

OBJECTIVES FOR COMMON CLINICAL PROBLEMS

Cancer

A. KNOWLEDGE

1. Primary prevention measures for common cancers and common risk factors.
2. Current screening recommendations for skin, colorectal, breast, cervical, and prostate cancer.
3. Principle clinical presentations, clinical courses, complications, and causes of death for the most common cancers in North America (e.g. skin, colorectal, lung, breast, cervical, and prostate).
4. Appreciate the difference in incidence and mortality of the most common cancers worldwide compared to those found in industrialized, Western countries.
5. Basic methods of initial evaluation, including the sensitivity and specificity of basic diagnostic studies and indication for their use, including:
 - Indications for skin biopsy in a patient with a suspicious skin lesion
 - Indications for colonoscopy in individuals a risk for colon cancer.
 - Indications for mammogram
 - Indications for breast biopsy in a patient with a breast nodule or abnormal screening mammogram
 - Indications for a lymph node biopsy in a patient with suspicious lymphadenopathy

- Initial workups for: isolated pleural effusion, pulmonary nodule, liver nodule, prostate nodule, elevated prostate-specific antigen, testicular mass, stool test positive for occult blood, abnormal Pap smear, hematuria and other findings suggestive of gastrointestinal and urogenital cancers
6. Genetic implications of selected cancers (e.g. hereditary nonpolyposis colon cancer, familial adenomatous polyposis, breast and ovarian cancer associated with BRCA1/BRCA2)
 7. The role of different factors in the etiology of cancers eg. infectious agents human papilloma virus in cervical cancer), environmental factors (sun exposure in melanoma), and clinical factors (obesity in a number of cancers).
 8. The similarities and differences between curative and palliative cancer care along with the different therapeutic modalities used to treat cancer including: chemotherapy, hormonal therapy, radiotherapy, immunotherapy, and targeted therapy. The basic principles of how each of these work and the expected results of treatment for the common cancers.
 9. Appreciate what the individual psychological issues are for a patient and their family dealing with cancer.
 10. Symptom management of both cancer related symptoms and treatment related symptoms.
 11. The principles of palliative care and symptoms sometimes seen during end-of-life care and the basic principles of their management (e.g., pain, dyspnea, nausea and vomiting, anorexia, fatigue, depression, delirium, constipation).
- B. SKILLS: Students should be able to demonstrate specific skills, including:
1. History-taking skills: Students should be able to obtain, document, and present an age-appropriate medical history, that differentiates among etiologies of disease, including:
 - Unintentional weight loss, fever, bone pain
 - Sun exposure history, abnormal skin lesions
 - Blood in the stool, alterations in bowel movements, abdominal pain, abdominal mass
 - Smoking, cough, hemoptysis, chest pain, dyspnea
 - Breast nodules and secondary signs of breast cancer

- Abnormal vaginal bleeding
 - Abnormal urinary symptoms such as nocturia, frequency, and hematuria
 - Lymphadenopathy
2. Physical Exam Skills: Students should be able to perform a full physical exam to establish the diagnosis and severity of disease, including:
- Skin examination
 - Digital rectal examination
 - Breast examination
 - Lymph node examination
 - Male genital examination and prostate examination
 - Pelvic examination and Pap smear
3. Differential diagnosis: Students should be able to generate a prioritized differential diagnosis recognizing specific history and physical exam findings that suggest a specific etiology for:
- Unintentional weight loss
 - Fever
 - Abnormal skin lesions
 - Occult blood positive stool
 - Colorectal mass.
 - Hematuria
 - Chronic cough, hemoptysis, pulmonary nodule, and pleural effusion
 - Breast mass
 - Abnormal Pap smear
 - Abdominal or pelvic mass
 - Prostate nodule and elevated prostate specific antigen
 - Lymphadenopathy
4. Laboratory and Diagnostic Tests interpretation: Students should be able to recommend when to order diagnostic and laboratory tests and be able to interpret them, both prior to and after initiating treatment

based on the differential diagnosis, including consideration of test cost and performance characteristics as well as patient preferences.

Laboratory and diagnostic tests should include, when appropriate:

- CBC
- Electrolytes, BUN/Cr, Ca, hepatic function panel
- Stool occult blood testing
- PSA
- Urinalysis
- Radiological Imaging
 - Plain X-rays
 - Ultrasound
 - Computed Tomography (CT) Imaging
 - Magnetic Resonant Imaging (MRI)

5. Management skills: Students should be able to develop an appropriate evaluation and treatment plan for patients that includes:

- Initial work-up of the symptom, sign, or abnormal laboratory value suspected to be due to cancer
- Provision of support and information for the patient and their families and know what supportive care services are available
- Coordination of care for workup
- Determining when to obtain consultation from appropriate specialists
- Appropriately assessing and treating pain when necessary with non-narcotic and narcotic analgesics
- Anticipating and treating narcotic side effects if necessary
- Adjusting the therapeutic plan when goals of care change (e.g., a shift toward palliative care)
- Alleviation of symptoms sometimes seen during end of life care (e.g. pain, dyspnea, nausea and vomiting, anorexia, fatigue, depression, delirium, constipation)
- Utilizing supportive care throughout the work up and management of cancer when appropriate