## Revisions

<table>
<thead>
<tr>
<th>Date</th>
<th>Description of Revisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 4, 2016</td>
<td>Original issue</td>
</tr>
<tr>
<td>February 24, 2016</td>
<td>168, 169, and 170 definition changes from “Required, if tissue diagnosis is “Malignant” to “Usage: Required, if tissue diagnosis is anything other than “Benign” or “Malignant – Non-lung cancer”</td>
</tr>
</tbody>
</table>
| March 28, 2016   | Reformatted the Table of Contents  
|                  | Reformatted headers and footers  
|                  | Item 183 corrected to ‘COPD’ and removed ‘lung cancer’  
|                  | Items 144 through 150, provided additional definitions                                                                                                                                                                   |
| April 26, 2016   | 120 Invasive detailed definition provided                                                                                                                                                                                  |
| May 13, 2016     | 134 changed from Required to Optional  
|                  | 135 changed from Required to Optional                                                                                                                                                                                      |
| March 24, 2017   | 124 Number of pack-years of smoking, Unknown = 999  
|                  | 125 Number of years since quit, unknown = 99  
|                  | 110 Patient Sex – added “indicate patient’s sex at birth”  
|                  | 183 COPD – removed Family history …other than first degree relative                                                                                                                                                      |
| April 21, 2017   | 173 M1c = Additional nodule in contralateral lung                                                                                                                                                                          |
| May 16, 2017     | 170 Changed N3 option to Unknown                                                                                                                                                                                             |
| July 10, 2017    | 134 is now, Ordering Practitioner NPI (was Ordering Practitioner First Name)  
|                  | 135 is now, Ordering Practitioner First Name (was Ordering Practitioner Last Name)  
|                  | 136 is now, Ordering Practitioner Last Name (was Ordering Practitioner NPI)  

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**Important Notice:**

*LCSR Data Submission for Retrospective and Current Cases:*

We will submit your data to CMS if we have information on all the CMS required fields even if you do not have the additional required fields in LCSR. While it is true that any case you provide may appear as a saved record and not as a submitted one, the record will still be transmitted to CMS.

**Rationale for Additional Measures:**

In order to approve our registry, CMS assessed our performance as a quality registry and had more requirements than simply collecting the fields for CMS reporting. Our physician oversight committee recommended the list of required fields as what was needed to monitor quality appropriately.

### 1. Case Registration Form: Facility and Patient Information

<table>
<thead>
<tr>
<th>Field Number</th>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Facility ID number</td>
<td>Unique facility identifier within NRDR; a 6-digit number generated by NRDR</td>
</tr>
<tr>
<td></td>
<td>Use: Required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type of Response: auto-filled</td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>Facility NPI*</td>
<td>Medicare NPI for facility</td>
</tr>
<tr>
<td></td>
<td>Usage: Required on NRDR Registration Form if facility selects Lung Cancer Screening Registry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type of Response: numeric</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*This data field is part of the initial facility registration and does not require additional data entry on the form.</td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>Patient ID</td>
<td>Field for NRDR Patient ID to support searching of records by facility</td>
</tr>
<tr>
<td></td>
<td>Usage: (auto-generated by NRDR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type of Response: Text</td>
<td></td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
<td>Usage</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>104</td>
<td><strong>Patient Social Security Number</strong></td>
<td>Response is required.</td>
</tr>
<tr>
<td></td>
<td>This field will be used to link records of patients across facilities, and with claims data. This field will be masked after it is received.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Y= None/Refused to answer. The data field will be ‘greyed ou’t and will prevent entry of the SSN.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*N=The patient <em>did not</em> refuse to answer. The data field will ‘open’ to allow you to type in the SSN.</td>
</tr>
<tr>
<td>105</td>
<td><strong>Medicare Beneficiary ID</strong></td>
<td>Required for Medicare reimbursement</td>
</tr>
<tr>
<td></td>
<td>This field will be used to link records of patients across facilities, and with claims data. This field will be masked after it is received.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Y= None/Refused to answer</td>
</tr>
<tr>
<td>106</td>
<td><strong>Other Identification</strong></td>
<td>Optional if Patient SSN or Medicare Beneficiary ID have been provided; Required if neither have been provided. May be an ID such as Medical Record Number.</td>
</tr>
<tr>
<td>107</td>
<td><strong>Patient's First Name</strong></td>
<td>Optional</td>
</tr>
</tbody>
</table>
Case Registration Form: Facility and Patient Information

108 Patient's Middle Name
Field to help local facility search for a patient record

Usage: Optional
Type of Response: Text

109 Patient's Last Name
Field to help local facility search for a patient record

Usage: Optional
Type of Response: Text

110 Patient Sex
Indicate patient’s sex at birth

Usage: Required.
Type of Response:
Select One:
• Male
• Female
• Other
• Unknown

111 Patient Race

Usage: Optional
Type of Response:
Select all that apply:
• American Indian
• Alaska native
• Asian
• Black or African American
• Native Hawaiian or Pacific Islander
• White
• Not reported
• Unknown
### 112 Patient Ethnicity (Hispanic origin)

**Usage:** Optional

**Type of Response:**

Select One:
- Hispanic or Latino
- Not Hispanic or Latino
- Not reported
- Unknown

### 113 Health Insurance

**Usage:** Optional

**Type of Response:**

Select all that apply:
- Medicare
- Medicaid
- Private insurance
- Self pay
- Unknown

### 114 Patient's Date of Birth

**Usage:** Required.

**Type of Response:**
- mm/dd/yyyy format; cannot be a future date. Must be <= date of death.

### 115 Patient's Date of Death

**Usage:** Optional and conditional; only applicable if date of death is provided

**Type of Response:**
- mm/dd/yyyy format; cannot be a future date. Must be = date of death.
116  How the Cause of Death was Determined

Usage: Optional and conditional; only applicable if date of death is provided

Type of Response:
Select One:
- Autopsy Report
- Death Certificate
- Medical Record
- Physician
- Relative or Friend
- Social Security Death Index
- Other, specify

117  How Cause of Death Was Determined ‘Other, Specify’

Usage: Optional and conditional; only applicable if “Other, specify” is selected for how cause of death was determined

Type of Response: Text

118  Cause of Death

Usage: Conditional. Required if “Patient date of death” is provided.

Type of Response:
Select One:
- Lung cancer
- Non-lung cancer cause, specify if known
- Cannot determine

119  Non-lung cancer cause of death, specify if known

Usage: Optional and conditional; only applicable if “2=Non-lung cancer cause, specify if known” is selected for cause of death

Type of Response: Text
120 Invasive procedure within the 30 days preceding date of death

Was there an invasive procedure on the patient during the 30 day period preceding the patient's death?

Usage: Conditional. Required if "Patient date of death" is provided. Include only invasive procedures as they relate to lung cancer screening abnormalities that may be cancer and are being evaluated.

For example:
- a) Percutaneous biopsy lung, liver, adrenal, lymph node
- b) Thoracoscopy, with or without biopsy or lung resection
- c) Thoracotomy, with or without biopsy or lung resection
- d) Mediastinoscopy, with or without biopsy or lung resection
- e) Bronchoscopy with or without biopsy
- f) Thoracentesis

Do not include invasive procedures in other body parts or to work up diseases, symptoms, etc., that are not related to lung cancer screening / lung cancer.

Type of Response:
Select One:
- Yes
- No
- Unknown

121 Examination Date

Usage: Required

Type of Response: mm/dd/yyyy

122 Name of person who completed this paper form – First name

Indicate the first name of the person who completed the paper form.

Usage: Conditional. Required if "Patient date of death" is provided.

Type of Response:
Select One:
- Yes
- No
- Unknown
2. Exam Form: General Appropriateness of Screening (Section 7A)

123 Smoking Status
1. Current smoker, C67147
   An adult who has smoked 100 cigarettes in his or her lifetime and who currently
   smokes cigarettes. Includes daily smokers and non-daily smokers (also known as
   occasional smokers).
2. Former smoker, C67148
   A person who was not smoking at the time of the interview but has smoked at least
   100 cigarettes in their life.
3. Never smoker, C65108
   A person who was not smoking at the time of the interview and has smoked less than
   100 cigarettes in their life.
   Indicates a person who is known to have smoked but whose current smoking status
   is unknown.
5. Unknown If Ever Smoked, C67151
   Indicates that a person's smoking is unknown

Usage: Required.

Type of Response:
Select One:
- Current smoker
- Former smoker
- Never smoker
- Smoker, current status unknown
- Unknown if ever smoked

124 Number of packs-year of smoking (cigarettes)*
Pack-years as reported by the ordering practitioner on the order form.
Pack-years defined as number of packs per day x total years smoked.

Usage: Required.

Type of Response: number between 1 and 999
If unknown = 999

*Pack years should not include cigars, e-cigs, or chewing tobacco. Calculate the pack-
years for cigarettes only.

125 Number of years since quit*

Usage: Conditional. Required if answer to "Smoking status" is "Former smoker"

Type of Response: number between 1 and 99
If unknown= 99

*If the patient has stopped smoking but has not been a former smoker for a year, use 1
for your response to this field.
126 Did physician provide smoking cessation guidance to patient?
For current smokers, smoking cessation interventions are available. This may be
provided by ordering or imaging physician.

Usage: Required.

Type of Response: Select One:
- Yes
- No
- Unknown

127 Is there documentation of shared decision making?

Usage: Required.

Type of Response: Select One:
- Yes
- No
- Unknown

128 Patient’s height (inches)

Usage: Required

Type of Response: numeric value, Unknown = 0

129 Patient’s weight (lbs)

Usage: Required

Type of Response: numeric value, Unknown = 0

130 Other comorbidities listed on patient record that limit life expectancy

Usage: Optional

Type of Response:
Select all that apply:
- COPD
- Emphysema
- Pulmonary Fibrosis
- Coronary Artery Disease
- Congestive Heart Failure
- Peripheral Vascular Disease
- Lung Cancer
- Cancer other than lung cancer
- Other, please specify
Exam Form: General, Appropriateness of Screening (Section 7A)

131  Cancer related history

Usage: Optional

Type of Response:
Select all that apply:
- Prior history of lung cancer
- lymphoma
- H&N cancer
- bladder cancer
- esophageal cancer
- Other cancer, specify
- Pulmonary fibrosis
- Other

132  Cancer related history, Other specify

Usage: Optional

Type of Response: Text
3. Exam Form: Study Data – About The Exam (Section 7A8 – 7A17)

133 Radiologist (reading) NPI*

Usage: Required.

Type of Response: 10-digits

*Add all reading radiologists to the Manage Physicians list in the NRDR portal in order for the NPI, last, and first name to auto-fill.

134 Ordering practitioner NPI

Usage: Optional

Type of Response: Text

135 Ordering practitioner’s First name

Usage: Optional

Type of Response: Text

*Ordering practitioners cannot be added to the Manage Physicians list within the NRDR.

136 Ordering practitioner’s last name

Usage: Required

Type of Response: Text

137 Indication for Exam: Are there signs or symptoms of lung cancers:

Baseline scan indicates the patient has had no prior lung cancer screening CTs. Annual screen indicates the patient is in a screening program and has had at least one prior screening exam.

Usage: Required.

Type of Response:
Select One:
- No
- Yes

138 Indication for Exam: Are there signs or symptoms of lung cancers – If ‘No”

Type of Response: Conditional.

If answer to "Signs or symptoms of lung cancer" is "N" then select baseline or annual:
- Baseline scan (prevalence screen)
- Annual screen (incidence screen)
### Exam Form: Study Data – About The Exam (Section 7A8 - 7A17)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>139</strong></td>
<td><strong>Modality</strong></td>
</tr>
<tr>
<td>Usage:</td>
<td>Required.</td>
</tr>
<tr>
<td>Type of Response</td>
<td>Select One:</td>
</tr>
<tr>
<td>•</td>
<td>Low dose chest CT</td>
</tr>
<tr>
<td>•</td>
<td>Routine chest CT</td>
</tr>
<tr>
<td><strong>140</strong></td>
<td><strong>CT scanner manufacturer</strong></td>
</tr>
<tr>
<td>Usage:</td>
<td>Required.</td>
</tr>
<tr>
<td>Type of Response:</td>
<td>Text</td>
</tr>
<tr>
<td><strong>141</strong></td>
<td><strong>CT scanner model</strong></td>
</tr>
<tr>
<td>Usage:</td>
<td>Required.</td>
</tr>
<tr>
<td>Type of Response:</td>
<td>Text</td>
</tr>
<tr>
<td><strong>142</strong></td>
<td><strong>CTD\text{\textit{Ivol}} (m\text{\textit{Gy}})^</strong>*</td>
</tr>
<tr>
<td>Volume Computed Tomography Dose Index- standardized parameter to measure scanner radiation output</td>
<td></td>
</tr>
<tr>
<td>Usage:</td>
<td>Required</td>
</tr>
<tr>
<td>Type of Response:</td>
<td>xxx.xx</td>
</tr>
<tr>
<td>* Obtained from scanner dose report (patient protocol page or similar) or operator console (after completion of scan). Should be less than 3.0 mGy for a standard sized patient, but can be lower for small patients and higher for larger patients</td>
<td></td>
</tr>
<tr>
<td><strong>143</strong></td>
<td><strong>DLP (m\text{\textit{Gy}}<em>\text{\textit{cm}})^</em></strong></td>
</tr>
<tr>
<td>Dose Length Product- product of the length of the irradiated scan volume and the average CTD\text{\textit{Ivol}} over that distance</td>
<td></td>
</tr>
<tr>
<td>Usage:</td>
<td>Required</td>
</tr>
<tr>
<td>Type of Response:</td>
<td>number; xxxx.xx</td>
</tr>
<tr>
<td>* Obtained from scanner dose report (patient protocol page or similar) or operator console (after completion of scan).</td>
<td></td>
</tr>
</tbody>
</table>
144 **Tube current-time (mAs)***
The product of tube current and exposure time per rotation, expressed in units of millampere x seconds (mAs) (average across scan)

Usage: Optional

Type of Response: number; xxx

*This may be obtained from scanner dose report (patient protocol page or similar), from scanner operator console or DICOM header of screening CT images.

145 **Tube voltage (kV)***
The electric potential applied across an x-ray tube to accelerate electrons towards a target material, expressed in units of kilovolts (kV)

Usage: Optional

Type of Response: number; xxx

*The electric potential applied across an x-ray tube to accelerate electrons towards a target material, expressed in units of kilovolts (kV)

146 **Scanning time (s)***
Total time it takes to complete the scan from beam ‘on’ to beam ‘off’.*

Usage: Optional

Type of Response: number; xxx

*This may be obtained from the scanner operator console (typically not contained in DICOM header of screening CT images or dose report).

*Round up to the next integer to avoid entering a decimal which may result in an error.

**Rotation time over the entire scan refers to the helical scan and does not include the scouts.

147 **Scanning volume (cm)***
The full length or extent of the scan (Total scan range from head to foot)

Usage: Optional

Type of Response: number; xxx.

*Round up to the next integer to avoid entering a decimal which may result in an error.

*This may be obtained from the scanner operator console (typically not contained in DICOM header of screening CT images or dose report).
### Exam Form: Study Data – About The Exam (Section 7A8 - 7A17)

<table>
<thead>
<tr>
<th>148</th>
<th>Pitch*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unitless parameter used to describe table travel during helical scan; equal to table travel (mm) per gantry rotation / total nominal beam width (mm)</td>
<td></td>
</tr>
</tbody>
</table>

Usage: Optional

Type of Response: number;  xxx

*This may be obtained from the scanner operator console, the DICOM header of screening CT images or dose report (or RDSR).

<table>
<thead>
<tr>
<th>149</th>
<th>Reconstructed image width (nominal width of reconstructed image along z-axis) (mm)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>The thickness of each slice post processing (slice thickness) in mm.</td>
<td></td>
</tr>
</tbody>
</table>

Usage: Required.

Type of Response: number;  x.xx

*This may be obtained from the scanner operator console, the DICOM header of screening CT images or dose report (or RDSR).

<table>
<thead>
<tr>
<th>150</th>
<th>CT exam result by Lung-RADS category*</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is a quality assurance tool designed to standardize lung cancer screening CT reporting and management recommendations, reduce confusion in lung cancer screening CT interpretations and facilitate outcome monitoring</td>
<td></td>
</tr>
</tbody>
</table>

Usage: Required.

Type of Response:
Select One:
- 0: recalls (incomplete screen), Reason for Recall, select one
- 1: normal, continue annual screening
- 2: benign appearance or behavior, continue annual screening
- 3: 6 month CT recommended
- 4A: 3 month CT recommended; may consider PET/CT
- 4B: Additional diagnostics and/or tissue sampling recommended
- 4X: Additional diagnostics and/or tissue sampling recommended

*It is our recommendation that the CT report contain the Lung-RADS category. If the category is not specifically stated in the report, then assign a category to the LCSR registry case record (this is sufficient documentation from the registry perspective)
### Exam Form: Study Data – About The Exam (Section 7A8 - 7A17)

#### 151 Reason for Recall

**Usage:** Conditional; required if Lung-RADS category = 0

**Type of Response:**
- Select One:
  - I: Incomplete coverage
  - N: Noise
  - M: Respiratory motion
  - E: Expiration
  - Oba: Obscured by acute abnormality

#### 152 Other clinically significant or potentially significant abnormalities – CT exam result modifier S:

**Usage:** Required

**Type of Response:**
- Select One:
  - Yes
  - No

#### 153 If yes, what were the other findings?

**Usage:** Conditional; applies if ‘Other clinically significant abnormalities’ = Yes

**Type of Response:**
- Select all that apply:
  - Aortic aneurysm
  - Coronary arterial calcification moderate or severe
  - Pulmonary fibrosis
  - Mass, please specify, e.g., neck, mediastinum, liver, kidneys
  - Other interstitial lung disease, specify type if known

#### 154 Mass, please specify, e.g., neck, mediastinum, liver, kidneys

**Usage:** Conditional; applicable if other findings = Mass

**Type of Response:** Text

#### 155 Other interstitial lung disease, select type if known

**Usage:** Optional and conditional; applicable “If yes, what were the other findings” = "Other interstitial lung disease"

**Type of Response:**
- Select One:
  - UIP/IPF
  - ILD, other, please specify
  - ILD, unknown
## Exam Form: Study Data – About The Exam (Section 7A8 - 7A17)

### 156 Other Interstitial Lung Disease, specify

Usage: Optional and conditional; applicable if = Other interstitial lung disease = Other

Type of Response: Text

### 157 Prior history of lung cancer - CT exam result modifier C

Usage: Required

Type of Response: Select One:
- Yes
- No
- Unknown

### 158 Years since prior diagnosis of lung cancer (years)

Usage: Optional

Type of Response: Number
4. Exam Form: Follow-Up within 1 Year (Section 7B)

Note: The following fields need to be collected for any follow up imaging, biopsy, or surgical procedure for a patient who is in the screening program. There can be multiple follow up records for each patient during the same year. Please complete a follow up record for each procedure, even if the procedures occur on the same day. If a patient has a percutaneous (non-surgical) biopsy and a bronchoscopy, there should be a record for each of these.

159 Date of follow-up

Usage: Required

Type of Response: mm/dd/yyyy format; cannot be a future date

160 Follow-up diagnostic

Usage: Required

Type of Response:
Select One:
- low dose chest CT
- routine chest CT
- PET/CT
- Bronchoscopy
- Non-surgical biopsy
- Surgical resection
- Other, specify

161 Follow-up diagnostic - Other, specify

Usage: Conditional; required if answer to "Follow-up diagnostic" is "Other, specify"

Type of Response: Text
5. Exam Form: Follow-up – Lung Cancer Incidence (Section 7B3 – 7B12)

The following fields apply if the procedure resulted in a tissue diagnosis. Not applicable for imaging follow up.

162 Tissue diagnosis

Usage: Required if follow up procedure is bronchoscopy, percutaneous (non-surgical) biopsy, or surgical resection.

Type of Response:
Select One:
- Benign
- Malignant - invasive lung cancer
- Malignant - NON-lung cancer
- Malignant - Minimally invasive lung cancer
- Malignant - adenocarcinoma in situ
- Premalignancy - atypical adenomatous hyperplasia
- Non-diagnostic

163 Tissue diagnosis method

Usage: Required if there is a tissue diagnosis

Type of Response:
Select one:
- Percutaneous (non-surgical)
- Bronchoscopic
- Surgical

164 Location from which sample was obtained

Usage: Required if there is a tissue diagnosis

Type of Response:
Select One:
- L hilium - Left Hilum
- Lingula - Lingula of the Lung
- LLL- Left Lower Lobe of Lung
- LUL - Left Upper Lobe of Lung
- R hilium- Right Hilum
- RLL - Right Lower Lobe of Lung
- RML - Right Middle Lobe of Lung
- RML/RLL - Right Middle and Right Lower Lobes of Lung
- RU/RM - Right Upper and Right Middle Lobes of Lung
- RUL - Right Upper Lobe of Lung
- Other, please specify
- Unknown
### 165 Location Other, Please specify

**Usage:** Conditional; required if response to "Location from which sample was obtained" is Other

**Type of Response:** text

### 166 Histology

**Usage:** Conditional; Required if tissue diagnosis is “Malignant”

**Type of Response:**
- Select One:
  - Non-small cell lung cancer, (select one)
  - High grade neuroendocrine tumor (small cell lung cancer)
  - Low grade neuroendocrine tumor (carcinoid)
  - Intermediate grade neuroendocrine tumor (Atypical carcinoid)

### 167 Histology – Non-small cell lung cancer, Select One

**Usage:** Conditional; required if answer to "Histology" is "non-small cell lung cancer".

**Type of Response:**
- Select One:
  - Invasive adenocarcinoma
  - Squamous cell carcinoma
  - Adenosquamous cell carcinoma
  - Undifferentiated or poorly differentiated carcinoma
  - Large cell carcinoma
  - Other, specify

### 168 Other Non-small cell lung cancer histology, specify

**Usage:** Required, if tissue diagnosis is anything other than “Benign” or “Malignant – Non-lung cancer”

**Type of Response:** text

### 169 Stage - Clinical or pathologic?

**Usage:** Required, if tissue diagnosis is anything other than “Benign” or “Malignant – Non-lung cancer”

**Type of Response:**
- Select one:
  - Clinical
  - Pathologic
  - Unknown
Exam Form: Follow-up – Lung Cancer Incidence (Section 7B3 – 7B12)

170 Overall stage
- IA = (T1a-b) N0 M0
- IB = T2a N0 M0
- IIA = T2b N0 M0 = (T1-T2a) N1 M0
- IIB = T2b N1 M0 = T3 N0 M0
- IIIA = T3 N1 M0 = (T1-T3) N2 M0 = (T3-T4) N1 M0 = T4 (N0-N1) M0
- IIIB = (T1-T3) N3 M0 = T4 (N2-N3) M0
- IV = M1a or M1b
- Unknown

Usage: Required, if tissue diagnosis is anything other than “Benign” or “Malignant – Non-lung cancer”

Type of Response:
- Select one
  - IA
  - IB
  - IIA
  - IIB
  - IIIA
  - IIIB
  - IV
  - Unknown

171 T Status
- TX = Unknown Tumor Status
- T1a = ≤ 2 cm greatest dimension
- T1b = > 2 but ≤ 3 cm greatest dimension
- T2a = > 3 cm but ≤ 5 cm –or– ≤ 5 cm with any of the following:
  - Visceral pleural invasion
  - Atelectasis (collapse) involving less than 1 lung
  - Involves main stem bronchus ≥ 2 cm from carina
- T2b = > 5 cm but ≤ 7 cm –or– ≤ 7 cm with any of the following:
  - Visceral pleural invasion
  - Atelectasis (collapse) involving less than 1 lung
  - Involves main stem bronchus ≥ 2 cm from carina
- T3 = > 7 cm –or– tumor that Invades chest wall (include superior sulcus), diaphragm, phrenic nerve, mediastinal pleura, or parietal pericardium < 2 cm from carina but without involving carina
  - Causes atelectasis
  - Post-obstructive pneumonia of entire lung
  - Has separate nodules in the same lobe as primary neoplasm
- T4 = Tumor any size with:
  - Invasion of mediastinum, heart, great vessels, trachea, recurrent laryngeal nerve, esophagus, vertebral body, or carina
  - Separate nodules in an ipsilateral lobes
- Unknown

Usage: Optional; Report pathologic if procedure is surgical resection. Clinical otherwise.
Type of Response:
Select One:
- TX
- T1a
- T1b
- T2a
- T2b
- T3
- T4
- unknown

172 N Status
NX = Unknown nodal status
N0 = No nodes
N1 = Ipsilateral hilar or more distal
N2 = Ipsilateral mediastinal
N3 = Contralateral mediastinal or supraclavicular

Usage: Optional; Report pathologic if procedure is surgical resection. Clinical otherwise.

Type of Response:
Select One:
- NX
- N0
- N1
- N2
- N3

173 M Status
MX = Unknown status of metastases
M0 = No metastases in lung or other regions | No pleural invasion
M1a = Pleural dissemination (malignant effusion or nodules)
M1b = Distant metastases outside the lung
M1c = Additional nodule in contralateral lung

Usage: Optional; Report pathologic if procedure is surgical resection. Clinical otherwise.

Type of Response:
Select One:
- MX
- M0
- M1a
- M1b
- M1c

174 Period of follow-up for incidence (months)*

Usage: Conditional; Required if tissue diagnosis is “Malignant”

Type of Response: numeric

*The number of months between cancer detection and last imaging exam
6. Exam Form: Additional Risk Factors (Section 7C)

*Note: The Additional Evidence for Collection section contains optional fields that may be used for risk adjustment.*

175 **Education level**

Usage: Optional

Type of Response: numeric

Select One:
- 8th grade or less
- 9-11th grade
- High school graduate or high school equivalency
- Post high school training, other than college (for example, Vocational/technical school)
- Associate degree / some college
- Bachelor’s degree
- Graduate or Professional school
- Other, specify
- Unknown / I prefer not to answer

176 **Education level, other**

Usage: Optional and conditional; applicable only if “education level” = “other, specify”

Type of Response: text

177 **Radon exposure - documented high exposure levels**

Usage: Optional

Type of Response:
Select One:
- Yes
- No

178 **Occupational exposures to agents that are identified specifically as carcinogens targeting the lungs**

Usage: Optional

Type of Response:
Select all that apply:
- Silica
- Cadmium
- Asbestos
- Arsenic
- Beryllium
- Chromium
- diesel fumes
- nickel
179 History of cancers that are associated with an increased risk of developing a new primary lung cancer

Usage: Optional

Type of Response:
Select all that apply:
- prior lung cancer
- lymphoma
- head and neck
- bladder cancer
- other smoking-related cancers, specify

180 History of cancers that are associated with an increased risk of developing a new primary lung cancer - other smoking-related cancers, specify

Usage: Optional and conditional; applicable only if "history of cancers that are associated..." = "other smoking-related cancers, specify"

Type of Response: text

181 Lung cancer in first-degree relative (mother, father, sister, brother, daughter or son with history of lung cancer)

Usage: Optional

Type of Response:
Select one:
- Yes
- No
- Not sure/unknown

182 Family history of lung cancer, other than first-degree relative

Usage: Optional

Type of Response:
Select One:
- Yes
- No
- Not sure/unknown
**Exam Form: Additional Risk Factors (Section 7C)**

**183 COPD**  
Has the patient been told by a medical health care professional that he/she has COPD (chronic obstructive pulmonary disease), emphysema, or smoking-related chronic bronchitis?  

Usage: Optional  
Type of Response:  
Select One:  
- Yes  
- No

**184 Pulmonary fibrosis**  
Has the patient been told by a health care professional that he/she has any form of interstitial lung fibrosis, or scarring of the lung?  
Try the NHLBI CDEs.  

Usage: Optional  
Type of Response:  
Select One:  
- Yes  
- No

**185 Second hand smoke exposure**  

Usage: Optional  
Type of Response:  
Select One:  
- Yes  
- No  
- Not sure/unknown
### 7. Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR</td>
<td>American College of Radiology</td>
</tr>
<tr>
<td>CT</td>
<td>Computed Tomography</td>
</tr>
<tr>
<td>CTDI&lt;sub&gt;vol&lt;/sub&gt;</td>
<td>Volume CT dose index</td>
</tr>
<tr>
<td>LCSR</td>
<td>Lung Cancer Screening Registry</td>
</tr>
<tr>
<td>mGy</td>
<td>milligray</td>
</tr>
<tr>
<td>N/A</td>
<td>Not applicable</td>
</tr>
<tr>
<td>NRDR</td>
<td>National Radiology Data Registry</td>
</tr>
<tr>
<td>SSN</td>
<td>Social Security Number</td>
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