# **ACR TI-RADS**

#### COMPOSITION

(Choose 1)

Cystic or almost 0 points completely cystic

Spongiform 0 points

Mixed cystic 1 point and solid

Solid or almost 2 points completely 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

Ill-defined 0 points

Ill-defined 0 points
Lobulated or 2 points

irregular

Extra-thyroidal 3 points

extension

### **ECHOGENIC FOCI**

(Choose All That Apply)

None or large 0 points comet-tail artifacts

Macrocalcifications 1 point

Peripheral (rim) 2 points 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  $\geq 2.5$  cm Follow if  $\geq 1.5$  cm 4 to 6 Points

TR4
Moderately Suspicious

FNA if  $\geq 1.5$  cm Follow if  $\geq 1$  cm 7 Points or More

TR5

Highly Suspicious FNA if  $\geq 1$  cm Follow if  $\geq 0.5$  cm\*

#### COMPOSITION

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

#### SHAPE

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.

Lobulated: Protrusions into adjacent tissue.

MARGIN

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

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

<sup>\*</sup>Refer to discussion of papillary microcarcinomas for 5-9 mm TR5 nodules.