Discovery IGS 7 OR with Maquet Magnus OR table system

gehealthcare.com

Rediscover space and movement

GE Healthcare and Getinge have jointly developed a highly flexible hybrid OR solution that combines GE's powerful Discovery IGS angiography system with Getinge's versatile Maquet Magnus OR table system. By merging the capabilities of two major flexible platforms, you can expand your clinical opportunities. The combined solution expands the clinical breadth of the hybrid OR to fit the needs of virtually any surgery and interventional specialty.

The Discovery IGS 7† with Maquet Magnus OR table system[1] brings both extremely high-quality imaging and complete workspace freedom to the hybrid OR.

- Rethink your possibilities with predictable motion and patient access
- Reinvent the way you work with high-precision imaging
- Re-evaluate your options to expand your procedure mix while securing your OR utilization

Rethink your possibilities

With the Discovery IGS gantry, nothing on the floor or ceiling obstructs your work or limits your mobility – your freedom is nearly absolute. An untethered, laser-guided gantry carries the imaging C-arm. You can move it to the table to image any part of the anatomy[2], then power it back, out of the way, to precise pre-chosen positions.

Movable gantry puts clinicians in control

The Discovery IGS system provides full flexibility in your clinical space. The integrated user interface let you maneuver both the table and system easily and conveniently[2].
When in position for imaging, the gantry swivels around the table on a defined path, with precise laser guidance. Combined gantry and table movement enables wide anatomical coverage[2] and advanced imaging. The absence of obstructions on the floor and ceiling enables versatile motion.

Teams work better with nothing in their way

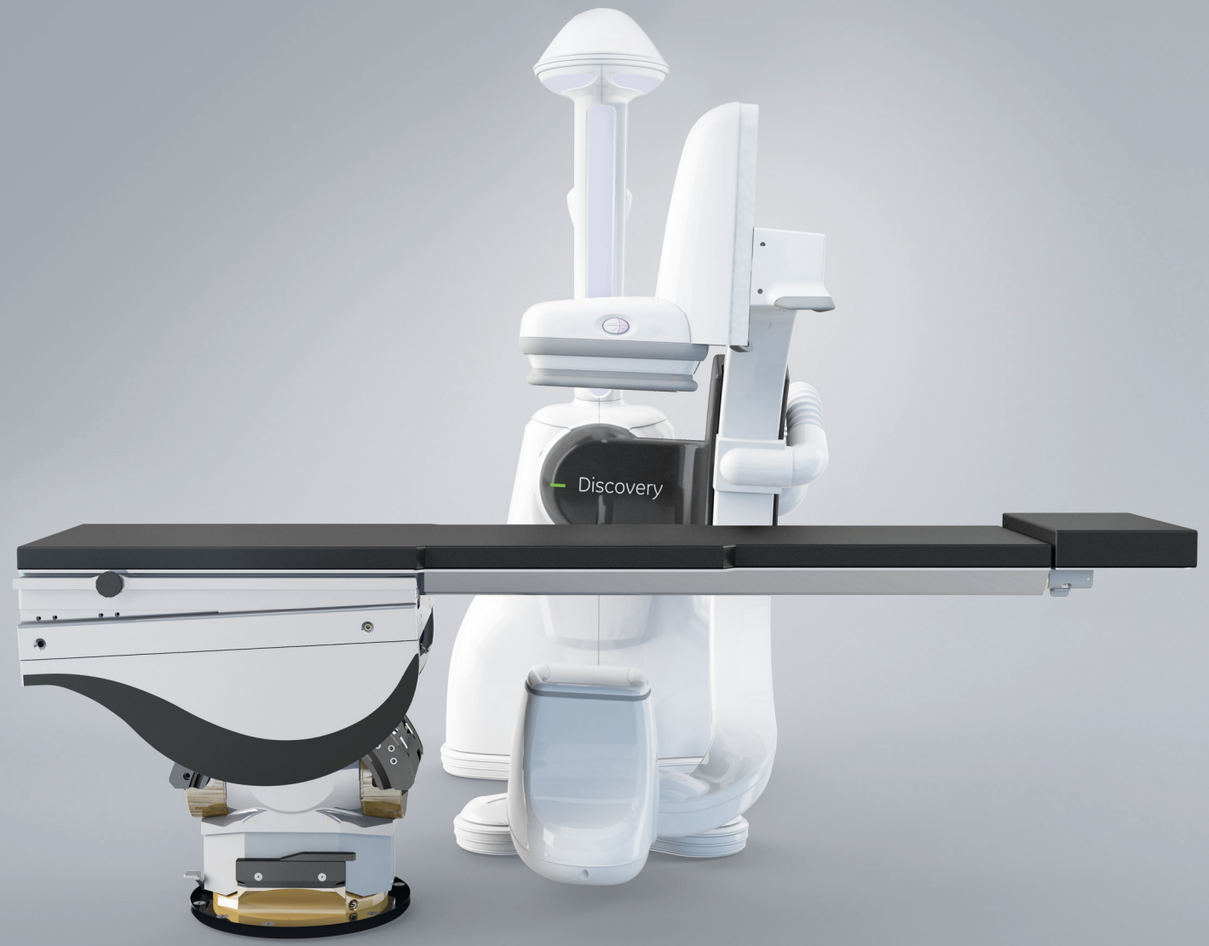
The Discovery IGS gives physicians, nurses, anesthesiologists and technologists ample space to work together effectively. Clinicians can position on either side of the patient according to preference. With the offset C-arm, the anesthesiologist can work comfortably at the patient's head.

Excellent patient access supports all procedures

In position for imaging, the Discovery IGS can be positioned anywhere around the table for femoral, left side and head access. Up to 13 back-out trajectories and two customizable parking spaces enable you to move the gantry aside completely, providing full patient access for surgery.

One-touch back-in and back-out means fully flexible procedures

With the Discovery IGS, you can truly have it both ways. Move the gantry to the table for imaging, move it aside when not needed - all at the touch of a button.
From eleven positions at the table, you can back the gantry out to predefined locations. Back-out distances are customizable to suit different room sizes.



Reinvent the way you work

The Discovery IGS brings outstanding imaging technology, with the added flexibility of a mobile C-arm. You can enjoy the power of fluoroscopy for precise, real-time image guidance[1], 3D rotational angiography with CT-like imaging and fusion of prior 3D images from multiple modalities. Expand your clinical versatility and successfully plan, guide and assess increasingly sophisticated procedures with greater precision and dose efficiency with the latest generation of GE's advanced interventional imaging software solutions, ASSIST.

Great imaging starts with a great imaging chain

We designed the image chain to be dose-efficient while providing images rich with details. The detector is the heart of a proven image chain entirely engineered and built by GE and providing Detective Quantum Efficiency (DQE) that ranks among the highest available.

Optimal detector size adds clinical versatility

With the 31 x 31 cm (12.2 in) and 41 x 41cm (16,1 in) detectors, the Discovery IGS is designed to provide optimal coverage for a wide range of interventional and surgical procedures. With its broad 41 x 41 cm (16.1 in) digital detector, the Discovery IGS 7 system boasts one of the largest fields of view for image guided surgery.

Power up your clinical decision making

The new generation of GE's advanced interventional imaging software, ASSIST, lets you create more clinical information so you can precisely plan, guide and assess endovascular and minimally invasive surgical procedures. Tailored to your clinical specialty, ASSIST offers a range of capabilities, including easy anatomy segmentation and augmented reality with minimal dose exposure. Ultimately, the ASSIST modules help make your procedures easier and more efficient for your patients.

Easily accommodate large patients and facilitate imaging

With a full 129 cm (50 in) of space between the tube and the detector, the Discovery IGS features the wide-bore offset C-arm.
It provides collision-free 3D imaging to let you image large patients easily and perform cone-beam CT acquisition even for patients with arms down and intubated.

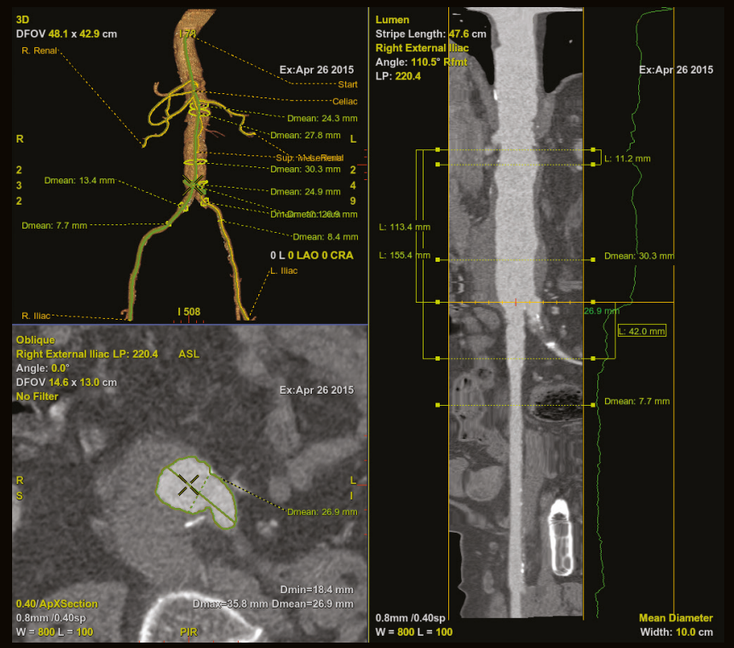
Achieve lower dose by design

The Discovery IGS lets you choose the image quality you want while you strive for the lowest achievable dose. Multiple strategies of dose saving on the Discovery IGS 730 and with fusion imaging in Lille helped the team to achieve median Dose Area Product (DAP) of only 12.2 Gy.cm² for standard bifurcated EVAR and 43.7 Gy.cm² for complex fenestrated EVAR procedures[3,4].
Additionally, when fusing a pre-operative 3D model over fluoroscopy, 2D-3D image fusion with BiView registration helps achieve up to 99% radiation dose savings[5].

2-34x
Lower Median DAP in Lille compared to published literature[4]

EVAR ASSIST 2**

Endovascular aneurysm repairs can be delicate when dealing with complex anatomies. With EVAR ASSIST 2, 3D fusion imaging is very accessible.



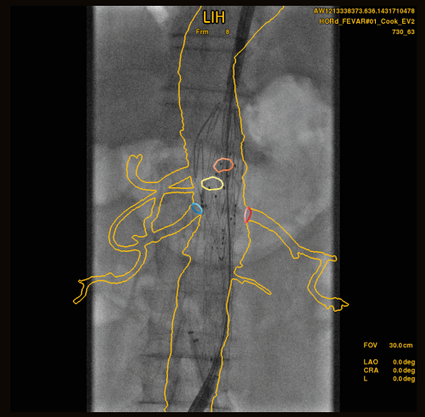
Plan

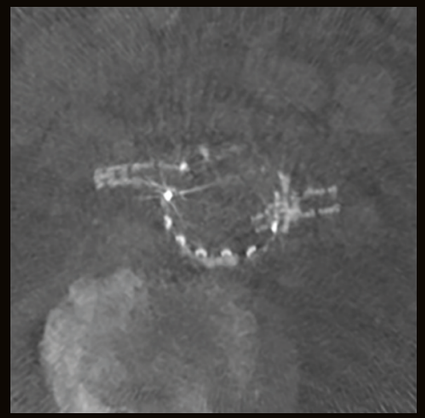
Plan your EVAR procedure with a dedicated set of tools to perform key anatomical measurements, size the endograft and save key information for fusion imaging during intervention.

EVAR ASSIST 2 includes FlightPlan for EVAR CT, EVAR Vision and requires AW workstation with Volume Viewer, Volume Viewer Innova, VesselIQ Xpress, Autobone Xpress. These applications are sold separately.

Guide

EVARVision provides 3D fusion guidance for EVAR, including the vessel outline, ostia contours and stored optimal angulations to guide during procedure for precise device placement.



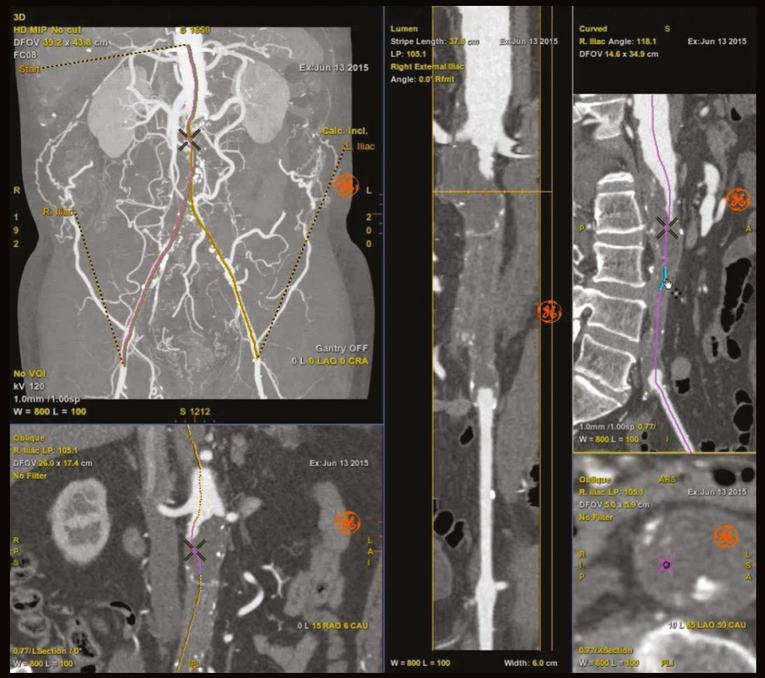


Assess

Acquire a high definition cone-beam CT to display the information in oblique views to assess device deployment and the presence of potential endoleaks.

Vessel ASSIST**

Peripheral recanalization can be delicate especially for long occlusions.
With Vessel ASSIST, the 3D and centerline overlay helps to cross occlusions, position and deploy devices.



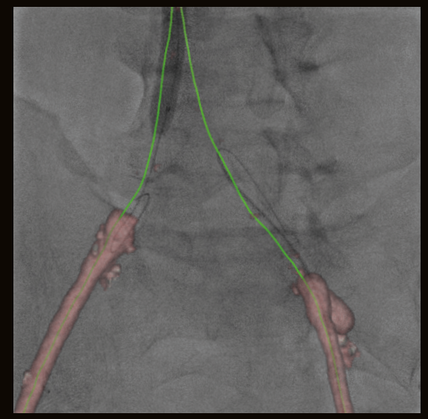
Plan

With Vessel ASSIST automatically extract the bone and vessel anatomies. Edit vessel centerlines and bridge them through occlusions.

Vessel ASSIST solution includes Vision 2, VesselIQ Xpress and Autobone Xpress and requires AW workstation with Volume Viewer and Volume Viewer Innova. These applications are sold separately.

Guide

With Vessel ASSIST, import segmented anatomy, centerline and landmarks. Overlay them on live fluoroscopy whatever the angulation.

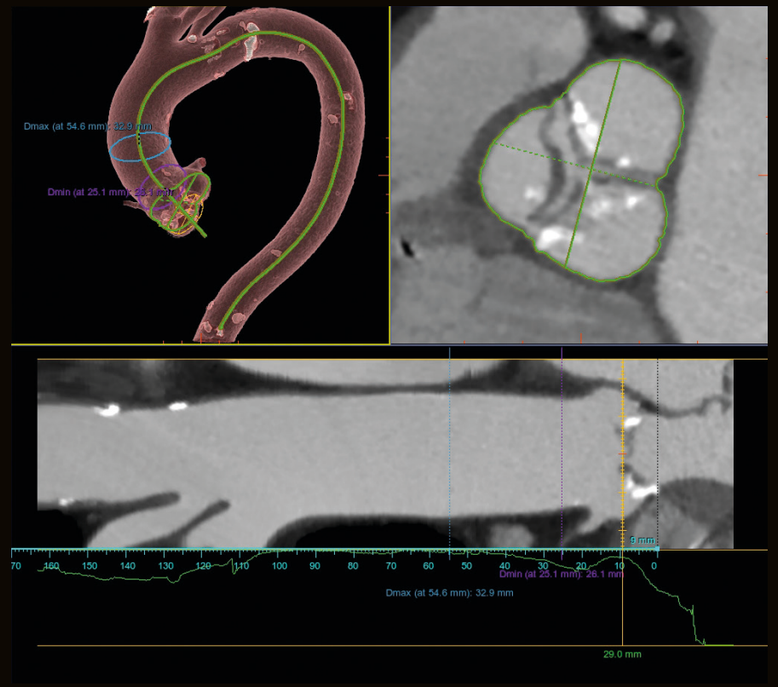


Assess

Use DSA images on a large field of view to image the entire anatomy of interest.

Valve ASSIST 2**

Transcatheter Aortic Valve Replacement (TAVR) demands meticulous, detailed planning. Valve ASSIST 2 can help you plan and guide challenging procedures with confidence.

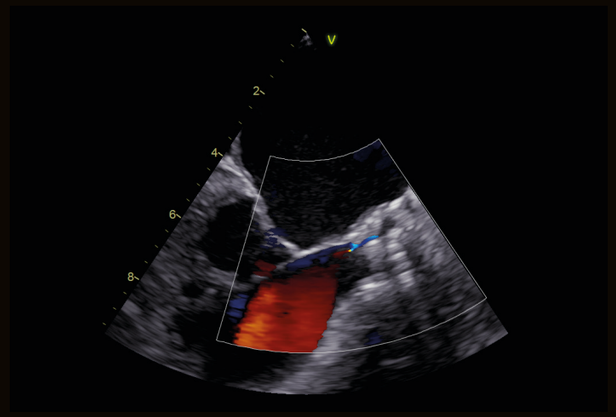


Plan

0-click aorta segmentation and auto-detection of the valve plane delivering easy and reproducible valve sizing for interventional cardiologists and cardiac surgeons.

Guide

Guide devices with Valve ASSIST 2 providing high-precision live 3D guidance with a calcification visualization enhancement mode to assist valve positioning and deployment.



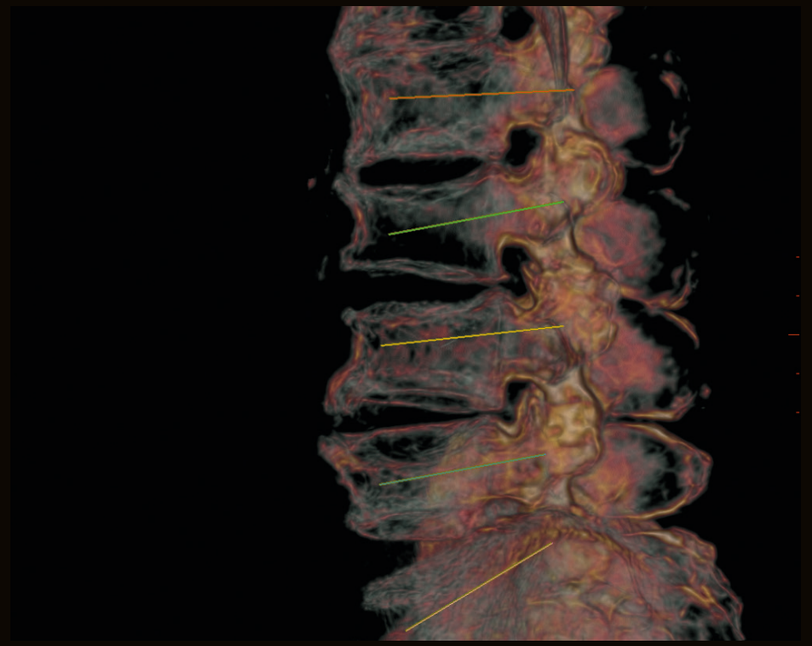
Assess

Visualize potential residual valve regurgitation using either angiography or ultrasound.

Valve ASSIST 2 solution includes TAVI Analysis and HeartVision 2, and requires AW workstation with Volume Viewer and Volume Viewer Innova. These applications are sold separately.

Needle ASSIST**

Performing minimally invasive spine procedures in the hybrid OR provides excellent access to the patient as well as high-end imaging capabilities to help find the right entry point and advance devices while avoiding critical structures.



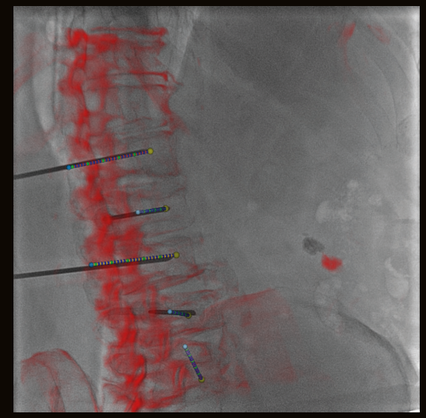
Plan

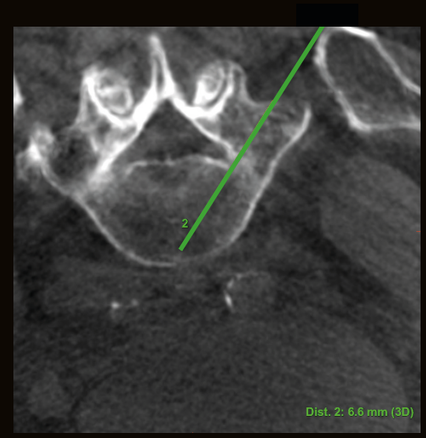
Plan the procedure using outstanding 3D information and determine the optimal skin entry points and needle paths directly on oblique CBCT cross-sections.

Needle ASSIST solution includes TrackVision 2 and requires AW workstation with Volume Viewer, Volume Viewer Innova. These applications are sold separately.

Guide

With Needle ASSIST you can guide your needle along the virtual trajectory that will follow C-arm angulations and table movements. A dedicated bone rendering helps visualize mis-registration and correct for even small patient motion from tableside.





Assess

The stereo 3D mode lets you visualize a reconstructed 3D needle on the CBCT oblique view from two spatially separated fluoroscopic images helping you localize devices within the 3D anatomy without a CBCT acquisition.

Re-evaluate your options

You'll have the potential to increase the procedure mix in your OR with the Maquet Magnus OR table system from Getinge for minimally invasive surgery and conventional open surgical procedures[1]. Use precious space well with flexible room designs. Build your room into a new fully functional hybrid OR, re-configure a small room, or re-purpose an existing room.

Expand your procedure mix while securing OR utilization

For hybrid ORs with multidisciplinary surgical activity, the exceptional flexibility of the Maquet Magnus table system expands clinical breadth to fit the needs of virtually any surgery and interventional specialty. Together with the Discovery IGS, it can help your hospital expand its services to innovative minimally invasive techniques and attract more patients and physicians, while securing OR utilization.

Seamless integration supports advanced imaging

The Discovery IGS is fully integrated with a 360° radiolucent flat tabletop, enabling catheter-based procedures and minimally invasive surgery and conventional open surgeries to be performed while using the advanced imaging capabilities of the Discovery IGS, such as 3D angiography, cone-beam CT and 3D image fusion. You can synchronize the gantry and table movements through a single user interface to achieve optimal anatomical coverage. You can move the gantry aside completely using one-touch back-out enabling easy transition to open surgery and allowing complete patient access at the table.

Expand your procedure versatility

The Discovery IGS is fully integrated with the Maquet Magnus Universal tabletop, enabling advanced patient positioning and imaging such as intra-op cone-beam CT, to meet the requirements of diverse minimally invasive surgery and conventional open surgical procedures. The flexibility to use different tabletops[6] allows you to expand for additional surgical procedures through advanced patient positioning, adapted to meet the requirements of cardiology, heart surgery, vascular surgery, neurosurgery, orthopedics and traumatology. The tabletops are exchangeable at any time for increased productivity and patient preparation in the induction room.

Draw the ideal room

With predefined, predictable trajectories on the floor and no rails on the ceiling, the Discovery IGS gives you flexibility to draw the location of the laminar flow, monitors, surgical lights and rad-shield where you need them to be.
Its back-out and parking positions are customizable to adapt your room size and shape. Whether you're building a new room or re-purposing an existing room, GE and Getinge work hand-in-glove to deliver the right results, no matter how complex the project. Getinge's advanced 3D planning tool enables comprehensive visualization of the hybrid OR before it is built. Additionally, Getinge offers a highly comprehensive range of products for hybrid ORs, with operating tables, surgical lights, ceiling supply units, wall and ceiling elements, and innovative OR integration technologies.

About GE Healthcare

GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE (NYSE: GE) works on things that matter - great people and technologies taking on tough challenges. From medical imaging, software & IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

Data subject to change.

A General Electric company, doing business as GE Healthcare

† Discovery IGS refers in this brochure to Discovery IGS 7 OR.

* Discovery, GE and GE Monogram are trademarks of General Electric Company.

** ASSIST solutions are composed of multiple medical devices. For more information, please refer to below web site: www.gehealthcare.com/ASSIST

Discovery IGS 7 OR cannot be placed on the market or put into service until it has been made to comply with all required regulatory authorizations including the Medical Device Directive requirements for CE marking.

Discovery IGS 7 OR and products mentioned in this material cannot be marketed in countries where market authorization is required and not yet obtained. Refer to your sales representative.

gehealthcare.com

[1] The Discovery IGS 7 OR is fully integrated with the 360° radiolucent flat table top 1180.16A2/F2 and with the Universal table top 1180.10A0/F0 with attachment 1180.37A0/F0. The flat table top is suited for interventional, minimally invasive surgery and conventional open surgical procedures. The Universal tabletop is suited for minimally invasive surgery and conventional open surgical procedures.

[2] In this brochure, there are performance claims that can be met only with one of the MAGNUS OR table system table top compatible with Discovery IGS 7 OR. Always refer to the product data sheet specifications applicable to the specific table top from Discovery IGS 7 OR and from Maquet Magnus OR table system.

[3] In clinical use, the results of dose reduction techniques will vary depending on the clinical task, patient size, anatomical location and clinical practice.

[4] Hertault A, Maurel B, Sobocinski J, Martin Gonzalez T, Le Roux M, Azzaoui R, Midulla M, Haulon S. Impact of Hybrid Rooms with Image Fusion on Radiation Exposure during Endovascular Aortic Repair. Eur J Vasc Endovasc Surg. 2014 Oct;48(4):382-90.

[5] Based on the dose of the procedure step needed using a CBCT acquisition to register preoperative data vs. a Bi-View registration process. The stated dose reduction does not reflect the entire interventional procedure, rather to a specific in the procedure. The dose for the CBCT acquisition is from typical exposure settings (Innova CT 40°/s, 30fps, IQ Standard, Normal, Nominal FOV). The dose from the Bi-View registration process is from two spatially separated, 2-seconds fluoroscopic acquisitions, with typical exposure settings (3.75 fps, IQ Standard, Normal, Max Dose Reduction, Nominal FOV). The dose data for all acquisitions are from the Air Kerma per IEC 60601-2-43 conditions, provided in the interventional X-Ray user manual. In clinical practice, the use of Vision 2 may reduce patient radiation dose depending on the clinical task, patient size, anatomical location and clinical practice.

[6] Other table tops configuration can be used for conventional surgical procedures, not involving the imaging equipment. Maquet products are sold by Getinge.