This cost-effective, ultra portable "personal trainer" is optimized for individual training and practicing of basic angiographic skills and interventional endovascular procedures, while offering the same advanced procedural simulation and learning management system found on the ANGIO Mentor™ Ultimate. The simulator comes complete with a durable, wheel-based carrying case to provide the optimal solution to meet the requirements of having a variety of training locations.

Flexible Solutions

The ANGIO Mentor™ family of products exemplifies Simbionix’s commitment to provide educators and clinicians with flexible, cost-effective solutions suitable for a wide range of settings.

An excellent choice for training centers preferring a stationary, flexible-use system. This comprehensive solution for Cath Lab or Interventional Suite training is ergonomically designed to support small groups of primary operators and their teams, but it can also easily be used by a single operator. In addition, the system has an advanced learning management system that provides detailed performance feedback.
The ANGIO Mentor Family of Products

Simbionix ANGIO Mentor™ is a multidisciplinary simulator that provides a complete and true-to-life simulated environment for hands-on practice of interventional endovascular procedures. A unique technology developed by Simbionix provides realistic visualization of human anatomy and instrument activity under live fluoroscopy. ANGIO Mentor simulators combine this technology with a high-end haptic system for visual and tactile feedback, which realistically mimics the look and feel of actual endovascular interventions.

An Ever-Expanding Library of Modules

The ANGIO Mentor™ ever-expanding library of modules includes multi-disciplinary interventional procedures in cardiac rhythm management, cardiology, radiology, neuroradiology, vascular surgery, cardiac surgery and neurosurgery. These modules support acquiring and perfecting the skills that are essential to building confidence and proficiency in interventional techniques. With a large variety of advanced procedural modules presenting over 70 unique patient cases, the ANGIO Mentor library provides more realistic, high fidelity training opportunities than any other endovascular simulator on the market today. With the addition of Simbionix’s innovative PROCedure Rehearsal Studio™, the number and variety of available patient cases becomes unlimited.

Carotid Intervention Module

Provides practice on all aspects of the carotid stenting procedure, including embolic protection device placement, and selection, manipulation and deployment of an angioplasty balloon and stent. Fluctuations in vital signs caused by complications and baroreceptor response are reflected on the monitor and can be treated with medications. ACT level and the neurological status of the patient can also be monitored.

Renal Intervention Module

Allows clinicians to practice renal angioplasty and stenting procedures for the diagnosis and treatment of renal artery stenosis using either a retrograde brachial or an antegrade femoral approach. During the simulated procedure, intra-arterial pressure and pressure gradient measurements can be used to supplement the data presented on the radiographic image to assist in determining the hemodynamic significance of the stenosis.

SFA & Iliac Intervention Modules

Allow clinicians to practice complete virtual SFA and iliac angioplasty and stenting. Clinicians can choose either a crossover (retrograde) or an ipsilateral (antegrade) approach, based on the morphology of the vasculature and the culprit vessel. These unique modules feature anatomies that vary in aortic bifurcation angulation, iliac artery diameter and length, locations and number of stenoses and in the degree and length of each stenosis.

Cerebral Module

Provides clinicians with an opportunity to practice performing intracranial aneurysm coil embolization and intracranial stenosis stenting, as well as reacting to relevant complications such as aneurysm perforation. The module enables performing stent/balloon assisted coil embolization and treatment of stenosis, featuring an innovative and unique simulated biplane x-ray system. Virtual patients show a range of cerebral vasculature, including a variety of aortic arch types and aneurysm locations, with variation in sizes and neck types.

Coronary Module

Provides practice opportunities for diagnostic and interventional cardiac catheterization procedures (PTCA and stenting). The Simbionix Coronary Module is the only module of its kind with simulation technology so advanced that it allows the trainee to handle complications such as dissections and perforations using various routines including drug administration, balloon inflation, PTFE stents, coils and aspiration catheters, while monitoring the patient’s fluctuating vital signs.
CRM Module
This sophisticated module provides significant training and practice opportunities in the placement of three electrode leads (LV, RV and RA). The simulation, designed to help develop competence in electrophysiology interventions, includes real life sensing and pacing measurements and enables clinicians to cope with procedural arrhythmia complications. The CRM module provides a variety of realistic anatomies including variations in the CS ostium (e.g. Thebesian valve) and coronary sinus vasculature.

Aortic Valve Replacement
Provides practice on endovascular implantation of an aortic valve bioprosthesis. The practiced steps include navigating through the aortic arch and crossing the LV using fluoroscopy and cineangiography to find the best angulation for visualizing the aortic valve annulus, pressure gradient measurements, aortic balloon valvuloplasty including rapid pacing and accurately positioning and deploying an aortic valve bioprosthesis. Complications include LV perforation. Virtual patients vary in heart orientations, annulus sizes, degrees of valve calcification and LV hypertrophy.

AAA Repair
Allows practicing endovascular abdominal aortic aneurysm repair using a stent graft system including aortography, precise deployment of the main body and contralateral leg stent grafts, deployment of extenders and touch-up ballooning. The trainee may encounter complications such as stent graft migration or endoleaks. Patient anatomies include varying aortic neck sizes and angulations, aneurysm sizes and orientations, size and tortuosity of iliac arteries and presence of thrombus or calcification.

Peripheral Embolization
Provides practice on multiple patient anatomies and scenarios requiring embolization, such as renal aneurysm, arterio venous fistula, arterio venous malformation, GI bleeding, uterine artery fibroids, trauma and pre/post-AAA stent grafting endoleak. The module provides a selection of common embolization materials such as microcoils, macrocoils and PVA particles, delivered through an angiographic catheter or a microcatheter to the target vessel.

Transseptal Puncture and AF Ablation
Provides practice on left atrial access via the interatrial septum and atrial fibrillation arrhythmia treatment by pulmonary vein ablation. The practical aspects of this important technique include identifying the optimal transseptal puncture site, correct and safe transseptal puncture technique and pulmonary vein isolation by using various ablation catheters at the pulmonary veins’ ostia. During the simulation, life threatening complications such as puncture of the atrial free wall, the left atrial pericardium or the aorta will need to be attended to.

PROcedure Rehearsal Studio™ - The New Standard for Procedural Preparedness. The Simbionix revolutionary technology enables clinicians to create a simulation using a real patient’s anatomy, by quickly and easily importing the CT / MR data into the ANGIO Mentor™ and creating a virtual patient for planning and practicing an endovascular intervention. Using this unique technology increases the likelihood of an optimal procedural outcome, and decreases risk to the live patient.

Cases with strong teaching value can be stored on the ANGIO Mentor system for future training, enabling the creation of an unlimited virtual patient library. This capability makes the PROcedure Rehearsal Studio the ultimate resource for creating relevant and innovative interventional curricula.
Practicing with the ANGIO Mentor™ simulation system allows users to experience the sensations of performing an entire endovascular procedure including complete diagnostic and therapeutic procedures, with hemodynamic monitoring, complications and drug administration - all in a controlled and safe environment.

**Angiography Suite or Cath Lab Simulation**

The ANGIO Mentor™ provides realistic practice of technical skills including use of a c-arm system and interventional tools, as well as practicing patient management skills. The simulation includes simulated real-time fluoroscopy, with both still frames and “road map” images, cineangiography and digital subtraction angiography.

**Enhanced Hemodynamic Monitoring and Complication Management**

Vital signs including simulation of heart rate, invasive and non-invasive blood pressure, ECG leads and oxygen saturation, accurately reflect the outcomes of interventional procedures and procedural complications.

**Drug Administration**

A full assortment of drugs is available for administration during the simulated procedures. The effects on the virtual patient are accurately reflected in the angiographic images and in the patient’s vital signs.

**Performance Metrics**

The simulation system provides a comprehensive report of performance parameters for both the learner and the educator. The report, customized for each module, enables objective assessment of the clinician’s skill level and training success, and generates extensive statistics for individual or group performance.
Simbionix - To Advance Medical Simulation
Simbionix is the world’s leading provider of simulation and training products for medical professionals and the healthcare industry. Founded in 1997, the company is committed to delivering high quality products, advancing clinical performance and optimizing procedural outcomes. Simbionix cooperates with physicians on a regular basis to produce the most reliable and effective training and supporting systems.

The Simbionix Line of Medical Training Simulators

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