



University of Michigan
C.S. Mott Children's Hospital

Solid Tumor Oncology Program Diagnostic Testing

Imaging studies - evaluate primary tumor and determine extent/location of any metastases.

- **computed tomography scan (Also called a CT or CAT scan.)** - a diagnostic imaging procedure that uses a combination of x-rays and computer technology to produce cross-sectional images (often called slices), both horizontally and vertically, of the body. A CT scan shows detailed images of any part of the body, including the bones, muscles, fat, and organs. CT scans are more detailed than general x-rays.
- **magnetic resonance imaging (MRI)** - a diagnostic procedure that uses a combination of large magnets, radiofrequencies, and a computer to produce detailed images of organs and structures within the body.
- **x-ray** - a diagnostic test that uses invisible electromagnetic energy beams to produce images of internal tissues, bones, and organs onto film.
- **ultrasound (also called sonography.)** - a diagnostic imaging technique that uses high-frequency sound waves and a computer to create images of blood vessels, tissues, and organs. Ultrasounds are used to view internal organs as they function, and to assess blood flow through various vessels.
- **bone scans** - images taken of the bone after a dye has been injected that is absorbed by bone tissue. These are used to detect tumors and bone abnormalities.
- **PET scan & MIBG**— performed in the Nuclear Medicine department these scans involve the use of a radiotracer to evaluate organ and physiologic processes of the body. Pictures are produced using special imaging equipment to help detect malignant tumors and distant metastases as these 'light up' on the imaging. MIBG is used specifically for diagnosing neuroblastoma.

Laboratory evaluations – may include blood tests to evaluate complete blood count, electrolytes, liver function, kidney function, presence of infection, tumor markers (chemicals released by a tumor) and/or a urinalysis

Surgical interventions – help determine pathology of mass and extent of disease

- **biopsy of the tumor** - a procedure in which a sample of tissue is removed from the tumor and examined under a microscope. Biopsies may be necessary for a diagnosis, since there are different types of cancer.
- **tumor excision** – it may be necessary to try and remove the entire tumor, remove entire organs affected by disease, and to look for tumors that may not be detected with diagnostic imaging
- **bone marrow aspiration and/or biopsy** - a procedure that involves taking a small amount of bone marrow fluid (aspiration) and/or solid bone marrow tissue (called a core biopsy), usually from the hip bones, to be examined for the number, size, and maturity of blood cells and/or abnormal cells.



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Solid Tumor Oncology Program Information Sheet

Instructions

- Date of procedure/scan _____
- Check in on _____ floor at _____ am/pm
- No solids 6 hours before procedure
- No bottle milk 6 hours before procedure
- No breast milk 4 hours before procedure
- No water, Pedialyte or apple juice 2 hours before procedure
- Nothing by mouth** 2 hours before procedure
- _____

- _____

- _____

Questions
