QIBA CT Small Lung Nodule (SLN) Biomarker Ctte (BC) Call
14 June 2018 at 2 PM CT

Call Summary

In attendance:

RSNA:
Samuel G. Armato, III, PhD (Co-Chair)  James L. Mulshine, MD (Co-Chair)  Edward Jackson, PhD  Joe Koudelik
David S. Gierada, MD (Co-Chair)  Rick Avila, MS  Artit Jirapatnakul, PhD  Susan Stanfa

Moderator: Dr. Mulshine

QIBA Annual Meeting Update

• Proposed revisions to the SLN Profile were discussed at the breakout group sessions during the May 2018 QIBA Annual Meeting
  o Description of how to calculate the Resolution Aspect Ratio was added
  o Furthest location from iso-center that is measured was changed to 175.0
  o Pitch <= 2.0 requirement was removed, as the six image quality metrics will address any problems introduced by a large pitch
  o Ability to demonstrate conformance using two phantom scans to support scanner modes with small FOV was added
    ▪ in this case, a site would need to provide a second acquisition protocol that would support scanning a large patient, and both protocols would need to demonstrate conformance
  o Slight editorial revisions made to Section 4: Conformance

Software Conformance Updates:

• Data have been compiled
• Measurements to be sent to Dr. Obuchowski for review
• CTLX1 phantoms with embedded synthetic precision engineered ellipsoids were assembled and have undergone some scanning
  • Mr. Avila has the necessary materials to build two more of these phantoms, if necessary
  • Suggestion to allow more bias to be present in measurements to accommodate vendors
  • Datasets would be of great benefit to software vendors and could be a future sustainability opportunity for QIBA
  • More complexity could be added to this phantom (e.g., adding cylinders and arranging them different orientations, etc.)
  • Proposal made to create a second version of phantom
  • The group will discuss next steps relative to evolution of this approach upon completion of round-robin

International Association for the Study of Lung Cancer (IASLC) (Dr. Mulshine)

• An overview was provided on this open source quantitative lung volume experiment project
• This cloud-based tool, comprised of hub-and-spoke architecture, would serve as a database resource for cancer imaging data
  o Runs on Amazon cloud
  o Will improve the lesion size toolkit and lung volume algorithms and be available internationally
  o Conformance process for lung cancer screening to be used
  o Aim to show that quality can be maintained.
Efforts to culminate with live demonstration in Toronto during the September IASLC 19th World Conference on Lung Cancer
Conversations needed between IASLC and RSNA/QIBA to expand efforts and bring QIBA to a larger audience
- Dr. Obuchowski to be consulted

Next Steps
- The latest draft of the CT Lung Nodule Profile to be posted on CT Small Lung Nodule Cmte page of QIBA Wiki at: http://qibawiki.rsna.org/index.php/CT_Small_Lung_Nodule_Biomarker_Ctte
- Checklists can be referenced on the QIBA Wiki at: http://qibawiki.rsna.org/index.php/Profiles
- Suggestion to organize checklist items by actor type
- 1. Feedback will be elicited from only a small group of sites
- 2. Checklist to be refined based upon feedback
- 3. Checklist will be send to a broader group of sites

Next call: TBD - Calls will be scheduled bimonthly in the near future and will eventually be scheduled monthly