

HEINE visionPRO Video Laryngoscope: an anesthesiologist's perspective on modern requirements

Videolaryngoscopy today is no longer just an alternative to direct laryngoscopy, but a method that is reshaping safety standards in anesthesiology. According to the international guidelines “*Guidelines on strategies for the universal implementation of videolaryngoscopy*” (2025), there is a need to transition to the universal use of videolaryngoscopy in all departments where tracheal intubation is performed. Implementing this approach requires not only organizational changes but also technically advanced equipment. As part of an evaluation conducted at the V.A. Negovsky Research Institute of General Reanimatology, we had the opportunity to thoroughly assess the new HEINE visionPRO video laryngoscope and analyze its compliance with the highest modern standards.

HEINE visionPRO: an engineering solution for real clinical practice

HEINE visionPRO is a device designed to ensure fast, reliable, and safe intubation. Its key feature is an anti-glare display. In operating rooms and intensive care settings, where bright lighting can interfere with visibility and reduce image quality, this display provides a clear, high-contrast image without glare. This not only improves ease of use but directly impacts patient safety: according to modern standards, optimal visualization of the glottis is the foundation for successful first-attempt intubation. Disposable blades are convenient to use and easy to replace, although they require additional financial investment.

Evidence base and clinical effectiveness: overview of current studies

Before conducting the clinical evaluation, we reviewed the currently available data on the effectiveness of HEINE visionPRO.

According to a randomized crossover simulation study conducted at the University Hospital of Strasbourg, HEINE visionPRO provides higher image quality and produces fewer reflections compared to the McGrath®Mac video laryngoscope. At the same time, it shows comparable performance in intubation time, first-pass success rate, and ease of use (Dupuy-Müller et al., SFAR 2023).

In 2026, a prospective randomized controlled trial “*Non-inferiority Trial Comparing visionPRO to Glidescope Video Laryngoscopes*” (registration number NCT06676462) is ongoing. This pilot study involving 100 patients compares HEINE visionPRO with a hyperangulated HyMac 3 blade to another widely used hyperangulated video laryngoscope, the GlideScope (Verathon Inc.). The goal is to compare effectiveness and safety, including first-pass success rate, intubation time, and complication rates.

New standards in documentation: the VCI scale

The universal implementation of videolaryngoscopy requires not only reliable equipment but also a standardized approach to documenting tracheal intubation in medical records. This is addressed by the VCI (Video Classification of Intubation) scale. In a large international study involving 18 clinics across 4 countries (Halliday et al., 2025), the reliability of the VCI scale was evaluated. During 1,644 intubations, two physicians (an anesthesiologist and an observer) independently assessed each procedure using the VCI scale. Agreement between the two assessments was 89.1%, meaning that in nearly 9 out of 10 cases, the evaluations fully matched. Statistical analysis confirmed high inter-rater reliability (coefficient 0.858, with a maximum possible value of 1.0). This indicates that different clinicians can use the VCI scale and obtain consistent results. The VCI scale includes three components (blade type, POGO score, and intubation difficulty classification), providing a unified language for describing video-assisted intubation. This improves continuity of care, quality of audits, and training, which are key factors in the successful implementation of videolaryngoscopy in routine practice.

Clinical evaluation at the V.A. Negovsky Research Institute: initial observations

Preliminary observations confirm its clinical effectiveness.

- **Image quality.** The display of the video laryngoscope provides excellent visualization even under bright operating room lighting, as confirmed by all participants in the evaluation. Clear visualization of anatomical landmarks increases the anesthesiologist's confidence, especially in cases with non-standard anatomy.
- **Maintenance of direct laryngoscopy skills.** The availability of blades with a classic curvature allows the device to be used both for videolaryngoscopy and traditional direct laryngoscopy, helping clinicians maintain their core skills.

Discussion and perspectives

HEINE visionPRO is a video laryngoscope that fully aligns with the current direction of anesthesiology in airway management. The device combines high-quality visualization, durability, and safety. The availability of a hyperangulated HyMac 3 blade makes it suitable for expanded indications, including cases with predicted difficult airways, although this requires further study. From a practical standpoint, the implementation of HEINE visionPRO allows clinicians to address several tasks simultaneously: improving patient safety through better control of intubation and applying the standardized VCI scale (Halliday et al., 2025) for objective evaluation and documentation of each case.

Conclusion

HEINE visionPRO represents a significant step forward in airway visualization. Its features and initial evaluation results support its recommendation for broader clinical use. This device has the potential to become a key element in the transition toward universal videolaryngoscopy, aimed at improving patient safety and the quality of medical care.

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04.04.2026

