Evolent Clinical Guideline 2001~~030~~ for Abdomen Computed Tomography (CT)

Guideline ~~or Policy~~ Number:	Applicable Codes
Evolent_CG_2001~~030~~	

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STATEMENT

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.*
- *The guideline criteria in the following sections were developed utilizing evidence-based and peer-reviewed resources from medical publications and societal organization guidelines as well as from widely accepted standard of care, best practice recommendations.*

Purpose

Abdomen Computed Tomography (CT) uses radiation to generate images of the organs and structures in the upper abdomen. Abdominal imaging begins at the diaphragm and extends to the umbilicus or iliac crests.

Special Note

- Abdomen CT ~~alone should **ONLY** be approved when disease process~~ is used for diseases suspected to be limited to the abdomen. Abdomen and ~~n/~~Pelvis CT (CPT Codes: 74176, 74177, 74178) is ~~the correct study~~used when the indication(s) include both the abdomen **AND** pelvis, such as ~~CTU (~~CT Urography~~)~~, ~~CTE (~~CT Enterography~~)~~, acute abdominal pain or ~~,~~ 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~~ Evolent Clinical Guideline 2000 for Abdomen and ~~/~~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

Organ Specific Imaging

Adrenal (1)

- Indeterminate adrenal lesion seen on prior imaging

- For follow up of known adrenal mass when a change in tumor is suspected by either imaging, laboratory evaluation and/or symptoms
- ~~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~~ [2]
- Adrenal mass < 4 cm incidentally discovered with benign characteristics (homogenous, regular borders, HU < 10), one follow-up at 6 months then annually x 2 years (no further imaging if stable) [2]
- 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 then as clinically indicated (if there is known malignancy, biopsy is typically the next step rather than surveillance imaging) [2]
- ~~For follow up of known adrenal mass when a change in tumor is suspected by either imaging, laboratory evaluation and/or symptoms~~
- See **Eendocrine Ddisorders** for additional indications
- See **Imaging in Known Genetic Conditions ~~Syndromes and Rare Diseases~~** for additional screening indications

Liver

- Indeterminate liver lesion seen on prior imaging [3]
- ~~Evaluation of rising AFP (requires a ≥7 ng/mL increased in AFP per month)~~Elevated or rising AFP in patients at high risk for Hepatocellular Carcinoma (HCC) (known cirrhosis and/or chronic hepatitis B, Asian male 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 ~~known cirrhosis and/or chronic hepatitis B, see Background for additional risk categories~~) [4]
- 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
- Jaundice or abnormal liver function tests after equivocal or abnormal ultrasound [5]
- Follow-up of suspected hepatocellular adenomas every 6-12 months for two years, then annually (sooner if change was noted on last imaging study) [6,7]
- Surveillance of patients with primary sclerosing cholangitis every 6-12 months after the age of 20 when MRI is contraindicated or cannot be performed [8]
- 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 [6]
- See **Imaging in Known Genetic Conditions** ~~Syndromes and Rare Diseases~~ for

additional screening indications

Pancreas

- Pancreatic cystic lesion found on initial imaging~~, approve~~ for ~~initial~~ characterization of lesion [9]
- Follow-up for pancreatic cyst (including Intraductal Papillary Mucinous Neoplasm (IPMN)) as below **AND** MRI is contraindicated [10,11]:
  - Incidental and asymptomatic cysts <1.5 cm, **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
  - 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
  - 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
  - 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
  - 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
- Prior to Y90 treatment
- After confirmed diagnosis of exocrine pancreatic insufficiency (EPI), one-time imaging to exclude a secondary cause for EPI. (Imaging is not indicated for workup of suspected pancreatic insufficiency; fecal elastase level < 100 µg/g is consistent with EPI) [12]
- ~~Localization of a functional pancreatic tumor, see **Background** (endocrine) once diagnosis is confirmed (or highly suspected)~~ [10]
- See **Eendocrine Ddisorders** for additional indications
- See **Genetic Syndromes and Rare Diseases** for additional screening indications

Renal

- Indeterminate renal mass on other imaging [13]
- ~~Follow-up for~~Active surveillance for a solid renal mass(es) ~~under 3 cm~~ at 6 and 12 months, then annually [14]

  NOTE: more frequent imaging may be indicated if a change in the mass was seen
- Active surveillance for follow-up of a Bosniak IIF, III and IV complex cystic renal

lesion(s) [15,16]:

- Every 6 months for the first year then
- Annually for 5 years if no progression
  - If progression or change is seen, then follow-up imaging may be indicated prior to the above intervals.
    - **NOTE**: Bosniak I and II cysts need no further follow-up. (Bosniak I cysts are simple non-enhancing cysts with thin walls, no septa, calcifications or solid components, Bosniak II cysts may contain thin septa, small or fine calcification, minimal enhancement and/or hyperdense and < 3 cm) [17]

- Surveillance of known angiomyolipoma (AML) [18–20]:
  - Size > 4 cm: Annually
  - Size 3-4 cm: Every 2 years
    - **NOTE:** if < 3 cm monitoring with advanced imaging (CT/MRI) is not needed unless the pt has known Tuberous Sclerosis [19,21]
  - AML (any size) in an individual with known tuberous sclerosis (TSC): Annually (including at diagnosis) [14,20]
  - Post-embolization imaging for AML:
    - One study within the first 6 months, then
    - At one-year post-embolization
      - If stable, further imaging ~~Further imaging beyond one year if stable~~ reverts to the above imaging frequency for monitoring (based on size and/or presence of known TSC) [22,23]

- ~~Polycystic Kidney Disease (PKD) [21]~~
  - ~~To assess total kidney volume (TKV) at diagnosis and prior to treatment when MR is contraindicated or cannot be performed~~
  - ~~To monitor total kidney volume annually if PRO-PKD score is ≥ 4 when MR is contraindicated or cannot be performed~~

- See **Genetic Syndromes and Rare Diseases** for additional screening indications

Spleen

- Incidental findings of the spleen that are indeterminate on other imaging [24,25]
- See **Imaging in Known Genetic Conditions ~~Syndromes and Rare Diseases~~** for additional screening indications

Endocrine Disorders [2]

- For further evaluation of suspected adrenal tumors and/or endocrine disorders when there is clinical and laboratory evidence to suggest an abdominal source [26]

- Suspected ~~A~~adrenocortical carcinoma~~: **ONE** of the following:~~
  - ~~Elevated adrenal androgens (DHEA-S, androstenedione, testosterone, 17-hydroxyprogesteroine)~~
  - ~~ACTH < 5 following dexamethasone suppression~~
  - ~~ACTH 5-20 (i.e. indeterminate) with CRH/desmopressin stimulation test and ACTH < 5 (post-stimulation)~~
  - ~~ACTH 5-20 (i.e. indeterminate) with no suppression of ACTH with CRH/desmopressin~~
- Cushing's Syndrome:
  - Elevated adrenal androgens (DHEA-S, androstenedione, testosterone, 17-hydroxyprogesteroine)
  - ACTH < 5 following dexamethasone suppression
  - ACTH 5-20 (i.e. indeterminate) with CRH/desmopressin stimulation test and ACTH < 5 (post-stimulation)
  - ACTH 5-20 (i.e. indeterminate) with no suppression of ACTH with CRH/desmopressin
- Hyperaldosteronism: Aldosterone > 20 (or Aldosterone: Renin ratio > 20) and Low Plasma Renin Activity
- Gastrinoma: Elevated serum gastrin
- GI Carcinoid: Elevated ~~24 hour~~24-hour urine 5-HIAA or elevated plasma 5-HIAA
- Glucagonoma: Elevated serum glucagon
- Hypoglycemia: One of the following:
  - Elevated serum insulin, pro-insulin and c-peptide **ALL** drawn during a period of hypoglycemia (72 hour fast) (i.e. concern for insulinoma)
  - Low serum insulin, low C-peptide and/or elevated IGF-2:IGF-1 ratio
- Hypercalcemia: Elevated serum calcium, low-normal PTH, high PTHrP **AND** bone imaging (bone scan) does not reveal a source
- Insulinoma: Elevated serum insulin, pro-insulin and c-peptide **ALL** drawn during a period of hypoglycemia (72 hour fast)
- Pheochromocytoma/Paraganglioma: Elevated plasma or urine metanephrines and/or normetanephrines
- PPoma: Elevated serum pancreatic polypeptide
- Somatostatinoma: Elevated serum somatostatin
- VIPoma: Elevated serum VIP
- ~~Evaluation of Iron Overload~~ ~~(22,23)~~

~~Initial evaluation of liver iron in Hemochromatosis diagnosed in lieu of liver biopsy when MRI is contraindicated or cannot be performed~~

- ~~Annual evaluation for high-risk patients: transfusion-dependent thalassemia major, sickle cell disease, and other congenital anemias when ultrasound is insufficient and when MRI is contraindicated or cannot be performed~~

Evaluation of ~~Suspected~~ Infection and Inflammation ~~Infection or Inflammatory Disease~~ ~~(24,25)~~

Pancreatitis: Suspected and Known (27)

- Initial imaging for suspected acute pancreatitis due to epigastric pain with elevated amylase and/or lipase (28):
  - 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
- History of pancreatitis, including pancreatic pseudocyst, with abdominal pain suspicious for worsening or re-exacerbation
- Known necrotizing pancreatitis requiring follow-up (28)
- In patients > 40 years of age who have pancreatitis with no identifiable cause~~, (CT is indicated~~ to exclude neoplasm) ~~CT is indicated to exclude neoplasm~~

Infection and Inflammation Limited to the Abdomen (27,29)

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

~~Evaluation of Suspected/Known~~ Hernia (30)

- Suspected hernia and one of the following:
  - Deep intraabdominal/pelvic hernia (post-Roux-en-Y)
  - Non-midline ventral hernia (including Spigelian hernia) (31)
  - Parastomal hernia
  - Occult, incisional, recurrent or umbilical hernia **AND** exam and ultrasound are non-diagnostic or equivocal
- ~~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~~

- Known or suspected hernia with suspected complications based on one or more of the following:
  - Symptoms such as severe pain, vomiting, diarrhea or blood in stool
  - Exam findings such as inability to reduce hernia, severe tenderness, guarding, rebound
  - Complication is suggested on prior imaging (31)
- ~~Known or suspected 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~~
- Diaphragmatic hernia (e.g. Bochdalek, Morgagni or congenital) or large type IV hiatal hernia (32,33)
- ~~Known lower esophageal hernia (such as type II or III hiatal or paraesophageal) and imaging is needed for Lower esophageal hernias (such as hiatal, paraesophageal) for pre-operative planning (Chest CT can be approved instead of abdomen if specific reason given but **NOT** both Chest and Abdomen); CT is not a part of the typical workup for diagnosis (27)~~
- Surgical planning
- Known abdominal hernia and imaging is needed for surgical planning
- ~~Deep intraabdominal hernia is suspected (post-Roux-en-Y, does not require US first; hernia type needs to be specified)~~

Other Indications

- Right upper quadrant pain for suspected biliary disease with negative or equivocal ultrasound (34)
- Evaluation of known or suspected non-aortic vascular disease (such as aneurysm, hematomas) after inconclusive ultrasound **AND** CTA/MRA is contraindicated or cannot be performed (35)
- Prior to solid organ transplantation
- For abnormal incidental abdominal lymph nodes when follow-up is recommended based on prior imaging and pelvic imaging is not needed (initial 3-month follow-up) (36)

~~Follow-Up of Known Cancer~~Known Malignancy (37,38)

Initial Staging or Recurrence

- For initial staging of the majority of cancers, CT Abdomen and Pelvis is the more appropriate study (see Evolent Clinical Guideline 2000 for Abdomen and Pelvis CT).
- Abdomen CT is indicated for initial staging for the following malignancies:
  - Any malignancy with known or suspected liver metastases (i.e. dedicated liver imaging for metastases) (39)

- Esophageal and Esophagogastric Junction Cancers [40]
- Melanoma: Uveal [41]
- Pancreatic Cancer [14]
- Primary Liver Cancers [42]
- Renal Cell Carcinoma~~For Hepatocellular Carcinoma, Esophageal Carcinoma and Malignancies where liver metastases are suspected and pelvis imaging is not needed, CT Abdomen can be cons~~ [14]

Restaging

- Abdomen CT is indicated for restaging during active treatment (every 2-3 cycles of chemo or immunotherapy, following radiation and/or after surgery) for the following malignancies:
  - Any malignancy with known or suspected liver metastases (i.e. dedicated liver imaging for metastases) [39]
  - Esophageal and Esophagogastric Junction Cancers [40]
  - Melanoma: Uveal [41]
  - Pancreatic Cancer [43]
  - Primary Liver Cancers [39]
  - Renal Cell Carcinoma [14]

Surveillance

Abdomen CT is indicated during surveillance for the following malignancies at the intervals defined below:

- Any malignancy with a history of liver metastases: every 3-6 months [39]
- Esophageal and Esophagogastric Junction Cancers every 3 months for 2 years, then annually for 5 years [40]
- Hepatocellular Carcinoma every 3 months for 2 years, then every 6 months indefinitely [39]
- Melanoma: Uveal - every 6-12 months for 10 years then as clinically indicated [41]
- Renal Cell Carcinoma [14]
  - Stage I – 1-3 months after treatment, then at 6 months and 12 months following treatment then annually
  - Stage II and higher- ~~baseline within 3-6 months, then~~ every 3-6 months for 3 years, then annually for 2 years, then as clinically indicated

- When a cancer is not listed above, Abdomen CT is not routinely a part of surveillance for that cancer in an asymptomatic patient. Please see Evolent Clinical Guideline 2000 for Abdomen and Pelvis CT for additional indicationss. ~~For Abdomen CT **NOT** including the pelvis, there would need to be concern for recurrence in the liver (i.e. liver metastases) to consider Abdomen CT~~.

PREOPERATIVE OR POSTOPERATIVE ASSESSMENT ~~PLANNING~~

When not otherwise specified in the guideline:

Preoperative Evaluation:

- Pre-procedure for transjugular intrahepatic portosystemic shunt (TIPS) (44)
- Imaging of the area is requested is needed to develop a ~~For abdominal~~ surgical~~ery~~ plan ~~or procedure~~

Postoperative Evaluation:

- Follow-up of known or suspected post-operative complication involving only the abdomen (45)
- 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 (45)
- Known or suspected complications
- A clinical reason is provided how imaging may change management

NOTE: This section applies only within the first few months following surgery

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 **AND** finding is expected to be limited to the abdomen
- 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)

IMAGING IN KNOWN GENETIC CONDITIONS

~~SYNDROMES AND RARE DISEASES~~

Surveillance Screening ~~Abdomen CT for the Following KNOWN Genetic Syndromes~~:

- ADPKD (Autosomal Dominant Polycystic Kidney Disease): annually (including at diagnosis or~~OR~~ prior to treatment) (46,47)
- ATM: Annually starting at age 50 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) when MRI is contraindicated or cannot be performed (48)
- BAP1-TPDS (BAP-1 tumor predisposition syndrome) every 2 years starting at age 30 (14,49)
- Beckwith-Wiedemann syndrome: when ultrasound is abnormal or AFP is rising (50)~~34)~~
- Beta-Thalassemia: annually when MRI is contraindicated or cannot be performed (51)
- ~~Evaluation of Iron Overload (22,23):~~
- ~~Annual evaluation for high-risk patients: transfusion-dependent thalassemia major, sickle cell disease, and other congenital anemias when ultrasound is insufficient and when MRI is contraindicated or cannot be performed~~
- BHDS (Birt-Hogg-Dube): annually ~~every 3 years~~ starting at age 20 (or earlier with family history of renal tumors diagnosed before age 30) (14,52)
- BRCA2: annually starting at age 50 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) ~~when MRI is contraindicated or cannot be performed~~ (43,53)
- CDKN2A ~~variant~~: ~~Annually~~ annually starting at age 40 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) ~~when MRI is **contraindicated** or cannot be performed~~ (48)
- Gaucher Disease: annually (including at ~~initial~~ diagnosis) ~~and then annually~~ when MRI is ~~and ultrasound are~~ contraindicated or cannot be performed (54)
- Hemochromatosis: at diagnosis when MRI is contraindicated or cannot be performed (55)~~Initial evaluation of liver iron in Hemochromatosis diagnosed in lieu of liver biopsy when MRI is contraindicated or cannot be performed~~
- HLRCC (hereditary leiomyomatosis and renal cell cancer) annually starting at age 8 (14,56)
- HPRC~~C~~ (hereditary papillary renal carcinoma): annually starting at age 30 (14)
- Multiple Endocrine Neoplasia type 1 (MEN1): annually starting at age 8 (57,58)
- Multiple Endocrine Neoplasia type 2 (MEN2): with abnormal biochemical results suggestive of adrenal tumor (59)
- Hereditary PGL/PCC Syndromes (including SDHx mutations): every 2 years including at diagnosis~~**IF** whole body MRI (unlisted MRI CPT 76498) not available (33,39) (see Evolent~~

Clinical Guideline 2061 for Unlisted Studies) [14,60]

- PRSS1 (Hereditary Pancreatitis; including PRSS1, SPINK1 and other hereditary pancreatitis genes): annually starting 20 years after onset of pancreatitis, or at age 40 years, whichever is earlier when MRI is contraindicated or cannot be performed [48]
- PTEN: every 2 years (including at diagnosis) starting at age 40 (or 10 years younger than the earliest renal cell cancer diagnosis in the family, whichever is earlier) [61]
- Sickle Cell Disease: annually and MRI is contraindicated or cannot be performed [62]
- SKT11 variant (including Peutz-Jeghers): at diagnosis, annually starting at age 830 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) when MRI is contraindicated or cannot be performed [63]
- Tuberous sclerosis complex: annually (including at diagnosis) [14,20]
  - TSC **without** known AML: every 3 years starting at age 12
- TSC **with** known AML: annuallyVon Hippel-Lindau (VHL): annually (including at diagnosis) every 2 yearsstarting at age 115 [64]
- Other variants **AND** family history of pancreatic cancer as detailed below: Starting at age 50 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) when MRI is contraindicated or cannot be performed 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): Annually when MRI is contraindicated or cannot be performedFor other syndromes and rare diseases not otherwise addressed in the guideline, coverage is based on a case-by-case basis using societal guidance

Screening Based on Known Genetic Syndrome in combination with Family History:

- BRCA1: annually starting at age 50 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) when ≥ 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) (nccn genetic/familial bopp v3.2025, petrucelli 2025)
- BRCA2: annually starting at age 50 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) (nccn genetics/familial bopp v2.2025, pancreatic cancer v2.2025)
- Li-Fraumeni (TP53): annually starting at age 50 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) ≥ 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) (nccn genetics/familial

~~bopp v2.2025)~~

- ~~PALB2: annually starting at age 50 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) when ≥ 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)~~ ~~(nccn genetics/familial bopp v2.2025)~~

- Known mutation in other pancreatic susceptibility genes (BRCA1, MLH1 (Lynch), MSH2, MSH6, EPCAM, PALB2, TP53 (Li-Fraumeni)) **AND** ≥ 1 first- or second-degree relative with history of pancreatic cancer from the same side of the family as the identified variant: Annually when MRI is contraindicated or cannot be performed starting at age 50 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier)

- ~~Other variants **AND** family history of pancreatic cancer as detailed below: Starting at age 50 (or 10 years younger than the earliest pancreatic cancer diagnosis in the family, whichever is earlier) when MRI is contraindicated or cannot be performed 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, BRAC1, BRCA2, MLH1 (Lynch), MSH2, MSH6, EPCAM, PALB2, TP53): Annually when MRI is contraindicated or cannot be performed~~

Surveillance Screening Based on Family History

- To Screen for Pancreatic Cancer in patients with no identified mutation listed above **AND** the following family history when MRI is contraindicated or cannot be performed:
  - ≥ 2 first-degree relatives with a history of pancreatic cancer from the same side of the family: Annually
  - ≥ 3 first- and/or second-degree relatives with a history of pancreatic cancer from the same side of the family: Annually

Special Note

- For syndromes for which imaging starts in the pediatric age group, MRI is preferred to limit lifetime radiation exposure. When CT is requested instead of MRI, a contraindication or relative contraindication to MRI should be provided such as contraindication to sedation if sedation is required for MRI.

OTHER COMBINATION STUDIES WITH ABDOMEN CT

NOTE: When medical necessity is met for an individual study **AND** conscious sedation is required (such as for young pediatric patients or patients with significant developmental delay), the entire combination is indicated)

Abdomen CT and ~~/~~ Abdomen CTA (or MRA)

- When needed for clarification of vascular ~~invasion~~ involvement from tumor (including renal vein thrombosis)

Abdomen/Sinus/Maxillofacial/Neck/Chest CT

- Advanced imaging for Granulomatosis with Polyangiitis (GPA) (formally Wegener's Granulomatosis) (65)
  - Suspected GPA based on clinical findings (such as biopsy results, lab testing including antineutrophil cytoplasmic antibodies (ANCA))
  - Known GPA when imaging results of a specific anatomic area are needed to guide systemic therapy

Abdomen CT and~~/~~ Abdomen CTA (or MRA) and~~/~~ PET

- Prior to Y90 treatment (66)
- ~~Abdomen MRA (or CTA) / Abdomen MRI or CT~~
- ~~When needed for clarification of vascular invasion involvement from tumor (including suspected renal vein thrombosis)~~

Combination Studies for Malignancy for Initial Staging or Restaging

Unless otherwise specified in this guideline, indication for combination studies for malignancy for initial staging or restaging:

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

CODING AND STANDARDS

Codes~~ing~~

~~CPT Codes~~

74150, 74160, 74170, +0722T

Applicable Lines of Business

☒	CHIP (Children's Health Insurance Program)
☒	Commercial

☒	Exchange/Marketplace
☒	Medicaid
☒~~☐~~	Medicare Advantage

BACKGROUND

~~Adrenal and Neuroendocrine Tumors~~

~~*Biochemical Evaluation*~~

~~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).~~[(37)]

~~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.~~[(40)] ~~If indeterminate, a CRH or desmopressin test is then done. If there is no ACTH suppression with CRH/desmopressin, then adrenal imaging is indicated.~~

~~Liver~~

~~*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. [41] 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. [4,42]

Kidney

PRO-PKD Score [43,44]

The PRO-PDK score is to assess prognosis in ADPKD, risk scoring system is on the basis of PKD mutation and clinical parameters.

Risk Category	Points
Being Male	1
Hypertension before 35 years of age	2
First Urological event (macroscopic hematuria, flank pain or cyst infection) before 35 years of age	2
PKD2 mutation	0
Non-truncating PKD1 mutation	2
Truncating PKD1 mutation	4
A score of > 6 predicts rapid disease progression with ESRD onset before the age of 60 years with a positive predictive value of 90.0%	
For those with an intermediate score (4-6 points), the prognosis is unclear	

Contraindications and Preferred Studies

- Contraindications and reasons why a CT/CTA cannot be performed may include: impaired renal function, significant allergy to IV contrast, pregnancy (depending on trimester)
- Contraindications and reasons why an MRI/MRA cannot be performed may include: impaired renal function, claustrophobia, non-MRI compatible devices (such as non-compatible defibrillator or pacemaker), metallic fragments in a high-risk location, patient exceeds weight limit/dimensions of MRI machine
- Abdominal ultrasound may be limited by the body habitus and BMI (Body Mass Index) and when the abdominal wall thickness impairs visualization of the intra-abdominal contents by ultrasound, CT can be considered without prior ultrasound provided the other guideline criteria for that indication are met

SUMMARY OF EVIDENCE

Diseases of the Abdomen and Pelvis 2018-2021 [1]

Study Design: This chapter provides an overview of adrenal imaging, focusing on the evaluation and management of adrenal masses in various clinical scenarios.

Target Population: Patients with adrenal masses, including those with known biochemical abnormalities, underlying malignancies, or incidental findings.

Key Factors: The document discusses different imaging techniques to differentiate benign from malignant adrenal masses and provides recommended imaging algorithms for the workup of incidental adrenal masses.

Diagnosis, Staging, and Management of Hepatocellular Carcinoma: 2018 Practice Guidance by the American Association for the Study of Liver Diseases [7]

Study Design: This practice guidance document provides a data-supported approach to the diagnosis, staging, and treatment of hepatocellular carcinoma (HCC), developed by a panel of experts.

Target Population: Patients diagnosed with HCC.

Key Factors: The document covers various aspects of HCC management, including surveillance, diagnosis, and treatment. It emphasizes the importance of imaging and biopsy in the diagnosis and staging of HCC and provides recommendations for different treatment options based on the stage of the disease.

American gastroenterological association institute guideline on the diagnosis and management of asymptomatic neoplastic pancreatic cysts [11]

Study Design: This guideline by the American Gastroenterological Association (AGA) provides recommendations for the management of asymptomatic neoplastic pancreatic cysts.

Target Population: Adult patients with asymptomatic pancreatic cysts identified by radiology.

Key Factors: The guideline emphasizes the importance of identifying cysts with early invasive cancer or high-grade dysplasia. It recommends MRI for surveillance and endoscopic ultrasonography with fine-needle aspiration (EUS-FNA) for cysts with high-risk features.

ACR Appropriateness Criteria® Indeterminate Renal Mass [13]

Study Design: This document outlines guidelines for the evaluation of indeterminate renal masses, developed by a multidisciplinary expert panel and reviewed annually.

Target Population: Patients with indeterminate renal masses detected incidentally.

Key Factors: The guidelines recommend CT and MRI with intravenous contrast as the mainstays of evaluation. Contrast-enhanced ultrasound is also suggested as an alternative for patients with contraindications to CT or MRI contrast.

ACR Appropriateness Criteria® Hernia [30]

Study Design: This document provides evidence-based guidelines for the initial imaging of adult patients with suspected abdominopelvic hernias. The guidelines are developed by a multidisciplinary expert panel and are reviewed annually.

Target Population: Adult patients with signs or symptoms prompting suspicion of abdominopelvic hernia.

Key Factors: The document emphasizes the importance of imaging in the diagnosis and management of hernias, recommending CT and ultrasound as first-line modalities. MRI protocols may also be useful, especially in patients with orthopedic instrumentation.

ANALYSIS OF EVIDENCE

Analysis [1,7,11,13,30]:

In summary, while all articles highlight the importance of CT imaging in diagnosing various conditions, they differ in their focus on specific conditions, imaging protocols, considerations for radiation exposure, and the use of contrast agents. Garcia et al. (2022) provide detailed appropriateness criteria for imaging hernias, Wang et al. (2020) discuss the characterization of renal masses, and Marrero et al. (2018) address the diagnosis and management of HCC. These differences reflect the unique requirements and considerations for imaging different types of abdominal conditions.

Shared Findings:

- **Importance of CT Imaging**: All articles emphasize the significance of CT imaging in diagnosing various conditions. For instance, Garcia et al. (2022) highlight the role of CT in evaluating abdominal wall hernias, while Wang et al. (2020) discuss its utility in characterizing indeterminate renal masses. Marrero et al. (2018) also underscore the importance of CT in diagnosing hepatocellular carcinoma (HCC).
- **Diagnostic Accuracy**: The articles agree on the high diagnostic accuracy of CT imaging. Garcia et al. (2022) mention the high sensitivity and positive predictive value (PPV) of CT in diagnosing hernias. Similarly, Wang et al. (2020) note the sensitivity and specificity of CT in diagnosing renal cell carcinoma (RCC). Marrero et al. (2018) also highlight the diagnostic performance of multiphase CT in evaluating HCC.
- **Role in Initial Imaging**: CT is commonly recommended as the initial imaging modality. Garcia et al. (2022) suggest CT for initial imaging of suspected abdominal wall hernias. Wang et al. (2020) recommend CT for initial imaging of indeterminate renal masses. Marrero et al. (2018) also advocate for CT in the initial diagnostic evaluation of HCC.

POLICY HISTORY

Date	Summary
July 2025	• Added a Summary of Evidence and Analysis of Evidence • Removed, “One of the following” from Suspected adrenocortical carcinoma in the Endocrine Disorders
June 2025	• This guideline replaces Evolent Clinical Guideline 030 for Abdomen CT • Purpose revised • Hernia section reorganized and revised • Genetic and cancer sections updated • Added in general information statement regarding guideline criteria development by reputable sources, standard of care, and best practices • Applicable Line of Business adjusted – Medicare checked • Updated language in the preoperative/postoperative section • Segment added to combinations studies about if the required use of conscious sedation is needed the entire combination is indicated • Background reduced • References updated
June 2024	• Revised the purpose • Genetics section and Malignancy was reorganized • Organ section was reorganized • Fixed typo in pancreas section for mm to be cm • Renal Bosniak section was adjusted to incorporate background into this section for further clarification • Polycystic Kidney Disease was updated • Known Malignancy section was adjusted to indicate initial staging, restaging, and surveillance to be consistent with new cancer bundles coming out • Background cut • Added in post-embolization imaging • Added in CPT code +0722T • Added in Contraindications and Preferred Studies Statement in

Date	Summary
	Background ● Adjusted Combination section
~~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~~

LEGAL AND COMPLIANCE

Guideline Approval

Committee

Reviewed / Approved by Evolent Specialty Services Clinical Guideline Review Committee

Disclaimer

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