*National Imaging Associates, Inc.	
Clinical guidelines **CHEST (Thorax) CT**	**Original Date: September 1997**
CPT Codes: 71250, 71260, 71270, 71271	**Last Revised Date: May 2023**
Guideline Number: NIA_CG_020	**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.*

This Chest CT Guideline covers CPT codes 71250 (CT chest without contrast), CT chest with contrast (71260), CT chest without and with contrast (71270) and Low dose CT scan (LDCT) for lung cancer screening (71271). **When the case is listed as CT chest in BBI and the clinical scenario or request for LDCT in the office notes meets appropriate use criteria for a LDCT, the LDCT is approvable due to these overlapping CPT codes. Reprocessing of the case to a separate LDCT request is not required.**

INDICATIONS FOR CHEST CT

For Annual Lung Cancer Screening

The use of low-dose, non-contrast spiral (helical) multi-detector CT imaging as an annual screening technique for lung cancer is considered **medically necessary ONLY** when used to screen for lung cancer for certain high-risk **asymptomatic** individuals when **ALL** of the following criteria are met[1]:

Group 1:

- Individual is between 50-80 years of age*; **AND**
- There is at least a 20 pack-year history of cigarette** smoking; **AND**
- If the individual is a former smoker, that individual had quit smoking within the previous 15 years.

*May approve for individuals over the age limit if the individual is a candidate for and willing to undergo curative treatment

** Annual screening refers to the use of cigarettes only; does not take other forms of smoking into the calculation (i.e., vaping, pipe, cigar, marijuana)

Group 2:
Yearly Low-Dose CT surveillance after completion of definitive treatment of non-small cell lung cancer as per these parameters:

- Stage I-II (treated with surgery +/- chemotherapy) starts at year 2-3 of surveillance
- Stage I-II (treated primarily with radiation) or stage III-IV with all sites treated with definitive intent starts at year 5 of surveillance

Nodule on Initial LDCT[2]

- If multiple nodules, the largest and type is used for decision
- Follow-up with LDCT as per Lung-Rads criteria[3, 4] (Table 1)

Table 1: Lung-RADS® Assessment Categories[5]

Category Descriptor	Lung-RADS Score	Findings	Management
Incomplete	**0**	Prior chest CT examination(s) being located for comparison Part or all of lungs cannot be evaluated	Additional lung cancer screening CT images and/or comparison to prior chest CT examinations is needed
Negative No nodules and definitely benign nodules	**1**	No lung nodules Nodule(s) with specific calcifications: complete, central, popcorn, concentric rings and fat containing nodules	Continue annual screening with LDCT in 12 months
Benign Appearance or Behavior Nodules with a very low likelihood of becoming a clinically active cancer due to size or lack of growth	**2**	**Perifissural nodule(s)** *(See Footnote 11)* < 10 mm (524 mm^3) **Solid nodule(s):** < 6 mm (< 113 mm^3) new < 4 mm (< 34 mm^3) **Part solid nodule(s):** < 6 mm total diameter (< 113 mm^3) on baseline screening **Non solid nodule(s) (GGN):** <30 mm (<14137 mm^3) **OR** ≥ 30 mm (≥ 14137 mm^3) and unchanged or slowly growing **Category 3 or 4 nodules unchanged for ≥ 3 months**	
Probably Benign Probably benign finding(s) - short term follow up suggested; includes nodules with a low likelihood of becoming a clinically active cancer	**3**	**Solid nodule(s):** ≥ 6 to < 8 mm (≥ 113 to < 268 mm^3) at baseline **OR** new 4 mm to < 6 mm (34 to < 113 mm^3) **Part solid nodule(s)** ≥ 6 mm total diameter (≥ 113 mm^3) with solid component < 6 mm (< 113 mm^3) **OR** new < 6 mm total diameter (< 113 mm^3) **Non solid nodule(s)** (GGN) ≥ 30 mm (≥ 14137 mm^3) on baseline CT or new	6 month LDCT
Suspicious Findings for which additional diagnostic testing is recommended	**4A**	**Solid nodule(s):** ≥ 8 to < 15 mm (≥ 268 to < 1767 mm^3) at baseline **OR** growing < 8 mm (< 268 mm^3) **OR** new 6 to < 8 mm (113 to < 268 mm^3) **Part solid nodule(s):** ≥ 6 mm (≥ 113 mm^3) with solid component ≥ 6 mm to < 8 mm (≥ 113 to < 268 mm^3) **OR** with a new or growing < 4 mm (< 34 mm^3) solid component **Endobronchial nodule**	3 month LDCT; PET/CT may be used when there is a ≥ 8 mm (≥ 268 mm^3) solid component
Very Suspicious Findings for which additional diagnostic testing and/or tissue sampling is recommended	**4B**	**Solid nodule(s)** ≥ 15 mm (≥ 1767 mm^3) **OR** new or growing, and ≥ 8 mm (≥ 268 mm^3) **Part solid nodule(s) with:** a solid component ≥ 8 mm (≥ 268 mm^3) **OR** a new or growing ≥ 4 mm (≥ 34 mm^3) solid component	Chest CT with or without contrast, PET/CT and/or tissue sampling depending on the *probability of malignancy and comorbidities. PET/CT may be used when there is a ≥ 8 mm (≥ 268 mm^3) solid component. *For new large nodules that develop on an annual repeat screening CT, a 1 month LDCT may be recommended to address potentially infectious or inflammatory conditions*
	4X	Category 3 or 4 nodules with additional features or imaging findings that increases the suspicion of malignancy	
Other Clinically Significant or Potentially Clinically Significant Findings (non lung cancer)	**S**	**Modifier - may add on to category 0-4 coding**	As appropriate to the specific finding

Incidental Lung Nodules[6]

- Incidental pulmonary nodules detected on a non-screening (regular) Chest CT Age ≥ 35 years old – use Table 2: Fleischner table
    - **Excludes**
        - Lung cancer screening (see lung cancer screening/LDCT guidelines)
        - History of cancer (imaging follow-up for surveillance is 3 months to detect interval nodule growth)
        - Immunosuppression (may require a shorter follow-up, such as 1 month, if suspicion of fulminant infection)

Note: These should not be ordered as Low Dose CT

- **Incidental pulmonary nodules on non-chest CT** (such as a shoulder CT or abdomen CT)
    - Nodules > 8mm or those with very suspicious features need further Chest CT as early as possible
    - Nodules ≤ 8mm should follow the Fleischner table

Incidental pulmonary nodules on X-rays including portions of the chest (i.e., chest, ribs, shoulder, abdomen) that are indeterminate (not typical of granulomatous disease) as noted by the radiologist. No time delay between the x-ray and the subsequent Chest CT needed.

Table 2: 2017 Fleischner Society Guidelines for Management of Incidentally Detected Pulmonary Nodules[7]

A: Solid Nodules*

Nodule Type	Size: <6 mm (<100 mm³)	Size: 6–8 mm (100–250 mm³)	Size: >8 mm (>250 mm³)	Comments
Single				
Low risk†	No routine follow-up	CT at 6–12 months, then consider CT at 18–24 months	Consider CT at 3 months, PET/CT, or tissue sampling	Nodules <6 mm do not require routine follow-up in low-risk patients (recommendation 1A).
High risk†	Optional CT at 12 months	CT at 6–12 months, then CT at 18–24 months	Consider CT at 3 months, PET/CT, or tissue sampling	Certain patients at high risk with suspicious nodule morphology, upper lobe location, or both may warrant 12-month follow-up (recommendation 1A).
Multiple				
Low risk†	No routine follow-up	CT at 3–6 months, then consider CT at 18–24 months	CT at 3–6 months, then consider CT at 18–24 months	Use most suspicious nodule as guide to management. Follow-up intervals may vary according to size and risk (recommendation 2A).
High risk†	Optional CT at 12 months	CT at 3–6 months, then at 18–24 months	CT at 3–6 months, then at 18–24 months	Use most suspicious nodule as guide to management. Follow-up intervals may vary according to size and risk (recommendation 2A).

B: Subsolid Nodules*

Nodule Type	Size: <6 mm (<100 mm³)	Size: ≥6 mm (>100 mm³)	Comments
Single			
Ground glass	No routine follow-up	CT at 6–12 months to confirm persistence, then CT every 2 years until 5 years	In certain suspicious nodules < 6 mm, consider follow-up at 2 and 4 years. If solid component(s) or growth develops, consider resection. (Recommendations 3A and 4A).
Part solid	No routine follow-up	CT at 3–6 months to confirm persistence. If unchanged and solid component remains <6 mm, annual CT should be performed for 5 years.	In practice, part-solid nodules cannot be defined as such until ≥6 mm, and nodules <6 mm do not usually require follow-up. Persistent part-solid nodules with solid components ≥6 mm should be considered highly suspicious (recommendations 4A-4C)
Multiple	CT at 3–6 months. If stable, consider CT at 2 and 4 years.	CT at 3–6 months. Subsequent management based on the most suspicious nodule(s).	Multiple <6 mm pure ground-glass nodules are usually benign, but consider follow-up in selected patients at high risk at 2 and 4 years (recommendation 5A).

Known Cancer[8-10]

- Cancer staging (includes unknown primary)
- Cancer restaging
- Suspicious signs or symptoms of recurrence
- Suspected cancer based on prior imaging[11]
- In a patient undergoing active treatment within the past year or as per surveillance imaging guidance for that cancer

Chest Mass (non-lung parenchymal)[12]

- Mass or lesion, including lymphadenopathy, after inconclusive initial imaging; can allow one follow-up to ensure stability/benignity (additional follow up may be approved as needed if a bothersome change in the findings or symptoms persist post treatment)
- Thymoma screening in Myasthenia Gravis patients[13]

Known or Suspected Interstitial Lung Disease (often requested as high resolution CT) after initial chest x-ray excludes a more acute disease as the etiology for the concern, if clinically appropriate (if no concern for acute process recent CXR is not an absolute requirement)

- Based on restrictive pattern pulmonary function test
- In patients with known collagen vascular disease in whom ILD is suspected
- With signs or symptoms unresponsive to treatment such as:
    - Shortness of breath
    - Persistent dyspnea
    - Persistent cough
- Monitoring treatment response of known interstitial lung disease
- Guidance in selection of the most appropriate site for biopsy of diffuse lung disease[14]

Chronic Cough (> 8 weeks) and chest x-ray completed[15]

- After evaluation for other causes and failed treatment for those diagnosed with:
    - Asthma
    - Gastroesophageal Reflux Disease
    - Discontinuation of ACE inhibitors
    - Postnasal drip
- Clinical concern for bronchiectasis

Tuberculosis (TB)[16]

- Known or suspected tuberculosis and initial chest x-ray done

Infection Follow-up Imaging

- Abscess, empyema, or pleural effusions on chest x-ray[17]
- For evaluation of non-resolving pneumonia or inflammatory disease documented by **at least two** imaging studies:
    - Unimproved with 4 weeks of antibiotic treatment; **OR**
    - Unresolved at 8 weeks[18, 19]

Pneumothorax on Chest X-ray[20]

Vocal Cord Paralysis on Endoscopic Exam[21]

- Neck and Chest CT is an approvable combo

Granulomatosis with Polyangiitis (Wegener's Granulomatosis)[22]

Vascular Disease

- CT chest is NOT the preferred study for vascular disease, CTA should be considered. See Chest CTA guideline.
- Chest CT can be used to detect and follow-up thoracic aortic aneurysms. See Background section.

Suspected Pulmonary Embolism (PE)[23]

- Chest CT NOT approvable for PE; should be CTA

Congenital Malformations

- Thoracic malformation on chest x-ray[24]
- Congenital Heart Disease with pulmonary hypertension[25]

Hemoptysis after x-ray completed[26, 27]

Pre-operative/procedural evaluation

- Pre-operative evaluation for a planned surgery or procedure
- Pre-operative evaluation for Electromagnetic Navigation Bronchoscopy[28] (this is a non-diagnostic CT)

Post-operative/procedural evaluation

- Post-surgical follow-up when records document medical reason requiring additional imaging

Lung Transplant imaging[29]

- All potential lung transplant recipients undergo pretransplant chest CT to delineate the extent of disease, assist in surgical planning, and possible contraindications
- CT is not routinely performed for donor evaluation
- Surveillance imaging varies in frequency and modality among various transplant centers, as there is no universal protocol. (A typical protocol may include surveillance CXR in the first year, spaced out monthly and then to every 3 months until 1 year after transplant. Surveillance Chest CT is then done annually.)
- Clinical concerns for complication at any time after transplant (while initial imaging typically begins with CXR, because many of the complications following transplant do not have classic XR findings, imaging can begin with CT)

Transplants

- Prior to solid organ transplantation
- For initial workup prior to Bone Marrow Transplant (BMT) (along with CT Abdomen and Pelvis[30], CT Sinus and Brain MRI)[31]).

Chest Wall

- Pain (after initial evaluation with chest x-ray and/or rib films)[32]
- History of known or suspected cancer
- Signs and symptoms of infection, such as: fever, elevated inflammatory markers, known infection at other sites
- Suspected chest wall injuries (including musculotendinous, costochondral cartilage, sternoclavicular joint, and manubriosternal joint injuries), when imaging will potentially alter management
- Malformations (such as pectus excavatum, pectus carinatum, scoliosis) in patients with cardiorespiratory symptoms for whom treatment is being considered
- Mass or lesion after inconclusive initial imaging ((MRI preferred over chest CT for chest wall mass)

Chest CT and COVID-19 (Coronavirus)

- Acute COVID
    - Imaging is indicated in a patient with COVID-19 and worsening respiratory status after chest X ray is shown to be insufficient for management or has indeterminant findings. (Imaging is NOT indicated in patients with Covid who have mild clinical features unless they are at risk for disease progression)
- Long (Chronic) COVID
    - Prior history of Covid with hypoxia or impaired lung function of follow-up[33]
        - Restricted diffusion on Pulmonary Function Test (would need a HRCT – High Resolution CT)
        - Low oxygen saturation and a Chest x-ray was done
    - Known fibrosis with continued symptoms

Pulmonary Hypertension[34]

Pulmonary artery diameter/ascending aortic diameter ≥ 1 measured on Chest CT can be used as a reliable method for early diagnosis of PH

Miscellaneous

- When clinical or laboratory findings remain unexplained after negative CXR and initial work up appropriate to the findings fail to determine their etiology, yet chest pathology remains as possible cause such as
    - Weight loss when initial workup and abdomen/pelvis CT/MR fail to identify the cause for weight loss can Chest CT be approved. If CXR suggests a malignancy

and/or source of weight loss, then Chest CT would be approvable on the basis of abnormal CXR
    - For confirmed gestational trophoblastic disease when HCG fails to decline appropriately following surgery[35]
- Multiple Endocrine Neoplasia type 1 (MEN1) every 1-3 years (chest CT or MRI also approvable for this syndrome at same interval)[36]

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.)

Combination of studies with Chest CT

- **Abdomen CT/Pelvis CT/Chest CT/Neck MRI/Neck CT with MUGA** – known tumor/cancer for initial staging or evaluation before starting chemotherapy or radiation treatment
- **Neck and Chest CT -** Neck and Chest CT is an approvable combo with vocal cord paralysis and concern for recurrent laryngeal nerve lesion

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BACKGROUND

Computed tomography (CT) scans provide greater clarity than regular x-rays and are used to further examine abnormalities found on chest x-rays. They may be used for detection and evaluation of various disease and conditions in the chest, e.g., tumor, inflammatory disease, vascular disease, congenital abnormalities, trauma, and symptoms such as hemoptysis.

OVERVIEW

LDCT for Lung Cancer Screening - Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.

CT and Aneurysm

- Initial evaluation of aneurysm[37-39]
    - Echocardiogram shows aneurysm
    - Echocardiogram inconclusive of proximal aorta and first-degree relative with thoracic aneurysm

    - Chest x-ray shows possible aneurysm
- Follow-up after established Thoracic Aneurysm (above these sizes surgery is usually recommended)[37-39]
    - Aortic Root or Ascending Aorta
        - 3.5 to 4.5 - Annual
        - 4.5 to 5.4 - Every 6 months
    - Genetically mediated (Marfan syndrome, Aortic Root or Ascending Aorta)
        - 3.5 to 4.0 - Annual
        - 4.0 to 5.0 - Every 6 months
    - Descending Aorta
        - 4.0 to 5.0 - Annual
        - 5.0 to 6.0 - Every 6 months

CT and Interstitial Lung Disease[40] – Radiography of the chest is usually appropriate for the initial imaging of patients who undergo screening and surveillance for lung disease when occupational exposure is present.

Costochondritis[41] – If physical exam findings are suggestive of costochondritis but the pain is persistent despite conservative care, it should be kept in mind that costochondritis can be recurrent and persistent. It is associated with fibromyalgia. Chest CT should be considered if the findings are not consistent with typical costochondritis, such as fever or elevated inflammatory markers, suggestive of infection or a suspicion of cancer based on history or current findings.

CT for Management of Hemoptysis[26, 27] – High-resolution CT (HRCT) is useful for estimating the severity of hemoptysis, localizing the bleeding site and determining the cause of the bleeding. Its results can be related to the severity of bleeding. The volume of expectorated blood and the amount of blood that may be retained within the lungs without being coughed up are important. HRCT is a way to evaluate the amount of bleeding and its severity. It may also help in the localization of bleeding sites and help in detecting the cause of bleeding.

CT and Solitary Pulmonary Nodules – Solitary Pulmonary nodules are abnormalities that are solid, semisolid and non-solid; another term to describe a nodule is focal opacity. CT makes it possible to find smaller nodules and contrast-enhanced CT is used to differentiate benign from malignant pulmonary modules. When a nodule is increasing in size or has spiculated margins or mixed solid and ground-glass attenuation, malignancy should be expected. Patients who have pulmonary nodules and who are immunocompromised may be subject to inflammatory processes.

CT and Empyema – Contrast-enhanced CT used in the evaluation of the chest wall may detect pleural effusion and differentiate a peripheral pulmonary abscess from a thoracic empyema. CT may also detect pleural space infections and help in the diagnosis and staging of thoracic empyema.

CT and Rib fractures[42] – Chest CT may be useful for characterizing a pathologic fracture, and some features may be helpful in differentiating a primary malignant tumor of bone from metastasis. CT may also be helpful to search for a primary malignancy in patients with a suspected pathologic fracture; however, there is no strong indication that CT serves a significant use as the initial imaging modality to detect pathologic rib fractures.

CT and Occupational Lung Disease[40] – The chest radiograph and CT are complementary in the initial workup of suspected occupational lung disease. When patients with occupational exposures present with respiratory symptoms, chest radiography serves as the primary function of excluding alternative diagnoses, such as infectious pneumonia or pulmonary edema, with HRCT findings offering the best characterization of lung disease.

CT and Tuberculosis – "The chest radiograph is usually the first study performed in patients suspected of having TB. Although frontal and lateral radiographs are often performed in this setting, it has been shown that the lateral radiograph does not improve the detection of findings related to TB. In those with signs or symptoms of disease, the radiographic pattern of upper-lobe or superior-segment lower-lobe fibrocavitary disease in the appropriate clinical setting is sufficient to warrant respiratory isolation and sputum culture for definitive diagnosis. Using radiographs in combination with clinical evaluation results in a high sensitivity for the diagnosis but a relatively low specificity for both latent and active TB. In addition, radiographs may reveal ancillary findings of TB such as pleural effusion or spondylitis. For immunocompromised hosts, particularly those with a low CD4 count, computed tomography (CT) should be considered."[43] CT may be of value in the severely immunocompromised patient with a normal or near-normal radiograph by revealing abnormal lymph nodes or subtle parenchymal disease. Finally, CT may also have a role in identifying patients with latent TB who will be at risk for reactivation disease.

CT and Superior Vena Cava (SVC) Syndrome – SVC is associated with cancer, e.g., lung, breast and mediastinal neoplasms. These malignant diseases cause invasion of the venous intima or an extrinsic mass effect. Adenocarcinoma of the lung is the most common cause of SVC. SVC is a clinical diagnosis with typical symptoms of shortness of breath along with facial and upper extremity edema. Computed tomography (CT), often the most readily available technology, may be used as confirmation and may provide information including possible causes.

CT and Family History of Lung Cancer[44] – Family history is equally important. Individuals with a family history of lung cancer among first-degree relatives have been consistently shown to have a two-fold higher risk of developing lung cancer themselves. Those with multiple affected family members diagnosed at younger age appear to be at greater risk.

CT and COVID-19 – Chest CT is **not** recommended as a screening test for COVID-19 or as a first-line test to diagnose COVID-19 due to its poor sensitivity and specificity.[45, 46] It is only needed when expected to guide clinical management, such as for patients with moderate to severe disease who show lack of respiratory improvement, unexplained deterioration, or worsening

gas exchange. In patients with associated co-morbidities (age >65 yr., diabetes, hypertension, obesity, cardiovascular disease, chronic respiratory disease, immune compromise, etc.), CT may be useful in these patients when they have mild symptoms and a normal or indeterminant CXR but have an oxygen saturation <93% at rest on room air or who de-saturate on a 6-minute walk test. In an acute setting, CT can assist in the determining the need for hospitalization. In subacute and chronic settings, it can help predict which patients are likely to have residual pulmonary involvement. CT can also help rule out lung fibrosis in patients recovered from COVID-19 infection that present with hypoxia/impaired lung function on follow up.[47, 48]

Fever of Unknown Origin

Initial work up prior to CT would include a comprehensive history, repeated physical exam, complete blood count with differential, three sets of blood cultures, chest x-ray, complete metabolic panel, urinalysis, ESR, ANA, RA, CMV IgM antibodies, virus detection in blood, heterophile antibody test, tuberculin test, and HIV antibody test.61 Lastly, with a negative CXR, only when initial workup and abdomen/pelvis CT/MR fail to identify the cause for fever can Chest CT be approved. If CXR suggests a malignancy and/or source of fever, then Chest CT would be approved.

Suspected paraneoplastic syndromes with no established cancer diagnosis: laboratory evaluation and imaging

The laboratory evaluation for paraneoplastic syndrome is complex. If the appropriate lab test results are suspicious for malignancy, imaging is indicated.
For SIADH (hyponatremia + increased urine osmolality), there is a high association with small cell lung cancer, therefore imaging typically starts with chest CT. If other symptoms suggest a different diagnosis other than small cell lung cancer, different imaging studies may be reasonable.

For hypercalcemia (high serum calcium, low-normal PTH, high PTHrP) it is reasonable to start with bone imaging followed by a more directed evaluation such as mammogram, chest, abdomen and pelvis imaging as appropriate.

For Cushing syndrome (hypokalemia, normal-high midnight serum ACTH NOT suppressed with dexamethasone) abdominal and chest imaging is reasonable. If dexamethasone suppression test DOES suppress ACTH, pituitary MRI is reasonable.

For hypoglycemia, labs drawn during a period of hypoglycemia (glucose < 55, typically a 72 hour fast) (insulin level, C-peptide and IGF-2:IGF-1 ratio) should be done to evaluate for an insulinoma. An elevated insulin level, elevated C-peptide and/or normal IGF-2:IGF-1 ratio warrant CT or MRI abdomen to look for insulinoma. A low insulin, low C-peptide and/or elevated IGF-2:IGF-1 ratio warrant chest and abdominal imaging.

When a paraneoplastic neurologic syndrome is suspected, nuclear and cytoplasmic antibody panels are often ordered to further identify specific tumor types. Results are needed prior to imaging. Because these tests are highly specific, if an antibody highly associated with a specific cancer is positive, then further imaging for that cancer is reasonable. For example, anti-Hu has a high association with SCLC and chest CT would be reasonable. Anti-MA2 has a high association with testicular cancer and testicular ultrasound would be a reasonable next step.

Weight loss definitions and initial evaluation – Unintentional weight loss is considered clinically significant if the amount of weight lost over 12 months is ≥ 5%. Older age and higher percentage of weight loss correlate with higher likelihood of malignancy. A targeted evaluation is recommended when there are signs or symptoms suggestive of a specific source. For example, when there is clinically significant weight loss with abdominal pain that prompts an evaluation for an abdominal source of the weight loss; CXR and labs such as TSH would not be needed prior to abdominal imaging. Conversely a smoker with a cough and weight loss would not start with abdominal imaging, a chest x-ray (CXR) would be the first test to start with. When there is no suspected diagnosis, initial evaluation includes CXR, age-appropriate cancer screening (such as colonoscopy and mammography) and labs (including CBC, CMP, HbA1C, TSH, stool hemoccult, ESR/CRP, HIV, Hepatitis C). If this initial evaluation fails to identify a cause of weight loss, then the patient is monitored and if progressive weight loss is seen on subsequent visits/weights, then CT Abdomen/Pelvis is reasonable (MRI if there is a contraindication to CT such as contrast allergy or impaired renal function). Lastly, with a negative CXR, only when initial workup and abdomen/pelvis CT/MR fail to identify the cause for weight loss can Chest CT be approved. If CXR suggests a malignancy and/or source of weight loss, then Chest CT would be approved.

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POLICY HISTORY

Date	Summary
May 2023	• Added FUO, weight loss and paraneoplastic information to background • Updated Covid information in the background • Clarified details on nodules seen on other imaging such as non-chest CT or non CXR • Added transplant imaging • Clarified non cigarette smoking for LDCT • 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	• Clarified that no time delay required between chest x-ray and subsequent Chest CT for indeterminate incidental pulmonary nodules on chest x-ray (not typical of granulomatous disease) • Moved "Pre-operative evaluation for Electromagnetic Navigation Bronchoscopy" from Post-operative/procedural evaluation to Pre-operative/procedural evaluation • Added known fibrosis with continued symptoms to Long (Chronic) COVID

Reviewed / Approved by NIA Clinical Guideline Committee

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