

**Investment Brief for
Oropharyngeal Airway Device**

**NSW
AREA HEALTH
SERVICES**

Office of Commercialisation

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Oropharyngeal Airway Device

Summary

A unique airway device with a novel nasal-intubation design, for combining single-use airway management and fibreoptic bronchoscopy.

The new Airway combines an inexpensive, effective single-use basic airway management device with a versatile difficult intubation aid, allowing rapid and safe transition from basic to advanced airway management.

Market

Oral airway devices are found throughout hospitals in every 'crash-cart' and anaesthetist's kit, and in emergency vehicles and field kits. They are a universal, staple medical consumable. Multiple companies manufacture 'me too' copies of the Guedel, serving a huge market worldwide.

The novel airway can be marketed for high volume manufacture and sale as the 'smarter, more modern' alternative to the standard, near-universal basic airway support device, the Guedel. It may also be marketed specifically for difficult airway management cases as the only device designed to facilitate bronchoscopically-guided intubation through the nose or mouth in unconscious patients.

Benefits

The basic universal airway design, the Guedel, has not changed in 70 years despite the advent of standard anaesthetic circuit connectors, the fibreoptic bronchoscope and other advances in airway management technology. This new airway is an effective single-use basic airway management device designed with a more anatomically correct curve for airway management. It can allow the patient to breathe spontaneously through the device under a conventional mask or while connected to an anaesthetic circuit. The patient can be ventilated using a traditional 'bag and mask' technique or connected to the anaesthetic circuit. It is cost effective for high volume production. It is a simple design, easy to manufacture in polyurethane from an uncomplicated mould similar to a Guedel, but with technical and design superiority to command a higher retail price.

Nasal-intubation through an Oropharyngeal Airway

The Prin Airway:

An unparalleled advantage in combining single-use airway management and fiberoptic bronchoscopy.

The Technology

The Prin Airway is an easy-to manufacture and easy-to-use disposable airway device designed to provide support in both basic and advanced airway management problems.

As a basic airway the Prin Airway surpasses the Guedel, with a fit and functionality that caters for the advances made in airway management since the original Guedel's release.

The unique architecture of the Airway's pharyngeal arc and laryngopharyngeal ring better fits the orolaryngopharynx. The internal diameter of the device permits the comfortable passage of a standard 7.0mm endotracheal tube. A novel second orifice naturally aligns a conduit between the oropharynx and nasopharynx for facile endoscopic nasotracheal intubation. The novel laryngopharyngeal ring permits removal of the airway without disengaging the naso-endoscope. The Prin Airway can be used with a traditional face mask or connected directly to a standard anaesthesia circuit, allowing fiberoptic intubation more safely in unconscious patients, whether spontaneously breathing or not.

Applications and Advantages

The Prin Airway is the obvious replacement for Guedel-style airways for:

- In-hospital airway management.
- Pre-hospital emergency and trauma airway management.
- Assisting endoscopic oro- or nasotracheal intubation in unconscious patients.

Market

Failures are reported in up to 9.5% of orotracheal fiberoptic intubations through airways₁, and current airway devices have major deficiencies in endoscopic functionality₂ – the Prin airway can alleviate these problems. From US\$517 million in 1999, the US Emergency and Trauma devices market had a predicted growth of 19.8% (CAGR) including the airways and breathing products market. New airway devices have captured large markets, e.g. LMA's are used in more than 100 million patients globally, and the PAXpress™ has a predicted market of US\$80million.

IP Position

An international PCT application was filed on 23 March 2005.

Commercialisation

We seek a license or purchase of our technology for manufacture, distribution and sale of the Prin Airway. The assignee may partner with our clinical professionals for further pre-clinical development or to fast-track regulatory approvals through clinical trials.

Footnotes

1 – Eur J Anaesthesiol. 1997 Jul; 14(4):380-4. Comparison between the Ovassapian intubating airway and the Berman intubating airway in fiberoptic intubation. Randell T, Valli H, Hakala P.

2 – Curr Opin Anesthesiol. 2004 Dec; 17(6):505-510. The Williams Airway Intubator, the Ovassapian Airway and the Berman Airway as upper airway conduits for fiberoptic bronchoscopy in patients with difficult airways. Greenland KB, Irwin MG.