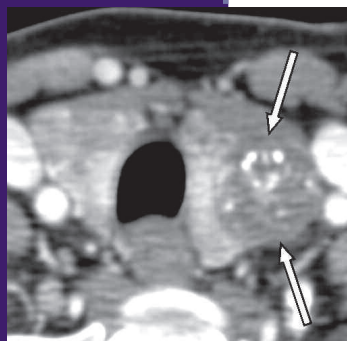
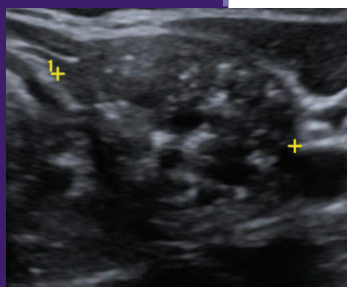


## Management of the Incidental Thyroid Nodule



CT scan showing a left thyroid nodule containing calcifications (arrows)



Subsequent ultrasound showing both microcalcifications and coarse calcifications in pathologically proven thyroid papillary carcinoma

With increased use of imaging and improvement in imaging techniques, visualization of 'incidental' lesions has become more common. Identification of thyroid nodules by ultrasound has increased, and often leads to consideration for ultrasound-guided fine needle aspiration (FNA).

Given the low malignancy rate of thyroid nodules (6-7%) and the lack of sensitivity of imaging features to reliably predict malignancy, the Society of Radiologists in Ultrasound (SRU) convened a large, multidisciplinary panel in October, 2004 including radiologists, endocrinologists, cytopathologists, and surgeons to address the management of incidentally-discovered thyroid nodules. As a group, they published a set of recommendations for ultrasound-guided FNA based on the ultrasound appearance and size of these incidentally-discovered nodules.

It should be noted that these recommendations pertain only to nodules incidentally discovered by ultrasound. Nodules identified clinically—for example, nodules identified during work-up of hyperthyroidism—should be managed according to the patient's history and other clinical parameters.

For nodules incidentally discovered by ultrasound, recommendations for management are listed in the table below.

For solitary nodules, FNA should be strongly considered if microcalcifications are present and the nodule is 1.0 cm in size or greater, as microcalcifications are the sonographic finding most strongly associated with malignancy (though there is a wide range in the sensitivity [26.1-59.1%] and positive predictive value [24.3-70.7%] of this finding). For other thyroid nodules, FNA is typically not recommended until they reach a size of 1.5 or 2.0 cm as listed.

For multiple nodules, the majority opinion of the panel is to consider FNA of one or more nodules, with prioritization for FNA based on the criteria for solid nodules in the order listed above.

Please note that the presence of abnormal lymph nodes overrides the ultrasound features of nodules and should prompt ultrasound-guided FNA/biopsy of the node and/or ipsilateral thyroid nodules.

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### 2004 SRU Guidelines

#### Recommendations for Thyroid Nodules 1 cm or Larger in Maximum Diameter

US Feature	Recommendation
Solitary nodule	
Microcalcifications	Strongly consider US-guided FNA if $\geq$ 1 cm
Solid (or almost entirely solid) or coarse calcifications	Strongly consider US-guided FNA if $\geq$ 1.5 cm
Mixed solid and cystic or almost entirely cystic with solid mural component	Consider US-guided FNA if $\geq$ 2 cm
None of the above but substantial growth since prior US examination	Consider US-guided FNA
Almost entirely cystic and none of the above and no substantial growth (or no prior US)	US-guided FNA probably unnecessary
Multiple nodules	Consider US-guided FNA of one or more nodules, with selection prioritized on basis of criteria (in order listed) for solitary nodule