

QIBA COPD/Asthma Committee Update  
Wednesday, August 4, 2010  
2 PM CDT

Call Summary

In attendance	Jered Sieren
Philip F. Judy, PhD (co-chair)	
David A. Lynch, NB (co-chair)	RSNA
Andrew Buckler, MS	Joe Koudelik
Eric Hoffman, PhD	

**COPD/Asthma Committee Call Schedule**

- Based on the most accommodating schedule, calls have changed from Tuesdays (11 am CDT) to Wednesday (2 pm CDT)

**Body Mass Index (BMI)**

- Rationale behind SPIROMICS' BMI ranges was to lower dose; attempt to match patient dose to size
- Implementations of dose on BMI impractical due to variations among and with vendor systems
- BMI may provide better metric than current measurements, e.g. patient dimensions
- QIBA to proffer a protocol that recommends mAs selection based on BMI
- Constant mAs dose will provide lower dose to large patients, higher dose to small patients; small patients receive high(er) dose to produce similar image quality
- Dose changes needed to keep noise values constant
- Need constant noise level for given Profile accuracy Claim
- QIBA to recommend noise value and how dose is to change based on BMI; algorithm development may assist this process
- Greater dialog needed concerning dose issues; Dr Judy to suggest dose selection based on BMI; experimental groundwork needed to support rational choice of impact on choice
- Data needed include COPDGen modification as a function of mAs
- Jered to follow-up with scanning the COPDGen phantom at Iowa as a function of mAs
- BMI vs. Body Size detail to be forwarded to people on this call by Mr Sieren

**Reconstruction Kernels**

- Sharp(er) recon kernels needed to provide same reference reconstructions across multiple vendors; dose modulation not recommended
- Mr Sieren to circulate SPIROMICS protocol

**UPICT Profile Performance Levels**

- Profile writing assignment established, more formal organization still needed
- UPICT protocol development needed for harmonization of SPIROMICS and QIBA COPD/Asthma Ctte protocols for multiple performance (bulls-eye) levels
- Three performance levels to be pursued
  - Acceptable (4 row) / Target (16 row) / Ideal (64 row detector)
- The protocol remains the heart of the Profile
- Reconstruction needs to be characterized in a qualitative way
- Dr Lynch to organize and develop a "skeleton-framework" protocol
- Profile includes protocol which lists specific performance Claims and actionable specifications vendors are to meet in order to be compliant, requesting quantitative accuracy from their products
- Forward Profile "Claims and Actors" content to Dr Eric Hoffman for reference
- Follow the IHE procedure
  - Profile formalization
  - Public comment period
  - Rigorous way to communicate
  - Establish a process with governance

**Next steps:**

- Mr Sieren to follow-up with scanning the COPDGene phantom at Iowa as a function of mAs and forward BMI vs Body Size detail to people on this call
- Mr Sieren to circulate SPIROMICS protocol
- RSNA staff to forward UPICT template details to all COPD protocol authors and post to wiki for reference
- Dr Lynch to organize and develop a “skeleton-framework” protocol
- Forward Profile “Claims and Actors” content to Dr Eric Hoffman for reference
- Next call scheduled for Aug 18<sup>th</sup> at 2 PM CDT (Drs Levine and Gierada to discuss foam scan data)