



Technology Opportunity, Ref. No. UZ-18/482

Teeth-protecting Laryngoscope

Damage of upper teeth is frequent after endotracheal intubation. Existing tooth protectors are rarely used because they involve an extra manipulation step or impair the intubation process due to reduced sight. We offer a new solution including an audible pressure feedback.

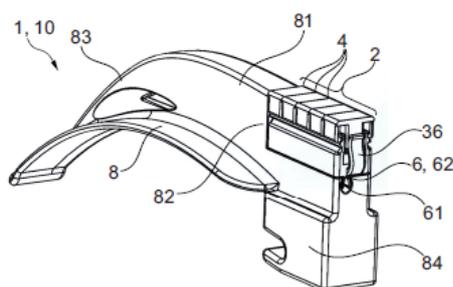
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Reference in preparation

Background Endotracheal intubation is a routine procedure in hospital care. As much as 50 million intubations are performed worldwide every year. Presumably half of all physicians, mostly anaesthetist and emergency squad personnel, performing this procedure have to report tooth damages at least once during their career. Damages occur in particular to the upper teeth and are caused by pressure force of the laryngoscope. In a small poll of 50 experts almost 50% of those polled answered that tooth protection is important, while as many as 70% never use a tooth protector, mainly because no convincing solution is available or, solutions even impair the process by hindering the sight of the physician. Visible aids for pressure indications are unwanted because they distract the physician and relatively new video laryngoscopes are expensive.

Invention We propose a new tooth-protecting mechanism that can be incorporated in any laryngoscope. It works by a series of push buttons that react to a pressure equal to the natural forces during chewing. At higher forces, they click into a distant position to relief pressure from upper teeth and to give an audible feedback to the physician. The invention was co-developed by physicians and engineers of the University of Zurich. The device offers



- Free sight into the throat
- Audible feedback in case of high forces
- Sensitivity in the range of chewing forces
- Simple and clever design for easy manipulation
- Competitive production costs for single use

Fields of Use The device offers an easy-to-use and cost effective solution for preventing teeth damage during intubation in hospital care or emergency situations. It is particularly suited for less experienced physicians in routine intubation and in training situations.

Patent Status Patent application filed

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