

## Minutes

Joint meeting of  
DICOM WG 01 Cardiac & Vascular and  
DICOM WG-12, Ultrasound

**Date and Time:** Monday 24 February 2020

10:00am – 11:00 am US ET

**Presiding Officers:**

**WG-01 User co-chair: Bruce Bray, University of Utah Health**  
**WG-01 Vendor co-chair: Antje Schroeder, Siemens-Healthineers**  
**WG-12 User co-chair: Bruce Bray, University of Utah Health**  
**WG-12 Vendor co-chair: Sander Dekker, Cablon Medical**

**Voting Members Present**

ACC	Bruce Bray, Chair
Canon Medical Systems USA, Inc.	Kevin O'Donnell
Cablon Medical	Sander Dekker, Chair
DICOM	Carolyn Hull
GE Healthcare	Steven Nichols

**Voting Members Not Present**

Agfa	Paul Seifert
American Society of Nuclear Cardiology (ASNC)	Peter Tilkemeier
Chartwise Medical Systems	Jon Elion
European Society of Cardiology	Nico Bruining
Harvard Medical School	Gary Tearney
Hitachi Healthcare Americas	Ravi Managuli
LightLab Imaging, Inc.	Joel Friedman
Philips	Ruud van Silfhout
PixelMed Publishing	David Clunie
Siemens Healthcare GmbH	Antje Schroeder

**Alternate Voting, Observers, and Others Present**

Northwestern Memorial Hospital	James Thomas
Philips India	Arul Patchi Prasath

## 1. Opening

- 1.1. Open and roll call.
- 1.2. Antitrust and DICOM patent policy review.
- 1.3. Agenda review and approval.
- 1.4. (No minutes from last time due to small turnout)

## 2. Cardiac Strain Structured Reporting status update (Kevin, Bruce)

- Discussion of cross-vendor comparison for Strain to submit as a CP.

<Requested member action>: Dr. Bray encouraged members to review the 4<sup>th</sup> Measures tab in particular

[https://docs.google.com/spreadsheets/d/16Ndb\\_dKIVzYDfEwWHWuAqJr-yvcl2sFYLx65XshJERc/edit?usp=sharing](https://docs.google.com/spreadsheets/d/16Ndb_dKIVzYDfEwWHWuAqJr-yvcl2sFYLx65XshJERc/edit?usp=sharing).

- There was a review and discussion on the past several tcons. The action items from the call on 2019-11-25 are listed below.

### Next steps listed from the last tcon on 2019-11-25

- a) Mock-up for LV and RV and add other key elements
- b) Define P & R waves
- c) Dr. Bray & Kevin to get together in January before next tcon

-Schedule a call with Bruce and Kevin to go over in more detail and Bruce with Jim Thomas to go over clinical priorities. Turn LV into a change proposal-mostly completed. Has to go through WG-6. Initial submission. Try to have one together by end of March for next WG-6 meeting. Kevin already put it through: is CP 1950.

## 3. 2019 ACC/AHA/ASE Key Data Elements for Transthoracic Echo (Antje, Bruce)

- 2019 update for KDE in echo has now been published:
- <https://www.acc.org/latest-in-cardiology/articles/2019/06/24/16/53/key-data-elements-definitions-for-transthoracic-echocardiography-released>

- Dr. Bray reviewed a spreadsheet of updated elements for potential harmonization with SR elements.

#### **Next steps from the tcon on 2019-11-25**

- a) Antje will review.
- b) Step 1: Try to create a workable spreadsheet where they can start doing mapping Key Data elements harmonization with DICOM SR
- c) Step 2: comparison, and gap analysis
- d) Step 3: after spreadsheet and gap analysis and then determine approach.

#### **-Next steps from 2/24/20:**

-Best to go line by line and come up with a map.

-Kevin: Either pre-coordinated or fully post-coordinated. Suggest new codes from ASE.

-Projectathon or have group test.

-Next step: Euro ECO or other meeting would make sense to get tested, out there. Make sure have reviewed 2019 data element paper and new items are represented.

#### **4. AAPM Quality Assurance Elements status update: (Sander, Harry)**

##### **4.1. Pixel Map Analysis, Lead: Dr. Lu and Harry Solomon.**

- a. CP1975\_wg12\_ Active image region overlay\_05 (Harry)

Says still assigned-bring to WG-6. For Pixel Map CP, get update from Harry.

##### **4.2. Status: Gathering end user feedback on Pixel Map**

- *From the minutes of 2019-11-25*
- Sander and others are interested to gather target end-user feedback to convince vendors to put this on their product roadmaps and clinical end-users to request. He asked for guidance for how best to move forward and get sufficient feedback on this new proposed feature.
- A past example was given for Radiation Dose Structured Reporting (RDSR). Started as a CP, MITA got involved as a trade association, they convened vendors and got them to agree to a date for CT scanners to have RDR available. It was noted that it would also be helpful to have guidelines from AAPM to help capture vendor & clinical support.

#### **Next steps from the last tcon but also 2/24/20**

- a) Develop a clear value proposition statement and sample use case(s). For example, it was briefly discussed that having a clearer pixel map will enable easier use of AI processing, for example, because would make it easier to define area of the map under investigation. If this is the primary use case, this would be a good one, but might not be enough of interest for MITA Ultrasound just yet. This is not yet driving clinical practice today.
  - a. 2/24/20-continue with this.
  - b. FYI-FDA is looking at Ultrasound/AI-[see webcast and docket.](#)
- b) MITA: Ultrasound Section endorsed.
- c) AAPM and other: Once the value proposition is developed, propose to AAPM and other relevant organizations. Dr Lu, Dr Bray, others can help with this
- d) It would be helpful to have guideline from AAPM to capture the user side interest.

#### 4.3 Pixel Map Survey update (Harry)

- **Status update:** Avoid collecting and sharing data in such a way that strays close to anti-trust. AAPM Ultrasound Committee is interested in Pixel Map and Transducer.

#### Next steps from the last tcon on 2019-11-25:

- The same task must occur as listed above – develop a clear value statement that would be the basis of a survey to target end users.
- Dr. Lu can help with AAPM, she and Harry can work on drafting the value statement and she has already added this topic to the agenda for the next AAPM Ultrasound Committee meeting.

#### 5. Other Updates

##### CP1951\_wg12\_Transducer serial number

- **Lead:** Kevin O'Donnell
- **Status update:** Kevin is working on this CP. Will require someone to type in the serial number or select from a drop-down. There will be a few implementation issues. On the DICOM side, there are a few different places this could go, he will bring up at the next WG-06 meeting.
- **Update from 2/24/20:** Kevin still working on this. He will be proposing this to go into the voting packet for March 2020 Takamatsu meeting.

## Display LUT Status update

- Status: This is on hold until the survey is complete.

## Other tags on the AAPM proposed attributes list

- **Lead:** Sander Dekker, Dr. Lu and others from AAPM
- Status: On hold until Display LUT, PixelMap and Transducer S/N projects have been completed, however, continued research should continue.
- **Note: The below notes are from the 2019-11-25 update from Dr. Lu. I've left them in this agenda to help the WG remember the key points and action items.**
- The AAPM Ultrasound Committee made a list and presented to DICOM WG12 a year ago. Great progress has been made. She thanked WG12, particularly Harry Solomon for his help on this task.
- AAPM TG-316 is working to determine methodology for the ultrasound presentation consistency that will need: 1) DICOM GSDF compliant scanner monitors; 2) Digital ultrasound images in P-values to be sent to PACS; 3) Built-in test patterns on ultrasound scanners for performance verification and quality control testing.
- IEC TC87 WG9 plans to add an amendment to IEC/TS62736 that describes testing methods for diagnostic ultrasound imaging systems.
- At the Oct 2019 IEC TC87 WG9 meeting, ultrasound vendors pushed back because the current ultrasound scanner displays were not DICOM GSDF compliant. Will impact their production.
- She received feedback at IEC meeting, only 1/5 vendors in agreement with this commitment
- IEC SC62b WG51 is working on a new technical standard on Medical Imaging Display in General (IEC62563-2) that will set the performance criteria. Ultrasound is one of the modalities and should be included in the consideration of that standard.

## Next steps as listed from the last tcon on 2019-11-25:

- a) A good value statement is needed.
- b) A statement that is consumable by end user, the non-technical side of the vendors
- c) Dr Lu will work on value statement and AAPM task group reports and their timeline is to have the reports ready by the end of 2020
- d) Dr. Bray will try to go back and review the presentation

e) Dr. Lu will create a short version to emphasize the value and a cardiac example

## 6. 2019 ACC/AHA/ASE Key Data Elements for Transthoracic Echo (Antje, Bruce)

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## 7. Old or New Business

7. **Next meetings** (Tcons usually 4<sup>th</sup> Monday of each month, joint WG1/WG12, 10-11am US ET)  
June 29

~~Monday, May 25, 11am-12pm OR 9-10am (this is Memorial Day—perhaps move)~~

**Monday, June 29, 10am-11am**

**F2F:** No F2F meetings scheduled at this time.

\*\*email exchange with Bruce and Kevin-to go over -dates.

## 9. Adjourn

Reviewed by counsel: CRS, May 11, 2020.