QIBA Volumetric CT Group 1C Update
Thursday, January 27, 2011; 3:00 PM CST
Call Summary

In attendance		**RSNA**
Charles Fenimore, PhD, (Chair)	Marios Gavrielides, PhD	Joe Koudelik
Andrew Buckler, MS	Nicholas Petrick, PhD	Julie Lisiecki
Baiyu Chen	Ganesh Saiprasad, PhD	
Kavita Garg, MD	Ying Tang, PhD	

I. Reader Study Update

- Comment discussed that was offered by Dr. Gerhard Kohl (Siemens) regarding the necessity for additional overlap - (in response to the Das article distribution to Vol CT)
    - Dr. Kohl recommends 50% overlap sampling; current 1C protocol call for no overlap (adjacent sampling)
    - Group discussed 3-D reconstruction and that sampling rate
        - ACRIN 6678 protocol utilized overlap of 0% - 20%
        - Current experiment design has contiguous sampling with 0% overlap
        - It was proposed that reconstruction be done without re-scanning the ACR phantom at slice widths of 1 mm and 1.25 interval (= 20% overlap)
        - the 1C group will be polled on the desirability of this design change

- New challenges discussed regarding nodule placement
    - One of the nodules with **-10 HU** density has a void, preventing the attached/non-attached nodules from being identical
    - Changing all nodules to **+100 HU** will solve this problem
    - Adopted the use of the **+100 HU** for the imaging protocol and pose to the group for a final decision.
    - Consider adding a reconstruction step to add overlap; make a request to each site on the acceptability of this added reconstruction; no re-scanning necessary

II. Applying the Das article to powering 1C

- Dr. Fenimore suggested taking the absolute % error numbers from the Das article study and using these numbers to power the reader study.
- However it is powered, absolute % error may range from 5-10%
- Want to focus on inter-scanner variation
- This particular study (Das) included some wider collimation; represents same manufacturers
    - Has a simple structure; no geometric complexity
    - 16 detector row scanners were used

Next steps:

1. Before next call, Dr. Fenimore will contact Dr. Kim within the next few days to get more definitive answers regarding powering the reader study.
2. Dr. Fenimore also plans to contact Dr. Clunie to keep him apprised of the level of work that 1C has in mind regarding the potential number of reads increasing to 60; may need 2 readers.
3. Group to be prepared to discuss how to properly size the reader study.
4. **Note:** all documents are posted to the publicly accessible QIBA wiki at: http://qibawiki.rsna.org
5. The specific 1C page link is: http://qibawiki.rsna.org/index.php?title=VolCT_-_Group_1C

Next call: Thursday, February 3, 2011, 3 pm CST (to focus on the Reader Study)