

simulateur bronchoscopie

BronchoVision



Le logiciel du simulateur fournit le plus haut niveau de réalisme et de détail de l'anatomie du poumon; simulation détaillée de la résistance des organes et des instruments en fonction des commentaires magnétique moderne offre la perception tactile réaliste lors de l'exécution des interventions.

BronchoVision est le simulateur de réalité virtuelle pour l'enseignement et la formation des compétences pratiques en bronchoscopie. Simulateur peut être utilisé pour acquérir ainsi que de maintenir les compétences de bronchoscopie, ce qui en fait un système approprié pour les stagiaires et les étudiants, ainsi que pour les médecins en formation en résidence. Il est beaucoup pour les procédures de bronchoscopie de formation, y compris le diagnostic avec des échantillons d'obtenir, des saignements d'arrêt, l'enlèvement des corps étrangers, l'enlèvement des masses, stenting, lavage bronchique et les ganglions lymphatiques médiastinaux ponction.

Simulation de périphérique

- Travailler avec réel (adapté) bronchoscope
- Magnetic haptic feedback for simulating the resistance of internal organs
- Tracking of longitudinal movements and rotations of tools
- Working with virtual and hardware elements of the endoscopic stand

Virtual OR

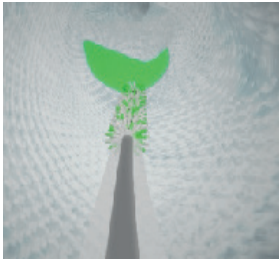
- Three-dimensional anatomical atlas
- Studying of real rx-ray images
- Presence of virtual hints, step-by-step instructions and video courses
- Addressing of complications caused by trainee actions or unforeseen circumstance

Educational Features

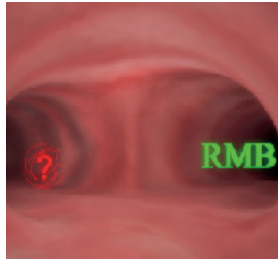
- Individual user profiles
- Detailed automatic registration of all actions performed during exercise performance
- Course of basic skills training
- Execution of different approach to performing interventions, depending on the patient's age group of the
- Extensive educational content
- Complete operation room setup with real position of the surgical team
- Standardize, structure and complement hands-on skills training

Library Of Modules

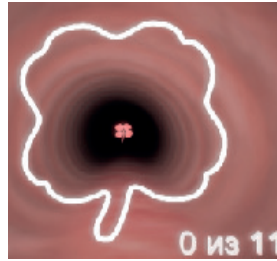
1. Basic skills in bronchoscopy



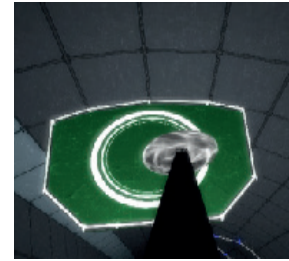
Handling of bronchoscope



Knowledge of the bronchial tree anatomy



Handling of bronchoscope (in bronchial tree anatomy)

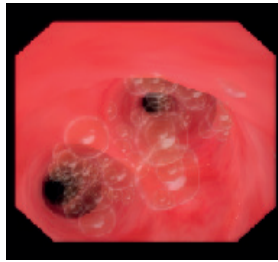


Endoscopic instrument handling

2. Diagnostic bronchoscopy

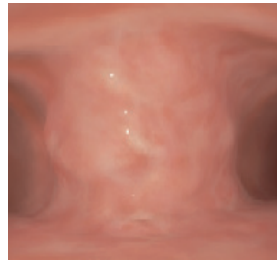


Base diagnostic

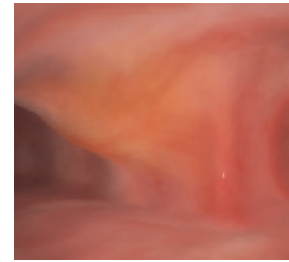


Base diagnostic Children procedures

3. TBNA

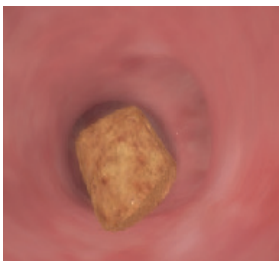


Exercises for training TBNA Type 1

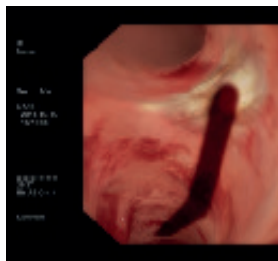


Exercises for training TBNA Type 2

4. Therapeutic bronchoscopy



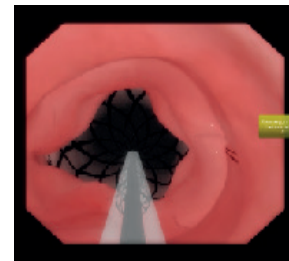
Extraction of foreign objects



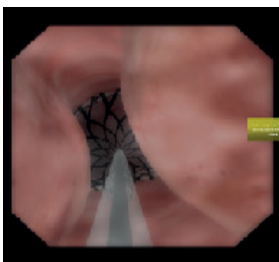
Addressing of lung bleeding



Endoloop-Assisted Polypectomy



Stenosis of the trachea (stenting)



Stenting



Bronchoalveolar lavage

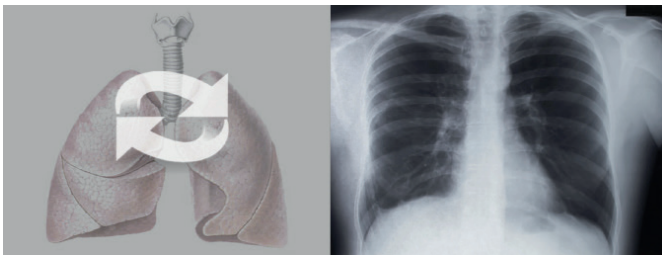
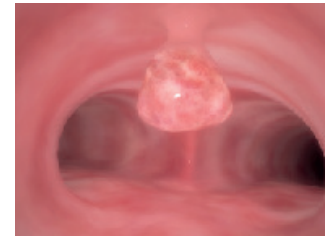
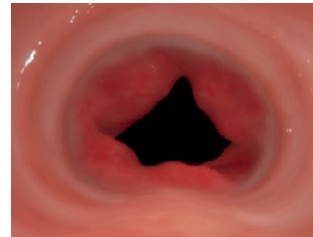


stenosis of the trachea (dilatation)

Highlights

Realistic anatomy

- Bronchial tree and lungs are modeled on the basis of data from real patients
- The intensity of the image depends on the position of the endoscope camera, the power of illumination and the level of contamination of the lenses
- Internal bleeding that occurs during the operation leads to changes in the patient's condition, including possible death

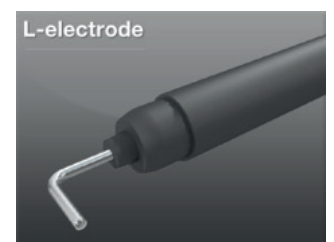
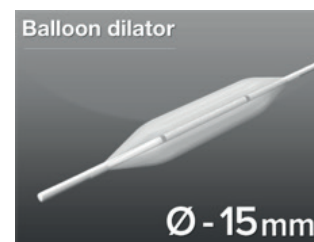


3D Anatomy Atlas

- Interactive model of the lung and bronchological tree
- Suivre la position des outils pendant l'exécution d'une intervention
- Affichage de la zone cible sur un modèle interactif et image radiographique

Library of instruments

In each exercise, several instruments (including one honed for the child's anatomy) can be used in order to complete the interventions. At the same time, the software does not limit the choice of the instrument within the framework of the intervention.



During the exercise performance, universal imitators of endoscopic instruments are introduced through special ports of the bronchoscope

More than 10 types of instruments are available in the virtual library, with the possibility of choosing from different categories