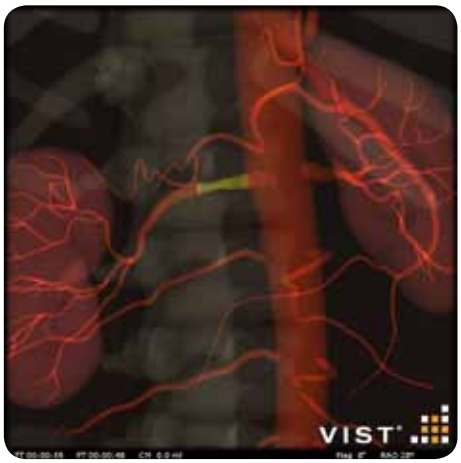
VIST®

Renal Intervention 8

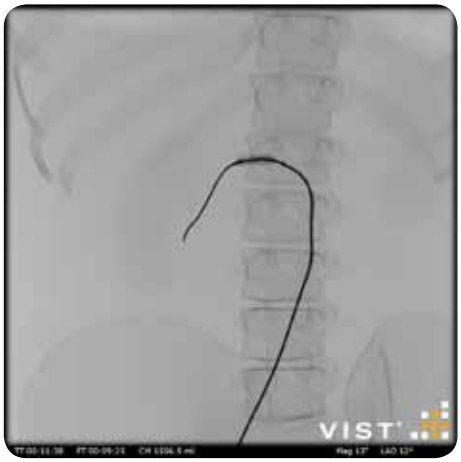
Procedural Training Module

Mentice Renal Intervention is designed for training of renal angiography, angioplasty and stenting. A variety of lesion locations, anatomical variations and other learning challenges are presented. Practice with this module will improve the learner's understanding of therapeutic treatment options in patients with hemodynamically significant renal artery disease. The entire training procedure is performed in a learner focused and risk-free environment, using real clinical devices.

Right Renal Artery



Lesion 3D



Renal Stenting

Educational Context and Skills

Renal revascularization aims to improve blood pressure and renal function. Therefore, angiography, angioplasty and stent placement for the diagnosis and treatment of renal artery stenosis can be justified. This module is aimed at teaching fundamental techniques of endovascular angioplasty and stenting in the renal arteries to residents and junior fellows. Basic experience in peripheral angiography and a familiarity with interventional devices and associated techniques is an advantage. The module features a variety of renal lesions, anatomies, and the possibility to practice arm access for severely angulated renal takeoffs.

- Endovascular treatment planning and options based on patient scenarios
- Introduction to endovascular tools used in Renal Intervention
- Image management; C-arm movements and utilization of fluoroscopy
- Step-by-step procedure for Renal Intervention
- Supports use of 0.035", 0.018" and 0.014" systems
- Rapid exchange and Over-The-Wire techniques
- Acquisition of pertinent technical and manipulation skills
- Selection of appropriate PTA balloons and stents based on lesions
- Matching tools and access site to anatomical challenges
- Determining optimal view for measurement and treatment
- Determining feasibility of treatment by measuring kidney size
- Learning safe manipulations of endovascular tools in the renal arteries
- Wire navigation through lesion and positioning to provide stability
- Controlled advancement of stent/balloon into the lesion
- Managing challenging cases such as tight, long, ostial or tortuous lesions
- Completion of post treatment angiogram to assess outcome

Functionality and Features

- Actual clinical devices used for a realistic experience
- Clinical scenarios ensuring structured patient oriented learning
- Manipulation from brachial or axillary access site
- Anatomical variations including curved aorta, dorsal and ventral takeoffs
- Detailed metrics for assessment and debriefing
- Easy-to-use and intuitive user interface

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Features

- Detailed patient scenarios
  Demographics, clinical presentation, medical history, current medications, lab values, non invasive tests and base line vitals
- Full C-arm and table manipulation
  LAO/RAO & CRA/CAU angulations, image intensifier control, table height adjustment, magnification and brightness
- Imaging modalities
  DSA, Roadmap, Positive X-ray, negative X-ray and 3D mode (unique to simulation)
- Radiation dose control
  Easy access to features that minimize radiation dose exposure
- Projection controls
  3 pre-set standard projectionst, possible to save user preferred projection for later use in training case
- Introducer sheath
  Possibility to select introducer sheath size
- Contrast injections
  - Manual syringe injection
  - Power injector with user definable volume and injection rate
- Imaging
  - Series: cine recording, playback, ability to return the C-arm to previous projections and blending of landmarks
  - Measurement: easy to use vessel and lesion measurement system
- Vital signs - dynamic information
  Provides accurate calculations of haemodynamic and EP data obtained during catheterization
  - 12-lead ECG, ability to select any 3 for dynamic display
  - Blood pressure, heart rate, respiratory rate, oxygen saturation displayed
- Medication
  Variety of drugs to administer during the procedure
- "Fluoro & Vital signs" screen
  - Realistic fluoroscopic image
  - Status bar with current case statistics
  - Vital signs always visible
  - X-ray reference image of patient positioning
  - Device status panel showing selected and active devices

Inventory

- Sheaths
- Guide catheters
- Diagnostic catheters
- .035" standard and hydrophilic guide wires
- .014" and .018" wires
- .014", .018" and .035" balloons
- .014", .018" and .035" balloon expandable stents
- .014", .018" and .035" self-expanding stents

Simulation

- 6 cases with different challenges and learning objectives
- Anatomically and hemodynamically accurate simulation
- Support for brachial approach
- Fully integrated vital signs

VIST® - Family of Simulation Solutions

provides a relevant, realistic teaching and learning environment for hands-on training of angiographic and interventional skills.

VIST® Simulator Systems

The VIST® and the VIST®-C systems share unique advantages in terms of highest fidelity, clinical realism and use of actual clinical devices.

VIST® Lab is compatible with both VIST® and VIST®-C systems.

VIST®-C is a fully portable high-fidelity simulator.

VIST® Training Modules

A structured and comprehensive suite of modules with clearly defined learning objectives giving trainees exposure to a wide range of patient scenarios and anatomical variations.


Neuro Intervention


Carotid Intervention


Coronary Angiography


Coronary PRO


Transseptal Puncture


Cardiac Rhythm Management


EndoVascular Aortic Repair


Peripheral Angiography


Renal Intervention


Uterine Artery Embolization


Iliac/SFA Intervention


BTK Intervention

MENTICE is a global medical simulation company founded in 1999 with headquarters in Gothenburg, Sweden. The company pioneered virtual reality for medical training and is today the global leader in endovascular simulation.

Contact us to learn more about simulation and how it can benefit your training efforts:
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