The “i-scoop” – a new type of laryngoscope for normal and difficult airways

Reference Number: 15-00199

Challenge
Securing the patient’s airways by introducing an endotracheal tube for external ventilation is crucial to avoid severe complications in both emergency situations and routine anaesthesia care. If intubation fails, brain damage or death can occur due to hypoxemia. Furthermore, the intubation of patients with difficult airways due to obesity, anatomical abnormalities or tumours is a challenge that requires skilled medical personnel and specialized equipment. Although the use of video laryngoscopes has improved outcomes, intubation fails in as many as 25% of all cases in emergency settings. For these reasons enhanced devices are needed to facilitate visualization of the vocal cords and intubation of the trachea.

Technology
The intubation scoop (i-scoop) is an easy-to-use video laryngoscopy device for the management of both normal and difficult airways. The device enables intubation without a blade to elevate the tongue base or the epiglottis. i-scoop features a handle and a curved guiding bar with two cameras and flushing and suction catheters. Due to its slim design no element of the device disturbs the view on the vocal cords and, secretions or blood can easily be flushed away and removed using the catheters. Thus, i-scoop may allow easier and faster intubations and could therefore increase patient safety.

Commercial Opportunity
In-licensing or collaboration for further development is possible.

Developmental Status
A functional prototype has been produced. The device has been tested extensively on various airway trainer manikins and was found to be superior to all current video laryngoscopy systems with regard to intubation success rate, intubation time and visibility of the vocal cords.

Patent Situation
European patent application (EP12729515.2) has been filed with priority of 2011. US patent (US 9,867,956) has been granted in 2018.

Further Reading