ACR TI-RADS

COMPOSITION

(Choose 1)

Cystic or almost 0 points completely cystic

Spongiform 0 points

Mixed cystic 1 point

Solid or almost 2 points completely solid

and solid

ECHOGENICITY

(Choose 1)

Anechoic 0 points

Hyperechoic or 1 point isoechoic

Hypoechoic 2 points
Very hypoechoic 3 points

SHAPE

(Choose 1)

Wider-than-tall 0 points
Taller-than-wide 3 points

MARGIN

(Choose 1)

Smooth 0 points

III-defined 0 points

Lobulated or 2 points

irregular

Extra-thyroidal 3 points extension

ECHOGENIC FOCI

(Choose All That Apply)

0 points

2 points

None or large comet-tail artifacts

Macrocalcifications 1 point

Peripheral (rim) calcifications

Punctate echogenic 3 points

foci

Add Points From All Categories to Determine TI-RADS Level

0 Points

TR1

Benign No FNA 2 Points

TR2
Not Suspicious
No FNA

3 Points

TR3
Mildly Suspicious
FNA if ≥ 2.5 cm

Follow if ≥ 1.5 cm

SHAPE

4 to 6 Points

TR4
Moderately Suspicious

FNA if ≥ 1.5 cm Follow if ≥ 1 cm 7 Points or More

TR5

Highly Suspicious FNA if ≥ 1 cm Follow if ≥ 0.5 cm*

Spongiform: Composed predominantly (>50%) of small cystic spaces. Do not add further points

COMPOSITION

for other categories.

Mixed cystic and solid: Assign points for predominant solid component.

Assign 2 points if composition cannot be determined because of calcification.

ECHOGENICITY

Anechoic: Applies to cystic or almost completely cystic nodules.

Hyperechoic/isoechoic/hypoechoic: Compared to adjacent parenchyma.

Very hypoechoic: More hypoechoic than strap muscles.

Assign 1 point if echogenicity cannot be determined.

Taller-than-wide: Should be assessed on a transverse image with measurements parallel to sound beam for height and perpendicular to sound beam for width.

This can usually be assessed by visual inspection.

MARGIN

Lobulated: Protrusions into adjacent

Irregular: Jagged, spiculated, or sharp angles.

Extrathyroidal extension: Obvious invasion = malignancy.

Assign 0 points if margin cannot be determined.

ECHOGENIC FOCI

Large comet-tail artifacts: V-shaped,

>1 mm, in cystic components.

Macrocalcifications: Cause acoustic shadowing.

Peripheral: Complete or incomplete along margin.

Punctate echogenic foci: May have small comet-tail artifacts.

^{*}Refer to discussion of papillary microcarcinomas for 5-9 mm TR5 nodules.