Gynecologic Oncology Rotations

PGY-II:

COMPETENCY 1. Patient Care.
Provide patient centered care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

Residents must be able to:

- communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families;
- gather essential and accurate information about their patients;
- make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment;
- develop and carry out patient management plans;
- counsel and educate patients and their families;
- use information technology to support patient care decisions and patient education;
- competently perform all medical and invasive procedures considered essential for the area of practice;
- provide health care services aimed at preventing health problems or maintaining health;
- work with health care professionals, including those from other disciplines, to provide patient-focused care.

At the conclusion of the first two years, the resident should be able to:

- Understand and know the anatomy of the vulva, pelvis, femoral triangle and abdomen
- Understand and know the clinical significance of premalignant lesions of the vulva, vagina and cervix
- Understand and know the staging of gynecologic tumors
- Understand and know the etiology, diagnosis and treatment of gestational trophoblastic disease
- Understand and know the clinical presentation and diagnosis and treatment of cervical cancer and endometrial carcinoma
- Perform the following procedures:
  - Colposcopy
  - Cone biopsy
  - Dilatation and curettage
  - Vulvar, vaginal, cervical and endometrial biopsies
  - Excision of CIS vagina and vulva
  - Paracentesis
  - Cystoscopy/sigmoidoscopy
  - LEEP
  - Laser
- CRYO
- Understand and know the etiology, clinical manifestations, diagnosis and treatment of:
  - Ovarian carcinoma
  - Fallopian tube carcinoma
  - Vaginal carcinoma
  - Vulvar carcinoma
- Understand and know the principles of radiation therapy
- Assist in major GYN-ONC cases

**COMPETENCY 2. Medical Knowledge.** Understand the scope of established and evolving biomedical, clinical and cognate sciences, as well as the application of this knowledge to patient care

Residents are expected to:

- demonstrate an investigatory and analytic thinking approach to clinical situations;
- know and apply the basic and clinically supportive sciences which are appropriate to their discipline.

At the conclusion of the second year, the resident should know:

A. Basic Science/Mechanisms of Disease
   1. Genetics
      1. Describe the clinical relevance of vital oncogenes
      2. Describe the inheritance patterns for malignancies of the pelvic organs and breasts
      3. Describe the current indications for screening for BRCA1 and BRCA2
      4. Describe the cell replication cycle and identify the phases of the cycle most sensitive to radiation and chemotherapy
   2. Physiology
      1. Describe the ability of vital organ systems to tolerate cancer therapy and define the concept of therapeutic index
      2. Describe the changes in cell and organ physiology that result from injury due to radiation and chemotherapy
   3. Embryology and Developmental Biology
      1. Describe the embryology of Gonadal migration and its role in the pathogenesis of epithelial and germ cell neoplasms
      2. Describe the embryologic origins of cell types found in benign and malignant germ cell tumors
   4. Anatomy
      1. Describe the anatomy of the anterior and posterior abdominal wall
      2. Describe the gross and histologic anatomy of the external genitalia pelvic organs and the breast
      3. Describe the vascular, lymphatic, and nerve supply to the breast, external genitalia and each of the pelvic organs
4. Describe the anatomic relationship between the reproductive organs and the non-gynecologic abdominal and pelvic viscera, i.e., bladder, ureters, and bowel.

5. Describe the likely changes in the anatomic relationships of the pelvic and abdominal viscera created by surgical or radiation treatment for a malignancy of the pelvic organs.

B. Carcinoma of the Breast

Epidemiology and Risk Assessment of Breast Cancer

1. Evaluate a patient’s personal or family history of breast cancer, including the risk associated with BRCA1 or BRCA2.

2. Evaluate other epidemiologic factors to assess a woman’s risk for developing breast cancer, such as:
   a. Patient age
   b. Parity
   c. Ethnicity
   d. Lactation
   e. Hormone replacement
   f. Alcohol consumption

3. Counsel patients regarding breast cancer prevention strategies.

4. Counsel patients regarding the use of screening methods, such as mammography.

5. Refer patients appropriately for genetic counseling and testing.

Diagnosis of Invasive Carcinoma of the Breast

1. Perform a focused history and physical examination in women with signs or symptoms of breast cancer.

2. Order and explain to the patient appropriate diagnostic tests for evaluating a suspicious breast lesion.

3. Describe the indications for and interpret for the patient the results of needle aspiration of a breast cyst and fine-needle biopsy of a solid lesion.

4. Describe the indications for and interpret for the patient the results of other diagnostic studies, such as:
   a. Mammography
   b. Ultrasonography
   c. Core-needle biopsy
   d. Excisional biopsy

C. Cervical Disorders

Pre-Invasive Cervical Disease

1. Describe the etiology of cervical dysplasia.

2. Elicit a pertinent history in a woman with an abnormal Pap test.

3. Interpret Pap test reports using the Bethesda classification system and determine appropriate follow-up.

4. Perform and interpret the results of diagnostic procedures for cervical dysplasia.

5. Treat cervical dysplasia with modalities, such as:
   a. Cryosurgery
   b. Laser ablation
   c. Loop electrical excision
   d. Cold knife conization

6. Manage the complications resulting from treatment of cervical dysplasia.

7. Establish an appropriate follow-up plan for a woman who has been treated for cervical dysplasia.

8. Describe the structural changes in the cervix that are characteristic of in-utero DES exposure.
Invasive Cervical Cancer
1. Describe the epidemiology of cervical cancer
2. Describe the typical clinical manifestations of cervical cancer
3. Describe the different diagnosis of cervical cancer
4. Perform appropriate biopsies to diagnose invasive cervical cancer
5. Describe the FIGO staging of cervical cancer
6. In consultation with a gynecologic oncologist, counsel the patient about the evaluation and treatment (indications, complications) of cervical cancer
7. Describe the prognosis for cervical cancer
8. Describe the impact of treatment or cervical cancer on sexual function and manage/refer patient appropriately
9. Provide psychosocial support and long-term follow up for patients with cervical cancer

D. Carcinoma of the Uterus
Endometrial Hyperplasia
1. Obtain a targeted history in patients who have abnormal uterine bleeding, including an assessment of risk factors, such as:
   a. Obesity
   b. Anovulation
   c. Polycystic ovary syndrome
   d. Glucose intolerance
   e. Estrogen or antiestrogen exposure
   f. Family history
2. Perform a focused physical examination in women who have abnormal bleeding and risk factors for endometrial hyperplasia
3. Describe factors that influence the treatment of hyperplasia, such as:
   a. Classification and histology
   b. Age of patient
   c. Reproduction goals
   d. Risk of malignancy
4. Treat endometrial hyperplasia medically and surgically
5. Describe and manage potential complications of these interventions
6. Describe appropriate post-treatment follow-up

Carcinoma of the Endometrium
1. Describe the epidemiology of endometrial cancer
2. Describe the clinical manifestations of endometrial cancer
3. Describe the differential diagnosis of invasive endometrial cancer
4. Perform biopsies to diagnose endometrial cancer
5. Describe the FIGO staging of invasive endometrial cancer
6. In consultation with a gynecologic oncologist, counsel the patient about the evaluation and treatment (indications, complications) of endometrial cancer
7. Describe the prognosis for invasive endometrial cancer
8. Provide psychosocial support and long-term follow up for women with endometrial cancer

E. Gestational Trophoblastic Disease
Hydatidiform Mole
1. Describe the epidemiology and genetics of hydatidiform mole
2. Describe the clinical manifestations of gestational trophoblastic disease (GTD)
3. Diagnose GTD and its complications using tests, such as:
   a. Ultrasonography
   b. Quantitative β-hCG
c. Chest x-ray,
d. Thyroid function tests
4. Distinguish between a complete and partial hydatidiform mole using histologic and cytogenetic findings
5. Provide surgical treatment for patients with GTD
6. Provide the appropriate follow up for a patient who has had suction evacuation of a molar pregnancy
7. Counsel the patient regarding recurrence risk for GTD

Malignant Gestational Trophoblastic Disease
1. Describe the conditions that may precede malignant GTD
2. Describe the histologic appearance of invasive mole versus choriocarcinoma versus placental site of trophoblastic tumor
3. Describe the diagnosis of malignant GTD using a combination of physical examination, quantitative β-hCG, chest x-ray, CT scan and ultrasonography
4. Classify metastatic GTD into good prognosis (low risk) versus poor prognosis (high risk)
5. Describe referral to a gynecologic oncologist for surgical and medical treatment of GTD
6. Counsel patients regarding risk of recurrence and prognosis for future pregnancies
7. Provide psychosocial support and long-term follow up of patients with GTD

COMPETENCY 3. Practice-based Learning and Improvement. Demonstrate knowledge, skills and attitudes needed for continuous self-assessment that includes the investigation and evaluation of care for patients, the appraisal and assimilation of scientific evidence, and improvements in one's patient care practice.

Residents are expected to:

- analyze practice experience and perform practice-based improvement activities using a systematic methodology;
- locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems;
- obtain and use information about their own population of patients and the larger population from which their patients are drawn;
- apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness;
- use information technology to manage information, access on-line medical information and support their own education;
- facilitate the learning of students and other health care professionals.
- attend the didactic lectures
- attend and participate in the antepartum and cesarean section conferences
- attend journal clubs/clinical expert series
- participate in the Residents Study Groups

COMPETENCY 4. Interpersonal and Communication Skills. Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families and professional associates.
Residents are expected to:

- create and sustain a therapeutic and ethically sound relationship with patients;
- use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills;
- work effectively with others as a member or leader of a health care team or other professional group.

**COMPETENCY 5. Professionalism. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diversity.**

Residents are expected to:

- demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development;
- demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices;
- demonstrate sensitivity and responsiveness to patients’ culture, age, gender, and disabilities

**COMPETENCY 6. Systems-Based Practice. Understand how to practice quality health care and advocate for patients as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.**

Residents are expected to:

- understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice;
- know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources;
- practice cost-effective health care and resource allocation that does not compromise quality of care;
- advocate for quality patient care and assist patients in dealing with system complexities;
- know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.
PGY-IV:

Gynecologic Oncology Rotations

COMPETENCY 1. Patient Care. Provide patient centered care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

Residents must be able to:

- communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families;
- gather essential and accurate information about their patients;
- make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment;
- develop and carry out patient management plans;
- counsel and educate patients and their families;
- use information technology to support patient care decisions and patient education;
- competently perform all medical and invasive procedures considered essential for the area of practice;
- provide health care services aimed at preventing health problems or maintaining health;
- work with health care professionals, including those from other disciplines, to provide patient-focused care.

At the conclusion of the fourth year of rotations, the resident should be able to:

- Meet all the learning objectives for the first year residents
- Understand the principles of chemotherapy and brachytherapy
- Perform or assist with:
  - Radical hysterectomy
  - Radical vulvectomy
  - Pelvic exenteration
  - Pelvic and periaortic lymph node dissection
- Principles of terminal care
- Diagnosis and treatment of breast carcinoma
- Know the gross appearance and histologic appearance of benign neoplasm of the ovary

COMPETENCY 2. Medical Knowledge. Understand the scope of established and evolving biomedical, clinical and cognate sciences, as well as the application of this knowledge to patient care
Residents are expected to:

- demonstrate an investigatory and analytic thinking approach to clinical situations;
- know and apply the basic and clinically supportive sciences which are appropriate to their discipline.

At the conclusion of the fourth year rotation, the resident should be able complete the goals and competency requirements of the second year resident in addition to the following:

A. Basic Science/Mechanism of Disease
   Pharmacology
   1. List the major chemotherapeutic agents used for the treatment of malignancies of the reproductive organs and breast
   2. Describe the principal adverse effects of these major chemotherapeutic agents
   3. List supportive care methods/medications which can be used to ameliorate the following treatment complications:
      a. Marrow suppression
      b. Nausea and vomiting
      c. Hemorrhagic cystitis
      d. Peripheral neuropathy
      e. Renal toxicity
      f. Cardiac toxicity

   Pathology and Neoplasia
   1. Describe the histology of malignant and pre-malignant conditions of the pelvic organs and breast
   2. Describe risk factors contributing to the pathogenesis of malignancies of the pelvic organs and breast
   3. Describe the prognosis for the major malignancies of the breast and pelvic organs

   Microbiology and Immunology
   1. Describe the role of viruses in the pathogenesis of gynecologic tumors
   2. Describe the influence of immunosuppression on the risk of acquiring gynecologic/breast cancers
   3. Describe the impact of cancer and its therapies on the immune system
   4. List the principal consequences of immunosuppression in the cancer patient (e.g., increased susceptibility to infection and poor wound healing)

B. Carcinoma of the Breast
   Management of Invasive Breast Cancer
   1. Describe the staging of breast cancer and the prognostic significance of histologic type, regional lymph node metastasis, distant metastasis, and hormone receptor status
   2. Describe the indications for lumpectomy vs. mastectomy
   3. Describe the indications for adjuvant therapy with hormonal treatment, chemotherapy, or radiation therapy
   4. Describe the impact of pregnancy on the treatment and prognosis of breast cancer

Breast Cancer Survivorship
1. Describe the psychosocial impact of breast cancer on family dynamics, sexuality, and stress management and make appropriate referral to support groups and health care professionals
2. Manage the adverse effect of antiestrogen medications, such as tamoxifen and aromatase inhibitors

C. Vulvar and Vaginal malignancies

Pre-invasive Lesions
1. Describe the epidemiology of vulvar intraepithelial neoplasia (VIN) and vaginal intraepithelial neoplasia (VAIN)
2. Describe the clinical manifestations of VIN and VAIN
3. Describe the differential diagnosis of pigmented and non-pigmented vulvar lesions
4. Perform and interpret the results of diagnostic procedures for VIN and VAIN
5. Perform surgical and/or medical treatment for patients with VIN and VAIN
6. Establish a post-treatment follow up plan for patients with VIN and VAIN
7. Describe the structural and histologic changes in the vagina characteristic of in utero exposure to diethylstilbestrol (DES)

Invasive Vulvar Carcinoma
1. Describe the epidemiology of invasive vulvar lesions, such as:
   a. Melanoma
   b. Squamous cell carcinoma
   c. Basal cell carcinoma
   d. Paget's disease
   e. Sarcoma
   f. Bartholin’s gland carcinoma
2. Describe the clinical manifestations of invasive vulvar malignancies
3. Describe the differential diagnosis of vulvar cancer
4. Perform appropriate biopsies to diagnose vulvar carcinoma
5. Describe the staging of invasive vulvar cancers using the system adopted by the International Federation of Gynecology and Obstetrics (FIGO)
6. In consultation with a gynecologic oncologist, counsel a patient about the evaluation and treatment (indications, complications) of vulvar cancer
7. Describe the prognosis for invasive vulvar malignancies
8. Describe the impact of treatment of vulvar cancer on sexual function and manage/refer the patient appropriately
9. Provide psychosocial support and long-term follow up for patients with vulvar cancer

Invasive Cancer of the Vagina
1. Describe the epidemiology of invasive vaginal cancer
2. Describe the clinical manifestations of invasive vaginal cancer
3. Describe the differential diagnosis of invasive vaginal cancer
4. Perform appropriate biopsies to diagnose vaginal cancer
5. Describe the FIGO staging of invasive vaginal cancer
6. In consultation with a gynecologic oncologist, counsel the patient regarding the evaluation and treatment (indications, complications) of vaginal cancer
7. Describe the prognosis for invasive vaginal cancer
8. Describe the impact of treatment of vaginal cancer on sexual function and manage/refer patients appropriately
9. Provide psychosocial support and long-term follow up for patients with vaginal cancer
D. Ovarian and Tubal Carcinoma
   Carcinoma of the Ovary
   1. Describe the epidemiology of ovarian cancer
   2. Describe the inherited syndromes that increase a woman’s likelihood of developing ovarian cancer
   3. Describe the screening protocols that may identify patients who have an inherited form of ovarian cancer
   4. Describe the clinical manifestations of ovarian cancer
   5. Describe the histology, staging and prognosis for:
      a. Epithelial tumors
      b. Epithelial tumors
      c. Germ cell tumors
      d. Stromal tumors
      e. Sarcomas
      f. Metastatic tumors
      g. Tumors of low malignant potential
   6. Interpret for the patient the following tests to diagnose ovarian cancer:
      a. Ultrasonography
      b. Serum tumor markers
      c. Cytology from Paracentesis
      d. CT scan
   7. In consultation with a gynecologic oncologist, counsel the patient about the evaluation and treatment (indications, complications) of ovarian cancer
   8. Provide psychosocial support and long-term follow up for women with ovarian cancer

   Carcinoma of the Fallopian Tube
   1. Describe the epidemiology of fallopian tube cancer
   2. Describe the typical manifestations of fallopian tube cancer
   3. Describe the FIGO staging and prognosis of fallopian tube tumors
   4. In consultation with a gynecologic oncologist, counsel the patient about the evaluation and treatment (indications, complications) of fallopian tube cancer
   5. Discuss the prognosis of fallopian tube cancer
   6. Provide psychosocial support and long-term follow-up for women with fallopian tube cancer

E. Therapy
   Radiation Therapy
   1. Describe the general principles of radiation therapy
   2. Describe the indications for radiation therapy in the treatment of gynecologic neoplasms and the factors that influence decisions regarding intervention, such as:
      a. Classification and FIGO staging of disease and histology
      b. Age of patient
      c. Underlying medical conditions
      d. Implications for future fertility
      e. Concomitant therapy with radiosensitizers or chemotherapy
      f. Previous abdominal procedures
      g. Need for palliative management
   3. Describe the potential complications of radiation therapy
   Chemotherapy
   1. Describe the general mechanisms of action of chemotherapy
2. Describe the general indications for chemotherapy in the treatment of gynecologic neoplasms
3. Describe the most appropriate indication for chemotherapeutic agents, such as:
   a. Alkylating agents
   b. Antimetabolites
   c. Vinca alkaloids
   d. Antibiotics
   e. Hormones
   f. Heavy metals
   g. Immunotherapy
4. Describe the potential complications of chemotherapy
5. Describe the long-term effects of chemotherapy on fertility

Terminal Care
1. Describe the basic principles of palliative care
2. Describe medical, radiation and operative modalities for palliation of symptoms in terminally ill patients
3. Describe the appropriate indications for a “do not resuscitate” (DNR) order
4. Describe the medical, ethical, and legal implications of a DNR order
5. Describe the concept of therapeutic index when considering medical or operative intervention to improve patient’s quality of life
6. Describe the basic principles of pain management and provide appropriate pain control for patients

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