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Clinical guidelines **ABDOMEN CT**	**Original Date: September 1997**
CPT Codes: 74150, 74160, 74170	**Last Revised Date: May 2023**
Guideline Number: NIA_CG_030	**Implementation Date: January 2024**

GENERAL INFORMATION

- *It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.*
- *Where a specific clinical indication is not directly addressed in this guideline, medical necessity determination will be made based on widely accepted standard of care criteria. These criteria are supported by evidence-based or peer-reviewed sources such as medical literature, societal guidelines and state/national recommendations.*

Note: For syndromes for which imaging starts in the pediatric age group, MRI preferred

NOTE: ABDOMEN CT **ALONE** SHOULD ONLY BE APPROVED WHEN DISEASE PROCESS IS SUSPECTED TO BE LIMITED TO THE ABDOMEN. Abdomen/Pelvis CT (CPT Codes: 74176, 74177, 74178) is the correct study when the indication(s) include both the abdomen AND pelvis, such as CTU (CT Urography), CTE (CT Enterography), acute abdominal pain, widespread inflammatory disease, or neoplasm.
When separate requests for CT abdomen and CT Pelvis are encountered for processes involving both the abdomen and pelvis, they need to be resubmitted as a single Abdomen/Pelvis CT (to avoid unbundling; CPT codes 74176, 74177, 74178). Otherwise, the exam should be limited to the appropriate area (i.e., Abdomen **OR** Pelvis) which includes the specific organ, area of known disease/abnormality, or the area of concern.

INDICATIONS FOR ABDOMEN CT

Abdominal Pain for Unknown Etiology

- CT allowed after initial workup is inconclusive and must include results of the following:
  - Appropriate laboratory testing (chemistry profile, complete blood count, and/or urinalysis) for the patient's presentation (e.g., suspected pancreatitis – amylase/lipase etc.) **AND**

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    - Initial imaging (such as ultrasound, barium study, nuclear medicine, or scope study) appropriate to the symptoms
    - Not all of the above tests need to be performed, but both labs and initial imaging need to be performed
        - E.g., for GI bleeding, CBC and a scope study would be appropriate initial testing (however, a UA and ultrasound would not be)
- For acute abdominal pain in a patient over the age of 65[1, 2]
- Initial evaluation of abnormal findings seen on other imaging, such as ultrasound (US) or x-ray and limited to the abdomen, and CT is the most reasonable next step for that diagnosis

Evaluation of suspicious known mass/tumors (unconfirmed diagnosis of cancer) for further evaluation of indeterminate or questionable findings

- Initial evaluation of suspicious masses/tumors found by physical exam or imaging study, such as ultrasound (US), and only the abdomen is affected[3, 4]
- One follow-up exam to ensure no suspicious change has occurred in a tumor. No further surveillance imaging unless tumor(s) is/are specified as highly suspicious, or change was found on exam or last follow-up imaging.
- For abnormal incidental abdominal lymph nodes when follow-up is recommended based on prior imaging (initial 3-month follow-up)[5]

Follow-up of known cancer[6, 7]

- In a patient undergoing active treatment within the past year or as per surveillance imaging guidance for that cancer
- Known cancer with suspected abdominal metastasis based on a sign, symptom (e.g., anorexia, early satiety, intestinal obstruction, night sweats, pelvic pain, weight loss, vaginal bleeding) or an abnormal lab value (alpha-fetoprotein, CEA, CA 19-9, p53 mutation)

For evaluation of suspected infection or inflammatory disease based on exam or discovered on previous imaging[8-10]

- Right upper quadrant pain for suspected biliary disease with negative or equivocal ultrasound
- For epigastric or left upper quadrant pain if labs or other imaging are inconclusive[11]

For evaluation of suspected infection or for follow-up known infection limited to the abdomen

- Any known infection that is clinically suspected to have created an abscess limited to the abdomen. (If location unclear or unknown, CT Abdomen/Pelvis)
- Any history of fistula limited to the abdomen that requires re-evaluation or is suspected to have recurred
- Abnormal fluid collection limited to the abdomen seen on prior imaging that needs follow-up evaluation

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For evaluation of Inflammatory Bowel Disease (IBD) such as Crohn's or Ulcerative Colitis (MRE should be considered for age < 35 to reduce radiation exposure). If only Abdomen CT is requested for IBD, the request should be resubmitted as CT Abdomen and Pelvis (see Guideline for criteria) unless it is known that the disease is limited to the abdomen.

For evaluation of an organ or abnormality seen on previous imaging

ADRENAL

- Indeterminate adrenal lesion seen on prior imaging
- For further evaluation of suspected adrenal tumors and/or endocrine disorders when there is clinical and laboratory evidence to suggest an adrenal source; see Background for specific laboratory testing that is needed based on suspected diagnosis[12]
- Adrenal mass < 4 cm incidentally discovered with benign characteristics, one follow-up at 6 months then annually x 2 years (no further imaging if stable, see Background for details)
- If adrenal mass ≥ 4 cm and no diagnosis of cancer, can approve for either pre-operative planning **OR** if surgery is not done, can repeat imaging in 6-12 months

LIVER

- Indeterminate liver lesion seen on prior imaging [11]
- For evaluation of rising AFP (requires a ≥7 ng/mL increased in AFP per month) in patients at high risk for HCC (known cirrhosis and/or chronic hepatitis B, see Background for additional risk categories)[13]
- For screening in patients at high risk for HCC (see above) every 6 months when prior ultrasound is insufficient to evaluate the liver due to steatosis/fatty liver or nodular liver
    - The finding of steatosis/fatty liver and/or nodular liver alone on an ultrasound report is insufficient for approval; the report must specify that those findings prevent adequate visualization of the liver by ultrasound
- For jaundice or abnormal liver function tests after equivocal or abnormal ultrasound[14]
- For surveillance of HCC (MRI or CT) in patients who have received liver-directed therapy, surgical resection, medical treatment, or transplant at one-month post treatment and then every 3 months for up to two years, then every 6 months[14, 15]
- For follow-up of suspected adenoma every 6-12 months
- For surveillance of patients with primary sclerosing cholangitis (also CA 19-9), every 6-12 months after the age of 20 (MRI and MRCP preferred over CT) [16]
- For follow-up of focal nodular hyperplasia (FNH), repeat imaging in 6-12 months to ensure stability. Additional imaging beyond that is needed only if atypical features or diagnosis is still in question. [17]
- For annual elastography[18] in chronic liver disease to stage hepatic fibrosis when MRI is contraindicated and transient elastography with ultrasound is insufficient

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- In patients with Beckwith-Wiedemann syndrome and abnormal ultrasound or rising AFP and MRI is contraindicated [19]
- Pre-procedure for transjugular intrahepatic portosystemic shunt (TIPS)[20, 21]
- For evaluation and monitoring of Gaucher Disease at initial diagnosis and every 12 to 24 months when MRI is contraindicated [22]

Evaluation of iron overload in the following settings when MRI is contraindicated

- Initial evaluation of liver iron in Hemochromatosis diagnosed in lieu of liver biopsy [23]
- Annual evaluation for high-risk patients: transfusion-dependent thalassemia major, sickle cell disease, and other congenital anemias [24]when ultrasound is insufficient

PANCREAS

- Pancreatic cystic lesion found on initial imaging, approve for initial characterization of lesion
- For follow-up for pancreatic cyst as below AND MRI is contraindicated [25]:
    - For incidental and asymptomatic cysts <1.5 mm, **AND**:
        - Age < 65, image annually x 5 years, then every 2 years if stable
        - Age 65-79, imaging every 2 years x 5, then stop if stable
    - For cysts 1.5-1.9 cm with main pancreatic duct communication (MPD), image annually x 5 years, then every 2 years x 2, stop if stable at year 9.
    - For cysts 2.0-2.5 cm with MPD communication, image every 6 months x 4, then annually x 2, then every 2 years x 3, stop if stable at year 10.
    - For cysts 1.5-2.5 cm with NO MPD communication (or cannot be determined), image every 6 mos. x 4, then annually x 2 then every 2 years x 3, stop if stable at year 10.
    - For cyst > 2.5 cm on surveillance (i.e., intervention has not been chosen), image every 6 mos. x 4, then annually x 2 years, then every 2 years x 3. Stop if stable at year 10.
    - Patients > 80 years of age at presentation are imaged less frequently: image every 2 years x 2, stop if stable at year 4 (intervals are the same regardless of size if surveillance chosen)
    - GROWTH or suspicious change on a surveillance imaging scan may warrant more frequent surveillance
- For localization of a functional pancreatic tumor, see Background (endocrine) once diagnosis is confirmed (or highly suspected)
- Annual surveillance for individuals determined to have an increased lifetime risk of developing pancreatic cancer (if MRI/MRCP and EUS contraindicated), based on genetic predisposition or family history as below:
    - SKT11 variant (including Peutz-Jeghers): starting at age 30 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier)
    - CDKN2A variant: starting at age 40 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier)

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- Other variants and based on family history as detailed below: Starting at age 50 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) for the following:
    - ≥ 1 first- or second-degree relative with history of pancreatic cancer from the same side of the family as the identified variant AND known mutation in other pancreatic susceptibility genes (ATM, BRCA1, BRCA2, MLH1 (Lynch), MSH2, MSH6, EPCAM, PALB2, TP53)
    - ≥ 2 first-degree relatives with a history of pancreatic cancer from the same side of the family
    - ≥ 3 first- and/or second-degree relatives with a history of pancreatic cancer from the same side of the family
- Hereditary Pancreatitis (such as PRSS1 variant) starting 20 years after onset of pancreatitis, or at age 40 years, whichever is earlier[1, 26-28]
- Multiple Endocrine Neoplasia type 1 (MEN1) (to screen for PanNET (neuroendocrine tumor) every 1-3 years (chest CT or MRI also approvable for this syndrome at same interval)

- Initial imaging for suspected acute pancreatitis due to epigastric pain with elevated amylase and/or lipase:
    - For mild presentation when symptom improvement is not seen after 72 hours of treatment and either:
        - ultrasound has been performed and did not show an abnormality such as gallstones, dilated bile duct
        - ultrasound suggests complications (such as fluid collection)
    - For severe presentation (such as fever, elevated WBC)
    - For a decline in clinical status and/or suspected complication
- Pancreatitis by history, (including pancreatic pseudocyst) with abdominal pain suspicious for worsening, or re-exacerbation
- Known necrotizing pancreatitis requiring follow-up
- In patients > 40 years of age who have pancreatitis with no identifiable cause (see Background), CT is indicated to exclude neoplasm [29]

RENAL

- For an indeterminate renal mass on other imaging [30]

Active surveillance for indeterminate cystic renal mass, not a simple renal cyst (Bosniak IIF (6 mos., 12 mos. then annually), III and IV lesions - see Background)[31]

- Follow-up for solid renal masses under 3 cm at 6 and 12 months, then annually [32,33]
- Surveillance for known angiomyolipoma (AML): annually if known tuberous sclerosis (TSC) or AML size is > 4 cm; every 2 years if AML size is 3-4 cm[34-36] (if AML < 3 cm, CT or MRI not needed unless pt has TSC)

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- For surveillance of patients with the following known genetic mutations at the following intervals (MRI preferred due to lifetime radiation risk, CT can be approved if needed for surgical planning or CI to MRI):
    - BAP1-TPDS (BAP-1 tumor predisposition syndrome) every 2 years starting at age 30
    - BHDS (Birt-Hogg-Dube) every 3 years starting at age 20
    - HLRCC (hereditary leiomyomatosis and renal cell cancer) annually starting at age 8
    - HPRC (hereditary papillary renal carcinoma) every 1-2 years starting at age 30
    - PGL/PCC (hereditary paraganglioma/pheochromocytoma) every 4-6 years starting at age 12
    - TSC (tuberous sclerosis complex) without known AML every 3-5 years starting at age 12
        - TSC + known AML annually
    - VHL (Von Hippel Lindau) every 2 years starting at age 15[37]
- For evaluation of total kidney volume in polycystic kidney disease when MRI is contraindicated[38]

SPLEEN

- Incidental findings of the spleen that are indeterminate on other imaging
- For evaluation and monitoring of Gaucher Disease at initial diagnosis and every 12 to 24 months when MRI is contraindicated [22]

For evaluation of a suspected or known hernia [39]

- Abdominal/pelvic pain suspected to be due to an occult, umbilical, Spigelian, or incisional hernia (including recurrent hernias) when physical exam and prior imaging (such as ultrasound) is non-diagnostic or equivocal or if requested as a preoperative study and limited to the abdomen
- Hernia with suspected complications (e.g., bowel obstruction or strangulation, or non-reducible) based on symptoms (e.g., diarrhea, hematochezia, vomiting, severe pain, or guarding), physical exam (guarding, rebound) or prior imaging[40]
- Lower esophageal hernias (such as hiatal, paraesophageal) for pre-operative planning (Abdomen CT preferred, only approve one study, chest CT can be approved instead of abdomen if specific reason given); CT is not a part of the typical workup for diagnosis [41]
- Deep intraabdominal hernia is suspected (post-Roux-en-Y, does not require US first; hernia type needs to be specified)

For evaluation of known or suspected non-aortic vascular disease (e.g., aneurysms, hematomas)[42, 43], CTA/MRA is the preferred study when ultrasound is inconclusive

- If a contraindication to CTA/MRA has been provided, CT can be approved

Transplants

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- Prior to solid organ transplantation
- For initial workup prior to Bone Marrow Transplantation (BMT) (along with CT Chest[44], CT Pelvis, CT Sinus and Brain MRI)[45]). Alternatively, PET might be sufficient to evaluate the abdomen and pelvis if indicated based on that malignancy (see PET Guideline)

Pre-operative planning

- For abdominal surgery or procedure

Post-operative/procedural evaluation

- Follow-up of known or suspected post-operative complication involving only the abdomen
- A follow-up study to help evaluate a patient's progress after treatment, procedure, intervention, or surgery. Documentation requires a medical reason that clearly indicates why additional imaging is needed

Other Indications

Further evaluation of indeterminate findings on prior imaging (unless follow up is otherwise specified within the guideline):

- For initial evaluation of an inconclusive finding on a prior imaging report that requires further clarification
- One follow-up exam of a prior indeterminate MR/CT finding to ensure no suspicious interval change has occurred. (No further surveillance unless specified as highly suspicious or change was found on last follow-up exam)

Indication for combination studies for the initial pre-therapy staging of cancer, evaluation before starting treatment OR active monitoring for recurrence as clinically indicated OR evaluation of suspected metastases

- ≤ 5 concurrent studies to include CT or MRI of any of the following areas as appropriate depending on the cancer: Neck, Abdomen, Pelvis, Chest, Brain, Cervical Spine, Thoracic Spine or Lumbar Spine, and MUGA

BACKGROUND

Abdominal imaging begins at the diaphragm and extends to the umbilicus or iliac crests. CT uses x-rays and multiple detectors to create cross-sectional images of the normal anatomy, as well as demonstrate abnormal soft tissue densities, calcifications or fluid/gas patterns in the viscera or peritoneal space.

Ultrasound is clearly a safe imaging option and is the first imaging test of choice. CT or MRI can then be done as needed after equivocal ultrasound. Clinicians should exercise increased caution with CT

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imaging in children, pregnant women, and young adults due to the risks of exposure to ionizing radiation. Screening for pregnancy as part of a work-up is suggested to minimize the number of unexpected radiation exposures for women of childbearing age.

OVERVIEW

Ultrasound should be considered prior to a request for Abdomen CT for the following evaluations:

- Possible gallstones or abnormal liver function tests
- Evaluation of cholecystitis
- Follow up for aortic aneurysm

Liver

Hepatocellular carcinoma (HCC) Screening for Hepatocellular carcinoma (HCC) **–** AASLD (American Association for the Study of Liver Diseases) recommends screening for HCC with ultrasound every 6 months for patients with hepatitis C and B.[46] Advanced imaging is recommended when the AFP is rising, regardless of ultrasound results. The main risk factors for HCC are cirrhosis and Hepatitis B. Additional populations for which there is a benefit to surveillance for HCC include: Asian males Hepatitis B carriers ≥ 40 y, Asian female Hepatitis B carriers ≥50 y, Hepatitis B carriers with + family history of HCC and African and/or North American blacks with hepatitis B [13, 47].

Surveillance for HCC is required for patients who have received liver-directed therapy, surgical resection, medical treatment, or a transplant for HCC. However, because of the higher risk of tumor recurrence, US is not typically used for surveillance for HCC in the first 2 years after treatment. The European Association for the Study of the Liver recommends multiphase CT or MRI to assess response 1 month after resection or locoregional or systemic therapies, followed by one imaging technique every 3 months to complete at least 2 years, and then regular US every 6 months. This schedule is more frequent than some of the other society recommendations and the most common practice among interventional radiologists (every 3 months).

Imaging for pancreatitis – When acute pancreatitis is suspected, ultrasound is typically the first line imaging modality. The purpose of US is to identify other causes such as gallstones and/or biliary dilatation as well as help identify potential complications such as fluid collections. MRCP is preferred over CT for further evaluation of bile duct dilation. When a diagnosis other than pancreatitis is likely (such as when amylase and lipase are equivocal), CT or MRI may be indicated but would generally fall under indications for acute abdominal pain. In general, CT is not indicated in patients with mild pancreatitis who show rapid improvement with appropriate medical management. When a patient has or is at risk for severe pancreatitis, CT may be used after 72 hours to best assess the full extent of disease. CT should be repeated when the clinical picture drastically changes, such as with sudden onset of fever, decrease in hematocrit or sepsis. For prolonged symptoms (>4 weeks) with known fluid collection, CT or MRI is indicated. Common causes for pancreatitis include gallstones, alcohol,

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hypertriglyceridemia, post-ERCP, trauma. In patients over 40 years old, when no cause for pancreatitis can be identified, advanced imaging is indicated to exclude neoplasm.

Adrenal incidentaloma – Adrenal masses detected on imaging for another reason (i.e., incidental finding) are becoming increasingly common. If there is no prior personal history of malignancy and no features concerning for malignancy on imaging, these patients should undergo hormonal (functional) evaluation and periodic imaging. If the mass is < 4 cm on imaging and has benign characteristic (homogenous, regular borders, HU < 10) a hormonal evaluation should be done. If that evaluation is negative, adrenal protocol/follow-up imaging can be performed at 6 months then annually for 1-2 years[12]. Repeat functional studies are recommended annually (or sooner if symptoms) for 5 years. If the mass exhibits growth or becomes hormonally active, then surgery is recommended [12]. Additional imaging beyond 2 years is reasonable if there has been growth and the mass is not resected; if stable, no further imaging is warranted unless the annual hormonal evaluation is positive. Masses ≥ 4cm generally are resected after hormonal evaluation is completed, additional imaging can be approved when needed for further characterization for surgical planning. If the decision is made not to resect the mass, then FU imaging in 6-12 months is reasonable.

Biochemically active tumors (adrenal and neuroendocrine): Laboratory evaluation prior to imaging - When neuroendocrine and hormonally active tumors are suspected, the required laboratory evaluation prior to advanced imaging is dependent on the tumor type that is suspected. The following list describes suspected syndrome/tumor and typical laboratory evaluation in parenthesis:

GI Carcinoid (24-hour urine or plasma 5-HIAA), Lung/Thymus Carcinoid (24-hour urine or plasma 5-HIAA AND one of the following: overnight dexamethasone suppression test, 2-3 midnight salivary cortisols, 24-hour urinary free cortisol), PPoma (serum pancreatic polypeptide), Insulinoma (serum insulin, pro-insulin and C-peptide all drawn during a period of hypoglycemia (i.e. 72 hour fast)), VIPoma (serum VIP), glucagonoma (serum glucagon), gastrinoma (serum gastrin), somatostatinoma (serum somatostatin), pheochromocytoma/paraganglioma (plasma free or 24-hour urine fractionated metanephrines and normetanephrines +/- serum or urine catecholamines), pituitary tumor (serum IGF-1, prolactin, LH/FSH, alpha subunits, TSH and ONE of the following: overnight dexamethasone suppression test, 2-3 midnight salivary cortisols, 24-hour urinary free cortisol), primary hyperaldosteronism (suppressed renin/renin activity in association with elevated plasma aldosterone (>10 ng/dL) and confirmatory testing if positive), adrenocortical carcinoma (testosterone, DHEA-S AND complete evaluation for hypercortisolemia or primary aldosteronism)[48].

If Cushing's (hypercortisolemia) is suspected, typical labs include a plasma ACTH AND one or more of the following: overnight dexamethasone suppression test, 2-3 midnight salivary cortisols, OR 24-hour urinary free cortisol. The results of the suppression test then indicate whether brain imaging is needed (pituitary source) OR chest and abdominal imaging is needed (CXR + Adrenal CT/MRI). ACTH > 20 after suppression > 20 is suggestive of Cushing's Disease and Pituitary MRI is indicated. ACTH after suppression < 5 is suggestive of Cushing's Syndrome and CXR + Adrenal CT/MRI is indicated [49]. If

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indeterminate, a CRH or desmopressin test is then done. If there is no ACTH suppression with CRH/desmopressin, then adrenal imaging is indicated.

Genetic syndromes and adrenal tumors – Adrenal cortical carcinoma (ACC) diagnosed during childhood is known to be commonly associated with hereditary syndromes, including Beckwith-Wiedemann (BWS) and Li-Fraumeni syndrome (LFS). In adults, ACC may be associated with Multiple Endocrine Neoplasia 1 (MEN1), familial adenomatous polyposis coli and neurofibromatosis type 1 (NF1); however, there are currently no surveillance imaging recommendations.[50]

High risk characteristics for mucinous pancreatic cysts include all of the following: Symptoms, Jaundice secondary to the cyst, acute pancreatitis secondary to the cyst, elevated serum CA 19-9 and no benign cause present, an enhancing mural nodule or solid component within the cyst or pancreas, main pancreatic duct of > 5mm, change in duct caliber with upstream atrophy, size over 3 cm, high grade dysplasia or cancer on cytology. These patients should undergo EUS + -FNA or be referred to a multidisciplinary group for further recommendations.[51]

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CT of the kidney - Recommendations for follow up of a complex cystic renal mass are made using Bosniak criteria[52]:

- Bosniak I (water density 0-20 HU); no further follow-up
- Bosniak II (one or a few thin septations, small or fine calcifications, hyperdense cysts up to 3 cm); no further follow-up
- Bosniak IIF felt to be benign but too complex to be diagnosed with certainty; image at 6 and 12 months, then annually for 5 years if no progression
- Bosniak III thick-walled cystic lesions with wall or septal enhancement; resection favored vs conservative management and RFA in select cases[31]
- Bosniak IV malignant cystic renal mass with enhancing soft tissue components; resection favored, malignant until proven otherwise

Insulinomas are rare pancreatic tumors. Localization of the tumor by ultrasound and CT are the preferred initial options once a diagnosis has been made, followed by endoscopic ultrasound or arterial stimulation with hepatic venous sampling. Whipple's triad includes symptoms of hypoglycemia, low blood glucose relieved by ingestion of glucose, and benign 90%. Work-up prior to imaging should include: a 72-hour fast with serial glucose and insulin levels over this period until the patient becomes symptomatic. An insulin/glucose ration of greater than 0.3 has been found in virtually all patients with insulinoma or other islet cell disease.[53]

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High risk characteristics for mucinous pancreatic cysts include all of the following: Symptoms, Jaundice secondary to the cyst, acute pancreatitis secondary to the cyst, elevated serum CA 19-9 and no benign cause present, an enhancing mural nodule or solid component within the cyst or pancreas, main pancreatic duct of > 5mm, change in duct caliber with upstream atrophy, size over 3 cm, high grade dysplasia or cancer on cytology. These patients should undergo EUS + -FNA or be referred to a multidisciplinary group for further recommendations.[54]

CT and elevated Liver Function Tests - For elevated bilirubin, or serum transaminases with or without bilirubin elevation, US is the initial recommended test to assess for duct dilatation which might lead to ERCP or MRCP, vs other causes which might necessitate further lab testing or liver biopsy.[55]

Combination request of Abdomen CT/Chest CT - A chest CT will produce images to the level of L3. Documentation for combo is required.

Imaging of hernias - Most hernias are diagnosed clinically with imaging recommended for the diagnosis of occult hernias or in the evaluation of hernia complications, such as bowel obstruction or strangulation. To detect occult hernias, ultrasound is a first-line study with a sensitivity of 86% and specificity of 77%, compared to 80% sensitivity and 65% specificity for CT.[56] According to Miller, et al "Magnetic resonance imaging is generally not considered a first- or even second-line evaluation modality for hernias…."[57] Based on this analysis, MRI is recommended only when ultrasound and CT have been performed and fail to make a diagnosis.

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POLICY HISTORY

Date	Summary
May 2023	• IBD: eliminated indications for abdomen alone or pelvis imaging alone, resubmission as abdomen and pelvis CT required unless limited indication • Adrenal: additional guidance provided for imaging intervals and background given for functional tumors • Liver: clarified guidance for HCC surveillance imaging, follow up of specific conditions such as hepatic steatosis and focal nodular hyperplasia • Pancreas: updated pancreatic cystic lesion guidance, specified guidance for increased lifetime risk for pancreatic cancer and pancreatitis • Renal: specified guidance for increased lifetime risk of renal cancer • Hernia: Added indications for lower esophageal and deep intraabdominal hernias • Aneurysm: eliminated indications for abdomen alone or pelvis imaging alone, resubmission as abdomen and pelvis CT required unless limited indication • Transplant: added section • Background: deleted some sections, added information to assist with adjudication/application of guideline statement • Aligned sections across body imaging guidelines • General Information moved to beginning of guideline with added statement on clinical indications not addressed in this guideline • Added statement regarding further evaluation of indeterminate findings on prior imaging
March 2022	• In Follow-up of known cancer, added per surveillance imaging of NCCN recommendations • Clarified IPMN and MCN surveillance imaging • Added total kidney volume in polycystic kidney disease when MRI is contraindicated to Renal section • Clarified “and/or” prior imaging (such as US) in abdominal/pelvic pain due to suspected hernia

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Reviewed / Approved by NIA Clinical Guideline Committee

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