## **GE** Healthcare





# Valve Planning Protocol

Visualization and quantification of cardiac anatomy for effective treatment strategies.

Transcatheter Aortic Valve Replacement/Implantation (TAVR/TAVI) demands meticulous, detailed planning to be successful. Providing you with the necessary information, confirmation of valve stenosis, viable access approach, distances to ostia, elliptical aortic root dimensions, identification of the valve plane and appropriate angle for valve deployment in the cathlab, for example; is vital to your planning. You need a protocol that helps process imaging data into 3D models to help you better understand a particular patient's cardiac anatomy and aid in developing an appropriate therapy path and strategy.

#### **Overview**

The Valve Planning protocol in the Vessel IQ Xpress application lets you visualize cardiac anatomy with the degree of detail required to evaluate the presentation of the aortic valve. Armed with this information, you can develop a preproceduralTAVR/TAVI plan to establish a therapy strategy for the



### What's new

- Lets you segment the aorta from iliacs to aortic root.
- Let's you select the access route.
- Let's you see vessel tortuosity and 3D visualization of calcifications.
- Lets you measure the aortic annulus and define valve plane to help you select the appropriate device to implant.
- Lets you measure the distance between the leaflets and coronary ostia for planning valve deployment
- Automatically gives you the optimized angle for the intervention.

#### Features

- Lets you visualize vessel tortuosity.
- Enables you to determine calcification load to validate left or right vascular pathways.
- Lets you segment the aorta for better visualization, and to ascertain aorta diameter and valve-to-ostia measurement.
- Automatically segments calcifications.
- Lets you visualize both iliac artery diameter and profile.
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- Lets you define the valve plane by contouring the aortic annulus and deposit 3D marks on the 3D volume to locate coronary ostia or other areas of interest..
- Gives you automatic C-Arm angulation perpendicular to the valve plane.



- Lets you export the 3D CT images to the cathlab through Innova HeartVision for real time fluoro overlays.
- With the AW Workstation, access to 3D models based on CT or angiography dataset is available in the cath lab.
- Dedicated cath lab user interface allows tableside control of 3D images.

#### System Requirements

- AW Workstation VolumeShare 5 (voxtool.11.3) or higher
- VessellQ Xpress.

#### Indications for Use

Valve Planning protocol of VessellQ Xpress is intended to provide an optimized non-invasive application to analyze vascular anatomy and pathology and aid in determining treatment paths (TA, TF, TAo, Subclavian) from a set of Computed Tomography (CT) Angiographic images.

Valve Planning protocol of VesselIQ Xpress is a post processing application option for the Advantage Workstation (AW) platform, CT Scanner or PACS stations, which can be used in the analysis of 2D and 3D CT Angiography images/data derived from DICOM 3.0 compliant CT scans for the purpose of TAVR/TAVI planning This software is designed to support the physician in assessment of vessel analysis, pre/post stent planning and directional vessel tortuosity visualization. VessellQ Xpress automatic visualization tools provide the users with the capabilities to facilitate segmentation of bony structures for accurate identification of the vessels. Once vessels are visualized, tools are available for sizing the vessel, the valve annulus, and visualize the calcifications

#### **Regulatory Compliance**

This product complies with the European CE Marking regulation for Medical Devices Directive: Directive 93/42/EEC, dated 14 June 1993.

