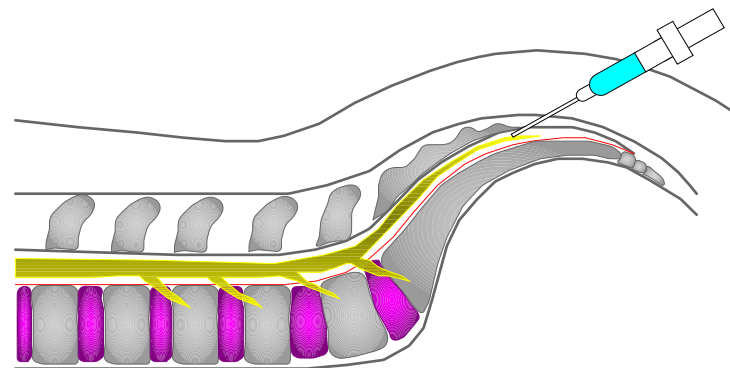
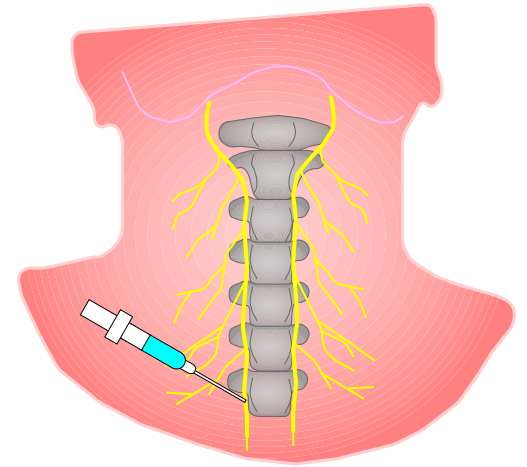


# Needle puncture with HONDA supportive system

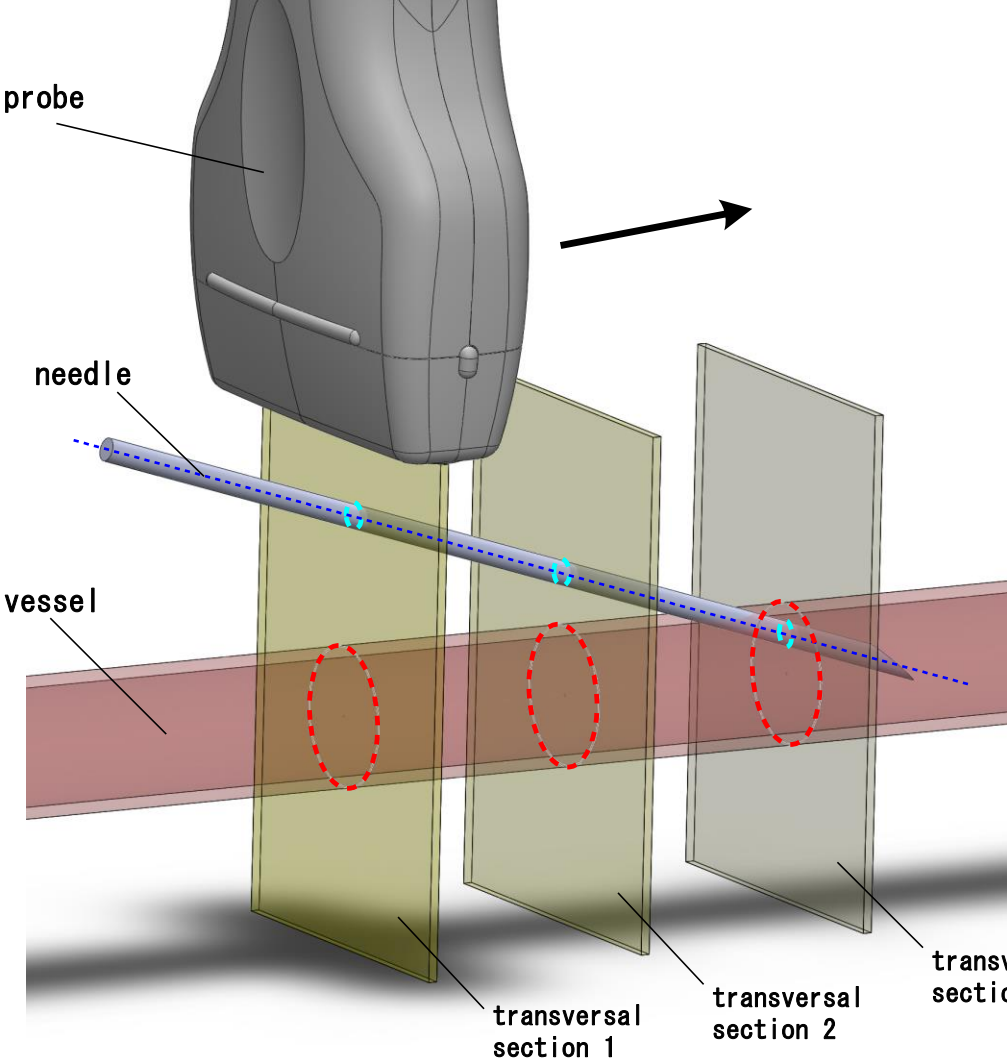
In the application with puncture with a needle for nerve block and insertion of catheter, to obtain safety, ultrasound puncture must be recommended.



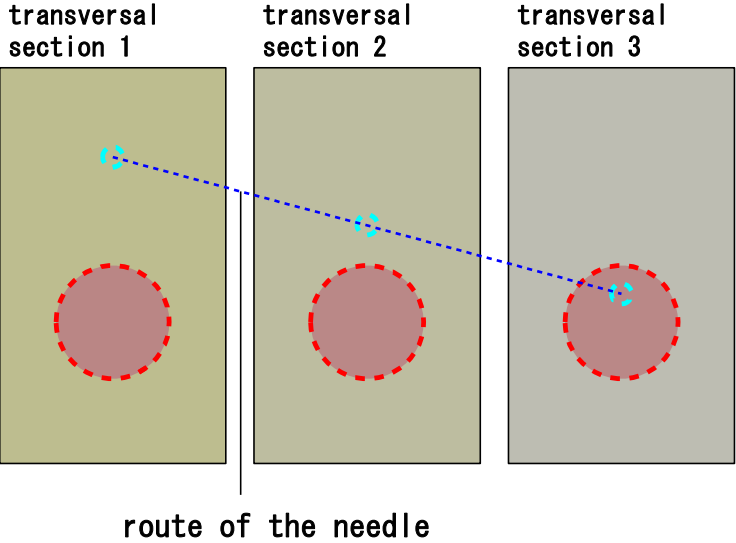
Easy and accurate puncture using ultrasound is getting required.



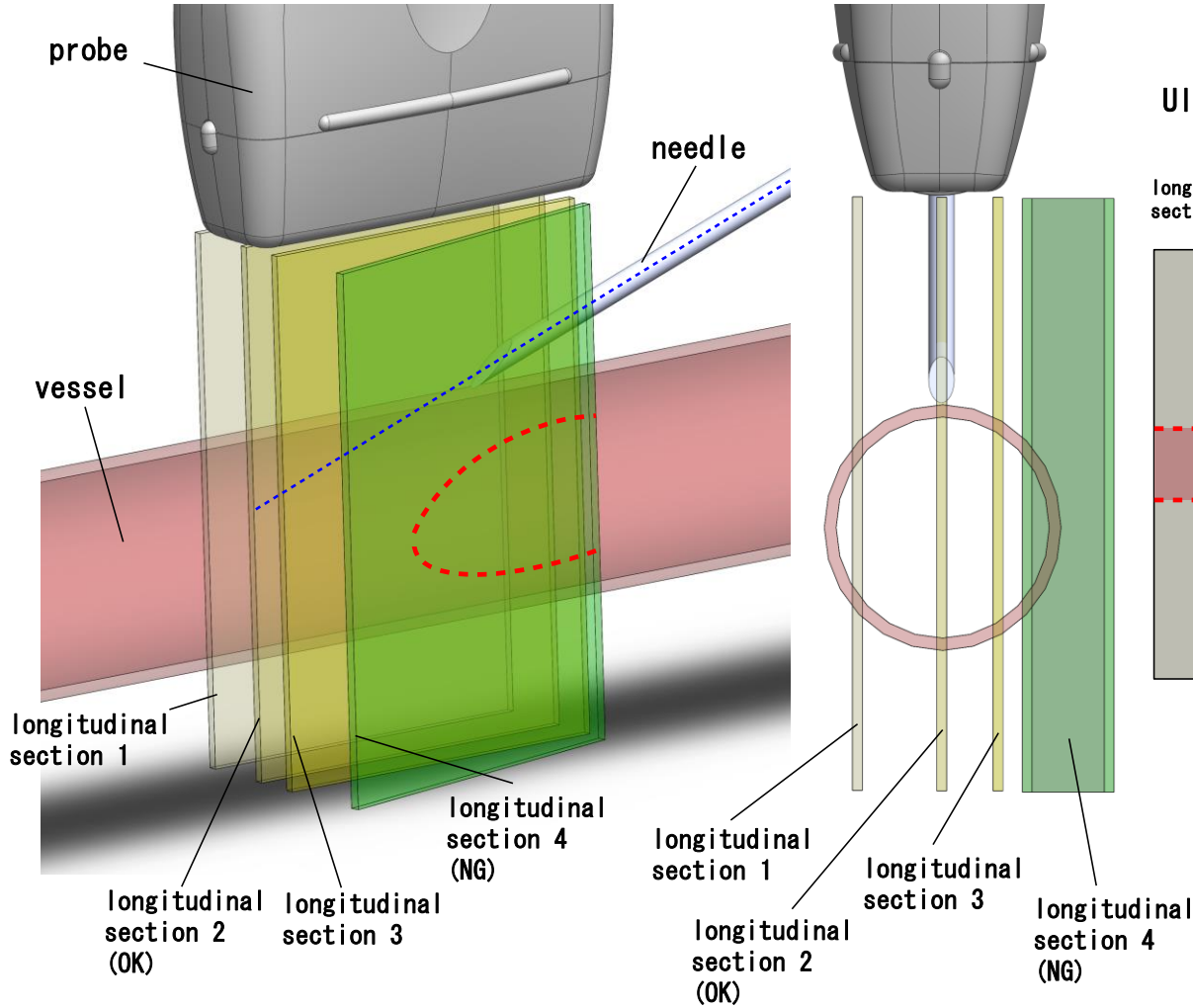
# Out-Plane Method



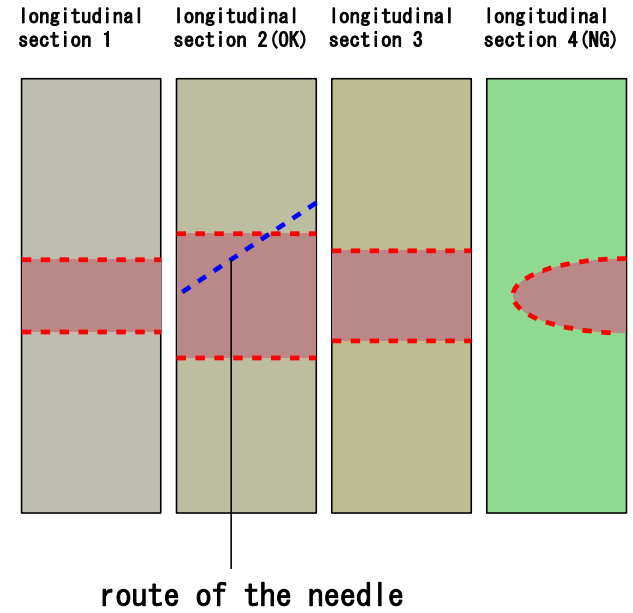
Ultrasound section image



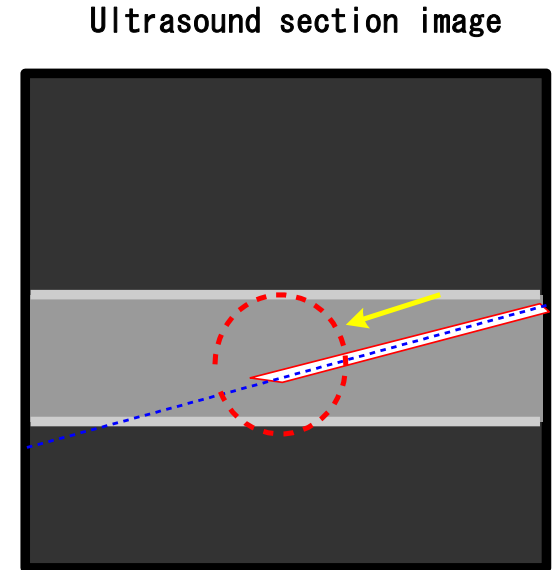
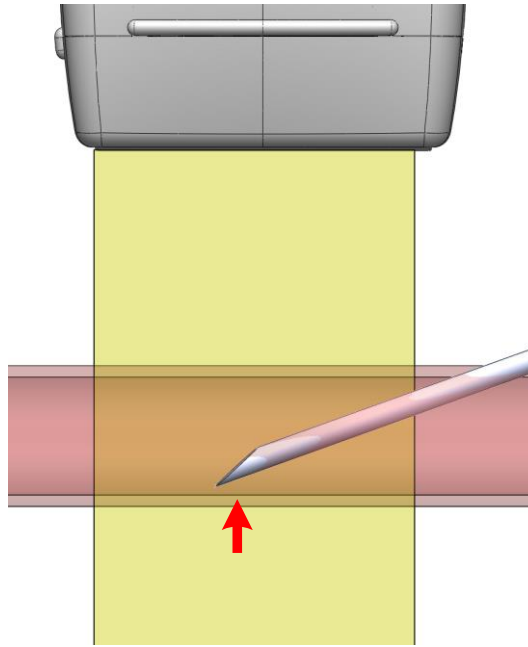
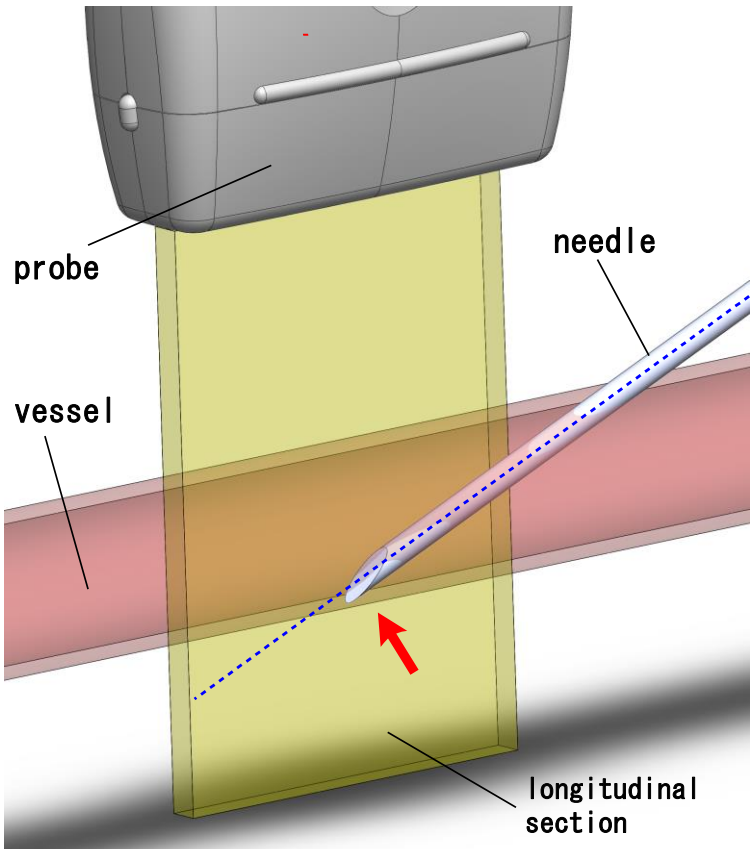
# In-Plane Method



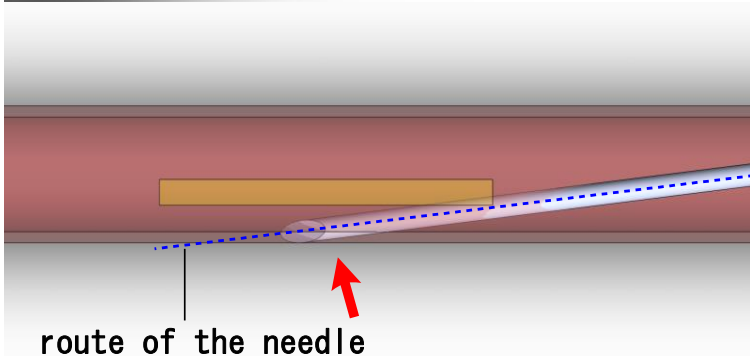
## Ultrasound section image



# In-Plane Method : failure example



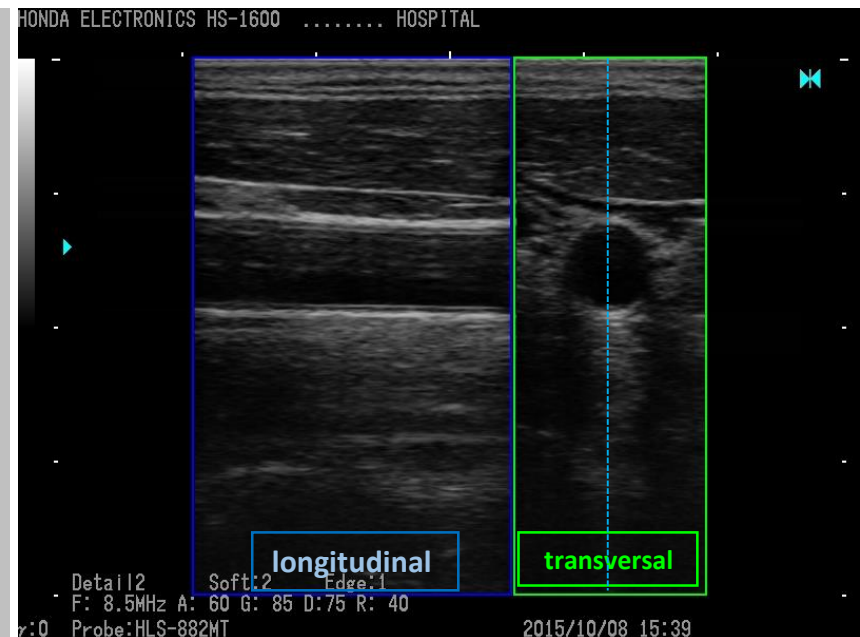
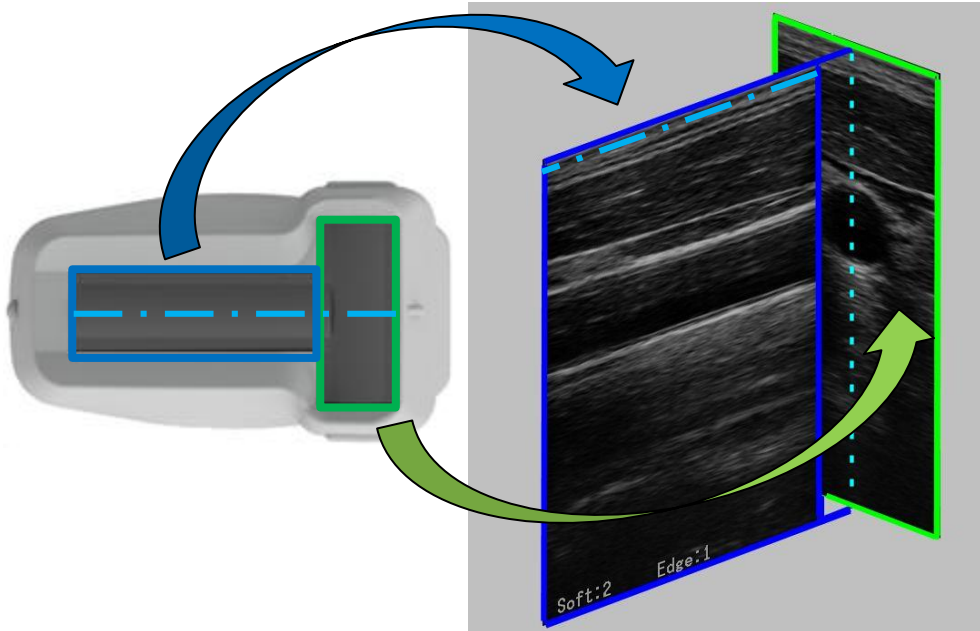
In ultrasound section image, puncture seems to be successful, actually the needle tip went through the vessel between anterior to lateral wall.



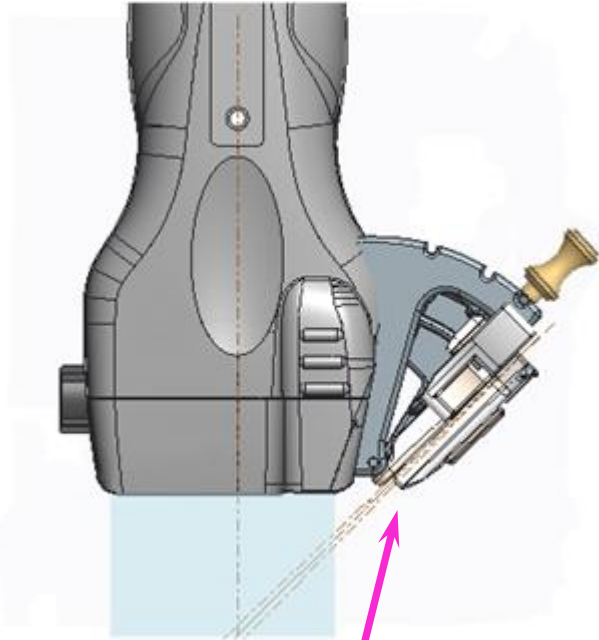
# T-shaped probe(HLS-882MT)



1. The probe placement is possible at the same time being available with two sections for both transversal and longitudinal.

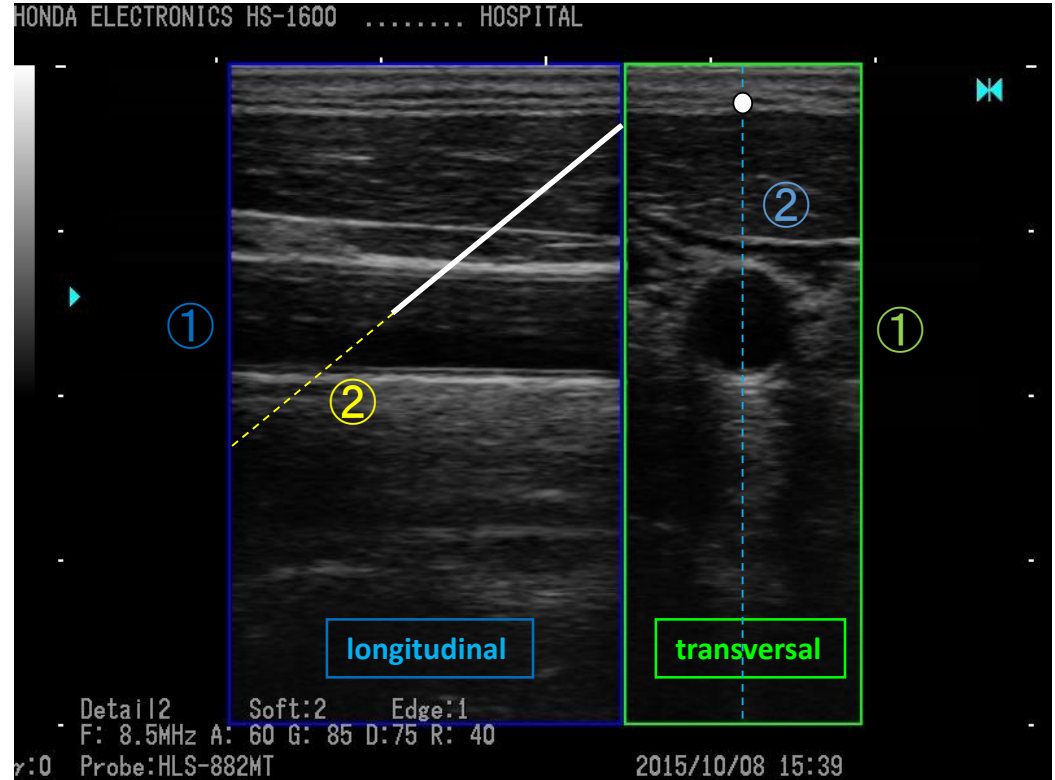


2. Puncture along-with the needle guide



Needle guide

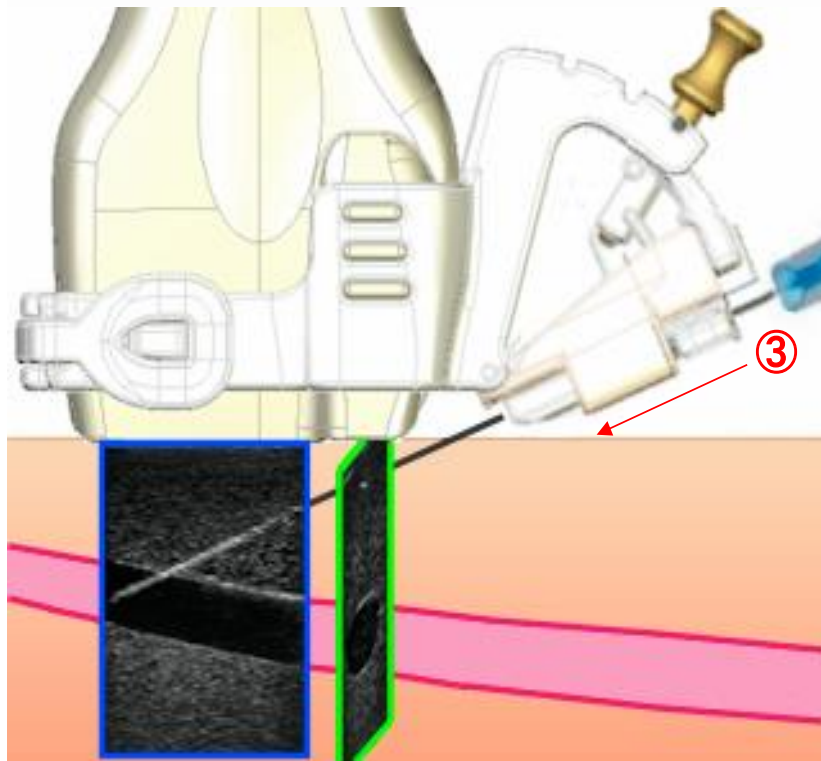
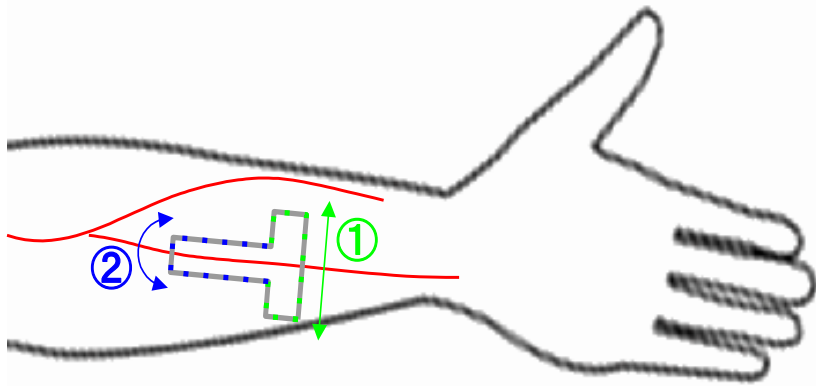
3. Go on the puncture to reach the targeting region while seeing the image on the screen.



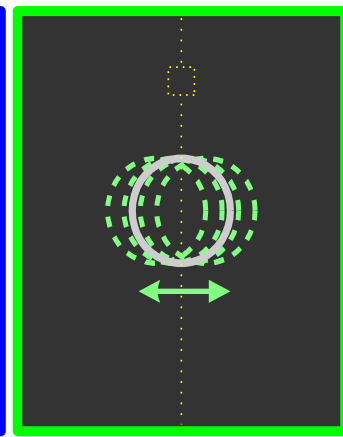
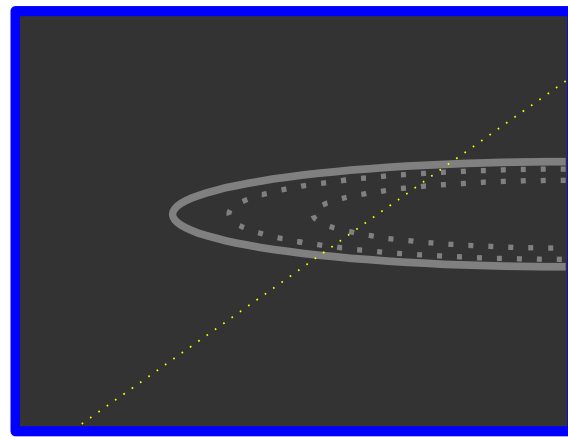
- ① Two viewing sections (long and short axis) at simultaneous
- ② Needle guide lines are available at two sections



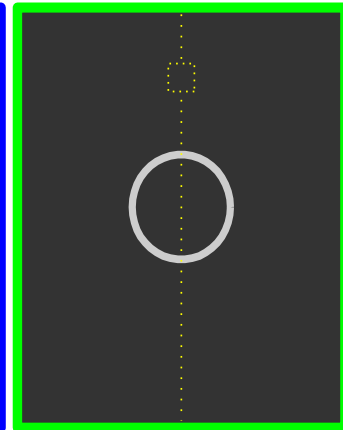
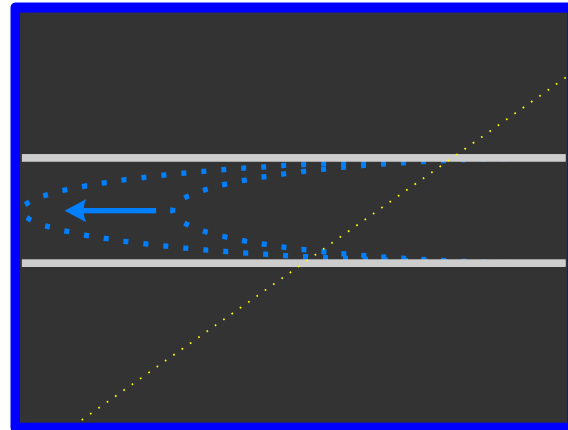
# ~Procedure of puncture~



①



②



③

