

Hepatobiliary Pathology Grossing Guidelines

Specimen Type: TOTAL HEPATECTOMY/TRANPLANT

Gross Template:

MMODAL COMMAND: INSERT TOTAL LIVER MASS – for transplant cases with tumor

It consists of a [***] gram total hepatectomy specimen measuring [***] cm (medial-lateral) x [***] cm (superior-inferior) x [***] cm (anterior-posterior). The capsule is [*red-tan, smooth, diffusely nodular****].

Serial sectioning from superior to inferior reveals [*insert # of 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, use command “insert liver mass” to duplicate paragraph below.*****]

Mass/nodule #: [*insert number****]

Size: [*measure in three dimensions****]

Greatest dimension of viable tumor: [***] cm

Location: Segment [***]

Necrosis: [*none or %, if necrosis is present state largest dimension of viable tumor in cm****]

Description: [*circumscription, shape, color, consistency****]

Distance from capsule: [*** cm]

Distance to nearest margin: [*** cm from (*parenchymal, 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****)]

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, nodular, fibrotic****].

The attached gallbladder measures [*measure in three dimensions****]. The attached portion of cystic duct measures [***] cm in length x [***] cm in diameter. The serosa is [*pink-tan and smooth, describe any lesions****]. The mucosa is [*green/yellow, smooth/trabeculated, stippled; specifically mention polyps, ulcers/erosions, cysts and describe (size, shape, color, consistency), as necessary****]. The wall thickness averages [***] cm. Multiple [*multifaceted/bosselated/spherical, color,****] calculi are identified in the [*lumen/container****] ranging from [*give range from smallest to largest****]. [*or No calculi are identified in the lumen, cystic duct or specimen container (confirmed by****)]. A pericyclic lymph node [*is/is not identified****].

A gross photograph is taken [*take two cut surface photos of liver parenchyma-delete this from dictation****]. Representative sections are submitted.

[INK KEY:

Blue capsule over tumor – ONLY IF TUMOR IS PRESENT NEAR CAPSULE]

CASSETTE SUMMARY:

[***] Liver, right lobe, central
[***] Left and middle hepatic veins, shave
[***] Right hepatic vein, shave
[***] Porta hepatis margins, shave
[***] Liver, right lobe, periphery
[***] Liver, left lobe, central
[***] Liver, left lobe, periphery
[***] Cystic duct, shave
[***] Gallbladder neck, body, fundus

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[***] [***]
[***] [***]
[***] [***]

MMODAL COMMAND: INSERT TOTAL LIVER – for transplant cases **without** tumor

It consists of a [***] gram total hepatectomy specimen measuring [***] cm (medial-lateral) x [***] cm (superior-inferior) x [***] cm (anterior-posterior). The capsule is [*red-tan, smooth, diffusely nodular****]. Serial sectioning from superior to inferior reveals [*red-tan, diffusely nodular cut surface, describe if fibrosis present****]. No lesions or masses are grossly identified.

The attached gallbladder measures [*measure in three dimensions****]. The attached portion of cystic duct measures [***] cm in length x [***] cm in diameter. The serosa is [*pink-tan and smooth, describe any lesions*]. The mucosa is [*green/yellow, smooth/trabeculated, stippled; specifically mention polyps, ulcers/erosions, cysts and describe (size, shape, color, consistency), as necessary****]. The wall thickness averages [***] cm. Multiple [*multifaceted/bosseled/spherical, color, ****] calculi are identified in the [*lumen/container****] ranging from [*give range from smallest to largest****]. [*or No calculi are identified in the lumen, cystic duct or specimen container (confirmed by ***)*]. A pericyclic lymph node [*is/is not identified****].

A gross photograph is taken [*take two cut surface photos of liver parenchyma-delete this from dictation****]. Representative sections are submitted.

CASSETTE SUMMARY:

[***] Liver, right lobe, central
[***] Left and middle hepatic veins, shave
[***] Right hepatic vein, shave
[***] Porta hepatis margins, shave
[***] Liver, right lobe, periphery
[***] Liver, left lobe, central
[***] Liver, left lobe, periphery
[***] Cystic duct, shave
[***] Gallbladder neck, body, fundus

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

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- 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

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:

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- Right lobe, central
- Right lobe, peripheral
- Left lobe, central
- 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.