Cutting-edge robotic imaging to drive minimally invasive procedures

No matter which patient
• Live 2k imaging that visualizes even the smallest details
• StructureScout optimizes the visibility of devices and contrast media at the right dose
• syngo DynaCT allows fast intraoperative 3D visualization of vessels with reduced usage of contrast medium
• Power-assisted tabletop allows precise patient positioning with virtually zero force even in tilted position up to 280 kg load

No matter which procedure
• 95.5 cm of free space with wide-space C-arm for more comfortable working and steep C-arm angulations
• syngo Aortic Valve Guidance – guided workflow for TAVI helps to potentially double quality in valve positioning* and reduce contrast media usage
• syngo TrueFusion – straight access to fusion of TEE and angio information via the integrated ACUSON SC2000 US system that facilitates complex interventions

Because infection control matters
• Antimicrobial covers and a ceiling-free design contribute to a better infection control in the Hybrid OR
• Pilot Module ensures intuitive tableside control with minimal training effort and can easily be cleaned
• No ceiling mounted components for optimal hygienic environment under the laminar airflow field

Keep pace with rapid change

The cardiac landscape for structural heart disease is changing rapidly. Since the first TAVI new generations of valves evolved and indications for transcatheter therapies adopted. The heart team is facing high-risk patients suffering from frailty, renal insufficiency, respiratory problems and other comorbidities. Proper device selection and optimal implantation are key for superior outcome. Demanding cases, the complexity of devices and therapy options are calling for the integration of different modalities in one hybrid suite. The imaging system needs to be easy to use, allowing full focus on the implantation by guided workflows and an excellent image quality at the lowest reasonable dose.

The statements by Siemens' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.
A guided TAVI workflow for higher procedural confidence and efficiency

In preparation – Short scan times for reduced contrast agent usage

Intra-operative 3D image acquisition is easier than ever before. The 3D Wizard provides protocols tailored to the procedure. A step-by-step guidance leads the user quickly to a perfect 3D image. Patients with impaired kidney function benefit from fast intra-operative 3D imaging and less contrast media usage. syngo DynaCT acquires 3D images in less than five seconds. Compared to previous protocols this saves contrast agent*. Faster syngo DynaCT reduces also motion artefacts in the 3D image.

Deployment of the valve

Fusion imaging provides continuous guidance throughout the deployment phase of the valve without additional contrast media usage*. A pre-operative CT can be fused with only two fluoro shots from different angles. Using fusion with preoperative CT, the overall amount of contrast media during the procedure can be reduced even more. ARTIS pheno provides Live 2k imaging that visualized even the smallest details. StructureScout optimizes the visibility of devices, and contrast media at the right dose independent of procedure or material type. As a final result the valve is clearly visible in the context of the heart.

Automated planning saves time and increases confidence

syngo Aortic Valve Guidance provides 3D image reconstruction and automatic segmentation. The software indicates the most important anatomical landmarks such as the lowest cusp points, the coronary ostiae and the centerline. The three lowest cusp points are defining a circle. By adjusting of the projection plane the circle is transformed into a straight line providing the optimal view. The C-arm travels into this view by a push of a button. The distance of the circle from the annulus can be changed to display the desired implantation height.

Verification through superior image quality in 2D and 3D

The final deployment of the valve can be assessed right away at the table. ARTIS pheno with syngo Aortic Valve Guidance potentially doubles the quality in valve positioning*. This could lead to less paravalvular leaks and less readmissions.

ARTIS pheno provides – As individual as your patients

A hybrid operating room for multi-disciplinary usage

- ARTIS pheno robotic angiography system
- Siemens multi-tilt table with power-assisted table top, Pilot Module and lower-body radiation protection
- Two large displays on each side of the table
- Integrated Sensis hemodynamic recording system

Multidisciplinary use:

- Interventional cardiology
- Structural heart disease
- EP
- Vascular surgery