

Supplement 22 | Dermoscopy

**WG-19 DERMATOLOGY**

**LETTER BALLOT**

**JUNE 2020**

## Scope -Dermoscopy imaging devices

- Smartphone attached
- Camera attached
- Dedicated imaging systems



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## Acquisition parameters - Imaging techniques

Light: LED +  
polarized filters  
to achieve **cross-  
polarization**

Polarized light  
dermoscopy  
(PD)

Non-polarized  
light dermoscopy  
(NPD)

Light: LED

**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

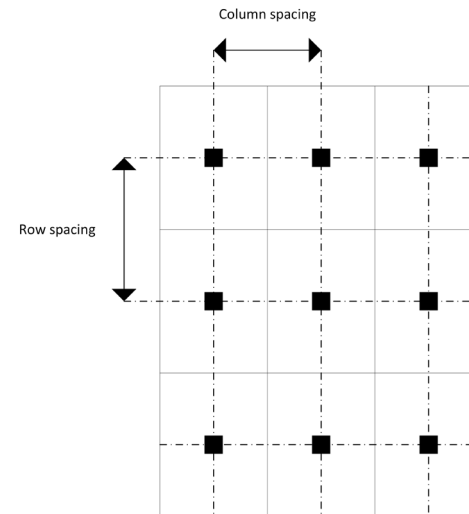
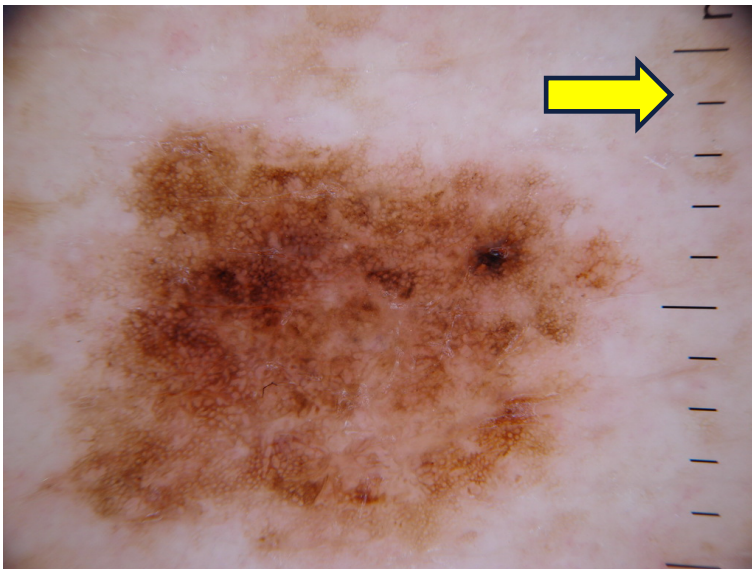
Glass plate for  
contact dermoscopy



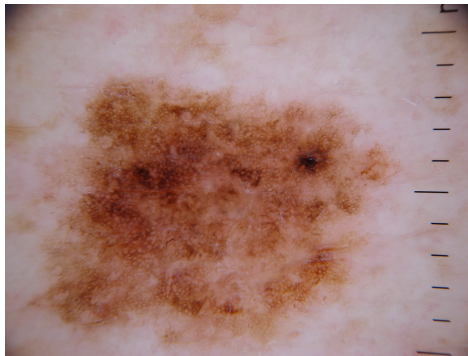
Fixed distance device  
for non-contact  
dermoscopy



# Measurements



## Sequential dermoscopy – Lesion Tracking



Tracking ID: Lesion 2

Tracking UID: 1.2.4.5.100086.1.2.1.6

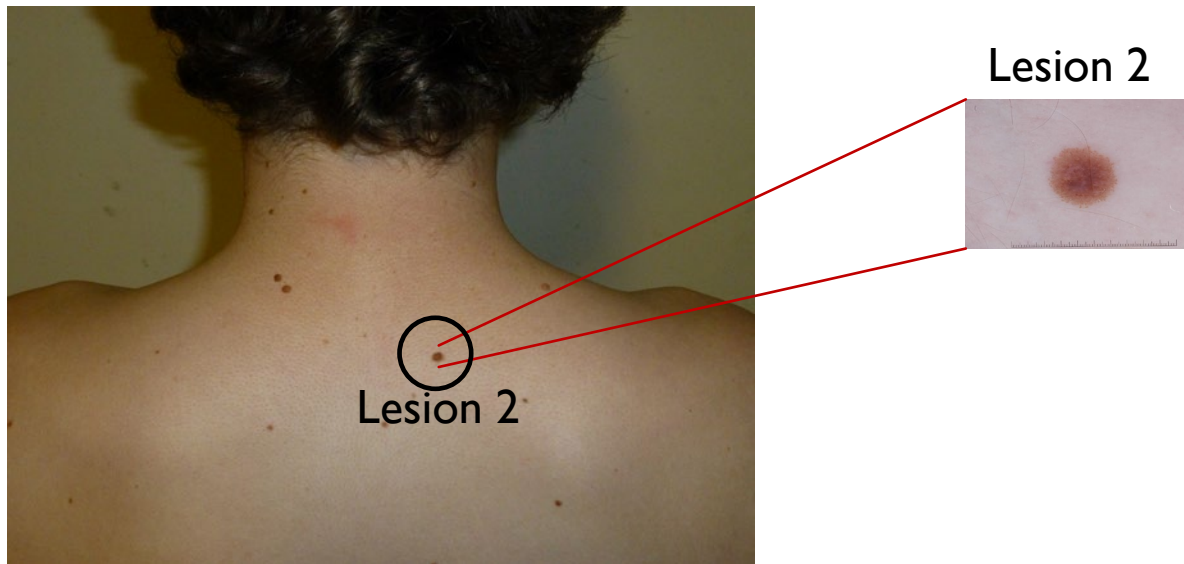
During WG-06 meeting 18<sup>th</sup> June 2020 changed to Type 1C after discussion. Vendor will need to populate value for handheld dermoscope and user can input value when dermoscope is part of imaging systems

## Skin Cancer Acquisition Context

- Fitzpatrick skin type
- Race (NB 18<sup>th</sup> 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



Lesion Tracking - User input

ID	Name	Gender	DOB
12345	CITIZEN, John	M	2000/01/01

SOP instance UID	1.2.3.4.56.334567
Study UID	1.2.3.4.5.6789
Study Date	20190608
Procedure	Dermoscopic Photography

Lesion Tracking ID: L1

Time point: Baseline

Long diameter (mm): 6

Short diameter (mm): 3

Cancel Save

Lesion Tracking - Display

ID	Name	Gender	DOB
12345	CITIZEN, John	M	2000/01/01

Date	Study	Lesions	Time Point	Long Diameter (mm)	Short Diameter (mm)	Sum of Diameters (mm)
20190608	1.2.345.6.7.9000000	L1	Baseline	6	3	9
		L2	Followup	7	5	12
20200203	1.2.345.6.9.122222	L1	Baseline	6	3	9
		L2	Followup	8	7	15
		L3	Baseline	5	5	10

L1 L2 L3

20190608

20200203

Change +0mm [0%] +3mm [0mm] Baseline

