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

19 July 2018 at 2 PM CT

Call Summary

In attendance:			**RSNA:**
David S. Gierada, MD (Co-Chair)	Rick Avila, MS	Nancy Obuchowski, PhD	Julie Lisiecki
James L. Mulshine, MD (Co-Chair)	Charles Fenimore, PhD	Eric Perlman, MD	
	Alexander Guimaraes, MD, PhD		

Moderator: Dr. Mulshine

Profile Updates:

- Proposed revisions to the SLN Profile were updated on the QIBA wiki
    - Clarified that measurement out to 175.0 mm is achieved with measurement of reference objects positioned at 0, 100, and 200 mm and interpolated at 160- mm
    - Iso-center distance was changed to 160mm
    - This allows sites to have multiple scanning modes if there is only a small field of view (FOV)
- Wording for verified vendor systems was updated as follows:
    - QIBA Verified Conformant CT Scanners: All FDA approved CT scanners with >= 16 detector rows are eligible for conformance testing and may be used at this time. In the future a verified list of scanners will be provided here.
    - QIBA Verified Conformant Nodule Analysis Software: All FDA approved Nodule Analysis Software are eligible for conformance testing and may be used at this time. In the future a verified list of nodule analysis software will be provided here.

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

- An overview was provided on an open source quantitative lung volume experiment project
- A cloud-based tool, comprised of hub-and- spoke architecture, would serve as a database for cancer imaging data
    - Local data would remain housed locally
    - A copy of the anonymized publicly available data would be available in the cloud image archive
    - This cloud-based environment would provide the analysis and would allow for seamless collaboration amongst institutions internationally, as it would meet data requirements for the European Union (EU)
    - Data in the hub could aid millions of researchers around the world without having to move any data
- A pilot project is being built with open-source software to test this database, using two algorithms for lung volume and for small lung nodule measurements
    - This would include the lesion sizing toolkit and lung volume algorithms
    - Conformance process for lung cancer screening to be used
    - Efforts to culminate with live demonstration in Toronto during the September IASLC 19th World Conference on Lung Cancer
    - Goal is to demonstrate that the process can be completed in a highly secure fashion
    - The Clinical Trials Processor (CTP) will be used to assure removal of PHI
    - Quality control steps will be built into the process
- Conversation needed between IASLC and RSNA/QIBA on ways to expand efforts and bring QIBA to a larger audience
    - Dr. Obuchowski to be consulted
- Dr. Mulshine noted that the IASLC is comprised of approximately 7,000 thoracic professionals and that using the QIBA Profile in this manner is an excellent way to disseminate the Profile globally
    - It is hoped that the image archive can be used for deep learning once this pilot is complete

    - Design would include a flexible environment for housing the data in modular constructs to keep images separate, should this be possible
- Datasets would be of great benefit to software vendors and could be a future revenue opportunity for QIBA

Next Steps

- 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 sent to a broader group of sites

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