As the field of interventional radiology grows, so do the challenges for clinicians to plan, guide and assess increasingly more complex minimally invasive procedures.

At RSNA 2015, GE Healthcare is showcasing its ASSIST brand, a collection of new interventional imaging software packages designed for specific clinical subspecialists and complex endovascular procedures to help clinicians perform procedures with greater accuracy, dose efficiency and confidence.

GEHC is also proud to announce its adding FlightPlan for Liver to its collection of ASSIST packages. After four years of clinical usage, clinical studies show FlightPlan for Liver is proven to help clinicians better identify tumor-feeding vessels to help clinicians improve outcomes during liver embolization by demonstrating:

- **up to 97%** improved sensitivity in identifying tumor-feeding vessels vs 2D (64%) or 3D/CBCT (73%) alone
- **11% reduction in procedure time** *Compared to procedure time using FPFL to the mean number of DSA and a single TACE session
- **82%** of radiologist readers agreed on identification of liver tumor feeding vessels as compared to DSA (54%) or CBCT (62%) alone

Now with proven FlightPlan for Liver clinical results, and the creation of its new ASSIST brand, GE Healthcare offers a comprehensive suite of targeted software solutions to advance clinical excellence in the following interventional subspecialties and procedures:

- **Vessel ASSIST for**: Interventional Radiology – CTO, TIPS and Interventional Neuroradiology – AVM/Aneurysm
- **EVAR ASSIST for**: Vascular surgery - EVAR
- **Needle ASSIST for**: Bone Interventions - Pelvic bone osteosynthesis
- **FlightPlan for Liver for**: Interventional Oncology - Liver Embolization
- **Valve ASSIST for**: Interventional Cardiology – TAVI
- **PCI ASSIST for**: Interventional Cardiology- complex PCI

ASSIST packages offer a range of capabilities and benefits.

For planning:
- Easy anatomy segmentation
- Extracting the 3D anatomy in 2 clicks, measuring the vascular with accuracy like length and diameter, adding landmarks
- Workflow filters out noise and provides the imaging information clinicians need at their fingertips with minimal clicks – or even zero click.

For guiding:
- Augmented reality = 2D 3D image multi-modality (MR/CT) fusion with BiView registration helps achieve up to 99% dose savings*
- In a matter of seconds, interventionalists can accurately define access routes and place devices with confidence

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- Software runs on hardware that is 20% faster for added efficiency.

ASSIST's FlightPlan for Liver saves clinicians a significant amount of time (approx. 13 mins) during embolization therapy than without it which allows them to spend more time focusing on the patient and less time administering catheters in vessels that are not tumor feeders. Fewer DSA runs are required during embolization therapy when FlightPlan for Liver is used than without which may lead to less patient and staff dose exposure during treatment.

"FlightPlan for Liver gives me more confidence during liver embolization therapy, reduces overall time spent administering catheters in vessels that are not tumor feeders for more efficient navigation of only tumor feeding vessels. By potentially reducing unnecessary catheter time and activity within non target vessels, I can spend more time focusing on the patient." Dr. Thierry DeBaere Head of Interventional Radiology, Gustave Roussy Cancer Campus

IMAGE GALERY: The full suite of ASSIST software packages is available on GE's performance and premium image-guided systems across the full range of clinical specialties.

**Vessel ASSIST**
- For Interventional Radiology
- Chronic total occlusion CTO
- TIPS for liver treatment

**EVAR ASSIST**
- 2D-3D image fusion delivers up to 99% dose reduction

**Needle ASSIST**
- for Bone Interventions
- Pelvic bone osteosynthesis

**FlightPlan**
- (an ASSIST brand)
- for Interventional Oncologists
- Liver Embolizations

**Vessel ASSIST**
- For Interventional Neuroradiology
- Brain arteriovenous malformation AVM/Aneurysm

**Valve ASSIST**
- for Cardiologists and Cardiac Thoracic Surgeons
- TAVI without Valve Assist
- TAVI with Valve Assist

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* Thanks to 2D/3D registration, instead of 3D/3D registration technique
Based on Discovery IGS 740, Discovery IGS 730, Innova IGS 540, Innova IGS 530 Operator Manual Air Kerma data:
1 typical Vision 2 workflow with overlay of pre-Op CT includes 2x2s fluoroscopic acquisition
Overlay of pre-Op CT with use of 3D/3D registration would require 2x2s fluoroscopic acquisition to center the anatomy and the Cone Beam CT acquisition
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.

5 The results of these published studies do not necessarily represent individual performance of FlightPlan for Liver
NEW Discovery IGS 740 Wide Bore Claim: More than 1.9 billion adults are overweight. Of these, over 600 million are obese – that's about 13% of the world’s adult population. Imaging patients of this size can be challenging or impossible when the technology is not designed to accommodate their size. The Discovery® IGS 740, a mobile imaging system for interventional radiology and oncology, makes 3D imaging available for more than 95% of the population worldwide, including patients with a BMI of up to 40. It has the widest bore of the major players’ interventional angiography systems used for imaging in the field of Interventional Radiology & Oncology procedures. The wide bore also makes it possible to image patients in 3D in more comfortable or clinically demanding positions like with arms down, on their side supported by cushions or with ablation needles in place.

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6 World Health Organization