Protocol for the Examination of Specimens from Pediatric Patients with Hepatoblastoma

Protocol applies to hepatoblastoma only. Other malignant primary hepatic tumors are excluded.

No AJCC/UICC TNM Staging System
The Children’s Oncology Group Staging System is recommended

Protocol web posting date: April 2007
Protocol effective date: January 2008

 Procedures
• Cytology (No Accompanying Checklist)
• Incisional Biopsy (No Accompanying Checklist)
• Hepatectomy, Partial or Complete

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The College of American Pathologists offers these protocols to assist pathologists in providing clinically useful and relevant information when reporting results of their examinations of surgical specimens. The College regards the reporting elements in the “Surgical Pathology Cancer Case Summary (Checklist)” portion of the protocols as essential elements of the pathology report. However, the manner in which these elements are reported is at the discretion of each specific pathologist, taking into account clinician preferences, institutional policies, and individual practice.

The College developed these protocols as an educational tool to assist pathologists in the useful reporting of relevant information. It did not issue the protocols for use in litigation, reimbursement, or other contexts. Nevertheless, the College recognizes that the protocols might be used by hospitals, attorneys, payers, and others. Indeed, effective January 1, 2004, the Commission on Cancer of the American College of Surgeons mandated the use of the checklist elements of the protocols as part of its Cancer Program Standards for Approved Cancer Programs. Therefore, it becomes even more important for pathologists to familiarize themselves with the document. At the same time, the College cautions that use of the protocols other than for their intended educational purpose may involve additional considerations that are beyond the scope of this document.
Summary

This is a new protocol.

Important Note

First priority should be given to formalin-fixed tissues for morphologic evaluation. The second priority for tissue processing is snap-freezing up to 1 gram (minimum of 100 mg) of tumor from grossly different regions, and nontumoral liver, for molecular studies, as well as viable sterile tumor for cytogenetic studies (see Explanatory Note A). Samples from the same foci should be collected for histology and appropriately identified.

For more information, contact: The Children’s Oncology Group Biopathology Center; Phone: (614) 722-2890 or (800) 347-2486.
Surgical Pathology Cancer Case Summary (Checklist)

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HEPATOBLASTOMA (PEDIATRIC LIVER): Resection

Patient name:
Surgical pathology number:

MACROSCOPIC (check 1 response unless otherwise indicated)

Specimen Type
___ Right lobectomy
___ Extended right lobectomy
___ Medial segmentectomy
___ Left lateral segmentectomy
___ Total left lobectomy
___ Explanted liver
___ Other (specify): ____________________________
___ Not specified

Focality
___ Unifocal (specify location): ____________________________
___ Multifocal (specify location): ____________________________
___ Cannot be determined (see Comment)

Tumor Size (specify for each nodule)
Greatest dimension: ___ cm
*Additional dimensions: ___ x ___ cm
___ Cannot be determined (see Comment)

* Data elements with asterisks are not required for accreditation purposes for the Commission on Cancer. These elements may be clinically important, but are not yet validated or regularly used in patient management. Alternatively, the necessary data may not be available to the pathologist at the time of pathologic assessment of this specimen.
MICROSCOPIC (check 1 response unless otherwise indicated)

Histologic Type
___ Hepatoblastoma, epithelial type, fetal pattern (mitotically inactive)
___ Hepatoblastoma, epithelial type, fetal pattern (mitotically active)
___ Hepatoblastoma, epithelial type, fetal and embryonal pattern
___ Hepatoblastoma, epithelial type, macrotubular pattern
___ Hepatoblastoma, epithelial type, small cell undifferentiated pattern
    *Percentage of tumor with this histologic feature: _____
___ Hepatoblastoma, mixed epithelial and mesenchymal type without teratoid features
___ Hepatoblastoma, mixed epithelial and mesenchymal type with teratoid features
___ Hepatoblastoma, rhabdoid type
___ Hepatoblastoma, other (specify): ______________________
___ Other (specify): ___________________________

Histologic Grade
___ Favorable#
___ Less favorable##
___ Unfavorable###
#  Favorable (epithelial, purely fetal, mitotically inactive with 2 or fewer mitoses in 10, X40 objective fields) if stage I (usually treated with surgery alone).
## Less favorable (others except unfavorable, below). May be more favorable if stage I (usually treated with multimodality therapy).
### Unfavorable (small cell undifferentiated or rhabdoid, predominant or sole histopathologic subtype) at any stage or therapy.

Margins (check all that apply)

Resection Margin
___ Cannot be assessed
___ Uninvolved by invasive tumor
    Distance of invasive tumor from closest margin: ___ mm
    Specify margin: __________________________
___ Involved by invasive tumor
    Specify margin: __________________________

Capsular Surface
___ Cannot be assessed
___ Uninvolved by invasive tumor
    Distance of invasive tumor from closest surface: ___ mm
    Specify margin: __________________________
___ Involved by invasive tumor

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Regional Lymph Nodes
___ Cannot be assessed
___ No regional lymph node metastasis
___ Regional lymph node metastasis
   *Specify location, if known: ___________________________
Specify: Number examined: ___
  Number involved: ___

*Venous (Large Vessel) Invasion (portal or hepatic vein) (check all that apply)
* __ Absent
* __ Portal invasion present
* __ Hepatic invasion present
* __ Indeterminate

*Lymphatic (Small Vessel) Invasion (check all that apply)
* __ Absent
* __ Present within tumor nodules
* __ Present in vessels of parenchyma outside of tumor nodules
* __ Indeterminate

Distant Metastases
___ Cannot be assessed
___ No evidence of distant metastasis (specify location[s] biopsied: __________________________)
___ Distant metastasis present
   ___ Lymph node(s), including inferior phrenic, distal to hilum, hepatoduodenal ligament, or caval region (specify location[s] biopsied: __________________________)
   ___ Hematogenous metastasis (specify location[s] biopsied: __________________________)

Staging (Children’s Oncology Group) (check all that apply)
___ Stage I  Complete resection
___ Stage II  Microscopic residual tumor
   ___ Intrahepatic
   ___ Extrahepatic
___ Stage III  Gross residual tumor
   ___ Primary completely resected, nodes positive and/or tumor spill
   ___ Primary not completely resected, nodes positive and/or tumor spill
___ Stage IV  Metastatic disease
   ___ Primary completely resected
   ___ Primary not completely resected

*Additional Pathologic Findings (check all that apply)
* __ None identified
* __ Cirrhosis/fibrosis
* __ Iron overload
* __ Hepatitis (specify type): ___________________________
* __ Other (specify): ___________________________

*Comment(s)

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