

Bronchoscopy Hands-On Training Curriculum - Basics

Description

Training within a proficiency-based, virtual-reality training program can increase competency and reduce errors and complications during real bronchoscopic procedures. The following curriculum is based on the BRONCH Mentor simulator, intended to promote the acquisition of bronchoscopic skills and safe and efficient clinical performance.

Objectives

- To acquire essential bronchoscopic capabilities to a measurable competency level
- To practice and demonstrate proficiency in the following essential bronchoscopic skills:
 - Scope maneuvering
 - Anatomical navigation
 - Adequate knowledge of the bronchial anatomy
- To practice and reach confidence level in performing a complete, methodical, airway inspection
- To identify and successfully sample suspicious endobronchial findings during a diagnostic bronchoscopy
- To gain familiarity with the required patient management when operating under moderate sedation

Specialties

Pulmonology, Thoracic surgery, Interventional pulmonology, Critical care medicine

Target Audience

Individuals or groups interested in following a structured curriculum to acquire skills to a predetermined level of proficiency. The acquired skills should be transferable to the real clinical environment.

Assumptions

It is recommended to include a cognitive skills module in the beginning of the training program. No previous procedural or technical knowledge is required.

It is assumed the user has prior knowledge of moderate sedation for the Diagnostic Bronchoscopy section.

Suggested Time Length

Distributed training schedules, with a maximum of two sessions performed per day, each at least one hour apart, until demonstrating the required level of skill.

Authors

Symbionix

Introduction to Curriculum – Instructors

Training within a proficiency-based, virtual-reality curriculum may reduce errors during real bronchoscopic procedures. The evaluation metrics are done automatically by the BRONCH Mentor. Setting the required competence level is in the hands of the training facility. The below bench marks are an educated estimation.

Task Descriptions and Curriculum Steps

The trainee is required to follow a structured step-by-step procedure set in a hierarchical order. The curriculum comprises of two segments:

- A. Essential Bronchoscopic Skills**
- B. Diagnostic Bronchoscopy and Endobronchial Sampling**

Each segment is constructed of a training phase followed by proficiency assessment to meet the predetermined skill level.