

Supplementary Table 1. Definitions of major ultrasound descriptors used in the major risk stratification systems and this study

Ultrasound Lexicon/Descriptor	Modified K-TIRADS	AACE/ACE/AME	ACR TI-RADS	ATA	EU-TIRADS	K-TIRADS	This study
Composition							
Solid	Solid with no obvious cystic component	Solid with no obvious cystic component ^{a)}	Solid or almost completely solid	Solid with no obvious cystic component ^{a)}	Solid with <10% of cystic portion	Solid with no obvious cystic component	Same definition (solid with no obvious cystic component)
Spongiform ^{b)}	Microcystic changes >50% in isoechoic soft-tissue component	Microcystic changes >50% in isoechoic soft-tissue component ^{a)}	Composed predominantly (>50%) of small cystic spaces (regardless of echogenicity)	Microcystic changes >50% in isoechoic soft-tissue component	Entirely tiny cystic spaces separated by numerous isoechoic septa	Microcystic changes >50% in isoechoic soft-tissue component	Different definitions for ACR TIRADS and EU-TIRADS
Echogenicity							
Marked hypoechoicity (very hypoechoic)	Similar echogenicity or hypoechoic relative to anterior neck muscle	Hypoechoic relative to strap muscle	Decreased echogenicity relative to strap muscle	Not specified	Hypoechoic relative to strap muscle	Hypoechoic relative to anterior neck muscle	Different definition for modified K-TIRADS
Mixed echogenicity	Predominant echogenicity of the solid component	Predominant echogenicity of the solid component ^{a)}	Predominant echogenicity of the solid component	Predominant echogenicity of the solid component ^{a)}	Presence of any hypoechoic tissue indicates mildly hypoechoic nodule	Predominant echogenicity of the solid component	Different definition for EU-TIRADS
Shape (orientation)							
Image plane for evaluation	Transverse or longitudinal	Transverse	Transverse	Transverse	Transverse or longitudinal ^{c)}	Transverse or longitudinal	Different definition by each system
Margin							
Irregular	Spiculated or microlobulated	Spiculated or microlobulated margins	Lobulated or irregular	Irregular (infiltrative, microlobulated)	Irregular (spiculated, microlobulated)	Spiculated or microlobulated	Same definition (spiculated or microlobulated)
Echogenic foci							
Microcalcification (punctate echogenic foci)	Echogenic foci of 1 mm or less in the solid component ^{d)}	Punctate echogenic foci within the solid component ^{a)}	Punctate echogenic foci without posterior shadowing in solid components	Punctate echogenic foci within the solid component ^{a)}	Echogenic foci approximately 1 mm without posterior shadowing in the solid component	Echogenic foci of 1 mm or less in the solid component ^{d)}	Same definition (punctate [≤ 1 mm] echogenic foci within the solid component ^{d)})
Macrocalcification	Echogenic foci >1 mm with posterior acoustic shadowing	Echogenic foci >1 mm with posterior acoustic shadowing	Coarse echogenic foci accompanied by acoustic shadowing	Echogenic foci >1 mm with posterior acoustic shadowing	>1-mm coarse and large calcification with posterior acoustic shadowing	Echogenic foci >1 mm with posterior acoustic shadowing	Same definition (echogenic foci >1 mm with posterior acoustic shadowing)
Isolated macrocalcification	Entirely calcified nodule without an identified solid component	Not specified	Calcifications with strong acoustic shadowing that precludes or limits assessment of internal characteristics	Not specified	Entirely calcified nodule	Entirely calcified nodule without an identified solid component	Same definition (entirely calcified nodule without an identified solid component)
Intracystic echogenic foci with comet-tail artifacts	Intracystic echogenic foci with comet-tail artifacts	Mostly cystic (>50%) nodules with reverberating artifacts ^{a)}	Large comet-tail artifacts (V-shaped, >1 mm) in cystic component	Not specified	Echogenic foci with comet like echogenic tails within cystic component	Intracystic echogenic foci with comet-tail artifacts	Same definition (comet-tail artifacts regardless of the tail size)

K-TIRADS, Korean Thyroid Imaging Reporting and Data System; AACE/ACE/AME, American Association of Clinical Endocrinologists/American College of Endocrinology/ Associazione Medici Endocrinologi Medical Guidelines; ACR TI-RADS, American College of Radiology Thyroid Imaging Reporting and Data System; ATA, American Thyroid Association Management Guideline; EU-TIRADS, European Thyroid Imaging Reporting and Data System; US, ultrasonography.

^{a)}US descriptors that are not clearly defined by the guideline. ^{b)}Regardless of other concurrent suspicious US findings except the K-TIRADS, in which a spongiform nodule should not be associated with suspicious US features. ^{c)}Not clearly specified. ^{d)}Punctate echogenic foci with or without posterior acoustic shadowing.