


Management of Subsolid Nodules

To the Editor:

We recently read with great interest the article by Gould et al1 in the American College of Chest Physicians lung cancer guidelines in CHEST (May 2013), and we certainly appreciate the authors' hard work and diligent efforts in presenting the guidelines. However, we were surprised to see several inconsistencies between the article and a statement from the Fleischner Society by Naidich et al2 published in the January 2013 issue of Radiology, regarding subsolid nodules.

First, with respect to the definition of nodule size, the guidelines used the term "diameter," whereas the statement referred to the "average" of the long and short axial dimensions. Some interobserver variability is inherent in the measurement of pulmonary nodules even when the same measurement method is used. If the measurement methods differ (ie, one observer measures the nodule size based on the diameter and another observer uses the average of the long and short dimensions), the interobserver variability is likely to be greater than if the same measurement method were used by the same two observers.

Second, the descriptions in the guidelines regarding "part-solid nodule" and "solid component" are confusing. Which measurement should observers perform when measuring the diameter of a part-solid nodule? Did the authors mean the diameter of the entire part-solid nodule (measurement A) or the diameter of the solid component in the part-solid nodule (measurement B)? It is unclear which each of the descriptions for part-solid nodules (≤8 mm, >8 mm, and >15 mm) referred to measurement A (entire part-solid nodule) or measurement B (solid component only). In fact, the authors stated in their first remark to recommendation 6.5.4 that "PET should not be used to characterize part-solid lesions in which the solid component measures ≤8 mm."

Next, as for evaluating solid components on CT images, the statement recommended that "the solid component should be evaluated with narrow and/or mediastinal windows," and the ground-glass component should be measured using "wide and/or lung windows." In fact, the authors stated in their first remark to recommendation 6.5.4 that "PET should not be used to characterize part-solid lesions in which the solid component measures ≤8 mm."

However, regarding how each component should be measured on CT images, whether a solid component is measured using the lung field settings or the mediastinal settings could also affect interobserver variability.

Finally, the statement recommended an "initial follow-up CT at 3 months to confirm persistence"3 of a part-solid nodule, but the guidelines recommended proceeding "directly to further evaluation with PET; nonsurgical biopsy, and/or surgical resection"3 for a part-solid nodule "measuring >15 mm in diameter." The statement cited one study that reported a part-solid nodule with "a larger size of the solid component" could potentially have disappeared at follow-up,4 so the statement "strongly advised that at least one follow-up CT scan be obtained in 3 months to confirm persistence."5

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REFERENCES


Response

To the Editor:

We thank Dr Kakinuma and colleagues for their interest in the third edition of the American College of Chest Physicians (ACCP) evidence-based clinical practice guidelines for the diagnosis and management of lung cancer.\(^1\) They correctly point out some differences between the ACCP guidelines and the recommendations of the Fleischner Society for the evaluation of patients with subsolid nodules.\(^1\),\(^2\) The ACCP guidelines definition of nodule size refers to the widest nodule diameter, as is most commonly reported in clinical practice. For both nonsolid (pure ground glass) and part-solid nodules, the thresholds refer to the entire nodule because delineation of solid and nonsolid components may be especially challenging in usual practice settings, and documentation rarely is complete.

Regarding window settings and other technical aspects of measurement by radiologists, we defer to the Fleischner Society recommendations. In hindsight, the language in our remark about proceeding directly to further evaluation in patients with part-solid nodules measuring > 15 mm in diameter may have been too strong. It is not unreasonable to repeat chest CT scanning in 3 months in such patients, although the evidence in support of this practice is only anecdotal.

