

Carotid Intervention 8

Procedural Training Module

Mentice Carotid Intervention module is designed for physicians to develop skills specific to endovascular treatment of carotid arteries. The module has staged training for a variety of anatomies and lesion placements including hostile necks, high lesions and radiation induced stenoses.

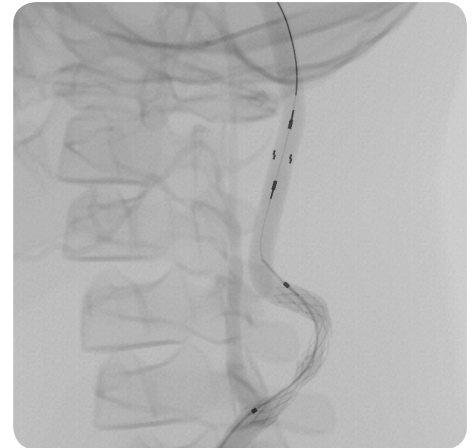
Educational Context and Skills

The Carotid artery stenting (CAS) is an advanced endovascular intervention with a steep learning curve. The module is designed so the procedural steps, use of devices with its associated risks and technical performance can be learned and objectively assessed in a, risk-free environment. This module offers 24 different cases with variant anatomies and arch types. Selected cases also include baroreceptor responses and complications.

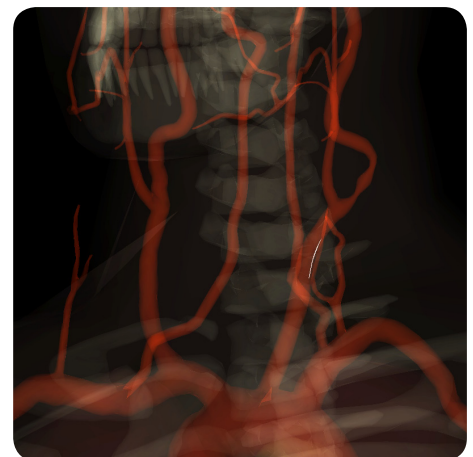
- Procedure planning and options based on patient scenarios
- Introduction to clinical devices used in Carotid Intervention
- Learning the procedural steps for Carotid Intervention
- Acquisition of pertinent technical and manipulation skills
- Navigation of aortic arch
- Utilization of telescope technique
- Fluoroscopic review of the condition prior to treatment
- Review, validation and amendment of the procedure plan and inventory requirements
- Navigation of embolic protection device (EPD) through the lesion with positioning distally for optimal protection
- Maintaining the position of the EPD throughout the procedure
- Assess the need for pre-dilatation and its associated risk
- Careful and appropriate release of self-expanding stent
- Appropriate post-dilatation of the self-expanding stent
- Administration of medication to treat complications
- Completion of post treatment angiogram to assess the outcome
- Retrieval of the embolic protection device

Functionality and Features

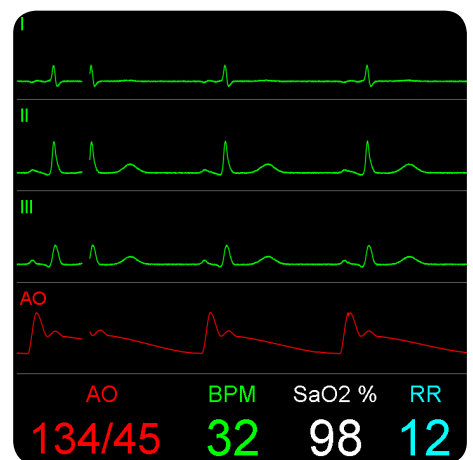
- Intuitive user interface
- Device panel displays type and status of selected devices
- Detailed metrics for assessment and debriefing
- Clinical scenarios ensuring structured patient oriented learning
- Vital signs responsive to catheter manipulation and placement
- Procedural complications
- Realistic device behavior requiring appropriate device selection



Carotid artery stenting



3D view of the aortic arch



Vital signs showing baroreceptor response

Features

- Detailed patient scenarios
Demographics, clinical presentation, medical history, current medications, lab values, non invasive tests, base line vitals
- Full C-arm and table manipulation
LAO/RAO & CRA/CAU angulations, image intensifier control, table height adjustment, magnification, brightness
- Imaging modalities
Positive X-ray, negative X-ray and 3D mode (unique to simulation)
- Projection controls
3 pre-set standard projectionst, possible to save user preferred projections 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
- Procedural complications
Spasms, dissections and baroreceptors response
- Medication
Variety of drugs to deal with complications and events that occur during the procedure
- Imaging
- Series: cine recording, playback, acquisition of landmarks, 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 electrophysiologic data obtained during the procedure
- Aortic (AO) pressure curves
- 12-lead ECG, ability to select any 3 for dynamic display
- Blood pressure, heart rate, respiratory rate, oxygen saturation displayed

- "Fluoro & Vitals" screen
- Realistic fluoroscopic image
- Status bar with case statistics
- Vital signs always visible
- X-ray reference image of patient positioning
- Device status panel showing selected and active devices

Inventory

- Diagnostic catheters
- .035" standard and hydrophilic guide wires
- Guiding sheaths and guide catheters
- Wires with embolic protection device
- Balloons for pre- and post-dilatation
- Self-expanding stents – open/closed cell and normal/tapered

Simulation

- 24 Carotid cases
Educationally structured to include type I, II and III aortic arches as well as varying complexity of lesion type, location and carotid artery tortuosity
Cases 16, 17 & 18 also include complications such as spasm and dissection
- Anatomically and haemodynamically accurate simulation
- Simulation responsive to medication
Drugs are used in the simulation to treat complications and the virtual patient's vitals respond accordingly
- Realistic device behavior
Actual embolic protection device, delivery system and recovery catheter are used
- Fully integrated vital signs
Responsive to complications and drugs

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.



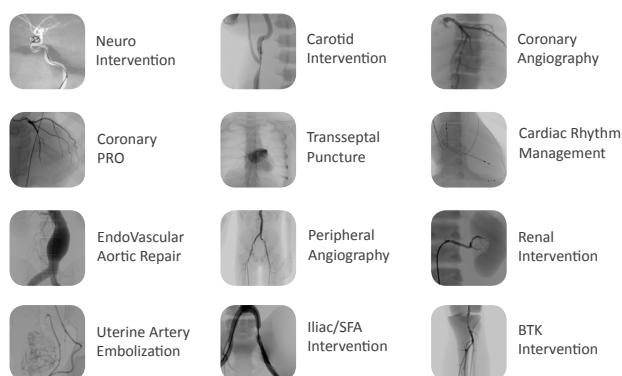
VIST® Lab is compatible with both VIST® and VIST®-C systems.

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.



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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