

QIBA CT Small Lung Nodule (SLN) Biomarker Ctte (BC) Call

21 November 2023 at 12 PM CT

Call Summary

In attendance

Kyle J. Myers, PhD (Co-Chair)

James Mulshine, MD (Co-Chair)

Rick Avila, MS

David Gierada, MD

Timothy J. Hall, PhD

Chuck Hatt, PhD

Ella Kazerooni, MD

Mathis Konrad, MSc

Nancy Obuchowski, PhD

Kevin O'Donnell, MASc

J.C. Ramirez-Giraldo, PhD

Anthony Reeves, PhD

David Yankelevitz, MD

Lifeng Yu, PhD

Gudrun Zahlmann, PhD

RSNA

Joe Koudelik

Julie Lisiecki

Moderator: Dr. Mulshine

Discussion Topics:

- Update on [Quantitative Imaging Workshop](#) (QIW XX): Annual Chest CT screening-visualizing the full impact of 20-plus years of smoking – Dr. Mulshine
- Review of updated AAPM: Lung Cancer Screening CT Protocols Version 6, 09 November 2023

Discussion

- More inclusive lung cancer screening eligibility guidelines have been released by the American Cancer Society
- Implementation of new tools into the workflow will be helpful in addressing increased demand for screening
- Tools need to be as fully automated as possible, either in the cloud or on enterprise hospital systems
- Data can be pushed to processing servers for the best workflow optimization
- Next steps will include determining how to get reimbursement and demonstrate ROI for tool developers
- Mr. O'Donnell also mentioned new AI-related technologies that seek to address opportunistic screening

Other topics

- AAPM is not in agreement with the SLN BC Profile recommendations, and has instead taken an “as wide as possible” approach for screening
- Clinicians on the call agreed that screening needs to be optimized toward quantitation
- AAPM focus seems to be more on computation analysis
- Desire is to have all stakeholders working on a collaborative set of guidelines that include quantitation
- It would be helpful to have active and engaged representatives from organizations such as AAPM, ACR, RSNA, etc. working together
- Dr. Kazerooni expressed that ACR focuses on practice, practice guidance documents, practice parameters, technical standards, quality, accreditation, and reimbursement, whereas she sees RSNA's focus on education, research, and the technical exhibition for manufacturers; more engagement with ACR deemed necessary
- Dr. Hall agreed that uniting stakeholders is an important goal to achieve clinical impact
- More research is being done on the evaluation of coronary calcium assessment in the management of lung cancer risk related to the NELSON study
- Another guidance document is being drafted to cover low dose CT lung screening, emphysema, and wall thickness in conjunction with members of the Lung Density BC
- A third guidance document is also being drafted to focus on coronary calcium
- BC members are forming deep learning and AI reconstruction working groups with guidance from software vendors
- BC members want to ensure that their recommendations are considered and used by vendors

Action items (ongoing)

- Drs. Zahlmann and Mulshine to reach out to clinical contacts for lung cancer screening
- Mr. Avila to provide data regarding partial-solid nodules to support Profile updates

Wiki Updates for the Clinically Feasible Stage (formerly Technical Confirmation) (ongoing)

- The “shalls” in the [Profile](#) needed to be translated to the checklist and vice versa for document alignment subject to the judgement of the BC committee
 - Mr. Avila to draft checklists based on prior call discussions to ensure compliance

- Should any area of complexity emerge, topics will be brought back to the Profile chairs and/or the BC
- Track change versions of Profile updating will be shared with the Committee prior to finalizing.

Next call: *Tuesday, December 19, 2023 @ 12 pm CT*

QI Sessions and Activities at RSNA 2023 (McCormick Place, Chicago)

- *Building a Quantitative Imaging Research Study*, Tues., Nov. 28, 2023, from 11 am to 12pm CT. [Room S405. \(T4-RCP19\)](#) – *available via the virtual meeting*
- *2023 QI Symposium: Sponsored by QIBA: Quantitative Imaging in the Era of Artificial Intelligence: Opportunities and Needs*, Wed., Nov. 29, 2023, from 2 to 4 pm CT. [Room E253AB.](#) – *in person only*