

Systematic Implementation of ACR White Paper Recommendations on Incidental Thyroid Nodules Improves Resource Utilization: A Quality Storyboard

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Introduction

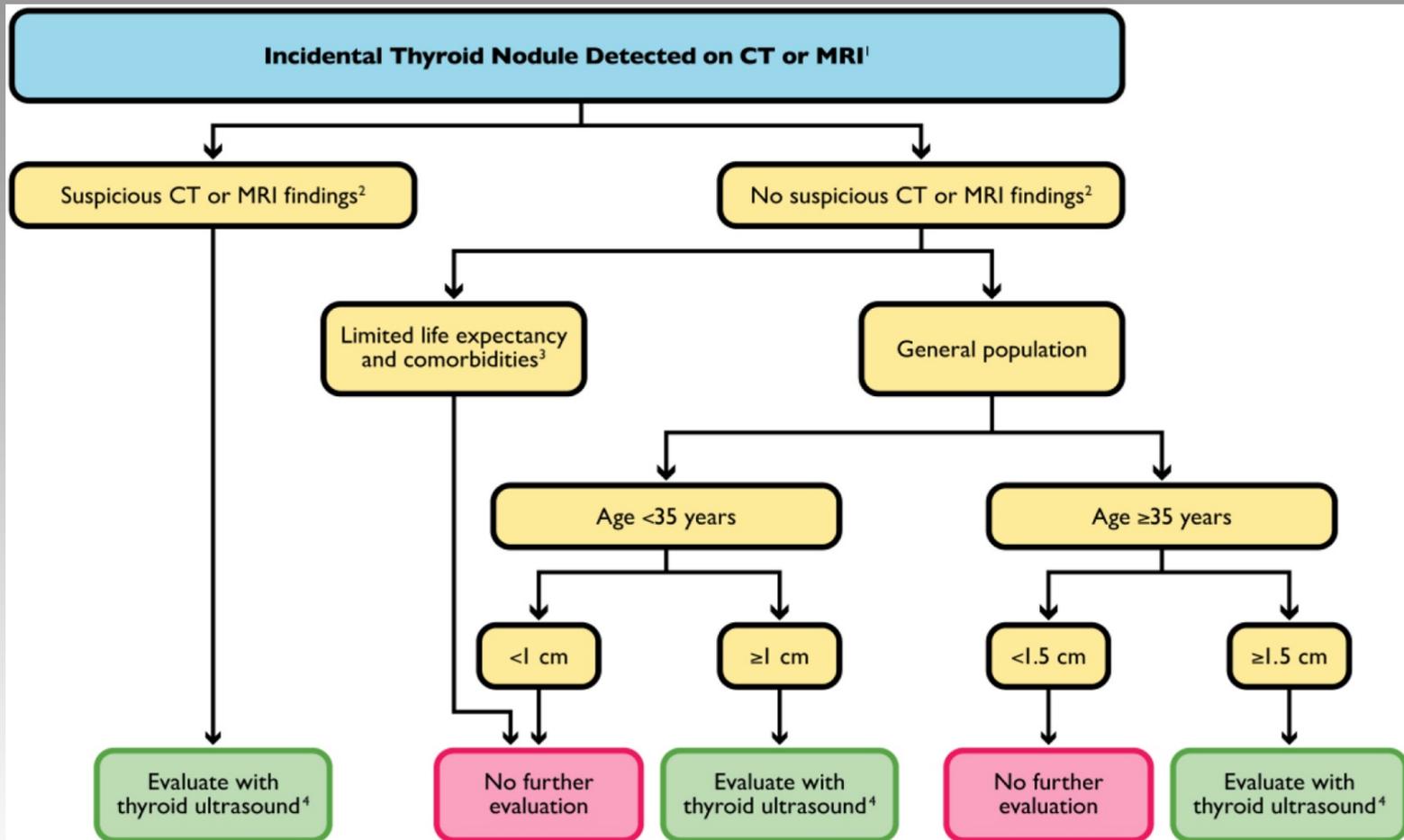
- Incidental thyroid nodules are commonly detected with CT and MR.
- In our practice, ultrasound readers perceived a lack of ACR white paper recommendations for workup of incidental thyroid nodules (ITNs) published in 2015, leading to an excessive number of diagnostic ultrasounds.

Materials & Methods

- Reports for 100 consecutive ITNs detected with CT and MR were assessed for compliance with ACR recommendations.
- Data collected from 3 UMMS-Baystate facilities
 - 33 faculty
 - 16 residents
- Pre-intervention: June to August 2015.
- Post-intervention: January to March 2016.

Materials & Methods

ACR recommendations:



Materials & Methods

Intervention:

- ACR white paper recommendations were implemented system-wide after consensus with departments of endocrinology and endocrine surgery.
- Grand Rounds lecture and e-mail dissemination of guidelines.
- Standardized voice recognition (VR) template was designed to provide quick access to the ACR guidelines, and improve ease and consistency of reporting.
 - VR software: Nuance Powerscribe 360 Reporting v2.5 SP2.

CT/MR Standardized Template

VR template Pick List Choices

1. <1cm; NO ultrasound
2. Age 35+; nodule <1.5cm; No ultrasound.
3. ≥ 1.5 cm; YES ultrasound.
4. Age<35, nodule ≥ 1 cm; Yes ultrasound
5. Suspicious features or adenopathy

Example

- Text inserted for picklist selection 1 or 2:
 - “No further imaging necessary unless other risk factors for thyroid cancer exist, per ACR white paper on management of incidental thyroid nodules detected on imaging (JACR, 2015; 12:143-150).”

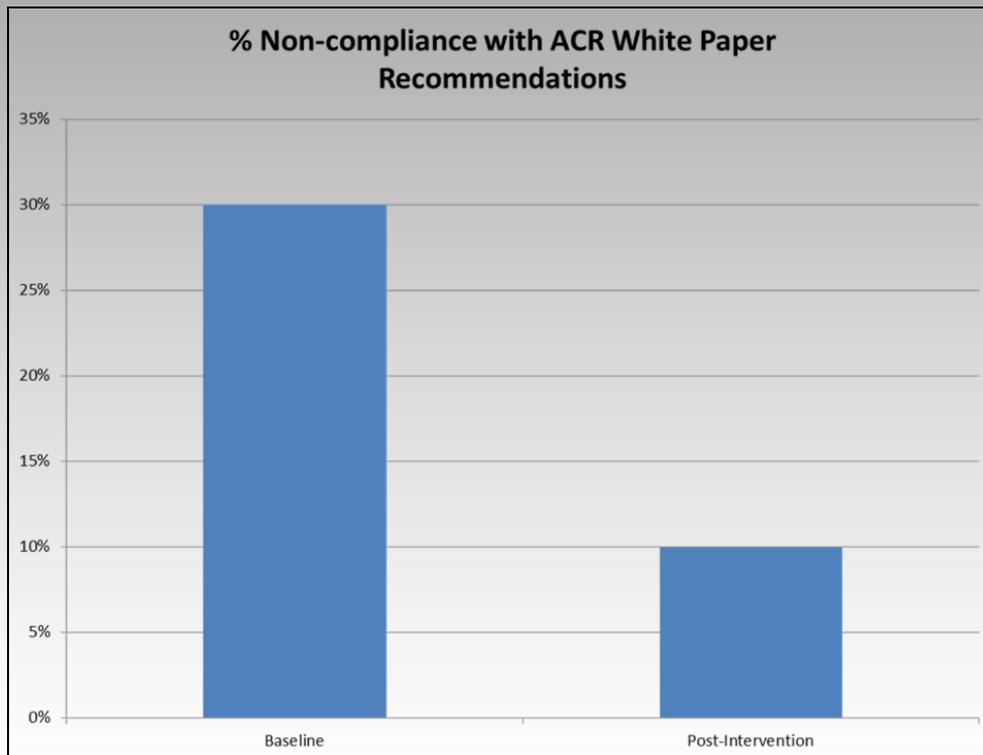
Results

Baseline

- 30% non-compliance with the ACR recommendations.

Post-Intervention

- 10% non-compliance with the ACR recommendations.



Discussion

Compliance with ACR ITN 2015 guidelines regarding recommendations for thyroid US improved with CT and MR reader education and use of standardized reporting templates.

This simple project highlights the ease of process improvement possible with system-wide communication and education.

Discussion

Reasons for non-compliance with ACR guidelines likely include 2 important factors:

1. Lack of awareness of the recommendations
2. Variations in risk tolerance (concern for patient harm and medico-legal liability)

Improving awareness of current guidelines is easily accomplished through targeted education and communication.

We also believe that system-wide, multi-departmental adoption of evidence-based and expert consensus recommendations helps to minimize inherent variations in radiologist risk tolerance.

Conclusion

Compliance with ACR ITN 2015 guidelines regarding recommendation for thyroid US improved with a simple educational campaign and implementation of a standardized voice recognition template.

References

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.