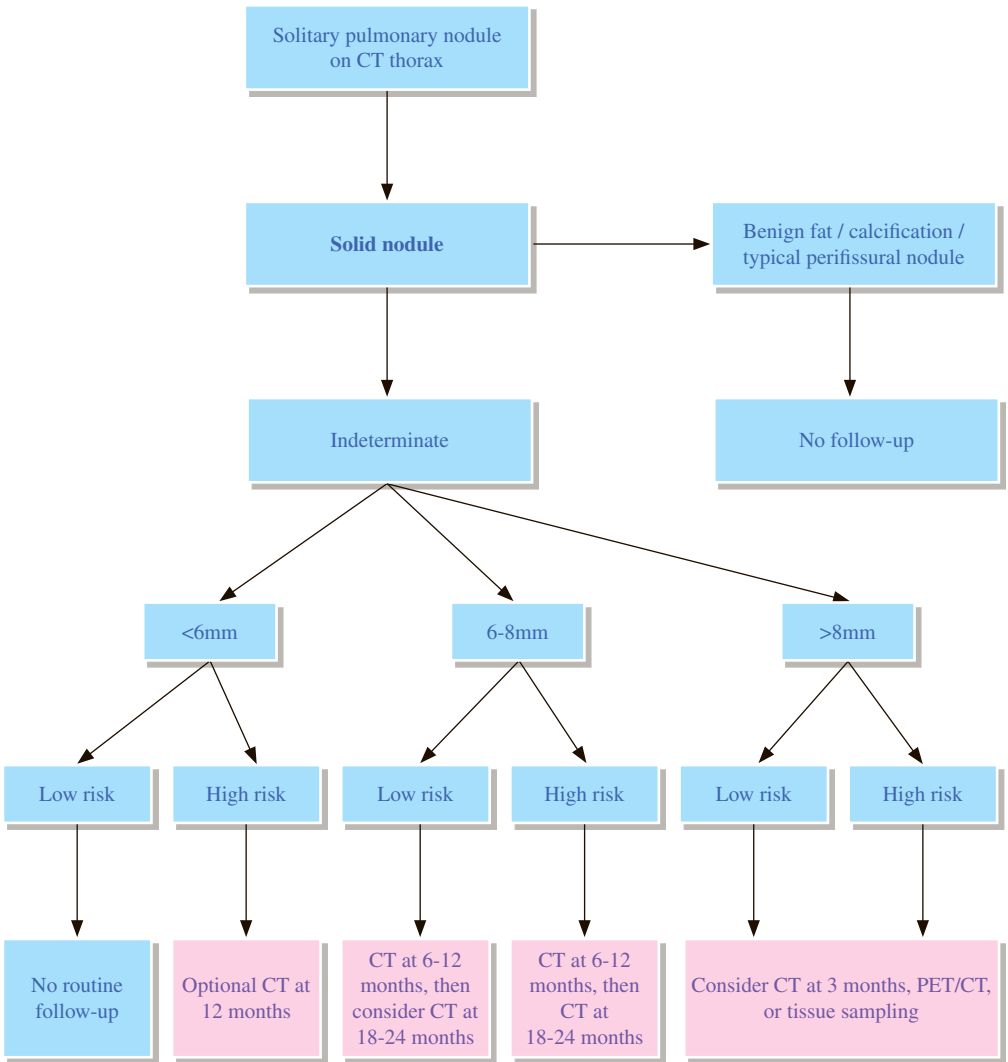
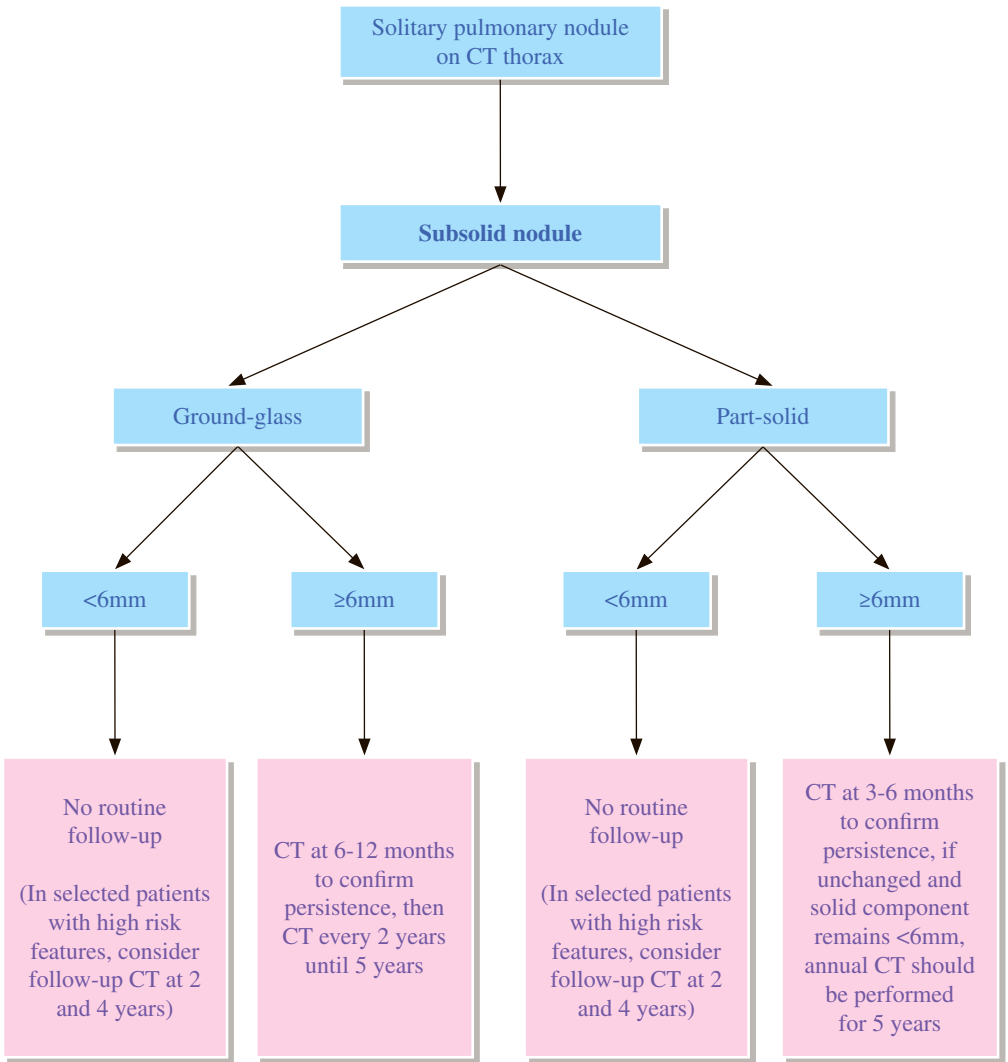


## CH 5 Solitary pulmonary nodule





## REMARKS

### 1 General

- 1.1 Solitary pulmonary nodule is defined as a relatively spherical opacity of which the diameter is 3cm or smaller. It is completely surrounded by lung with no associated atelectasis or hilar adenopathy detected.
- 1.2 These guidelines apply to incidental solitary lung nodule in patients aged 35 or above. They do not apply to patients with known primary cancer, immunosuppression or lung cancer screening.
- 1.3 The minimum threshold size for recommending follow-up is based on an estimated cancer risk in a nodule on the order of 1% or greater.
- 1.4 Estimation of an individual patient's risk of developing lung cancer is multi-factorial, including the size and morphology of lung nodule, history of smoking, exposure to other carcinogens, location of lung nodule, presence of emphysema and fibrosis, family history of lung cancer, ethnic background, age and gender etc. Different risk prediction models are available. In general, high risk factors include older age, heavy smoking, larger nodule size, irregular/spiculated margins, and upper lobe location.

### 2 CT

- 2.1 Thin section scans are needed to enable accurate characterization and measurement of small lung nodules.
- 2.2 Low-dose thin-slice unenhanced scans are recommended for follow-up of lung nodules.
- 2.3 Measurement of a lung nodule should be based on the average of its long- and short-axis diameters, both of which should be obtained on the same transverse, coronal or sagittal reformatted images. The image which reveals the greatest diameter should be used. The measurement should be rounded to the nearest millimetre.
- 2.4 In practice, it is difficult to reliably define discrete solid components of part-solid nodules <6mm, therefore they are managed in a similar way that pure ground-glass lesions of equivalent size are treated.
- 2.5 Persistent part-solid nodules with solid component  $\geq 6$ mm should be considered highly suspicious.
- 2.6 Contrary to growth in solid nodules which is based solely on size, in subsolid nodules, growth may manifest as an increase in size, an increase in attenuation, development of a solid component, or an increase in size of a solid component. In subsolid nodules, these imaging features of growth indicate an increased risk for malignancy.
- 2.7 Benign patterns of calcification in solitary lung nodules include dense central calcification, laminated calcification and diffuse calcification.
- 2.8 A typical perifissural nodule is attached to pulmonary fissure, homogenous, solid with smooth margin, and oval/lentiform/triangular in shape. Typical perifissural nodules are likely intrapulmonary lymph nodes.

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