



# Needle-based Confocal Laser Endomicroscopy (nCLE), a technique used in Endoscopic Ultrasound-Guided Fine-Needle Aspiration (EUS-FNA) procedures in Pulmonology

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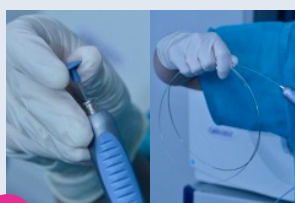
## 1. Technology Review

nCLE allows for real-time in vivo imaging of tissue microstructures during Endoscopic Ultrasound-Guided Fine-Needle Aspiration (EUS-FNA), EndoBronchial UltraSound with real-time guided TransBronchial Needle Aspiration (EBUS-TBNA) and TBNA procedures.

## 2. Using the AQ-Flex™ 19 Confocal Miniprobe during EUS-FNA procedures

The AQ-Flex™ 19 is a Confocal Miniprobe dedicated to nCLE procedures.

The steps below detail the proper use of the probe.



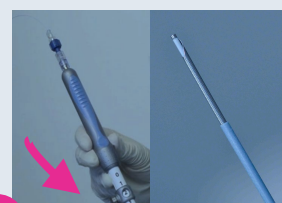
**1** Take a 19G needle and extract the stylet. (AQ-Flex™ 19 is compatible with puncture needles and not with access needles).



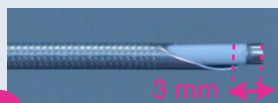
**2** Take a new locking device and twist it onto the proximal hub of the needle.



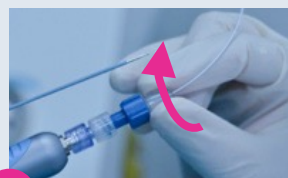
**3** Open the locking device widely and insert the AQ-Flex™ 19 inside the needle through the locking device.



**4** Push the needle out from its sheath so that the miniprobe protrudes from the bevel. Insert the miniprobe.



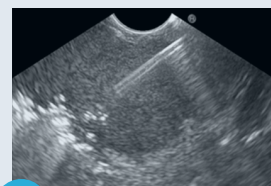
**5** Stop the miniprobe insertion once it reaches the safe position: the probe must protrude from the needle distal bevel tip by **3 mm**.



**6** Twist firmly the locking device onto the miniprobe to secure it in the safe position.



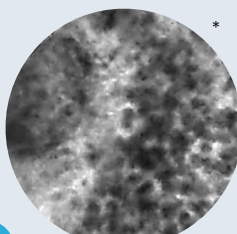
**7** Extract the miniprobe and locking device assembly from the needle by 1cm maximum (without touching the white part of the locking device) and retract the needle inside the sheath.



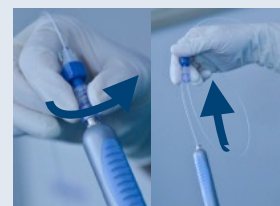
**8** Puncture the identified target nodule/lymph node with the needle (the miniprobe is pre-loaded but retracted) as per standard procedure.



**9** Re-insert the miniprobe and locking device assembly by twisting the locking device back onto the needle.



**10** At this point the miniprobe should be in contact with the lesion, and imaging can begin.\*



**11** After imaging, extract the miniprobe and locking device assembly from the needle.



**12** Remove the locking device from the miniprobe and discard.

**Before the procedure**

**During the procedure**

**After the procedure**

\*Example of pulmonary tumor courtesy of Lizzy Wijmans (MD), Jouke Annema (MD, PhD)

## 3. Conclusion

« The Confocal Miniprobe AQ-Flex™ 19 is easy to operate and nCLE may enable real-time diagnosis and staging of lung cancer during endoscopy » Lizzy Wijmans, MD & Jouke Annema, MD, PhD

U.S. Indications for use: « Once connected to Cellvizio® I.V.E.: The AQ-Flex™ 19 Confocal Miniprobes™, are intended to allow imaging of anatomical tracts, i.e., gastrointestinal and respiratory tracts, accessed by an endoscope, or endoscopic accessories (e.g. aspiration needles used during procedures including EUS-FNA, EBUS-TBNA and TBNA needles) »

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