

Hepatobiliary Pathology Grossing Guidelines

Specimen Type: TOTAL HEPATECTOMY/TRANPLANT

Gross Template:

The specimen is received [*fresh/in formalin*] in a container labeled with the patient's name (**), medical record number (**), and designated as "****." The specimen consists of a ** gram total hepatectomy specimen measuring ** cm from superior to inferior, ** cm from anterior to posterior, and ** cm from medial to lateral. [*Measure and describe any adherent organs or structures (adrenal gland, portion of diaphragm, etc.).*] The capsule is smooth, glistening, and unremarkable [*or is remarkable for a *** x *** cm area of disruption or describe size, shape, color, consistency of lesions (plaques/nodules, hemorrhage, subcapsular hematoma, etc.).*].

[If the operation is not performed for a tumor, and no lesions are identified: Serial sectioning from superior to inferior reveals no mass lesions or prominent nodules. Skip to next paragraph.] Serial sectioning from superior to inferior reveals [#] [*masses/prominent nodules*]. [**For specimens with multiple masses/lesions, state how many are noted, and assign each lesion/mass a designation (such as "mass #1" or "nodule #4"). Duplicate the paragraph below as many times as necessary to document the characteristics of each lesion/mass.**]

[*Mass/nodule #:*

Location: (segment #)

*Necrosis: (none or %) **If necrosis is present, then state the greatest dimension of viable tumor in cm.***

Description:

Description: (circumscription, shape, color, consistency)

*Distance from capsule: (** cm)*

*Distance to nearest margin: (** cm) from (hepatic artery/vein, portal vein, bile duct) margin*

(For cholangiocarcinoma, additionally specifically mention the distance to the bile duct margin.)

Distance from other masses/nodules: (e.g., 2.0 cm from nodule #1 and 4.5 cm from nodule #2)

Vascular invasion: Not identified (or describe and identify the vessel, if known/orientable)

(If gross invasion of bile ducts is identified, describe)]

No thrombi are identified in the portal vein, hepatic artery, or hepatic veins [*or describe color, size, location*]. The remaining parenchyma is [*firm, red, homogeneous, and unremarkable or fibrotic or micronodular (nearly all nodules <3 mm) or macronodular (most nodules >3 mm) or with variably-sized nodules (highly variable size with nodules both < and > 3 mm)*]. [*Describe any additional pathology (cysts, hematomas, thrombi, etc. For cysts, describe #, location(s), cyst lining (specifically mention the relationship of any cyst to the biliary system [does/does not communicate], loculation (uni-/multiloculated), quantity of fluid within (** mL), quality of fluid within (serous, mucinous, hemorrhagic, purulent), presence or absence of papillary excrescences or solid nodules).*] ** possible lymph nodes are identified, ranging from ** to ** cm] in greatest dimension.

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[If gallbladder is included]:

The attached gallbladder measures *** x *** x *** cm. The attached portion of cystic duct measures *** cm in length x *** cm in diameter. The cystic duct resection margin is closed by a clip. The serosa is remarkable for [size of abnormal area, approximate location of abnormal area, color, consistency; specifically mention purulence, necrosis, diverticula, plaques, nodules, perforations, if present or tan, smooth, glistening, and unremarkable]. The gallbladder is opened longitudinally to reveal *** mL of [*viscous, green/yellow*] bile [*or describe hemorrhagic fluid, mucus, etc., as necessary*]. The mucosa is [*green/yellow, smooth/velvety/trabeculated, stippled; specifically mention polyps, ulcers/erosions, cysts and describe (size, shape, color, consistency), as necessary*] with a wall thickness ranging from *** cm in [location] to *** cm in [location]. [***/multiple (>10)] [*shape, color, consistency*] calculi are identified in the [lumen/container] measuring *** x *** x *** cm in aggregate, ranging from *** cm to *** cm in greatest dimension [*or No calculi are identified in the lumen or specimen container (confirmed by ***)*]. A pericyclic lymph node [is/is not identified].

Ink key:

Blue – capsule overlying tumor (if necessary, otherwise omit the ink key)

All identified possible lymph nodes are entirely submitted. [*The lesion/mass is entirely submitted (if applicable, otherwise skip to next sentence)*]. A gross photograph is taken. Representative sections are otherwise submitted as follows:

Cassette Submission:

Hepatocellular Carcinoma:

Variable number of cassettes, depending on how many tumors are present:

- One cassette with hilar margins, en face (portal vein, hepatic artery, common hepatic duct)
- One cassette with hepatic vein margins, en face (ink differentially)
- One cassette per 1 cm of lesion
 - Show relationship to capsule
 - Show relationship to resection margin
 - Sample all heterogeneous areas (e.g., areas of hemorrhage, fibrosis)
 - Sample both central and peripheral parts of tumor
- Cassettes sampling any additional pathology in the gross description (cysts, hematomas, thrombi, etc.)
- Four cassettes of unremarkable parenchyma from different areas of the liver:
 - Right lobe, central
 - Right lobe, peripheral
 - Left lobe, central
 - Left lobe, peripheral
- If gallbladder is included:
 - Shave of cystic duct margin (en face) in a separate cassette

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- Representative sections of gallbladder neck, body, and fundus in one cassette
- Pericyclic lymph nodes, if identified

Note: If all gross lesions are not identified to match the most recent imaging studies, contact the pathologist and note in the gross description that the pathologist has seen the specimen

Non-Tumor:

Seven to ten cassettes:

- One cassette with hilar margins, en face (portal vein, hepatic artery, common hepatic duct)
- One cassette with hepatic vein margins (ink differentially), en face
- Cassettes sampling any pathology in the gross description (cysts, hematomas, thrombi, etc.)
- Four cassettes of unremarkable parenchyma from different areas of the liver:
 - Right lobe, central
 - Right lobe, peripheral
 - Left lobe, central
 - Left lobe, peripheral
- If gallbladder is included:
 - Shave of cystic duct margin (en face) in a separate cassette
 - Representative sections of gallbladder neck, body, and fundus in one cassette
 - Pericyclic lymph nodes, if identified

Pediatric Tumors (hepatoblastoma, mesenchymal hamartoma, embryonal sarcoma, etc. **Please also review the Pediatric Grossing Guidelines):**

See above. Ten to fifteen cassettes:

- Note: If diagnosis is not known, collecting tissue for possible cytogenetics (in RPMI) or electron microscopy (in glutaraldehyde) may be required. If hepatoblastoma is diagnosed on prior biopsy, no additional studies are required.
- One cassette with hilar margins, en face (portal vein, hepatic artery, common hepatic duct)
- One cassette with hepatic vein margins (ink differentially), en face
- One cassette per 1 cm of lesion
 - Show relationship to capsule
 - Show relationship to resection margin
 - Sample all heterogeneous areas (e.g., areas of hemorrhage, fibrosis)
 - Sample both central and peripheral parts of tumor
- Cassettes sampling any additional pathology in the gross description (cysts, hematomas, thrombi, etc.)
- Four cassettes of unremarkable parenchyma from different areas of the liver:
 - Right lobe, central
 - Right lobe, peripheral
 - Left lobe, central

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- Left lobe, peripheral
- If gallbladder is included:
 - Shave of cystic duct margin in a separate cassette
 - Representative sections of gallbladder neck, body, and fundus in one cassette
 - Pericyclic lymph nodes, if identified

Note: Place one section of non-tumor area with a “Liver-exp” order (1 H&E, Trichrome, PAS, PAS with diastase, Iron, and Reticulin). Make sure this section is taken away from the capsule (central). Note that the default cassette in Beaker is the first cassette (e.g., A1 if the hepatectomy is accessioned as part A), for which the liver package is already ordered. Please be sure to place unremarkable parenchyma in this cassette.