Supplement 221 Dermoscopy

WG-19 DERMATOLOGY

LETTER BALLOT

JUNE 2020
Scope - Dermoscopy imaging devices

- Smartphone attached
- Camera attached
- Dedicated imaging systems
Acquisition parameters - Imaging techniques

Light: LED + polarized filters to achieve cross-polarization

- Polarized light dermoscopy (PD)
- Non-polarized light dermoscopy (NPD)

Technique

- Non-contact (PNCD)
- Contact (PCD)
- Contact (NPCD)

**Non-contact** does not require direct contact with the skin

**Direct contact** of the glass plate with the skin surface + liquid interface
Acquisition parameters

- Polarization
- Emitter Color Temperature
- Contact Method
- Immersion Media
- Optical Magnification Factor
- Lesion Coverage (full versus partial)
Measurements

Glass plate for contact dermoscopy

Fixed distance device for non-contact dermoscopy
Measurements
Sequential dermoscopy – Lesion Tracking

Tracking ID: Lesion 2
Tracking UID: 1.2.4.5.100086.1.2.1.6

During WG-06 meeting 18th June 2020 changed to Type 1C after discussion. Vendor will need to populate value for handheld dermoscope and user can input value when dermoscope is part of imaging systems.
Skin Cancer Acquisition Context

- Fitzpatrick skin type
- Race (NB 18th June 2020 added Mixed Race so VM can be 1 for this attribute)
- History of malignant melanoma / melanoma in situ / non-melanoma skin cancer
- Family history
- Finding reported by patient (itchy, changed)
- Palpation (firm, raised)
- Observation (bleeding)
- Treatment history (cryotherapy, biopsy, photodynamic)
Use case – Linking dermoscopic and regional image
Use case – Longitudinal lesion tracking workflow

DICOM Structured Reporting Object
Comments received from AGFA

p. 9, line 131, Table A.XX-1 - The section reference for Dermoscopic Image Module (C.8.XX.1) is no present in the updates made to PS3.3, section C.8.XX (it goes from C.XX to C.XX.2).

[Corrected]

p. 11, line 187, Table C.8-x, Immersion Media (gggg,eee4) attribute - The last line of the description should be phrased as: "Required if Contact Method (gggg,eee3) is CONTACT." [Corrected]

p. 12, line 187, Table C.8-x, Tracking ID and Tracking UID attributes - The conditions for the two attributes are circular (i.e., they are each required if the other is present). I suggest using some "real world" condition for one (probably Tracking UID). Possibly something like: "Required if the finding/feature needs to be tracked over time." [Discussed but agreed not changes required]

p. 17, line 271,274, CID XXX6 - In the table, the Code meaning for 263703022 is "Changed" (with 'd') and in the note after the table the code meaning is "Change". These two should be consistent. [corrected]

p. 19, line 337 TID XXXX - The table is missing two columns (between Row Number and VT: 'NL' (nesting level) and 'Rel with Parent' (relationship with parent content). (In this case, all will be empty. [column not required for Acquisition Context]

p. 20, line 337 TID XXXX, row 5 - Seems a bit strange that the Concept Name and the code value of the concept target are the same (1251000119106, SCT, "History of melanoma in situ of skin") is the Concept name, AND it is the ONLY value provided in CID XXX3. Are there other values this Concept name could take on, or is this really a "Yes/ No" question (in which case the BCID should be one of CID 230, CID 231 or maybe CID 240, CID 241) [Discussed but agreed not changes required]

p. 24, line 385 - says "vendor generated unique identifier will be encoded in the (0020,0052) Frame of Reference UID". Since the Frame of Reference module is U (and not conditional or Mandatory conditional) suggest replacing the word "will" with "can" or "may". So the line would read: "vendor generated unique identifier can be encoded in the (0020,0052) Frame of Reference UID" [correct; NB corrected throughout supplement]

p. 25, line 424-425 - The last bullet of the "Considerations" seems more like an "Open Issue". Suggest moving this to Open Issues section. [wording changed]
Changes since Public Comment version

1. Spelling / grammar / formatting errors (shall/will) corrected
2. Removed WG-19 defined attribute Lesion Coverage and replaced with Partial View (0028, 1350) and Partial View Description (0028, 1350)
3. Added VL Image module to Dermoscopic Photography Image IOD to add constraint to bits allocated / bits stored. Hence, could “reuse” anatomical region sequence, image laterality, lossy compression, pixel spacing form this module and remove from for Dermoscopic Image Module Attributes (modified to include Dermoscopic Photography Image IOD where appropriate)
4. Reviewed Type for for Dermoscopic Image Module Attributes (made Tracking ID and Tracking UID Type 1C)
5. Changed attribute description from Polarization to Light Source Polarization
6. Added mixed racial group to CID 6099
7. Review VM for TIDXXX Dermoscopy Skin Cancer Acquisition Context
8. Changed code values to Sup221_0001, Sup221_0002…. In Table D-1