

Pediatric Pathology Grossing Guidelines

BIOPSIES AND RESECTIONS OF PEDIATRIC SARCOMAS AND LOCALLY AGGRESSIVE NEOPLASMS TUMORS, INCLUDING CORE NEEDLE BIOPSIES

For intraoperative handling and submission of tissue for ancillary studies, please review the general pediatric pathology guidelines, and discuss the case with the Dr. Goldstein or the organ-service attending before proceeding.

Please also review the separate Pediatric Tumor Molecular Profiling document for COG protocol related specimen requirements and handling.

UCLA is a participating member of the Children's Oncology Group (COG) and a tissue bank for pediatric neoplasms maintained at the COG Biopathology Center (BPC) at Nationwide Children's Hospital/Ohio State University. Many pediatric oncology patients will be randomized into therapeutic protocols. Since the protocols and trial studies often change, better to check if any special things need to be done BEFORE proceeding with dissection and fixation.

College of American Pathologists' pediatric tumor synoptic reports should be used, and the full CAP protocols may be reviewed for additional information.

All COG treatment protocols require central pathology review, and in some cases, an expedited rapid review is necessary to determine the correct initial treatment regimen for the child. Therefore, for all children registered on protocol, a complete duplicate set of sequential slides from each block should be ordered at the time of initial histologic processing.

For all pediatric tumors for which there is sufficient material available, after satisfying protocol requirements and our needs (including our TPCL), additional frozen tissue can be submitted to the BPC. TPCL personnel will be available during regular work hours to assist with the procurement of tissue for COG protocols and tissue banking.

Inquiries related to any pediatric tumor biopsy may be directed to:

1. Jeffrey Goldstein, M.D., x57443, Beeper 31418;
2. The Hematopathology and Neuropathology fellow or attending-on-call, for those cases.
3. Peds Hem/Onc Clinical Research Associate (CRA), x56708..
4. The Peds Heme/Onc Fellow at x56708, or the page operator for the fellow on-call
5. Noah Federman p21525 or x56708 for solid tumor service and

Pediatric Pathology Grossing Guidelines

William May (leukemia/lymphoma) office x56708 pager 10205.

Pediatric Pathology Grossing Guidelines

Chromosomal Analysis

It is advisable to save the tissue for chromosomal and/or molecular analysis of the following neoplastic disorders:

1. Wilms tumor
2. Neuroblastoma
3. Rhabdomyosarcoma (especially alveolar subtype)
4. Ewing's sarcoma/PNET/Desmoplastic small round cell tumor
5. Burkitt and other non-Hodgkin lymphomas
6. Acute leukemia and granulocytic sarcoma
7. Germ cell tumors
8. Malignant brain tumors
9. Synovial sarcoma
10. Any rare, unusual or undiagnosed pediatric tumor

If chromosome analysis is needed on any pediatric tumor, obtain **RPMI medium** from tubes provided by the Flow Cytometry Laboratory in the Surgical Pathology refrigerator. Alternatively, the Cytogenetics Laboratory can provide RPMI media. You may call the Cytogenetics Lab at x41287 and they will provide you with the RPMI media. This lab is open Monday through Friday.

Specific Specimen Processing

1. Cytologic smears (touch preps, squash preps, and smears prepared from gentle scrapings of the tumor surface) are very useful to determining prioritization and triage of special studies.
2. Submit tissue for flow cytometry if hematolymphoid neoplasm other than classical Hodgkin disease is suspected.
3. For non-hematolymphoid tumors, save a small portion for EM. If tissue is scanty, remove a 1 mm cube for this step.
4. Submit fresh tissue for cytogenetics and FISH studies as may be indicated.
5. For COG protocol patients, ideally at least 1g, of tumor and adjacent normal tissue, if available should be cut into 3-5 mm slices and wrapped separately in foil and snap frozen in the vapor phase of liquid nitrogen (do not submerge the tissue in liquid nitrogen) or isopentane/dry ice. Tissue should also be frozen in OCT in an embedding mold, and wet, formalin fixed tissue or additional paraffin blocks prepared for referral are also requested. TPCL personnel will be available during regular work hours to assist with the procurement of tissue for COG protocols and tissue banking.

Contact the Peds Hem/Onc Clinical Research Associate (CRA), x56708 to arrange for pick-up and distribution of protocol materials.

Pediatric Pathology Grossing Guidelines

6. Tissue may also be submitted to our TPCL, if sufficient.
7. For small specimens, submit adequate (all remaining) tissue for routine histology. This step takes precedence all prior steps if tissue is very scanty.
8. Please see the Bone and Soft Tissue section of the manual for detailed dissection and sampling requirements of larger soft tissue resections.