
2. Hybrid atherectomy refers to the Phoenix family of products. 2.4 mm deflecting catheter is the only device with directional cutting ability.


7. Results are specific to the institution where they were obtained and may not reflect the results achievable at other institutions.
Defining the future of Image Guided Therapy

Innovative solutions across the health continuum

At Philips, we’re here to support you in providing optimal care to your patients. Across the health continuum, we cover the full range of consumer and patient needs, from living healthily, to being diagnosed and treated for an illness, to recovery or chronic care at home. We look across the health continuum because when it comes to health, it’s the only way you can see.

The areas of diagnosis and treatment are the focus of Philips Image Guided Therapy. They account for 70% of all healthcare costs, and this landscape is rapidly evolving. The expansion of interventional procedures and the development of new technologies continue to open up new possibilities and applications. This in turn opens the way for more targeted diagnosis and new, more complex treatment options.

Clinical demands are getting more specific. So are we.

During an interventional procedure you are focused on making the best decisions you can for each patient. Each patient and each disease has very specific challenges, complexities, and needs. As the number of procedures and patients goes up, you can see the need for better forms of image guidance and interventional devices for effective treatment and decision making. At the same time, optimized workflows are key to improving efficiency. That's why we created clinical suites; a flexible portfolio of integrated technologies, devices and services for a broad range of interventional procedures.

Each of our clinical suites offers specific image guided therapy solutions to provide more choice and flexibility for exceptional care. So you can be confident in your performance and in the fact your patients are receiving exceptional care. Together we aim to create the future of image guided therapy.

Clinical demands are getting more specific. So are we.

Clinical suites

- PCI suite: Transforming complex PCI procedures into confident care
- SHD suite: From planning to live guidance for SHD procedures
- Vascular suite: Redefining the outcome for vascular treatment
- Neuro suite: Neuro decisions are based on what you see, so see more
- Onco suite: Critical insights for superior care in Interventional Oncology
- Spine suite: Performing spine surgery with confidence and precision

Healthy living Prevention Diagnosis Treatment Home care
To treat the growing epidemic of peripheral artery diseases, we see a clear need for standardization of endovascular treatment strategies. Real-time guidance is imperative during the procedure in selecting the correct vessel, device and pathway, but also to precisely position devices to improve outcomes and expand adoption of these interventions. For aortic diseases, radiation exposure and contrast medium are a concern for elderly and otherwise frail patients. These procedures are lengthy and often unpredictable. Shorter procedures could reduce contrast medium and radiation exposure.

The Vascular suite has been designed to support diverse peripheral, aortic, visceral, arterial, and venous procedures. From restoring vessel patency and implanting a device to treating an aneurysm or occlusion – Vascular suite enables clinicians to deliver fast, effective, and simplified procedures.

As a physician, you are confronted with an increasingly demanding and diverse landscape – inside or outside your treatment room.

Vascular suite
Redefining the outcome of vascular treatment

Key benefits

- Making therapy simpler, more informative, and less invasive to promote confident decisions
- Supports standardization and consistency of vascular lab workflow to save time, money and reduce variability
- Excellent visibility at ultra low X-ray dose levels for a comprehensive range of clinical procedures with ClarityIQ technology.

Based upon the Azurion platform, Vascular suite supports increased confidence in decision-making and deployment of devices through dedicated interventional tools and a rich portfolio of relevant devices.

The tools provide remarkably detailed insights into anatomy, pathology, and perfusion during each phase of procedures as you decide, guide, treat, and confirm. Workflow innovations can support interventional teams in dramatically reducing overall procedure time and our technology enhances staff and patient safety by managing radiation and contrast dose efficiently.

With the Vascular suite, you have the innovations at hand that empower you to redefine outcomes for your vascular patients.

As a physician, you are confronted with an increasingly demanding and diverse landscape – inside or outside your treatment room.
Peripheral artery disease
Focusing on standardization to redefine PAD outcomes

The number of people living with diabetes continues to climb, bringing peripheral artery disease (PAD) and critical limb ischemia (CLI) to epidemic levels. Today patients with PAD and CLI have more options, including endovascular interventions and below the knee procedures. This is in part due to new devices that are designed to make treatment more durable and facilitate retreatment – aspiring to leave nothing behind. To standardize this fast evolving landscape, the medical community and manufacturers are working towards the creation of evidence to answer clinical dilemma’s and define novel guidelines. Philips participates actively to further standardization of CLI procedures from both the imaging and device perspectives.

Our Vascular suite provides workflow options, dedicated interventional tools, and relevant vascular devices to support high levels of standardization and redefine outcomes for your PAD patients. They support each step of your procedure – as you decide, guide, treat, and confirm.

With the ever growing number of PAD patients, Azurion offers a number of workflow innovations designed to help vascular teams work efficiently and consistently, while maintaining a single-minded focus on the patient and keeping radiation dose low during peripheral vascular interventions.
Peripheral artery disease

Effective guidance in treatment and decision making

Decide

Intravascular ultrasound

Locating the correct vessel to treat is the goal during treatment planning. Intravascular ultrasound enables you to identify the presence and extent of disease, plaque geometry, and morphology.

Guide

CAGI-dose spared system

Permits image quality ultrasound of the foot while the patient is still on the table, to assess treatment effect. This image analysis tool provides functional information about tissue perfusion based on a digital subtraction angiography (DSA). You can compare perfusion characteristics in micro- and macro-circulation, pre- and post-intervention to better quantitate the effects of revascularization procedures immediately after the procedure.

Treat

3D image guidance

3D image guidance provides a navigable and continuous 3D roadmap based on existing CTA and/or intervention or pre-intervention volume acquired in the angiography. The 3D roadmap is used as a guidance during the intervention. It offers a high level of precision for navigation and follow-up.

Confirm

Philips IGT Devices

During treatment, you have to decide if it is safe to treat the lesion, and size and type of device should be used, and where to place the stent for best long-term patency. Philips IGT Devices provides a portfolio of peripheral device solutions that allow you to personalize treatment decisions for each patient.

New X-ray guidance

CX50 ultrasound system

Premium image quality ultrasound at table side to support determination of device location in relation to vessel structure.
A burning clinical need
When it comes to performing CLI procedures, there is a lack of guidelines for the optimal treatment approach. Restoring vessel patency has not been shown a reliable predictor for clinical outcome — e.g., wound healing or improved symptoms. Conversely, wound healing is known to also occur in patients that were not treated endovascularly.

2D Perfusion imaging technology provides interventionalists with an objective understanding of the impact of their treatment to help determine the outcome of perfusion procedures.

Key benefits
- Compare perfusion characteristics in micro- and macro-circulation, pre- and post-intervention
- Obtain stable, reliable, and instant information of the foot perfusion
- Instantly visualize and measure to assess treatment effects at a glance
- Supports determination of treatment endpoint

Case: Balloon Angioplasty of the distal Posterior Tibial Artery.

Patient:
- 55 year old male
- Diabetic
- Critical Limb Ischemia
- Recent amputation of the 3rd toe, bad healing of the wound.
- Posterior tibial artery occluded and fibular (peroneal) artery is fragile but without significant stenoses.

Treatment:
- Balloon Angioplasty of the distal part of the Posterior Tibial Artery
- Peroneal Artery is too fragile to treat

“2D Perfusion angiography is a huge help in deciding when to end endovascular treatments”
Prof. Jae Kyu Kim, MD & Nam Yeol Yim, MD - Chonnam National University Hospital, South Korea
Aortic disease
Targeting efficiency to redefine aortic outcomes

Endovascular treatments of aortic diseases are becoming longer and addressing more complex anatomy. Radiation and contrast medium usage are a concern, specifically for elderly and health-impaired patients. Contrast-induced nephropathy (CIN), in particular, has been associated with an increase in complications and prolonged hospital stay. At the same time, modular stents are replacing expensive tailored stents to increase availability and cost-effectiveness of suitable grafts. Integrated imaging modalities are driving higher precision in treatment planning, guidance, and follow-up in this dynamic area, there is a clear need for imaging technologies which improve accuracy, efficiency, and patient safety. Our Vascular suite offers premium workflow improvements and dedicated interventional tools to improve procedural efficiency and redefine outcomes for your patients with aortic disease.

Workflow options that optimize lab performance and dose management

With Azurion a breakthrough in workflow improvement has been realized, resulting in proven efficiency.

- **ClarityIQ technology**: Excellent visibility at ultra-low X-ray dose levels for a comprehensive range of clinical procedures with ClarityIQ technology.
- **Zero Dose Positioning**: Helps you manage dose by positioning the system or table on Last Image Hold so you can prepare your next run without using fluoroscopy.
- **Flexible workspots**: Allow team members to access all information from any workspot to save time, improve consistency, and decrease delays.
- **FlexVision Pro**: Gives you full control of all system inputs including intravascular ultrasound (IVUS) and CDR\(\times\) vascular ultrasound at tableside to save time and unnecessary walking in and out of the sterile area.
- **ProcedureCards**: Select the EVAR ProcedureCard and the system is set-up the way you want. Hospital specific protocols and/or checklists can be added to ProcedureCards and displayed on monitors.
- **Hybrid OR solution featuring FlexMove**: This innovative surgical environment offers unmatched procedural flexibility and ease of use while meeting the highest standards for surgical infection control and hygiene.

**Decide** **Guide** **Treat** **Confirm**
Aortic disease
Superior care in Aortic procedures

**VesselNavigator**

**Decide**

- VesselNavigator

**Guide**

- Live X-ray guidance with ClarityIQ technology
- CAS II: ultrasound system

**Treat**

- Intravascular ultrasound (IVUS)
- VesselNavigator

**Confirm**

- XperCT Dual

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**VesselNavigator**

The goal during aortic procedures is to place endovascular stentgrafts quickly and precisely while using minimal radiation and contrast. VesselNavigator provides an intuitive and continuous 3D roadmap to guide you through the vasculature during the entire procedure. This reduces the need for contrast enhanced runs to create a conventional roadmap. One study showed an average of 170 ml contrast reduction during endovascular repair of complex aortic aneurysms with the use of VesselNavigator CTA image fusion guidance. A reduction in average procedure time from 6.3 to 5.2 (1.1) hours during FeVAR/beVAR with VesselNavigator CTA image fusion guidance has been shown in a recent study.

**Intravascular ultrasound (IVUS)**

IVUS cross-sectional images complement angiography and help clinicians assess the presence and extent of disease, plaque geometry, and morphology.

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IVUS cross-sectional images complement angiography and help clinicians assess the presence and extent of disease, plaque geometry, and morphology.

**XperCT Dual**

With aortic repair, the detection and management of endoleaks is important while the patient is still on the table. XperCT Dual can visualize endoleak morphology. XperGuide enables percutaneous access for treatment with needle path planning and live fluoroscopic overlay.
Key benefits

- Supports navigation through complex vessel structures, enhancing clinical outcomes
- A pre-acquired CTA or MRA reduces the need for contrast enhanced runs
- CTA Image Fusion Guidance may lead to shorter procedure times
- Intuitive and easy to use with step-by-step workflow guidance

"After one month of usage, we have passed the point where the clinical value of VesselNavigator outweighs the investment we made."

Prof. Dr. F. Vermassen, University Hospital Ghent.

VesselNavigator provides three-dimensional views of vasculature that allow you to easily define the right projection angles for optimal navigation and stent placement. With the use of ring markers you can easily indicate the vessel branching zones.
Vascular suite solutions

We offer a comprehensive range of options and support to help you realize a suite that fits your clinical and budgetary requirements. Our offerings also include advanced education, efficiency programs, and RightFit service agreements.

Our image-guided therapy vascular suite is a combination of the Azurion platform, interventional solutions, devices, workflow options, accessories, education, and services.

Over the past decade, we built extensive experience in integrating advanced x-ray imaging in a surgical environment. Azurion is a breakthrough platform that offers an unparalleled workflow experience. Combined with our integration partners, advanced imaging, devices portfolio, training and services, we offer a premium Hybrid/OR set-up that allows you to optimize performance and deliver superior care to your patients.

17% reduction in procedure time
This is just one of the many improvements in lab performance achieved by the Interventional Vascular Department at St. Antonius Hospital after installing the Azurion system. The impressive results achieved in this first Azurion lab performance study have been verified by an independent third party.

17% reduction in procedure time
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System platform
Azurion 315S, 7C20, 7C20 FlexMove
ClarityIQ technology
Vascular products
2D Perfusion
VesselNavigator
XperCT Dual
Open Trajectory
XperGuide
3DRA
3D Roadmap
Vascular devices
Pioneer Plus
Visions PX
Phoenix Atherectomy
Turbo-Power laser
Turbo-Elite laser
Turbo-Tandem catheter
Stellarex DCB
AngioSculpt
Integrated tools
CX50x Matrix ultrasound
Xper IM
IntelliSpace
CardiWise
DoseWise Portal
DoseAware
Integrated tables