

Neuro Intervention 8

Procedural Training Module

Mentice Neuro Intervention Training Module is designed for Neuro Interventionalists to learn the skills essential to cerebral interventional procedures. The module offers a variety of anatomies, patient scenarios and aneurysm locations to facilitate technical, procedural and cognitive skills training in a complete risk-free environment for these delicate procedures.

Educational Context and Skills

The Neuro Intervention Module offers the opportunity to treat cerebral aneurysms of different size, shape and location prior to patient procedures. Psychomotor skills, patient assessment and procedural decisions may be implemented by a learner and reviewed by the instructor to optimize the training time.

- Procedure planning based on patient scenarios
- Learning the procedural steps for cerebral angiography
- Acquisition of pertinent technical and manipulation skills
- Manoeuvre wire and microcatheter to treatment site
- Experience filling resistance via microcatheter behaviour
- Navigate multiple vascular routes to aneurysm site
- Placement of cerebral stent for treatment of wide neck aneurysm
- Manage microcatheter through stent for coil placement
- Perform equipment exchanges required for stent placement v. coil deployment

Functionality and Features

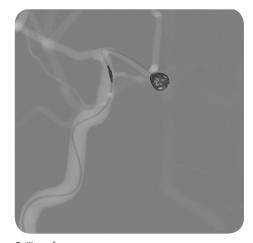
- Actual clinical devices recommended for realistic experience
- Operator defined outcomes; no predetermined procedure pathway
- Clinical scenarios require patient-oriented approach to treatment
- Complete procedure route from access site to treatment site
- Medications administered for complete procedure performance
- ECG and vital signs contribute to procedure environment
- Procedural complications
- Detailed metrics for assessment and debriefing
- Intuitive User interface



Stent for treatment of wide neck aneurysm



3D view cerebral vasculature



Coiling of aneurysm



Features

- Detailed patient scenarios
 - Demographics, clinical presentation, medical history, current medications, lab values, non-invasive tests and baseline 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
 - Pre-set standard projections, possible to save user preferred projections for later use in training case
- Introducer sheath
 - Selection of appropriate sheath size for procedure plan
- Contrast injections
 - Manual syringe injection
 - Power injector with user definable volume and injection rate available
- Imaging
 - Series: cine recording, playback, acquisition of landmarks, ability to return the C-arm to previous projections and blending of landmarks
 - Measuring capabilities to confirm aneurysm size and vessel diameters
- Vital signs dynamic information
 - Provides accurate calculations of hemodynamics and electrophysiologic data Catheter based aortic (AO) pressure graph
 - 12-lead ECG, ability to select any 3 for dynamic display
 - Blood pressure, heart rate, respiratory rate, oxygen saturation displayed
- Medication
 - Capability to administer procedure relevant medications, including heparin, nimodipine and protamine

- "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

- .035 and .014 wires for the procedure specific wire selection
- Range of 15 selective catheter shapes including:
 Head Hunter, vertebral, simmons sidewinder amongst all
- 5F and 6F Guide Catheters
- Micro catheters for coiling and stent delivery
- Complex and helical coils
- · Stents for treatment of wide neck aneurysms

Simulation

- 13 Cases with different aneurysm locations and scenarios
- Anatomically and hemodynamically accurate simulation
- Realistic micro catheter behavior, including resistance during coil delivery
- Actual resistance encountered with over-sizing or over-filling
- Fill rate calculated based on coil selections and deployment.

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® 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

EndoVascular

Aortic Repair

Embolization



Transseptal Puncture

Peripheral

Iliac/SFA

Intervention

Angiography



Cardiac Rhythm Management



Renal 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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