

| | | | CL | |
|---|---|---|---|---|
| **K 1** | **Radiation treatment of Cervix Cancer** | | **H** | |
| | K 1.1 | State the epidemiology of cervix cancer | H | |
| | K 1.2 | State the etiology of cervix cancer | H | |
| | K 1.3 | Explain the prognostic indicators of cervix cancer | H | |
| | K 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the abdomen/pelvis in relation to cervix cancer | H | |
| | K 1.5 | Discuss the natural history of cervix cancer | H | |
| | K 1.6 | Identify the clinical presentation of cervix cancer | H | |
| | K 1.7 | Identify the various detection and diagnostic methods of cervix cancer | H | |
| | K 1.8 | Describe the pathology and staging of cervix cancer as it relates to treatment | H | |
| | K 1.9 | Describe the routes of spread of cervix cancer | H | |
| | K 1.10 | Explain the rationale for using surgery to treat cervix cancer specific to the stage and pathology of the disease | H | |
| | K 1.11 | Explain the rationale for using systemic therapy to treat cervix cancer specific to the stage and pathology of the disease | H | |
| | K 1.12 | Explain the rationale for using radiation therapy to treat cervix cancer specific to the stage and pathology of the disease | H | |
| | K 1.13 | Explain the rationale for using combined modalities to treat cervix cancer specific to the stage and pathology of the disease | H | |
| | K 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | K 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | K 1.16 | Discuss the emerging technologies relevant to the management of cervix cancer | H | |
| | K 1.17 | Explain the predicted results of cervix treatment based on stage/grade | H | |
| | K 1.18 | Explain the predicted results of cervix treatment based on treatment modalities | H | |
| | K 1.19 | Plan radiation treatment for the patient with cervical cancer as per Module E2, E3, & E4 | H | |
| | K 1.20 | Perform treatment procedures for the patient with cancer of the cervix as per Module E5 | H | |
| | K 1.21 | Perform patient care for the patient with cancer of the cervix as per Module E6 | H | |
| **K 2** | **Radiation treatment of Cancer of the Endometrium** | | **H** | |
| | K 2.1 | State the epidemiology of endometrial cancer | H | |

| | | | CL | |
|---|---|---|---|---|
| | K 2.2 | State the etiology of endometrial cancer | H | |
| | K 2.3 | Explain the prognostic indicators of endometrial cancer | H | |
| | K 2.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the abdomen/pelvis in relation to endometrial cancer | H | |
| | K 2.5 | Discuss the natural history of endometrial cancer | H | |
| | K 2.6 | Identify the clinical presentation of endometrial cancer | H | |
| | K 2.7 | Identify the various detection and diagnostic methods of endometrial cancer | H | |
| | K 2.8 | Describe the pathology and staging of endometrial cancer as it relates to treatment | H | |
| | K 2.9 | Describe the routes of spread of endometrial cancer | H | |
| | K 2.10 | Explain the rationale for using surgery to treat endometrial cancer specific to the stage and pathology of the disease | H | |
| | K 2.11 | Explain the rationale for using systemic therapy to treat endometrial cancer specific to the stage and pathology of the disease | H | |
| | K 2.12 | Explain the rationale for using radiation therapy to treat endometrial cancer specific to the stage and pathology of the disease | H | |
| | K 2.13 | Explain the rationale for using combined modalities to treat endometrial cancer specific to the stage and pathology of the disease | H | |
| | K 2.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | K 2.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | K 2.16 | Discuss the emerging technologies relevant to the management of endometrial cancer | H | |
| | K 2.17 | Explain the predicted results of endometrial treatment based on stage/grade | H | |
| | K 2.18 | Explain the predicted results of endometrial treatment based on treatment modalities | H | |
| | K 2.19 | Plan radiation treatment for the patient with endometrial carcinoma as per Module E2, E3, & E4 | H | |
| | K 2.20 | Perform treatment procedures for the patient with endometrial cancer as per Module E5 | H | |
| | K 2.21 | Perform patient care for the patient with endometrial carcinoma as per Module E6 | H | |
| **K 3** | **Radiation treatment of Cancer of the Ovary** | | **L** | |
| | K 3.1 | State the epidemiology of ovarian cancer | L | |
| | K 3.2 | State the etiology of ovarian cancer | L | |
| | K 3.3 | Explain the prognostic indicators of ovarian cancer | L | |

| | | | CL | |
|---|---|---|---|---|
| | K 3.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the abdomen/pelvis in relation to ovarian cancer | L | |
| | K 3.5 | Discuss the natural history of ovarian cancer | L | |
| | K 3.6 | Identify the clinical presentation of ovarian cancer | L | |
| | K 3.7 | Identify the various detection and diagnostic methods of ovarian cancer | L | |
| | K 3.8 | Describe the pathology and staging of ovarian cancer as it relates to treatment | L | |
| | K 3.9 | Describe the routes of spread of ovarian cancer | L | |
| | K 3.10 | Explain the rationale for using surgery to treat ovarian cancer specific to the stage and pathology of the disease | L | |
| | K 3.11 | Explain the rationale for using systemic therapy to treat ovarian cancer specific to the stage and pathology of the disease | L | |
| | K 3.12 | Explain the rationale for using radiation therapy to treat ovarian cancer specific to the stage and pathology of the disease | L | |
| | K 3.13 | Explain the rationale for using combined modalities to treat ovarian cancer specific to the stage and pathology of the disease | L | |
| | K 3.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | L | |
| | K 3.15 | Interpret protocols for clinical studies and impact on radiation treatment | L | |
| | K 3.16 | Discuss the emerging technologies relevant to the management of ovarian cancer | L | |
| | K 3.17 | Explain the predicted results of ovarian treatment based on stage/grade | L | |
| | K 3.18 | Explain the predicted results of ovarian treatment based on treatment modalities | L | |
| | K 3.19 | Plan radiation treatment for the patient with ovarian cancer as per Module E2, E3, & E4 | L | |
| | K 3.20 | Perform treatment procedures for the patient with ovarian cancer as per Module E5 | L | |
| | K 3.21 | Perform patient care for the patient with ovarian cancer as per Module E6 | L | |
| **K 4** | **Radiation treatment of Cancer of the Vagina** | | **L** | |
| | K 4.1 | State the epidemiology of vaginal cancer | L | |
| | K 4.2 | State the etiology of vaginal cancer | L | |
| | K 4.3 | Explain the prognostic indicators of vaginal cancer | L | |
| | K 4.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the abdomen/pelvis in relation to vaginal cancer | L | |
| | K 4.5 | Discuss the natural history of vaginal cancer | L | |

| | | | CL | |
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| | K 4.6 | Identify the clinical presentation of vaginal cancer | L | |
| | K 4.7 | Identify the various detection and diagnostic methods of vaginal cancer | L | |
| | K 4.8 | Describe the pathology and staging of vaginal cancer as it relates to treatment | L | |
| | K 4.9 | Describe the routes of spread of vaginal cancer | L | |
| | K 4.10 | Explain the rationale for using surgery to treat vaginal cancer specific to the stage and pathology of the disease | L | |
| | K 4.11 | Explain the rationale for using systemic therapy to treat vaginal cancer specific to the stage and pathology of the disease | L | |
| | K 4.12 | Explain the rationale for using radiation therapy to treat vaginal cancer specific to the stage and pathology of the disease | L | |
| | K 4.13 | Explain the rationale for using combined modalities to treat vaginal cancer specific to the stage and pathology of the disease | L | |
| | K 4.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | L | |
| | K 4.15 | Interpret protocols for clinical studies and impact on radiation treatment | L | |
| | K 4.16 | Discuss the emerging technologies relevant to the management of vaginal cancer | L | |
| | K 4.17 | Explain the predicted results of vaginal treatment based on stage/grade | L | |
| | K 4.18 | Explain the predicted results of vaginal treatment based on treatment modalities | L | |
| | K 4.19 | Plan radiation treatment for the patient with vaginal cancer as per Module E2, E3, & E4 | L | |
| | K 4.20 | Perform treatment procedures for the patient with vaginal cancer as per Module E5 | L | |
| | K 4.21 | Perform patient care for the patient with cancer of the vagina as per Module E6 | L | |
| **K 5** | **Radiation treatment of Cancer of the Vulva** | | **L** | |
| | K 5.1 | State the epidemiology of vulvar cancer | L | |
| | K 5.2 | State the etiology of vulvar cancer | L | |
| | K 5.3 | Explain the prognostic indicators of vulvar cancer | L | |
| | K 5.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the abdomen/pelvis in relation to vulvar cancer | L | |
| | K 5.5 | Discuss the natural history of vulvar cancer | L | |
| | K 5.6 | Identify the clinical presentation of vulvar cancer | L | |
| | K 5.7 | Identify the various detection and diagnostic methods of vulvar cancer | L | |
| | K 5.8 | Describe the pathology and staging of vulvar cancer as it relates to treatment | L | |

| | | CL | |
|---|---|---|---|
| K 5.9 | Describe the routes of spread of vulvar cancer | L | |
| K 5.10 | Explain the rationale for using surgery to treat vulvar cancer specific to the stage and pathology of the disease | L | |
| K 5.11 | Explain the rationale for using systemic therapy to treat vulvar cancer specific to the stage and pathology of the disease | L | |
| K 5.12 | Explain the rationale for using radiation therapy to treat vulvar cancer specific to the stage and pathology of the disease | L | |
| K 5.13 | Explain the rationale for using combined modalities to treat vulvar cancer specific to the stage and pathology of the disease | L | |
| K 5.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | L | |
| K 5.15 | Interpret protocols for clinical studies and impact on radiation treatment | L | |
| K 5.16 | Discuss the emerging technologies relevant to the management of vulvar cancer | L | |
| K 5.17 | Explain the predicted results of vulvar treatment based on stage/grade | L | |
| K 5.18 | Explain the predicted results of vulvar treatment based on treatment modalities | L | |
| K 5.19 | Plan radiation treatment for the patient with vulvar cancer as per Module E2, E3, & E4 | L | |
| K 5.20 | Perform treatment procedures for the patient with vulvar cancer as per Module E5 | L | |
| K 5.21 | Perform patient care for the patient with cancer of the vulva as per Module E6 | L | |

## MODULE L LYMPHORETICULAR CANCERS

| | | | CL | |
|---|---|---|---|---|
| **L 1** | **Treatment of Hodgkin's Disease** | | **M** | |
| | L 1.1 | State the epidemiology of Hodgkin's Lymphoma | M | |
| | L 1.2 | State the etiology of Hodgkin's Lymphoma | M | |
| | L 1.3 | Explain the prognostic indicators of Hodgkin's Lymphoma | M | |
| | L 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the thorax in relation to Hodgkin's Lymphoma field localization and verification | M | |
| | L 1.5 | Discuss the natural history of Hodgkin's Lymphoma | M | |
| | L 1.6 | Identify the clinical presentation of Hodgkin's Lymphoma | M | |
| | L 1.7 | Identify the various detection and diagnostic methods of Hodgkin's Lymphoma | M | |
| | L 1.8 | Describe the pathology and staging of Hodgkin's Lymphoma as it relates to treatment | M | |
| | L 1.9 | Describe the routes of spread of Hodgkin's Lymphoma | M | |
| | L 1.10 | Explain the rationale of using surgery to treat Hodgkin's Lymphoma specific to the stage and pathology of the disease | M | |
| | L 1.11 | Explain the rationale of using systemic therapy to treat Hodgkin's Lymphoma specific to the stage and pathology of the disease | M | |
| | L 1.12 | Explain the rationale of using radiation therapy to treat Hodgkin's Lymphoma specific to the stage and pathology of the disease | M | |
| | L 1.13 | Explain the rationale of using combined modalities to treat Hodgkin's Lymphoma specific to the stage and pathology of the disease | M | |
| | L 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | M | |
| | L 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | M | |
| | L 1.16 | Discuss the emerging technologies relevant to the management of Hodgkin's Lymphoma | M | |
| | L 1.17 | Explain the predicted results of Hodgkin's Lymphoma treatment based on stage/grade | M | |
| | L 1.18 | Explain the predicted results of Hodgkin's Lymphoma treatment based on treatment modalities | M | |
| | L 1.19 | Plan radiation treatment for the patient with Hodgkin's Lymphoma as per Module E2, E3, & E4 | M | |
| | L 1.20 | Perform treatment procedures for the patient with Hodgkin's Lymphoma as per Module E5 | M | |
| | L 1.21 | Perform patient care for the patient with Hodgkin's Lymphoma as per Module E6 | M | |
| **L 2** | **Treatment of Non-Hodgkin's Lymphoma** | | **M** | |
| | L 2.1 | State the epidemiology of Non-hodgkin's lymphoma | M | |

| | | CL | |
|---|---|---|---|
| L 2.2 | State the etiology of Non-hodgkin's lymphoma | M | |
| L 2.3 | Explain the prognostic indicators of Non-hodgkin's lymphoma | M | |
| L 2.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the body in relation to Non-hodgkin's lymphoma | M | |
| L 2.5 | Discuss the natural history of Non-hodgkin's lymphoma | M | |
| L 2.6 | Identify the clinical presentation of Non-hodgkin's lymphoma | M | |
| L 2.7 | Identify the various detection and diagnostic methods of Non-hodgkin's lymphoma | M | |
| L 2.8 | Describe the pathology and staging of Non-hodgkin's lymphoma as it relates to treatment | M | |
| L 2.9 | Describe the routes of spread of Non-hodgkin's lymphoma | M | |
| L 2.10 | Explain the rationale for using surgery to treat Non-hodgkin's lymphoma specific to the stage and pathology of the disease | M | |
| L 2.11 | Explain the rationale for using systemic therapy to treat Non-hodgkin's lymphoma specific to the stage and pathology of the disease | M | |
| L 2.12 | Explain the rationale for using radiation therapy to treat Non-hodgkin's lymphoma specific to the stage and pathology of the disease | M | |
| L 2.13 | Explain the rationale for using combined modalities to treat Non-hodgkin's lymphoma specific to the stage and pathology of the disease | M | |
| L 2.14 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | M | |
| L 2.15 | Interpret protocols for clinical studies and impact on radiation treatment | M | |
| L 2.16 | Discuss the emerging technologies relevant to the management of Non-hodgkin's lymphoma | M | |
| L 2.17 | Explain the predicted results of Non-hodgkin's lymphoma treatment based on stage/grade | M | |
| L 2.18 | Explain the predicted results of Non-hodgkin's lymphoma treatment based on treatment modalities | M | |
| L 2.19 | Plan radiation treatment for the patient with Non-hodgkin's lymphoma as per Module E2, E3, & E4 | M | |
| L 2.20 | Perform treatment procedures for the patient with Non-hodgkin's lymphoma as per Module E5 | M | |
| L 2.21 | Perform patient care for the patient with Non-hodgkin's lymphoma as per Module E6 | M | |
| L 2.22 | Explain the rationale for high dose total body irradiation | M | |
| L 2.23 | Identify the types of bone marrow transplants | M | |
| L 2.24 | Explain the various radiation treatment techniques for total body irradiation | M | |
| L 2.25 | Explain the dose-fractionation schemes for total body irradiation | M | |

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| L 2.26 | Plan radiation treatment for the patient with Non-hodgkin's lymphoma receiving total body irradiation as per Module E 2.1-2.4 and E 2.10-2.16 | M | |
| L 2.27 | Obtain radiographic images as necessary for construction of tissue inhomogeneity compensators | M | |
| L 2.28 | Perform treatment procedures for the patient with Non-hodgkin's lymphoma receiving total body irradiation as per Module E 5.1-5.9 and E 5.11-5.12 | M | |
| L 2.29 | Perform patient care for the patient with Non-hodgkin's lymphoma receiving total body irradiation as per Module E6 | M | |

## MODULE M CENTRAL NERVOUS SYSTEM TUMORS

| | | | CL | |
|---|---|---|---|---|
| **M 1** | **Radiation Treatment of Cancers of the Brain, Brainstem, and Cerebellum** | | **H** | |
| | M 1.1 | State the epidemiology of brain cancer | H | |
| | M 1.2 | State the etiology of brain cancer | H | |
| | M 1.3 | Explain the prognostic indicators of brain cancer | H | |
| | M 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the skull in relation to brain cancer | H | |
| | M1.5 | Discuss the natural history of brain cancer | H | |
| | M 1.6 | Identify the clinical presentation of brain cancer | H | |
| | M 1.7 | Identify the various detection and diagnostic methods of brain cancer | H | |
| | M 1.8 | Describe the pathology and staging of brain cancer as it relates to treatment | H | |
| | M 1.9 | Describe the routes of spread of brain cancer | H | |
| | M 1.10 | Explain the rationale of using surgery to treat brain cancer specific to the stage and pathology of the disease | H | |
| | M 1.11 | Explain the rationale of using systemic therapy to treat brain cancer specific to the stage and pathology of the disease | H | |
| | M 1.12 | Explain the rationale of using radiation therapy to treat brain cancer specific to the stage and pathology of the disease | H | |
| | M 1.13 | Explain the rationale of using combined modalities to treat brain cancer specific to the stage and pathology of the disease | H | |
| | M 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images/ reports of previous medical studies for specific use in the planning and treatment process | H | |
| | M 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | M 1.16 | Discuss the emerging technologies relevant to the management of brain cancer | H | |
| | M 1.17 | Explain the predicted results of brain treatment based on stage/grade | H | |
| | M 1.18 | Explain the predicted results of brain treatment based on treatment modalities | H | |
| | M 1.19 | Explain the predicted results of brain treatment based on histopathology | H | |
| | M1.20 | Plan radiation treatment for patient with brain cancer as per Module E2, E3, & E4 | H | |
| | M 1.21 | Perform treatment procedures for patient with brain cancer as per Module E5 | H | |
| | M 1.22 | Perform patient care for patient with brain cancer as per Module E6 | H | |

## MODULE N PEDIATRIC CANCERS

*The following have been listed in order of the sites most commonly treated with radiation therapy*

| | | | CL | |
|---|---|---|---|---|
| **N 1** | **Radiation Treatment of CNS Tumors** | | **M** | |
| | N 1.1 | State the epidemiology of pediatric CNS tumors | M | |
| | N 1.2 | State the etiology of pediatric CNS tumors | M | |
| | N 1.3 | Explain the prognostic indicators of pediatric CNS tumors | M | |
| | N 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the brain and spinal column in relation to pediatric CNS tumors | M | |
| | N 1.5 | Discuss the natural history of pediatric CNS tumors | M | |
| | N 1.6 | Identify the clinical presentation of pediatric CNS tumors | M | |
| | N 1.7 | Identify the various detection and diagnostic methods of pediatric CNS tumors | M | |
| | N 1.8 | Describe the pathology and staging of pediatric CNS tumors as it relates to treatment | M | |
| | N 1.9 | Describe the routes of spread of pediatric CNS tumors | M | |
| | N 1.10 | Explain the rationale for using surgery to treat pediatric CNS tumors specific to the stage and pathology of the disease | M | |
| | N 1.11 | Explain the rationale for using systemic therapy to treat pediatric CNS tumors specific to the stage and pathology of the disease | M | |
| | N 1.12 | Explain the rationale for using radiation therapy to treat pediatric CNS tumors specific to the stage and pathology of the disease | M | |
| | N 1.13 | Explain the rationale for using combined modalities to treat pediatric CNS tumors specific to the stage and pathology of the disease | M | |
| | N 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | M | |
| | N 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | M | |
| | N 1.16 | Discuss the emerging technologies relevant to the management of pediatric CNS tumors | M | |
| | N 1.17 | Explain the predicted results of pediatric CNS treatment based on stage/grade | M | |
| | N 1.18 | Explain the predicted results of pediatric CNS treatment based on treatment modalities | M | |
| | N 1.19 | Plan radiation treatment for pediatric patient with CNS cancer as per Module E2, E3, & E4 | M | |
| | N 1.20 | Perform treatment procedures for pediatric patient with CNS cancer as per Module E5 | M | |
| | N 1.21 | Perform patient care for pediatric patient with CNS cancer as per Module E6 | M | |
| **N 2** | **Radiation Treatment of Ewing's Sarcoma** | | | |

| | | | CL | |
|---|---|---|---|---|
| | N 2.1 | State the epidemiology of Ewing's sarcoma | | |
| | N 2.2 | State the etiology of Ewing's sarcoma | | |
| | N 2.3 | Explain the prognostic indicators of Ewing's sarcoma | | |
| | N 2.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the skeletal system in relation to Ewing's sarcoma | | |
| | N 2.5 | Discuss the natural history of Ewing's sarcoma | | |
| | N 2.6 | Identify the clinical presentation of Ewing's sarcoma | | |
| | N 2.7 | Identify the various detection and diagnostic methods of Ewing's sarcoma | | |
| | N 2.8 | Describe the pathology of Ewing's sarcoma as it relates to treatment | | |
| | N 2.9 | Describe the routes of spread of Ewing's sarcoma | | |
| | N 2.10 | Explain the rationale for using surgery to treat Ewing's sarcoma specific to the stage and pathology of the disease | | |
| | N 2.11 | Explain the rationale for using systemic therapy to treat Ewing's sarcoma specific to the pathology of the disease | | |
| | N 2.12 | Explain the rationale for using radiation therapy to treat Ewing's sarcoma specific to the pathology of the disease | | |
| | N 2.13 | Explain the rationale for using combined modalities to treat Ewing's sarcoma specific to the pathology of the disease | | |
| | N 2.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | | |
| | N 2.15 | Interpret protocols for clinical studies and impact on radiation treatment | | |
| | N 2.16 | Discuss the emerging technologies relevant to the management of Ewing's sarcoma | | |
| | N 2.17 | Explain the predicted results of Ewing's sarcoma treatment based on pathology | | |
| | N 2.18 | Explain the predicted results of Ewing's sarcoma treatment based on treatment modalities | | |
| | N 2.19 | Plan radiation treatment for a patient with Ewing's sarcoma as per Module E2, E3, & E4 | | |
| | N 2.20 | Perform treatment procedures for a patient with Ewing's sarcoma as per Module E5 | | |
| | N 2.21 | Perform patient care for a patient with Ewing's sarcoma as per Module E6 | | |
| **N 3** | **Radiation Treatment of Wilm's Tumor** | | | |
| | N 3.1 | State the epidemiology of Wilm's tumor | | |
| | N 3.2 | State the etiology of Wilm's tumor | | |
| | N 3.3 | Explain the prognostic indicators of Wilm's tumor | | |

| | | | CL | |
|---|---|---|---|---|
| | N 3.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the skeletal system in relation to Wilm's tumor | | |
| | N 3.5 | Discuss the natural history of Wilm's tumor | | |
| | N 3.6 | Identify the clinical presentation of Wilm's tumor | | |
| | N 3.7 | Identify the various detection and diagnostic methods of Wilm's tumor | | |
| | N 3.8 | Describe the pathology and staging of Wilm's tumor as it relates to treatment | | |
| | N 3.9 | Describe the routes of spread of Wilm's tumor | | |
| | N 3.10 | Explain the rationale for using surgery to treat Wilm's tumor specific to the stage and pathology of the disease | | |
| | N 3.11 | Explain the rationale for using systemic therapy to treat Wilm's tumor specific to the stage and pathology of the disease | | |
| | N 3.12 | Explain the rationale for using radiation therapy to treat Wilm's tumor specific to the stage and pathology of the disease | | |
| | N 3.13 | Explain the rationale for using combined modalities to treat Wilm's tumor specific to the stage and pathology of the disease | | |
| | N 3.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | | |
| | N 3.15 | Interpret protocols for clinical studies and impact on radiation treatment | | |
| | N 3.16 | Discuss the emerging technologies relevant to the management of Wilm's tumor | | |
| | N 3.17 | Explain the predicted results of Wilm's tumor treatment based on stage/grade | | |
| | N 3.18 | Explain the predicted results of Wilm's tumor treatment based on treatment modalities | | |
| | N 3.19 | Plan radiation treatment for a patient with Wilm's tumor as per Module E2, E3, & E4 | | |
| | N 3.20 | Perform treatment procedures for a patient with Wilm's tumor as per Module E5 | | |
| | N 3.21 | Perform patient care for a patient with Wilm's tumor as per Module E6 | | |
| **N 4** | **Radiation Treatment of Retinoblastoma** | | | |
| | N 4.1 | State the epidemiology of retinoblastoma | | |
| | N 4.2 | State the etiology of retinoblastoma | | |
| | N 4.3 | Explain the prognostic indicators of retinoblastoma | | |
| | N 4.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the eye in relation to retinoblastoma | | |
| | N 4.5 | Discuss the natural history of retinoblastoma | | |

| | | | CL | |
|---|---|---|---|---|
| | N 4.6 | Identify the clinical presentation of retinoblastoma | | |
| | N 4.7 | Identify the various detection and diagnostic methods of retinoblastoma | | |
| | N 4.8 | Describe the pathology and staging of retinoblastoma as it relates to treatment | | |
| | N 4.9 | Describe the routes of spread of retinoblastoma | | |
| | N 4.10 | Explain the rationale for using surgery to treat retinoblastoma specific to the stage and pathology of the disease | | |
| | N 4.11 | Explain the rationale for using systemic therapy to treat retinoblastoma specific to the stage and pathology of the disease | | |
| | N 4.12 | Explain the rationale for using radiation therapy to treat retinoblastoma specific to the stage and pathology of the disease | | |
| | N 4.13 | Explain the rationale for using combined modalities to treat retinoblastoma specific to the stage and pathology of the disease | | |
| | N 4.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | | |
| | N 4.15 | Explain the predicted results of retinoblastoma treatment based on stage | | |
| | N 4.16 | Explain the predicted results of retinoblastoma treatment based on treatment modalities | | |
| | N 4.17 | Plan radiation treatment for a patient with retinoblastoma as per Module E2, E3, & E4 | | |
| | N 4.18 | Perform treatment procedures for a patient with retinoblastoma as per Module E5 | | |
| | N 4.19 | Perform patient care for a patient with retinoblastoma as per Module E6 | | |
| **N 5** | **Radiation Treatment of Neuroblastoma** | | | |
| | N 5.1 | State the epidemiology of neuroblastoma | | |
| | N 5.2 | State the etiology of neuroblastoma | | |
| | N 5.3 | Explain the prognostic indicators of neuroblastoma | | |
| | N 5.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the head in relation to neuroblastoma | | |
| | N 5.5 | Discuss the natural history of neuroblastoma | | |
| | N 5.6 | Identify the clinical presentation of neuroblastoma | | |
| | N 5.7 | Identify the various detection and diagnostic methods of neuroblastoma | | |
| | N 5.8 | Describe the pathology and staging of neuroblastoma as it relates to treatment | | |
| | N 5.9 | Describe the routes of spread of neuroblastoma | | |

| | | | CL | |
|---|---|---|---|---|
| | N 5.10 | Explain the rationale for using surgery to treat neuroblastoma specific to the stage and pathology of the disease | | |
| | N 5.11 | Explain the rationale for using systemic therapy to treat neuroblastoma specific to the stage and pathology of the disease | | |
| | N 5.12 | Explain the rationale for using radiation therapy to treat neuroblastoma specific to the stage and pathology of the disease | | |
| | N 5.13 | Explain the rationale for using combined modalities to treat neuroblastoma specific to the stage and pathology of the disease | | |
| | N 5.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | | |
| | N 5.15 | Interpret protocols for clinical studies and impact on radiation treatment | | |
| | N 5.16 | Discuss the emerging technologies relevant to the management of neuroblastoma | | |
| | N 5.17 | Explain the predicted results of neuroblastoma treatment based on stage/grade | | |
| | N 5.18 | Explain the predicted results of neuroblastoma treatment based on treatment modalities | | |
| | N 5.19 | Plan radiation treatment for a patient with neuroblastoma as per Module E2, E3, & E4 | | |
| | N 5.20 | Perform treatment procedures for a patient with neuroblastoma as per Module E5 | | |
| | N 5.21 | Perform patient care for a patient with neuroblastoma as per Module E6 | | |
| **N 6** | **Radiation Treatment of Rhabdomyosarcoma** | | **L** | |
| | N 6.1 | State the epidemiology of rhabdomyosarcoma | L | |
| | N 6.2 | State the etiology of rhabdomyosarcoma | L | |
| | N 6.3 | Explain the prognostic indicators of rhabdomyosarcoma | L | |
| | N 6.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the body in relation to rhabdomyosarcoma | L | |
| | N 6.5 | Discuss the natural history of rhabdomyosarcoma | L | |
| | N 6.6 | Identify the clinical presentation of rhabdomyosarcoma | L | |
| | N 6.7 | Identify the various detection and diagnostic methods of rhabdomyosarcoma | L | |
| | N 6.8 | Describe the pathology and staging of rhabdomyosarcoma as it relates to treatment | L | |
| | N 6.9 | Describe the routes of spread of rhabdomyosarcoma | L | |
| | N 6.10 | Explain the rationale for using surgery to treat rhabdomyosarcoma specific to the stage and pathology of the disease | L | |
| | N 6.11 | Explain the rationale for using systemic therapy to treat rhabdomyosarcoma specific to the stage and pathology of the disease | L | |

| | | CL | |
|---|---|---|---|
| N 6.12 | Explain the rationale for using radiation therapy to treat rhabdomyosarcoma specific to the stage and pathology of the disease | L | |
| N 6.13 | Explain the rationale for using combined modalities to treat rhabdomyosarcoma specific to the stage and pathology of the disease | L | |
| N 6.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | L | |
| N 6.15 | Interpret protocols for clinical studies and impact on radiation treatment | L | |
| N 6.16 | Discuss the emerging technologies relevant to the management of rhabdomyosarcoma | L | |
| N 6.17 | Explain the predicted results of rhabdomyosarcoma treatment based on stage/grade | L | |
| N 6.18 | Explain the predicted results of rhabdomyosarcoma treatment based on treatment modalities | L | |
| N 6.19 | Plan radiation treatment for a patient with rhabdomyosarcoma as per Module E2, E3, & E4 | L | |
| N 6.20 | Perform treatment procedures for a patient with rhabdomyosarcoma as per Module E5 | L | |
| N 6.21 | Perform patient care for a patient with rhabdomyosarcoma as per Module E6 | L | |

## MODULE O HEMATOLOGIC MALIGNANCIES

| | | | CL | |
|---|---|---|---|---|
| **O 1** | **Radiation Treatment of Leukemia** | | **L** | |
| | O 1.1 | State the epidemiology of leukemia | L | |
| | O 1.2 | state the etiology of leukemia | L | |
| | O 1.3 | Explain the prognostic indicators of leukemia | L | |
| | O 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the body in relation to leukemia | L | |
| | O 1.5 | Discuss the natural history of leukemia | L | |
| | O 1.6 | Identify the clinical presentation of leukemia | L | |
| | O 1.7 | Identify the various detection and diagnostic methods of leukemia | L | |
| | O 1.8 | Describe the pathology and staging of leukemia as it relates to treatment | L | |
| | O 1.9 | Describe the routes of spread of leukemia | L | |
| | O 1.10 | Explain the rationale for using systemic therapy to treat leukemia specific to the stage and pathology of the disease | L | |
| | O 1.11 | Explain the rationale for using radiation therapy to treat leukemia specific to the stage and pathology of the disease | L | |
| | O 1.12 | Explain the rationale for using combined modalities to treat leukemia specific to the stage and pathology of the disease | L | |
| | O 1.13 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies in the planning and treatment process | L | |
| | O 1.14 | Explain the predicted results of leukemia treatment based on stage/grade | L | |
| | O 1.15 | Explain the predicted results of leukemia treatment based on treatment modalities | L | |
| | O 1.16 | Plan radiation treatment for the patient with leukemia as per Module E2, E3, & E4 | L | |
| | O 1.17 | Perform treatment procedures for the patient with leukemia as per Module E5 | L | |
| | O 1.18 | Perform patient care for the patient with leukemia as per Module E6 | L | |
| | O 1.19 | Explain the rationale for high dose total body irradiation | L | |
| | O 1.20 | Identify the types of bone marrow transplants | L | |
| | O 1.21 | Explain the various radiation treatment techniques for total body irradiation | L | |
| | O 1.22 | Explain the dose-fractionation schemes for total body irradiation | L | |
| | O 1.23 | Plan radiation treatment for the patient with leukemia receiving total body irradiation as per Module E 2.1-2.4 and E 2.10-2.16 | L | |
| | O 1.24 | Obtain radiographic images as necessary for construction of tissue inhomogeneity compensators | L | |

| | | | CL | |
|---|---|---|---|---|
| | O 1.25 | Perform treatment procedures for the patient with leukemia receiving total body irradiation as per Module E 5.1-5.9 and E 5.11-5.12 | L | |
| | O 1.26 | Perform patient care for the patient with leukemia receiving total body irradiation as per Module E6 | L | |
| **O 2** | **Radiation Treatment of Multiple Myeloma and Plasmacytoma** | | **L** | |
| | O 2.1 | State the epidemiology of multiple myeloma and plasmacytoma | L | |
| | O 2.2 | State the etiology of multiple myeloma and plasmacytoma | L | |
| | O 2.3 | Explain the prognostic indicators of myeloma and plasmacytoma | L | |
| | O 2.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the body in relation to myeloma and plasmacytoma | L | |
| | O 2.5 | Discuss the natural history of myeloma and plasmacytoma | L | |
| | O 2.6 | Identify the clinical presentation of myeloma and plasmacytoma | L | |
| | O 2.7 | Identify the various detection and diagnostic methods of myeloma and plasmacytoma | L | |
| | O 2.8 | Describe the pathology and staging of myeloma and plasmacytoma as it relates to treatment | L | |
| | O 2.9 | Describe the routes of spread of myeloma and plasmacytoma | L | |
| | O 2.10 | Explain the rationale for using systemic therapy to treat myeloma and plasmacytoma specific to the stage and pathology of the disease | L | |
| | O 2.11 | Explain the rationale for using radiation therapy to treat myeloma and plasmacytoma specific to the stage and pathology of the disease | L | |
| | O 2.12 | Explain the rationale for using combined modalities to treat myeloma and plasmacytoma specific to the stage and pathology of the disease | L | |
| | O 2.13 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | L | |
| | O 2.14 | Explain the predicted results of myeloma and plasmacytoma treatment based on stage/grade | L | |
| | O 2.15 | Explain the predicted results of myeloma and plasmacytoma treatment based on treatment modalities | L | |
| | O 2.16 | Plan radiation treatment for a patient with myeloma and plasmacytoma as per Module E2, E3, & E4 | L | |
| | O 2.17 | Perform treatment procedures for a patient with myeloma and plasmacytoma as per Module E5 | L | |
| | O 2.18 | Perform patient care for a patient with myeloma and plasmacytoma as per Module E | L | |

## MODULE P CANCERS OF THE ENDOCRINE SYSTEM

*The following have been listed in order of the sites most commonly treated with radiation therapy*

| | | | CL | |
|---|---|---|---|---|
| **P 1** | **Radiation Treatment of Thyroid Cancer** | | **L** | |
| | P 1.1 | State the epidemiology of thyroid cancer | L | |
| | P 1.2 | State the etiology of thyroid cancer | L | |
| | P 1.3 | Explain the prognostic indicators of thyroid cancer | L | |
| | P 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the neck and thorax in relation to thyroid cancer | L | |
| | P 1.5 | Discuss the natural history of thyroid cancer | L | |
| | P 1.6 | Identify the clinical presentation of thyroid cancer | L | |
| | P 1.7 | Identify the various detection and diagnostic methods of thyroid cancer | L | |
| | P 1.8 | Describe the pathology and staging of thyroid cancer as it relates to treatment | L | |
| | P 1.9 | Describe the routes of spread of thyroid cancer | L | |
| | P 1.10 | Explain the rationale for using surgery to treat thyroid cancer specific to the stage and pathology of the disease | L | |
| | P 1.11 | Explain the rationale for using systemic therapy to treat thyroid cancer specific to the stage and pathology of the disease | L | |
| | P 1.12 | Explain the rationale for using radiation therapy to treat thyroid cancer specific to the stage and pathology of the disease | L | |
| | P 1.13 | Explain the rationale for using combined modalities to treat thyroid cancer specific to the stage and pathology of the disease | L | |
| | P 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | L | |
| | P 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | L | |
| | P 1.16 | Discuss the emerging technologies relevant to the management of thyroid cancer | L | |
| | P 1.17 | Explain the predicted results of thyroid treatment based on stage/grade | L | |
| | P 1.18 | Explain the predicted results of thyroid treatment based on treatment modalities | L | |
| | P 1.19 | Explain the predicted results of thyroid treatment based on histopathology | L | |
| | P 1.20 | Plan radiation treatment for a patient with thyroid cancer as per Module E2, E3, & E4 | L | |
| | P 1.21 | Perform treatment procedures for a patient with thyroid cancer as per Module E5 | L | |
| | P 1.22 | Perform patient care for a patient with thyroid cancer as per Module E6 | L | |

| | | | CL | |
|---|---|---|---|---|
| **P 2** | **Radiation Treatment of Tumors of the Pituitary** | | **L** | |
| | P 2.1 | State the epidemiology of pituitary tumors | L | |
| | P 2.2 | State the etiology of pituitary tumors | L | |
| | P 2.3 | Explain the prognostic indicators of pituitary tumors | L | |
| | P 2.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the head in relation to pituitary tumors | L | |
| | P 2.5 | Discuss the natural history of pituitary tumors | L | |
| | P 2.6 | Identify the clinical presentation of pituitary tumors | L | |
| | P 2.7 | Identify the various detection and diagnostic methods of pituitary tumors | L | |
| | P 2.8 | Describe the pathology and staging of pituitary tumors as it relates to treatment | L | |
| | P 2.9 | Describe the routes of spread of pituitary tumors | L | |
| | P 2.10 | Explain the rationale of using surgery to treat pituitary tumors specific to the stage and pathology of the disease | L | |
| | P 2.11 | Explain the rationale of using systemic therapy to treat pituitary tumors specific to the stage and pathology of the disease | L | |
| | P 2.12 | Explain the rationale of using radiation therapy to treat pituitary tumors specific to the stage and pathology of the disease | L | |
| | P 2.13 | Explain the rationale of using combined modalities to treat pituitary tumors specific to the stage and pathology of the disease | L | |
| | P 2.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | L | |
| | P 2.15 | Interpret protocols for clinical studies and impact on radiation treatment | L | |
| | P 2.16 | Discuss the emerging technologies relevant to the management of pituitary tumors | L | |
| | P 2.17 | Explain the predicted results of pituitary treatment based on stage/grade | L | |
| | P 2.18 | Explain the predicted results of pituitary treatment based on treatment modalities | L | |
| | P 2.19 | Plan radiation treatment for a patient with pituitary tumors as per Module E2, E3, & E4 | L | |
| | P 2.20 | Perform treatment procedures for a patient with pituitary tumors as per Module E5 | L | |
| | P 2.21 | Perform patient care for a patient with pituitary tumors as per Module E6 | L | |

## MODULE Q SARCOMAS of BONE and SOFT TISSUE

*The following have been listed in order of the sites most commonly treated with radiation therapy*

| | | | CL | |
|---|---|---|---|---|
| **Q 1** | **Radiation treatment of Sarcomas of the Bone** | | **L** | |
| | Q 1.1 | State the epidemiology of sarcomas of the bone | L | |
| | Q 1.2 | State the etiology of sarcomas of the bone | L | |
| | Q 1.3 | Explain the prognostic indicators of sarcomas of the bone | L | |
| | Q 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the skeleton in relation to sarcomas of the bone | L | |
| | Q 1.5 | Discuss the natural history of sarcomas of the bone | L | |
| | Q 1.6 | Identify the clinical presentation of sarcomas of the bone | L | |
| | Q 1.7 | Identify the various detection and diagnostic methods of sarcomas of the bone | L | |
| | Q 1.8 | Describe the pathology and staging of sarcomas of the bone as it relates to treatment | L | |
| | Q 1.9 | Describe the routes of spread of sarcomas of the bone | L | |
| | Q 1.10 | Explain the rationale for using surgery to treat sarcomas of the bone specific to the stage and pathology of the disease | L | |
| | Q 1.11 | Explain the rationale for using systemic therapy to treat sarcomas of the bone specific to the stage and pathology of the disease | L | |
| | Q 1.12 | Explain the rationale for using radiation therapy to treat sarcomas of the bone specific to the stage and pathology of the disease | L | |
| | Q 1.13 | Explain the rationale for using combined modalities to treat sarcomas of the bone specific to the stage and pathology of the disease | L | |
| | Q 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | L | |
| | Q 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | L | |
| | Q 1.16 | Discuss the emerging technologies relevant to the management of sarcomas of the bone | L | |
| | Q 1.17 | Explain the predicted results of sarcomas of the bone treatment based on stage/grade | L | |
| | Q 1.18 | Explain the predicted results of sarcomas of the bone treatment based on treatment modalities | L | |
| | Q 1.19 | Explain the predicted results of sarcomas of the bone treatment based on histopathology | L | |
| | Q 1.20 | Plan radiation treatment for a patient with sarcoma of the bone as per Module E2, E3, & E4 | L | |
| | Q 1.21 | Perform treatment procedures for a patient with sarcoma of the bone as per Module E5 | L | |

| | | | CL | |
|---|---|---|---|---|
| | Q 1.22 | Perform patient care for a patient with sarcoma of the bone as per Module E6 | L | |
| **Q 2** | **Radiation Treatment of Sarcomas of Soft Tissue** | | **L** | |
| | Q 2.1 | State the epidemiology of sarcomas of the soft tissue | L | |
| | Q 2.2 | State the etiology of sarcomas of the soft tissue | L | |
| | Q 2.3 | Explain the prognostic indicators of sarcomas of the soft tissue | L | |
| | Q 2.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the body in relation to sarcomas of the soft tissue | L | |
| | Q 2.5 | Discuss the natural history of sarcomas of the soft tissue | L | |
| | Q 2.6 | Identify the clinical presentation of sarcomas of the soft tissue | L | |
| | Q 2.7 | Identify the various detection and diagnostic methods of sarcomas of the soft tissue | L | |
| | Q 2.8 | Describe the pathology and staging of sarcomas of the soft tissue as it relates to treatment | L | |
| | Q 2.9 | Describe the routes of spread of sarcomas of the soft tissue | L | |
| | Q2.10 | Explain the rationale for using surgery to treat sarcomas of the soft tissue specific to the stage and pathology of the disease | L | |
| | Q 2.11 | Explain the rationale for using systemic therapy to treat sarcomas of the soft tissue specific to the stage and pathology of the disease | L | |
| | Q 2.12 | Explain the rationale for using radiation therapy to treat sarcomas of the soft tissue specific to the stage and pathology of the disease | L | |
| | Q 2.13 | Explain the rationale for using combined modalities to treat sarcomas of the soft tissue specific to the stage and pathology of the disease | L | |
| | Q 2.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | L | |
| | Q 2.15 | Interpret protocols for clinical studies and impact on radiation treatment | L | |
| | Q 2.16 | Discuss the emerging technologies relevant to the management of sarcomas of the soft tissue | L | |
| | Q 2.17 | Explain the predicted results of sarcomas of the soft tissue treatment based on stage/grade | L | |
| | Q 2.18 | Explain the predicted results of sarcomas of the soft tissue treatment based on treatment modalities | L | |
| | Q 2.19 | Explain the predicted results of sarcomas of the soft tissue treatment based on histopathology | L | |
| | Q 2.20 | Plan radiation treatment for a patient with sarcoma of the soft tissue as per Module E2, E3, & E4 | L | |
| | Q 2.21 | Perform treatment procedures for a patient with sarcoma of the soft tissue as per Module E5 | L | |
| | Q 2.22 | Perform patient care for a patient with sarcoma of the soft tissue as per Module E6 | L | |

## MODULE R SKIN CANCERS

| | | | CL | |
|---|---|---|---|---|
| **R 1** | **Radiation Treatment of Non-Melanoma Skin Cancers** | | **M** | |
| | R 1.1 | State the epidemiology of non-melanoma skin cancers | M | |
| | R 1.2 | State the etiology of non-melanoma skin cancers | M | |
| | R 1.3 | Explain the prognostic indicators of non-melanoma skin cancers | M | |
| | R 1.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the body in relation to non-melanoma skin cancers | M | |
| | R 1.5 | Discuss the natural history of non-melanoma skin cancers | M | |
| | R 1.6 | Identify the clinical presentation of non-melanoma skin cancers | M | |
| | R 1.7 | Identify the various detection and diagnostic methods of non-melanoma skin cancers | M | |
| | R 1.8 | Describe the pathology and staging of non-melanoma skin cancers as it relates to treatment | M | |
| | R 1.9 | Describe the routes of spread of non-melanoma skin cancers | M | |
| | R 1.10 | Explain the rationale for using surgery to treat non-melanoma skin cancers specific to the stage and pathology of the disease | M | |
| | R 1.11 | Explain the rationale for using systemic therapy to treat non-melanoma skin cancers specific to the stage and pathology of the disease | M | |
| | R 1.12 | Explain the rationale for using radiation therapy to treat non-melanoma skin cancers specific to the stage and pathology of the disease | M | |
| | R 1.13 | Explain the rationale for using combined modalities to treat non-melanoma skin cancers specific to the stage and pathology of the disease | M | |
| | R 1.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in planning and treatment process | M | |
| | R 1.15 | Interpret protocols for clinical studies and impact on radiation treatment | M | |
| | R 1.16 | Discuss the emerging technologies relevant to the management of non-melanoma skin cancers | M | |
| | R 1.17 | Explain the predicted results of non-melanoma skin treatment based on stage/grade | M | |
| | R 1.18 | Explain the predicted results of non-melanoma skin treatment based on treatment modalities | M | |
| | R 1.19 | Plan radiation treatment for a patient with non-melanoma skin cancer as per Module E2, E3, & E4 | M | |
| | R 1.20 | Perform treatment procedures for a patient with non-melanoma skin cancer as per Module E5 | M | |
| | R 1.21 | Perform patient care for a patient with non-melanoma skin cancer as per Module E6 | M | |
| **R 2** | **Radiation Treatment of Melanoma Skin Cancer** | | **L** | |

| | | CL | |
|---|---|---|---|
| R 2.1 | State the epidemiology of melanoma skin cancers | L | |
| R 2.2 | State the etiology of melanoma skin cancers | L | |
| R 2.3 | Explain the prognostic indicators of melanoma skin cancers | L | |
| R 2.4 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the body in relation to melanoma skin cancers | L | |
| R 2.5 | Discuss the natural history of melanoma skin cancers | L | |
| R 2.6 | Identify the clinical presentation of melanoma skin cancers | L | |
| R 2.7 | Identify the various detection and diagnostic methods of melanoma skin cancers | L | |
| R 2.8 | Describe the pathology and staging of melanoma skin cancers as it relates to treatment | L | |
| R 2.9 | Describe the routes of spread of melanoma skin cancers | L | |
| R 2.10 | Explain the rationale for using surgery to treat melanoma skin cancers specific to the stage and pathology of the disease | L | |
| R 2.11 | Explain the rationale for using systemic therapy to treat melanoma skin cancers specific to the stage and pathology of the disease | L | |
| R 2.12 | Explain the rationale for using radiation therapy to treat melanoma skin cancers specific to the stage and pathology of the disease | L | |
| R 2.13 | Explain the rationale for using combined modalities to treat melanoma skin cancers specific to the stage and pathology of the disease | L | |
| R 2.14 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | L | |
| R 2.15 | Interpret protocols for clinical studies and impact on radiation treatment | L | |
| R 2.16 | Discuss the emerging technologies relevant to the management of melanoma skin cancers | L | |
| R 2.17 | Explain the predicted results of melanoma skin treatment based on stage/grade | L | |
| R 2.18 | Explain the predicted results of melanoma skin treatment based on treatment modalities | L | |
| R 2.19 | Plan radiation treatment for the patient with melanoma skin cancer as per Module E2, E3, & E4 | L | |
| R 2.20 | Perform treatment procedures for the patient with melanoma skin cancer as per Module E5 | L | |
| R 2.21 | Perform patient care for the patient with melanoma skin cancer as per Module E6 | L | |

## MODULE S BENIGN CONDITIONS

| | | | CL | |
|---|---|---|---|---|
| **S 1** | **Treatment of Arteriovenous malformations (AVMs), Exophthalmos,** | | **L** | |
| | S 1.1 | Discuss the incidence of benign conditions | L | |
| | S 1.2 | Apply the knowledge of the anatomy and physiology of the body in relation to the treatment of various benign conditions | L | |
| | S 1.3 | Identify the clinical presentations of the various benign conditions | L | |
| | S 1.4 | Explain the rationale of using surgery to treat assorted benign conditions | L | |
| | S 1.5 | Explain the rationale of using radiation therapy to treat assorted benign conditions | L | |
| | S 1.6 | Explain the rationale of using single field technique to treat assorted benign conditions | L | |
| | S 1.7 | Explain the rationale of using multi field techniques to treat assorted benign conditions | L | |
| | S 1.8 | Explain the rationale of using combined modalities to treat assorted benign conditions | L | |
| | S 1.9 | Explain dose and fractionation regimes as they apply to various benign conditions | L | |
| | S 1.10 | Explain the predicted results of the treatment | L | |
| | S 1.11 | Plan radiation treatment for patients with various benign conditions as per Module E2, E3, & E4 | L | |
| | S 1.12 | Perform treatment procedures for patients with various benign conditions as per Module E5 | L | |
| | S 1.13 | Perform patient care for patients with various benign conditions as per Module E6 | L | |
| **S 2** | **Treatment of Heterotropic Bone Formation, Keloid Scars, Ovarian Ablation** | | | |
| | S 2.1 | Discuss the incidence of benign conditions | | |
| | S 2.2 | Apply the knowledge of the anatomy and physiology of the body in relation to the treatment of various benign conditions | | |
| | S 2.3 | Identify the clinical presentations of the various benign conditions | | |
| | S 2.4 | Explain the rationale of using surgery to treat assorted benign conditions | | |
| | S 2.5 | Explain the rationale of using radiation therapy to treat assorted benign conditions | | |
| | S 2.6 | Explain the rationale of using single field technique to treat assorted benign conditions | | |
| | S 2.7 | Explain the rationale of using multi field techniques to treat assorted benign conditions | | |
| | S 2.8 | Explain the rationale of using combined modalities to treat assorted benign conditions | | |
| | S 2.9 | Explain dose and fractionation regimes as they apply to various benign conditions | | |

| | | CL | |
|---|---|---|---|
| S 2.10 | Explain the predicted results of the treatment | | |
| S 2.11 | Plan radiation treatment for patients with various benign conditions as per Module E2, E3, & E4 | | |
| S 2.12 | Perform treatment procedures for patients with various benign conditions as per Module E5 | | |
| S 2.13 | Perform patient care for patients with various benign conditions as per Module E6 | | |

## MODULE T PALLIATIVE AND SUPPORTIVE CARE

| | | | CL | |
|---|---|---|---|---|
| **T 1** | **Outline the philosophy and approach of active palliative care** | | **M** | |
| **T 2** | **Describe the radiation therapist's role on a palliative oncology team** | | **M** | |
| **T 3** | **Radiation Treatment of Brain Metastases** | | **H** | |
| | T 3.1 | Explain the prognostic indicators of metastases | H | |
| | T 3.2 | Apply the knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the skull and brain in relation to metastatic brain cancer | H | |
| | T 3.3 | Discuss the natural history of brain metastases | H | |
| | T 3.4 | Explain the clinical presentation of brain metastases | H | |
| | T 3.5 | Explain the various detection and diagnostic methods of brain metastases | H | |
| | T 3.6 | Explain dose and fractionation regimes as they relate to brain metastases | H | |
| | T 3.7 | Explain the rationale of using surgery to treat metastatic brain cancer | H | |
| | T 3.8 | Explain the rationale of using systemic therapy to treat metastatic brain cancer | H | |
| | T 3.9 | Explain the rationale of using radiation therapy to treat metastatic brain cancer | H | |
| | T 3.10 | Explain the rationale of using combined modalities to treat metastatic brain cancer | H | |
| | T 3.11 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | T 3.12 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | T 3.13 | Discuss the emerging technologies relevant to the management of brain metastases | H | |
| | T 3.14 | Plan radiation treatment for the patient with metastatic brain cancer as per Module E2, E3, & E4 | H | |
| | T 3.15 | Perform treatment procedures for the patient with metastatic brain cancer as per Module E5 | H | |
| | T 3.16 | Perform patient care for the patient with metastatic brain cancer as per Module E6 | H | |
| **T 4** | **Treatment of Spinal cord Metastases** | | **H** | |
| | T 4.1 | Explain the prognostic indicators of metastases | H | |
| | T 4.2 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the vertebrae in relation to metastatic spinal cord cancer | H | |
| | T 4.3 | Discuss the natural history of spinal cord metastases | H | |
| | T 4.4 | Identify the clinical presentation of spinal cord metastases | H | |

| | | | CL | |
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| | T 4.5 | Identify the various detection and diagnostic methods of spinal cord metastases | H | |
| | T 4.6 | Explain dose and fractionation regimes as they relate to spinal cord metastases | H | |
| | T 4.7 | Explain the rationale of using surgery to treat metastatic spinal cancer | H | |
| | T 4.8 | Explain the rationale of using systemic therapy to treat metastatic spinal cancer | H | |
| | T 4.9 | Explain the rationale of using radiation therapy to treat metastatic spinal cancer | H | |
| | T 4.10 | Explain the rationale of using combined modalities to treat metastatic spinal cancer | H | |
| | T 4.11 | Demonstrate an understanding of related disciplines in order to interpret the images / reports of previous medical studies for specific use in the planning and treatment process | H | |
| | T 4.12 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | T 4.13 | Discuss the emerging technologies relevant to the management of spinal cord metastases | H | |
| | T 4.14 | Plan radiation treatment for the patient with metastatic spinal cord cancer as per Module E2, E3, & E4 | H | |
| | T 4.15 | Perform treatment procedures for the patient with metastatic spinal cord cancer as per Module E5 | H | |
| | T 4.16 | Perform patient care for the patient with metastatic spinal cord cancer as per Module E6 | H | |
| **T 5** | **Treatment of Bone Metastases** | | **H** | |
| | T 5.1 | Explain the prognostic indicators of metastases | H | |
| | T 5.2 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the body in relation to bone metastases | H | |
| | T 5.3 | Discuss the natural history of metastatic disease | H | |
| | T 5.4 | Identify the clinical presentation of bone metastases | H | |
| | T 5.5 | Identify the pathological presentation of bone metastases | H | |
| | T 5.6 | Identify the various detection and diagnostic methods of bone metastases | H | |
| | T 5.7 | Explain dose and fractionation regimes as they relate to bone metastases | H | |
| | T 5.8 | Explain the rationale of using surgery to treat patients with bone metastases | H | |
| | T 5.9 | Explain the rationale of using systemic therapy to treat patients with bone metastases | H | |
| | T 5.10 | Explain the rationale of using radiation therapy to treat patients with bone metastases | H | |

| | | | CL | |
|---|---|---|---|---|
| | T 5.11 | Explain the rationale of using combined modalities to treat patients with bone metastases | H | |
| | T 5.12 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | T 5.13 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | T 5.14 | Discuss the emerging technologies relevant to the management of bone metastases | H | |
| | T 5.15 | Plan radiation treatment for the patient with metastatic bone cancer as per Module E2, E3, & E4 | H | |
| | T 5.16 | Perform radiation treatment procedures for the patient with metastatic bone cancer as per Module E5 | H | |
| | T 5.17 | Perform patient care for the patient with metastatic bone cancer as per Module E6 | H | |
| **T 6** | **Radiation Treatment of Visceral Recurrences and Metastases**<br>Treatment of SVCO (superior vena cava obstruction), Esophageal obstruction, Gynecologic bleeding, Nodal recurrences, Skin metastases | | **H**<br>H | |
| | T 6.1 | Explain the prognostic indicators of metastases | H | |
| | T 6.2 | Apply knowledge of gross and cross sectional anatomy and physiology as well as anatomical landmarks of the body in relation to visceral metastases | H | |
| | T 6.3 | Discuss the natural history of metastatic disease | H | |
| | T 6.4 | Identify the clinical presentation of specific visceral metastases | H | |
| | T 6.5 | Identify the pathological presentation of specific visceral metastases | H | |
| | T 6.6 | Identify the various detection and diagnostic methods of specific visceral metastases | H | |
| | T 6.7 | Explain dose and fractionation regimes as they relate to specific visceral metastases | H | |
| | T 6.8 | Explain the rationale of using various non-radiation methods to treat patients with specific visceral metastases | H | |
| | T 6.9 | Explain the rationale of using radiation therapy to treat patients with specific visceral metastases | H | |
| | T 6.10 | Explain the rationale of using combined modalities to treat patients with specific visceral metastases | H | |
| | T 6.11 | Demonstrate an understanding of related disciplines in order to interpret the images/reports of previous medical studies for specific use in the planning and treatment process | H | |
| | T 6.12 | Interpret protocols for clinical studies and impact on radiation treatment | H | |
| | T 6.13 | Discuss the emerging technologies relevant to the management of specific visceral metastases | H | |

| | | CL | |
|---|---|---|---|
| T 6.14 | Plan radiation treatment for the patient with specific visceral metastases as per Module E2, E3, & E4 | H | |
| T 6.15 | Perform radiation treatment procedures for the patient with specific visceral metastases as per Module E5 | H | |
| T 6.16 | Perform patient care for the patient with specific visceral metastases as per Module E6 | H | |