Surgical Collection of Pathology Specimens

Proper handling of surgical tissues is vital to ensure that special diagnostic studies can be performed when necessary, and that the tissue is adequately preserved for an accurate diagnosis. If you have any questions about how to submit specimens, please contact Rice Laboratory Pathology Dept. at (320) 231-4505 or any of the pathologists at (320) 231-4500 or (800) 922-7423.

All surgical pathology specimens require these steps:

1. **All specimens must be labeled before being removed from the room**
   a. Patient name, first and last, correctly spelled (no nicknames)
   b. Date of birth or unique ID number
   c. Identity of specimen (for example, UOQ of right breast)

2. Secure label to specimen container. The label should include the following information:
   a. Patient name, first and last, correctly spelled (no nicknames)
   b. Date of birth or unique ID number
   c. Identity of specimen (for example, UOQ of right breast)

3. A surgical pathology requisition (or electronic order) must be completed for each patient from whom a specimen is obtained. Each order should have:
   a. Patient name, first and last, correctly spelled (no nicknames)
   b. Date of birth
   c. Name of primary doctor and surgeon (if applicable)
   d. Facility name
   e. Billing information
   f. Diagnosis or ICD code
   g. Identity of specimen (for example, UOQ of right breast). Be sure to include exact location, including left or right as indicated
   h. Clinical history, please include pertinent clinical history and a presumptive diagnosis (for example, palpable mass, mammographic abnormality, etc.)
   i. Additional information: A more specific and thus more helpful diagnosis can be provided by the pathologist examining the specimen when they have all the relevant information about the history and operative findings.

Routine submission of most specimens:

Place tissue in 10% Formalin. The volume of formalin present should be at least 10 times the volume of the tissue specimen. Once the tissue is placed in formalin, it can either be refrigerated or kept at room temperature. The container should be labeled with a Hazardous Formalin Label.

Frozen sections:

1. To schedule a frozen section to be done at your facility, call Rice Laboratory and schedule the procedure with one of the pathologists. Rice has a portable cryostat available if needed
2. Alternatively, the tissue can be transported to Rice Hospital Laboratory on iced saline for the frozen section to be performed
3. If an unscheduled frozen section is required after 3:00 p.m. or on a weekend, call Rice Laboratory to contact the pathologist on call

Special Handling: Certain tissues, such as large specimens, diagnostic lymph node biopsies, kidney stones, and foreign bodies, require special handling as follows:

1. **Large specimens (colon, small bowel & uterus)** should be opened for proper fixation. If these specimens are fixed without opening, the inner lining tends to decompose. If a tumor is present in a specimen, we still request the surgeon open the specimen. If the tumor is close to a margin, however, we recommend the end closest to the tumor be kept intact for
better evaluation of this margin. This is especially true of any soft tissue margins (e.g. rectal resections).

2. **Lymph node biopsies:** If a biopsy is performed to evaluate for the possibility of lymphoma, the specimen should be submitted **UNFIXED and STAT.** The specimen should be placed on saline soaked gauze and placed in a bag which is then placed on ice. The specimen should be transported immediately to Rice Hospital Laboratory. We will perform a frozen section for triage purposes and submit portions of the lymph node for special studies.
   a. **DO NOT UNDER ANY CIRCUMSTANCES LEAVE THE NODE UNFIXED OVERNIGHT. IF IMMEDIATE TRANSPORT IS NOT AVAILABLE, BISECT THE NODE AND FIX IN 10% FORMALIN IMMEDIATELY**

3. **Kidney and bladder stones:** Must be sent dry, without fixative (fixative alters stone chemical analysis).

4. **Bullets** should be given directly to the investigating officer. If none is available, **follow a written claim of custody, even if no foul play is suspected.** Call the pathology lab or pathologist on call for more information. Bullets can be saved dry.

5. **Glass and metal foreign bodies** may be sent without fixative or retained at your facility.

6. **Amputated extremities** are to be labeled, and kept cold. You may have to place a bag of ice under the extremity to keep it cold.

7. **Insects or Parasites:**
   a. Basic guideline: Submit in clean, sterile sealed container with 10% formalin or 70% alcohol, do not crush. **Do not submit in an envelope.**
   b. Collection Instructions:
      i. For scabies, submit skin scrapings on glass microscopic slide. Cover with a clean slide and fasten down to transport. (Rubber bands work well). Submit in a sealed container.
      ii. Worms- (whole and segments) submit in 70% alcohol or formalin.
      iii. Arthropods- (ticks, lice, nits, bedbugs, etc.) Submit in clean dry SEALED container (example- Urine specimen container)
      iv. Please indicate reason for request (ex: bugs found on bedding, suspect worm in stool etc.)

8. **Breast Specimens for Estrogen/Progesterone Analysis**:
   a. The time that the tissue is removed and the time placed in formalin must be documented; hormone study results are dependent on it.
   b. If possible, these specimens should be transported immediately to Rice Hospital Laboratory for proper handling. Prolonged fixation, especially over a weekend, should be avoided whenever possible.
   c. If a biopsy is performed on a Friday, please make certain the biopsy is performed in time to be transported to Rice Laboratory for Saturday morning examination.

9. **Skin for Immunofluorescence:** Please call for instructions. Immunofluorescence cannot be performed on formalin fixed tissue.

10. **Chromosome Analysis for Tissue (products of conception):**
    a. It is very important to obtain the tissue as soon as possible (within 6 hours of fetal demise or miscarriage)
    b. Send fresh placenta at refrigerated storage temperature.
    c. Handle only with sterile equipment (forceps, scissor, scalpel and gauze)
    d. Place each specimen in a container of “Hank’s Balance salt solution” obtained from Rice Laboratory or Mayo Medical Laboratories. If “Hank’s” is unavailable, use sterile normal saline.
    e. Label each container with specimen type (for example, placenta) and complete
If you have any questions, please call! Keep in mind that any tissue may be sent to pathology unfixed, if sent immediately. Once the specimen is fixed in 10% formalin, certain special studies cannot be performed. **To submit a specimen fresh (unfixed), follow the usual procedure, but be sure to deliver it to Pathology at Rice Hospital Laboratory immediately.** If after hours, contact Rice Laboratory and the lab personnel will contact the Pathologist on call.