

## **Please use this Case Study Guide to Prepare your Presentation Patient's name in the case study is Gene Apple.**

**Summary:** Gene Apple, 42 year old Caucasian male smoker with a 5 year history of Type II diabetes presents to his primary care office with progressive fatigue and generalized weakness for the past 2 months, new bumps in the neck and armpits for 1 month, and nightly fever, chills and sweats for 4 days. Patient reports increasingly frequent urination, thirst, and weight loss in recent months.

**PCP Office (Physician Assistant Studies):** History and Physical Exam completed on patient has been extremely effective if an actual patient is available for the case presentation. Labs and CT Scans ordered. ***(IF YOU HAVE A STUDENT WHO IS WILLING TO BE THE HYPOTHETICAL PATIENT FOR A PORTION OF AN INITIAL EXAMINATION THAT WILL ADD AN INTERESTING HUMAN ELEMENT TO THE CASE STUDY.)***

**Labs (CLS):** Complete Blood Count – pancytopenia

Chemistry 12 – patient has an elevated blood sugar, and/or elevated hemoglobin A1C [note from KA: hemoglobin A1C would not be part of a Chemistry 12 Profile]

Chemistry 12 – elevated random serum glucose level

[PCP Office should next order fasting blood glucose and/or glycated hemoglobin (hemoglobin A1C). Expected result: both test results elevated above normal range.]

**Radiology (RT):** CXR: mediastinal adenopathy

CT Neck, Thorax, Abdomen: enlarged lymph nodes throughout with enlarged spleen.

CT Head: No lesions

With a 5 year Hx of type 2 diabetes, we can assume patient is taking metformin. The diabetes history could cause cerebral atrophy... so, there could be subtle changes in the head CT...(loss of gray and white matter). MRI study would indicate changes in brain composition. Some concern to follow the patient for onset of osteomyelitis (particularly the feet) would prompt MRI imaging. MRI of feet would probably suggest pedal osteomyelitis. Any radiographic procedure requiring the use of contrast media would necessitate the suspension of metformin use prior to study. Concern is for renal dysfunction. \*\*\*Should be noted many studies indicate that progression of cancers (particularly pancreatic) may be escalated with dual Dx of diabetes. Nuclear medicine SPECT would probably be done once Dx of lymphoma is determined to stage the cancer.

**General Surgery Office:** H and P done. Arrange for Lymph node biopsy – neck or axilla

**Nurse Anesthetist:** Preoperative, Intraoperative, Postoperative Care.

**Pathologist Assistant:** Examination of Biopsy Specimen – microscopy, staining, immunochemical staining. Pathological diagnosis of Hodgkins Lymphoma made.

**Radiation Therapy Technologist:** Assess patient. Describe short-term and long-term side-effects/complications. Radiation therapy schedule.

**Pharmacist at Chemo Center:** Chemotherapy prescribed. Describe short-term and long-term side-effects/complications. Medications used to combat side effects like CINV (chemotherapy induced nausea and vomiting).

**PT/OT:** The patient complains of decreased sensation and pins and needles in both feet. He is having difficulty with activities of daily living, walking and is afraid of falling. He is very fatigued. He is referred by his physician for activities of daily living training, gait training, endurance activities and fall prevention education.

**Mortuary Science:** Patient dies. Funeral preparations, including factors associated with meeting with family members, restoration and preservation issues with the deceased and final disposition.