



# Engraved Laryngoscope Blades for Successful Neonatal Intubation

Vasanthan Tanigasalam<sup>1</sup>

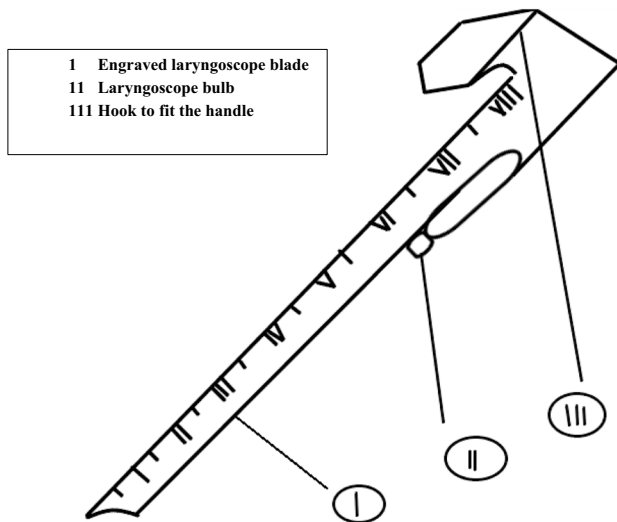
Received: 29 January 2024 / Accepted: 2 February 2024

© The Author(s), under exclusive licence to Dr. K C Chaudhuri Foundation 2024

Neonatal intubation and correct endotracheal tube placement at the level of vocal cords are crucial for airway management. The endotracheal tube (ET) is placed at the level of vocal cords, and its proper position is confirmed by the T1/T2 vertebra position in the X-ray. In neonates, this correct ET tube fixation is guided by the formula nasotragal length (NTL+1) cm or weight+6 [1]. Similarly, for successful visualization of vocal cords, the laryngoscope blade has to be inserted for appropriate length [2]. This length is constant for each neonate.

The author works in a resource-limited setting without a video laryngoscope and trained neonatologists present

around the clock. Hence, he engraved the miller laryngoscope blades (size 1) in centimeters using an engraver pen (Fig. 1). This engraved blade helps measure the target insertion length for successful neonatal intubation. The novice doctors in author's NICU aim to target insertion length during reintubation. The author has noted that novice doctors were confident and successful in reintubation using engraved laryngoscope blades compared to those without engraving. The author has also used the engraved blades for neonatal resuscitation training for MBBS undergraduates. The MBBS students successfully intubated using engraved laryngoscope blades compared to those without engraving in NRP training. Further studies are in the pipeline to determine the optimum length of laryngoscope blade insertion for neonates under different weight categories.



**Fig. 1** The two-dimensional line diagram model of engraved laryngoscope blade

## Declarations

**Conflict of Interest** None.

## References

1. Park RS, Peyton JM, Kovatsis PG. Neonatal airway management. *Clin Perinatol*. 2019;46:745–63.
2. Berisha G, Boldingh AM, Blakstad EW, Rønnestad AE, Solevåg AL. Management of the unexpected difficult airway in neonatal resuscitation. *Front Pediatr*. 2021;9:699159.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

✉ Vasanthan Tanigasalam  
vasanthan2k6jipmer@gmail.com

<sup>1</sup> Department of Pediatrics, JIPMER, Karaikal 609602, India