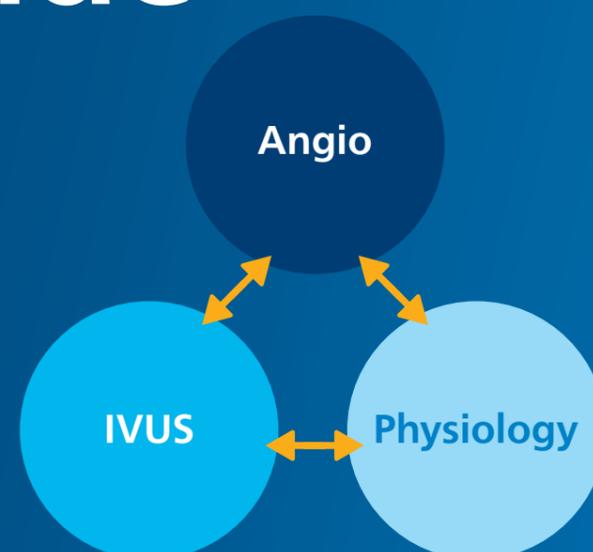


Tri-registration guide

Tri-registration joint display allows easy navigation between three modalities: angiography, IVUS images, physiological values.

For tri-registration the same roadmap for IVUS and physiology co-registrations (and vice versa) must be used. The zoom, table and C-Arm position must remain the same for IVUS and physiology pullbacks.



Workflow

In this example we describe a physiology measurement followed by IVUS. (This can be done in reverse if desired.)

1. Advance the Omniwire to the ostium of the vessel and perform normalization.
2. Once normalized, advance the Omniwire down the vessel (at least 3 vessel diameters distal to lesion).
3. Carry out IFR measurements.
4. FFR may then be performed however it's important to remember that once hyperemia has subsided another iFR spot must be taken before doing an iFR pullback.
5. Disconnect the Omniwire and advance the eagle eye IVUS catheter over the Omniwire.
6. At this point ensure that the x-ray image includes enough of the guide catheter as well as the tip of the Omniwire that's in the distal vessel.
7. X-ray settings should then be set at 7.5 frames per second (if possible 15fps), and the fluoroscopy should be increased. If using a Philips Allura system select 'normal', with an Azurion select 'flavour 3' or select 'co-registration' mode.
8. Poor image quality and the presence of artefacts such as surgical clips or other wires withing the image may cause the co-registration to fail so where possible adjust the view to remove these from the vessel of interest.
9. Once happy with the selected view ensure the table or the xray tube remains in the same position until tri-registration is complete.
10. Begin IVUS pullback at 1mm/sec under constant fluoroscopy.
11. Once the IVUS catheter is back to the ostium, stop the pullback on the Intrasight, stop screening, and take an angiogram.
12. Please note an Ultra Low Contrast technique can be done by taking an angiogram with no contrast as the Omniwire will act as a vessel guide.
13. If Syncvision is set up to 'automatic' the IVUS run should then automatically co-register to the angiogram. If set to 'semi-automatic' then the operator must draw and confirm the selected pathway.
14. Reconnect your Omniwire
15. Ensure the x-ray settings are still the same as in step 7 and proceed to perform your iFR pullback at 1mm/sec under constant fluoroscopy.
16. Once back to the ostium, stop the pullback on the Intrasight, and stop screening.
17. Click on the 'angiogram' button and this will automatically carry out a Tri-registration.
18. If the pathway needs to be edited or a different angiogram needs to be selected press the 'edit pathway' button. This will display the roadmap pathway editor. Using the arrows at the bottom to select the corresponding angiogram.
19. The tri-registration will appear on the IVUS co-registration tab or select 'go to corresponding IVUS co-reg' button shown below.
20. A successful tri-registration will appear as below. Displaying an angiogram with drops in iFR linked to an IVUS pullback.

Workflow summary

