

PEER-REVIEW REPORT

Name of journal: *World Journal of Methodology*

Manuscript NO: 73452

Title: Assessment of diagnostic capacity and decision making based on the American Thyroid Association 2015 ultrasound system

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05724323

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: Mexico

Manuscript submission date: 2021-12-22

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-12-23 04:12

Reviewer performed review: 2022-01-02 13:32

Review time: 10 Days and 9 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Peer-reviewer
statements**

Peer-Review: ☒ Anonymous ☐ Onymous

Conflicts-of-Interest: ☐ Yes ☒ No

SPECIFIC COMMENTS TO AUTHORS

The findings of this meta-analysis are interesting. However, there are a few major concerns. 1. According to the results of the meta-analysis, there was significant heterogeneity. Please point out the underlying reasons for the heterogeneity. Sensitivity analysis and subgroup analysis are suggested to be conducted to further address the heterogeneity. 2. The overall quality of included studies is low, which indicates a high risk of bias. Minor concerns: 1. The titles of the forest plots are not comprehensive. 2. The titles of other figures should be revised, such as "Figure 9. Net Benefit interventions avoided, in study patterns."

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Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05445949

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Assistant Professor, Chief Physician, Research Associate

Reviewer's Country/Territory: Serbia

Author's Country/Territory: Mexico

Manuscript submission date: 2021-12-22

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-03 14:47

Reviewer performed review: 2022-01-03 15:25

Review time: 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="radio"/>] Anonymous [<input type="radio"/>] Onymous
	Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No

SPECIFIC COMMENTS TO AUTHORS

The authors were eager to perform a systematic review and meta-analysis of the diagnostic value of 2015 ATA US system for the initial assessment of thyroid nodules. All points according to PRISMA were correctly involved. Final studies meta-analyzed seems to be presented with heterogeneous data, so I think that the results are under a higher pressure of bias. Some important papers in this area are unintentionally omitted. Some parts of paper must be analyzed by biostatistician. The discussion is correct, an Intro is longer than it has to be. The results are correctly presented, illustrations and figures, too. The manuscript is well organized and presented, but language need to be polished. Major revision: to decrease data heterogeneity by better and more precise inclusion criteria; - to involve other studies, that are very important in this area. Minor: - too long Introduction; - to describe the implication of presented study to every day endocrine surgeon clinical practice.

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Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05420967

Position: Peer Reviewer

Academic degree: FACE, MD

Professional title: Doctor

Reviewer's Country/Territory: India

Author's Country/Territory: Mexico

Manuscript submission date: 2021-12-22

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-04 16:21

Reviewer performed review: 2022-01-09 19:13

Review time: 5 Days and 2 Hours

Scientific quality	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="radio"/>] Anonymous [<input type="radio"/>] Onymous Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No
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SPECIFIC COMMENTS TO AUTHORS

Thyroid nodule is a common problem and ultrasound finding is an important guide for delineating the subsequent course of management. The authors have performed a meta-analysis and systemic review to assess the diagnostic value of ATA criteria for USG classification of thyroid nodule. The cases have been analyzed both by traditional diagnostic methods, as well as the threshold approach to clinical decision-making and decision curve analysis. The authors concluded the ATA ultrasound risk patterns to decide which patients need FNAB is not beneficial, unless the nodule is completely cystic. All other nodules regardless of their size, should undergo FNAB as per their findings. The findings are important and the method used to reach the conclusion is innovative.

Some suggestions and comments for the authors

1. The search methodology should be defined more clearly and should be replicable.
2. Abstract should be revised. The background section in the abstract should be reframed. The result section of the abstract is unclear.
3. The core-tip section should be more specific and precise.
4. The methodology for decision curve analysis can be better described in a tabular/flow-chart/graphical manner.
5. The language is sometimes repetitive and needs editing.