



# LOW-RISK, PORTABLE BRONCHOSCOPY SIMULATOR TRAINING

Airway Limited provides a portable, cost-effective, three-dimensional bronchoscopy simulator for ongoing training without patient risk.

## THE CHALLENGE

To teach doctors complicated procedures in a risk-free environment.

- A recent survey by the American Society of Anesthesiologists (ASA) showed eighty percent of 1350 anesthesiologists indicated they were interested in simulation-based CME.
- Bronchoscopy is an increasingly common diagnostic procedure, but it requires lengthy specialist training with up to one hundred bronchoscopies to achieve expertise.

Bronchoscopy is used for both diagnosis and anaesthesia. Last year respiratory physicians performed 460,000 bronchoscopy diagnostic procedures in the USA. In addition there are over 43,000 members of the American Society of Anesthesiologists using bronchoscopes regularly for anaesthesia.

The best alternative to learning on patients is to learn on simulators, but until now simulators have been bulky, expensive and costly to maintain.

## THE SOLUTION

The Airway Limited bronchoscopy simulator is an affordable portable training device which links an exact replica hand-piece to a virtual airway. It enables medical staff to develop expert skills without patient risk.



## THE BENEFITS

The Airway Limited bronchoscopy simulator provides increased patient safety and improved health outcomes.

Benefits include.

- Affordable, high-fidelity simulation.
- Progressive training.
- Immediate feedback and assessment.
- Totally safe training outside the operating room.
- Minimizes expensive repairs incurred through incorrect use of bronchoscopes.
- PC, Mac and laptop compatible.
- Small enough to fit in a brief case.
- Realistic and accurate.

In addition to providing manual competency, the Airway Limited bronchoscopy simulator can recreate emergency scenarios and teach disease recognition.

## WHY IS OUR SIMULATOR UNIQUE?

- The simulator is lightweight, portable, runs off a laptop, and looks and feels like the real thing
- It delivers three-dimensional, virtual simulation with immediate feedback for students and clinicians



“Airway Limited offers a high-fidelity simulator which is small, light, portable and compatible with existing laptops.”

## THE TECHNOLOGY

Airway Limited has developed a virtual reality simulator with a model flexible bronchoscope that looks and feels like the real thing. It interacts with a small bench top sensor which registers the scope's movements and translates this to a three-dimensional virtual airway displayed on a computer screen.

The user can progress through virtual clinical scenarios receiving instant feedback from the simulator which measures participant performance.

This technology is suitable for large training institutions as well as individual practices; it makes up-skilling accessible in any location and can be applied to the simulation of other medical procedures.

Airway Limited is committed to providing a constant stream of high quality software updates through its research and development program, which will be embedded into its solution delivery.

The Airway Limited bronchoscopy simulator offers a positive return on investment, based on an affordable purchase price and low maintenance overhead; it promotes rapid development of complex procedural skills necessary for safe patient care.



## THE TEAM

Dr Paul Baker MBChB, FANZCA is the founder of Airway Limited. As an anesthesiologist, he has a special interest in teaching and researching the management of the airway, and has established the Airway Skills courses and programs that are available in Australia and New Zealand.

Dr Baker has brought together a team of experts to create the simulator, including a specialist in three-dimensional simulation solutions, as well as industrial and graphic designers and electronic engineers.

Dr Baker will continue to lead this simulator project through to commercialization and entry into the United States market.

Airway Limited has recently been recognized as a finalist in the **New Zealand Trade and Enterprise Focus on Health Challenge**, a highly competitive initiative to identify innovation in the health sector and assist in its commercialization into the United States market.



### Dr Paul Baker

Founder  
Airway Limited  
21a Ranui Road  
Remuera 1050  
Auckland, New Zealand

Phone +64 21 977 392  
Email: paul@airwayskills.co.nz  
Website: www.airwayskills.com

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