

**Lung‐RADS® Version 1.1**

**Assessment Categories Release date: 2019**

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| **Category**  **Descriptor** | **Lung-RADS**  **Score** | **Findings** | **Management** | **Risk of Malignancy** | **Est. Population Prevalence** |
| **Incomplete** | **0** | Prior chest CT examination(s) being located for comparison | Additional lung cancer screening CT images and/or comparison to prior chest CT examinations is needed | n/a | 1% |
| Part or all of lungs cannot be evaluated |
| **Negative**  No nodules and definitely benign nodules | **1** | No lung nodules | Continue annual screening with LDCT in 12 months | < 1% | 90% |
| Nodule(s) with specific calcifications: complete, central, popcorn, concentric  rings and fat containing nodules |
| **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 (523.6mm3) |
| **Solid nodule(s):**  < 6 mm (< 113.1 mm3)  new < 4 mm (< 33.5 mm3) |
| **Part solid nodule(s):**  < 6 mm total diameter (< 113.1 mm3) on baseline screening |
| **Non solid nodule(s) (GGN):**  <30 mm (<14137.2 mm3) **OR**  ≥ 30 mm (≥ 14137.2 mm3) 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 (≥ 113.1 to < 268.1 mm3) at baseline **OR**  new 4 mm to < 6 mm (33.5 to < 113.1mm3) | 6 month LDCT | 1‐2% | 5% |
| **Part solid nodule(s)**  ≥ 6 mm total diameter (≥ 113.1 mm3) with solid component < 6 mm (< 113.1 mm3) **OR**  new < 6 mm total diameter (< 113.1 mm3) |
| **Non solid nodule(s)**  (GGN) ≥ 30 mm (≥ 14137.2 mm3) on baseline CT or new |
| **Suspicious**  Findings for which additional diagnostic testing is recommended | **4A** | **Solid nodule(s):**  ≥ 8 to < 15 mm (≥ 268.1 to < 1767.1 mm3) at baseline **OR**  growing < 8 mm (< 268.1 mm3) **OR**  new 6 to < 8 mm (113.1 to < 268.1 mm3) | 3 month LDCT; PET/CT may be used when there is a ≥ 8 mm (≥ 268.1 mm3) solid component | 5‐15% | 2% |
| **Part solid nodule(s):**  ≥ 6 mm (≥ 113.1 mm3) with solid component ≥ 6 mm to < 8 mm (≥ 113.1 to < 268.1 mm3) **OR**  with a new or growing < 4 mm (< 33.5 mm3)  solid component |
| **Endobronchial nodule** |
| **Very Suspicious**  Findings for which additional diagnostic testing and/or tissue sampling is recommended | **4B** | **Solid nodule(s)**  ≥ 15 mm (≥ 1767.1 mm3) **OR**  new or growing, and ≥ 8 mm (≥ 268.1 mm3) | 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 (≥ 268.1 mm3) 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* | > 15% | 2% |
| **Part solid nodule(s) with:**  a solid component ≥ 8 mm (≥ 268.1 mm3) **OR**  a new or growing ≥ 4 mm (≥ 33.5 mm3) solid component |
| **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 | n/a | 10% |

# IMPORTANT NOTES FOR USE:

1. Negative screen: does not mean that an individual does not have lung cancer
2. Size: To calculate nodule mean diameter, measure both the long and short axis to one decimal point, and report mean nodule diameter to one decimal point
3. Size Thresholds: apply to nodules at first detection, and that grow and reach a higher size category
4. Growth: an increase in size of > 1.5 mm (> 1.8 mm3)
5. Exam Category: each exam should be coded 0‐4 based on the nodule(s) with the highest degree of suspicion
6. Exam Modifiers: S modifier may be added to the 0‐4 category
7. Lung Cancer Diagnosis: Once a patient is diagnosed with lung cancer, further management (including additional imaging such as PET/CT) may be performed for purposes of lung cancer staging; this is no longer screening
8. Practice audit definitions: a negative screen is defined as categories 1 and 2; a positive screen is defined as categories 3 and 4
9. Category 4B Management: this is predicated on the probability of malignancy based on patient evaluation, patient preference and risk of malignancy; radiologists are encouraged to use the McWilliams et al assessment tool when making recommendations
10. Category 4X: nodules with additional imaging findings that increase the suspicion of lung cancer, such as spiculation, GGN that doubles in size in 1 year, enlarged lymph nodes etc
11. Solid nodules with smooth margins, an oval, lentiform or triangular shape, and maximum diameter less than 10 mm or 523.6 mm3 (perifissural nodules) should be classified as category 2
12. Category 3 and 4A nodules that are unchanged on interval CT should be coded as category 2, and individuals returned to screening in 12 months
13. LDCT: low dose chest CT

# C-Modifier eliminated

# \*Additional resources available at - <https://www.acr.org/Clinical-Resources/Reporting-and-Data-Systems/Lung-Rads>

# \*Link to Lung-RADS calculator - <https://brocku.ca/lung-cancer-screening-and-risk-prediction/risk-calculators/>