

QIBA Multi-disciplinary collaboration for plaque imaging by CT angiography

09 July 2018 at 11 AM CT

Call Summary

On Call		
Andrew J. Buckler, MS (Moderator)	Edward Jackson, PhD	Eric Perlman, MD
Anna Marie Chang, MD	Rudresh Jarecha, MBBS, DNB, DMRE	Luca Saba, MD
James Kevin DeMarco, MD	Laura Jimenez –Juan, MD, PhD	Ehsan Samei, PhD
Damini Dey, PhD	Alan Moody, MBBS, FRCP, FRCR	Uwe Joseph Schoepf, MD, FAHA, FSCBT-MR, FNASCI, FSCCT
Alexander Guimaraes, MD, PhD	Nancy Obuchowski, PhD	Marly van Assen, MSc
Filipe Henriques	Kevin O'Donnell, MASc	Akos Varga-Szemes, MD, PhD
RSNA Staff	Fiona Miller	Julie Lisiecki

Overview:

- Mr. Buckler provided background information about RSNA's *Quantitative Imaging Biomarkers Alliance (QIBA)* and shared a presentation on [Industrializing Biomarkers](#), maintained by Mr. O'Donnell, Co-Chair of the QIBA Process Committee

For a general overview of QIBA, please visit these links:

- QIBA Website: <http://www.rsna.org/QIBA/>
- QIBA Wiki: <http://qibawiki.rsna.org>
- QIBA Concepts: http://qibawiki.rsna.org/index.php/QIBA_Concepts
- QIBA Profiles look for sources of variance, bias, accuracy and precision
- A Profile defines a problem and tells each participating person or device (actor) what it must be capable of doing, and how it must be capable of interacting with the other actors to solve the problem.
- The various actors may interpret the Profile as a set of requirements which outline the process by which claims in the Profile are achieved.
 - These requirements are usually in the form of "shall" statements
 - Examples may include gantry speed, minimum slice requirement for scanners, actions for the technologist, etc.
- To determine what the CTA Profile claims will be, all will need to agree on measurands and clinical utility
- Part of the challenge in setting requirements is not to over-specify, as QIBA wants to encourage innovation and not to overly prescribe instructions so as to constrain certain manufacturers
- Dr. Obuchowski reviewed different types of claims and the [QIBA Profile Claim Selection Flowchart](#)
 - She noted that it is important to be intentional about the way that claims are written, as claims can fall into different categories.
- The Profile will have multiple measurands and, most likely, multiple claims
- The biomarker will be an aggregate of at least four measurands
- Measurands under consideration include:
 - Wall area
 - Wall thickness
 - Tissue calcification
 - Lipid-rich necrotic core
 - Cross-sectional areas are a good validation point but volume measures are indirectly validated also.

Next call: Monday, July 30th at 11 am CT; Calls will be scheduled in a bi-weekly manner in the future