SUBMITTING SPECIMENS FOR SURGICAL PATHOLOGY AND RELATED TESTING PROCEDURES

POSTED-LIS

Principle: Histologic examination of tissues is used to provide diagnostic information that is important for the timely diagnosis of patient’s disease process and management of patient. It is important to correctly handle the tissue so that histology can be performed as well as additional related testing that requires fresh unfixed tissue.

Policy: The following provides guidelines for the submission of surgical specimens for histologic examination and for related testing procedures. The most important point in handling the tissue is whether to send the tissue in formalin or fresh if additional specialized testing is needed.

General Surgical Pathology specimens:

1. All surgical specimens should be submitted in 10% buffered formalin except for specimens requiring special studies, see below. NO other fixative should be used (i.e. methanol, ethanol, B5).

2. Surgical pathology specimens should be in a container that can be sealed and will not leak.

3. The container should be large enough to accommodate the specimen and filled with enough formalin to completely cover the specimen. The specimen should be able to float freely in the container for adequate fixation.

4. The container should be labeled with two identifiers, the patient’s name, DOB, or SSN and the specimen source/site. A biohazard sticker or formalin biohazard label should be on the outside of the container.

5. The container should be couriered or brought to the laboratory in a biohazard bag with the requisition completely filled out and SIGNED BY THE SUBMITTING PHYSICIAN. The requisition should be placed in the sleeve on the outside of the biohazard bag.

Surgical Pathology Specimens requiring special studies:

FROZEN SECTION: Surgical pathology specimens that need frozen section should be fresh, and NOT IN FORMALIN. The tissue should be in a sterile container and be brought immediately to the frozen section room in surgery and handed off to a histology technician or pathologist for frozen section.

CHROMOSOME STUDIES: Tissue that requires chromosome studies should be received fresh, NOT IN FORMALIN. This includes products of conception, fetal tissue or placental tissue. If tissue is required for chromosome studies, placental tissue is preferred over fetal tissue.
FLOW CYTOMETRY: Any tissue that may need flow cytometry in the work up of the disease process should be received fresh and NOT IN FORMALIN. This includes any tissue where there is a suspicion of lymphoma/leukemia such as lymph nodes, soft tissue or spleens. It is important to submit spleens fresh if there is any concern for lymphoma/leukemia. Bone marrow aspirates for flow cytometry are submitted in a yellow top (ACD) tube.

CULTURES: Any tissue requiring cultures should be sent fresh and NOT IN FORMALIN. It is best if cultures are needed that a separate sample or culture is sent to BVH Microbiology. If both microbiology and histology needs to be performed on a single specimen, a piece should be removed in a sterile manner (in Histology or Microbiology) then the remainder of the tissue processed in Histology. Make sure it is indicated on the requisition that both histology and microbiology are to be performed on the one piece of tissue.

MUSCLE/NERVE BIOPSIES: Muscle biopsies are received fresh on the surgical clamps. A piece of gauze with a few drops of saline can be added if the tissue is at risk to dry out. DO NOT ADD FORMALIN. The clamps will be removed in Histology and returned to Surgery. Nerve biopsies for biochemical studies should also sent fresh to Histology.

RENAL BIOPSIES: Renal core biopsies are submitted in a sterile container with a saline soaked gauze over the tissue. NO FORMALIN SHOULD BE ADDED. The cores will be put into containers for special studies once they arrive in Histology.

SKIN BIOPSIES FOR IMMUNOFLOURESCENCE: Special skin biopsies that require immunofluorescence studies should have one piece submitted separately fresh, NO FORMALIN. This piece will be sent out for immunofluorescence studies. A separate piece is needed for histology and is fixed in formalin.