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## Letter to the Editor

# A unique technique to size pediatric endotracheal tubes

To the Editor,

Pediatric airway anatomy is different from adults. The larynx is shorter and more anteriorly located.<sup>1</sup> There are different formulas to estimate the size of endotracheal tubes (ETT) in pediatric population based on ages, such as Cole (Age/4 + 4), Khine (age/4 + 3) and Duracher (Age/4 + 3.5) formulas.<sup>2,3</sup> Among these, Duracher formula provides better estimates of the sizes of cuffed ETT in children over 1 years of age.<sup>3</sup> In emergency and trauma settings, sometimes it is cumbersome to calculate ETT sizes using the above formulas. So, we present a technique to remember ETT sizes for different ages as below

- 3.5 mm at birth
- 4.5 mm at 4 years
- 5 mm at 5 years (then increase the size of tube by 1 mm for every 5 years)
- 6 mm at 10 years
- 7 mm at 15 years

This technique does not provide tube sizes for all ages. Rather it provides a reference point from which tube sizes for other ages can be approximately estimated. For example, for ages 7–8 years we can use ETT size 5.5 mm. Similarly for ages 12–13 years we can use the ETT size 6.5 mm.

The advantage of this technique is that it's easy to remember and can be readily used in crashing patients without going through calcu-

lations. The limitation of this technique is that it may underestimate or overestimate the size of ETT by 0.25 mm compared to the Duracher formula. (Table 1) Also this technique has not been formally studied.

## Conflict of interest

We report no conflict of interest.

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**Table 1 – Comparison of ETT sizes estimated using our technique and Duracher formula.**

Ages	Our Technique	Duracher Formula
Birth	3.5	N/A
4 years	4.5	4.5
5 years	5	4.75
10 years	6	6
15 years	7	7.25

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