Laboratory Test Interpretation

Interpretation of lab tests is not always a straight forward process, as most lab tests are not specific to one organ and abnormal results may reflect a variety of disease processes. It is necessary to look at both the pattern of lab test results and the clinical picture of the patient when determining the cause of abnormal results and the necessary action. Factors to consider when reviewing lab tests include:

- False positive and negative results can occur; therefore, a single abnormal lab result may require further investigation.
- The treatment intent for the patient should be considered when adjusting doses based on abnormal lab results. It may be reasonable to push ahead with full doses of cancer drugs when the treatment intent is curative; whereas, in the palliative setting, it is often preferable to reduce the dose rather than risk unacceptable toxicity.
- Dose modification recommendations in the setting of organ dysfunction are largely empiric; most of the clinical trials that support these modifications exclude patients with organ dysfunction and they were derived from clinical data obtained prior to the widespread use of colony-stimulating factors.
- Elevations in lab test results can be caused by the cancer itself. For example, liver cancer (primary or metastatic) can cause elevations in liver function tests (LFTs). The oncologist may choose to give full doses of cancer drugs, since treating the liver cancer may improve the LFT results. Some protocols have different dose adjustment recommendations for patients with liver metastases compared with patients without liver metastases (e.g., BRAVTAX).