

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

18 October 2018 at 1 PM CT

Call Summary

In attendance:

Samuel G. Armato, III, PhD (Co-Chair)

David S. Gierada, MD (Co-Chair)

James L. Mulshine, MD (Co-Chair)

Rick Avila, MS

Artit Jirapatnakul, PhD

Nancy Obuchowski, PhD

Kevin O'Donnell, MASc

Raja Subramaniam, PhD

RSNA:

Julie Lisiecki

Moderator: Dr. Mulshine

Recent News for Lung Screening (Dr. Mulshine)

- Dr. Mulshine mentioned recent press that the NELSON study has received (Dutch-Belgian Randomized Lung Cancer Screening Trial (Dutch acronym: NELSON study))
- It was reported that computed tomography screening for lung cancer reduced deaths by a highly statistically significant 26% at 10 years for men at high risk, and appeared to reduce lung cancer mortality risk even more in women in the population-based, NELSON trial
 - Findings from the NELSON study show that CT screenings are effective and can positively increase survival
 - It was noted that the NELSON study incorporated volumetrics
- A paper on the study will be published
- Dr. Mulshine suggested that the QIBA Small Lung Nodule BC consider drafting 3-4 articles for peer-reviewed journals detailing the group's work to build scientific validity for the pilot study approach

Profile Updates (Mr. Avila)

- Mr. Avila is working to reconcile the Small Lung Nodule Profile updates with QIBA Process Committee expectations to get the Profile ready by the RSNA Annual Meeting
- A checklist is needed for sites participating in the pilot program as well as for potential use in QIBA-related efforts to obtain additional funding for groundwork studies
- Dr. Obuchowski agreed to re-review the Profile for recent study/statistical changes as well as to review collected pilot data with Mr. Avila offline
 - The latest version of the Profile will be distributed to BC members so that feedback can be collected prior to the next call
 - Once reviewed, the latest Profile will be posted on the QIBA Wiki
- Next is preparation to work toward the [Technically Confirmed Stage](#)
 - Three or four neutral sites that have not been involved in Profile development are needed to field test the Profile
 - A deadline of the second week of November was proposed for completion of testing
 - Some suggested contacts were:
 - Dr. Heidi Schmidt, U-Toronto
 - Dr. Eliot Siegel, U-Maryland
 - Mr. Avila and Dr. Mulshine to follow up
 - Presently, 60+ phantoms are distributed worldwide
 - A data-driven resolution is needed for the pilot data; some technical issues are in need of resolution as well

Phantom Update

- Requests from sites working on low-dose protocols have been received to add more mass to the phantom
- Mr. Avila is working on a solution that would not increase the cost of the phantom or shipping costs significantly; this is especially important due to the number of international sites participating in the pilot study

BC Poster for RSNA 2018

- Mr. Avila intends to have a draft SLN poster complete by Sunday, 10/21 for distribution to BC members for review
- A link to the QIBA Conformance Certification Service for small lung nodule assessment will be included
- Dr. Mulshine emphasized that the work of the BC related to lung cancer screening is a public health imperative to improve clinical management, as there is no other system in place to check image quality; this should be emphasized in the poster
- Mr. Avila will aim to have the poster ready in time for the RSNA printing deadline of 10/31

Action items - ongoing

- Mr. O'Donnell to pass along information to the CT section at [MITA](#) (*the Medical Imaging & Technology Alliance*) to share information about the pilot project with potentially interested manufacturing vendors
 - It was suggested that it might be helpful to provide a test dataset in the [QIDW](#) for the Small Lung Nodule Profile
 - Dr. Mulshine to follow up with Dr. Erickson, (Chair of the QIBA QIDW Oversight Committee), and Dr. Frank (former Chair of the Molecular Imaging Section of MITA)
- Dr. Yankelevitz indicated that he would publicize efforts on Mt. Sinai's website
- Algorithm challenges were suggested as another collaborative vehicle for future consideration

QIBA Working Meeting and Meet-the-Experts Sessions at RSNA 2018

- All are encouraged to RSVP for the [QIBA Working Meeting](#) on Wednesday, November 28th
- All are invited to volunteer for [Meet-the-Expert](#) session times

Next call: November 15th at 1 pm CT