**Audit on reporting of incidental thyroid nodules detected on computed tomography - Implementation of The White Paper of the ACR Incidental Thyroid Findings Committee**

**Descriptor:**

The purpose of the audit is to achieve greater consistency in reporting and managing incidental thyroid nodules (ITNs) detected on CT according to the ACR white paper recommendations, in order to reduce unnecessary ultrasound (US) workup and downstream risks for clinically insignificant ITNs and lastly, to ensure proper workup for clinically significant ITNs.

**Background:**

An incidental thyroid nodule (ITN) is defined as a nodule not previously detected, but identified by an imaging study. ITN is one of the most common incidental finding on computed tomography (CT). [1] The workup of ITNs is costly and causes patients’ anxiety. Majority of the ITNs are small and benign. Incidental thyroid cancers are typically indolent and treating of these subclinical thyroid cancers may not result in survival benefits. [2,3]

The ACR formed the Incidental Thyroid Findings Committee to derive a practical approach to managing ITNs on different imaging modalities. [1]

## The Cycle

**The standard:**

''Managing Incidental Thyroid Nodules Detected on Imaging: White Paper of the ACR Incidental Thyroid Findings Committee'' is used as the standared of reporting, which provides a clear and practice approach for radiologists to distinguish between ITNs that do verse do not require dedicated thyroid ultrasound.

**Target:**

To achieve 100% compliance with the White Paper of the ACR Incidental Thyroid Findings Committee

**Further evaluation by US is recommended when:**

- ITN with suspicious CT findings (i.e. cervical lymphadenopathy and/or extrathyroidal spread)

- ITN (>/= 1.5cm) in patient >/= 35 yo

- ITN (>/= 1cm) in patient < 35 yo

**No further US is recommended when:**

- Patients with limited life expectancy and comorbidities

- ITN (<1.5cm) in patient >/= 35 yo

- ITN (<1cm) in patient < 35 yo

**For ITN not indicated for US recommendations,  it should not be mentioned in conclusion.**

## Assess local practice

**Indicators:**

Percentage of overall compliance to ACR white paper.

Percentage of ultrasound recommended unnecessarily for clinically insignificant ITNs.

Percentage of ultrasound recommended correctly for clinically significant ITNs.

Percentage of acute sizes of ITNs mentioned in reports.

Percentage of ITNs (not meeting the criteria for US recommendations) mentioned in conclusion.

**Data items to be collected:**

‘’Thyroid’’ was used a keyword to search in RIS for a retrospective review of consecutive CT reports in a period of 1-2 months. Cases with incidental thyroid nodules were found and assessed for compliance with ACR white paper and radiologists’ reporting style.

Patient age/sex

Indication of the CT scans

ITN size

ITN size mentioned in reports

ITN mentioned in conclusion/impression

Suspicious CT features (i.e. cervical lymphadenopathy and/or extrathyroidal spread)

Prior thyroid workup/surgery/radiation

Limited life expectancy/comorbidies

**Suggested number:**

50 cases each cycle

**Suggestions for change if target not met:**

•Feedback and education to individual radiologists who failed to comply to ACR white paper recommendations

•Maintain radiologists awareness for updated guidelines by conducting regular audits and audit presentations in department

•Emails and in-person updates of audit results and recommendations if the radiologists were not able to attend the departmental meetings

[**incidental-thyroid-nodule-follow-up.pdf**](https://www.rcr.ac.uk/sites/default/files/audit_template/incidental-thyroid-nodule-follow-up.pdf)PDF - 909.71 KB

**References:**

1. Managing Incidental Thyroid Nodules Detected on Imaging: White Paper of the ACR Incidental Thyroid Findings Committee Hoang, Jenny K. et al.Journal of the American College of Radiology , Volume 12 , Issue 2 , 143 – 150.
2. Significance of Incidental Thyroid Lesions Detected on CT: Correlation Among CT, Sonography, and Pathology Sanjay K. Shetty, Michael M, Peter F. Hahn, Elkan F. Halpern, and Suzanne L. AquinoAmerican Journal of Roentgenology 2006 187:5, 1349-1356
3. Ito Y, Miyauchi A, Inoue H, et al. An observational trial for papillary thyroid microcarcinoma in Japanese patients. World J Surg. 2010;34(1):28-35. doi:10.1007/s00268-009-0303-0

**Editor's comments:**

Suggested number amended to 50 cases per cycle, as advised by CRAQIC Chair.

**Submitted by:**

Dr Faye Suet Mui Yu

**Published Date:**

Friday 13 October 2023

**Last Reviewed:**

Wednesday 21 December 2022