

**Supplementary Table 1.** Summary of the 2015 American Thyroid Association (2015 ATA) guideline and the American College of Radiology Thyroid Imaging Reporting and Data System (ACR TI-RADS)

Category	Definition	FNA indication
2015 ATA (1)		
Benign	Purely cystic nodules (no solid component)	No FNA
Very low suspicion	Spongiform or partially cystic nodules without any of the sonographic features described for the low, intermediate, or high suspicion patterns	Consider if $\geq 2$ cm observation without FNA is also a reasonable option
Low suspicion	Isoechoic or hyperechoic solid nodule, or partially cystic nodule with eccentric solid areas, without microcalcifications, irregular margin or extrathyroidal extension, or taller-than-wide shape	$\geq 1.5$ cm
Intermediate suspicion	Hypoechoic solid nodule with smooth margins without microcalcifications, extrathyroidal extension, or taller-than-wide shape	$\geq 1$ cm
High suspicion	Solid hypoechoic nodule or solid hypoechoic component of a partially cystic nodule with one or more of the following features: irregular margins (infiltrative, microlobulated), microcalcifications, taller-than-wide shape, rim calcifications with small extrusive soft tissue component, evidence of extrathyroidal extension	$\geq 1$ cm
ACR TI-RADS (2)		
TR1	Benign (0 points)	No FNA
TR2	Not suspicious (1–2 points)	No FNA
TR3	Mildly suspicious (3 points)	FNA if $\geq 2.5$ cm Follow if $\geq 1.5$ cm
TR4	Moderately suspicious (4–6 points)	FNA if $\geq 1.5$ cm Follow if $\geq 1$ cm
TR5	Highly suspicious (7 or more points)	FNA if $\geq 1$ cm Follow if $\geq 0.5$ cm
Point values for each US feature according to the ACR TI-RADS (2)		
Composition (choose 1)	Cystic (0), spongiform (0), mixed cystic and solid (1), solid (2)	
Echogenicity (choose 1)	Anechoic (0), hyperechoic or isoechoic (1), hypoechoic (2), markedly hypoechoic (3)	
Shape (choose 1)	Wider-than-tall (0), taller-than-wide (3)	
Margin (choose 1)	Smooth (0), ill-defined (1), lobulated or irregular (2), extra-thyroidal extension (3)	
Echogenic foci (choose all that apply)	None or comet-tail artifacts (0), macrocalcifications (1), peripheral or rim (2), punctate (3)	

The ACR TI-RADS point total is calculated by adding single selections from the composition, echogenicity, shape, and margin categories and multiple selections from the echogenic foci category.

FNA, fine-needle aspiration; US, ultrasonography.