

***THE EFFECT OF CHULA FORMULA AND 20/22 STANDARD METHOD ON  
THE ACCURACY OF OROTRACHEAL TUBE DEPTH IN GENERAL  
ANESTHESIA PATIENTS***

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***ABSTRACT***

**Background:** Orotracheal tube intubation is one of the methods for airway management and resuscitation during general anesthesia. The accuracy of orotracheal tube insertion depth must be considered to avoid complications. Chula formula and 20/22 standard can be used to predict the accuracy of Orotracheal Tube Depth.

**Objective:** To determine the effect of the chula formula method and the 20/22 standard on the accuracy of the depth of the orotracheal tube in patients with general anesthesia.

**Methods:** This study is a quantitative study using quasy experimental method with posttest only control group design approach conducted in IBS room of Bandung City Hospital in February - April 2025. The research sample amounted to 44 respondents per group. Sampling with random sampling technique according to the inclusion criteria, determining the number of samples with the formula of Isaac & Michael and tested with the chi square test.

**Results:** The test results of the chula formula group with chi square were p-value 0.003, while the test results in the standard 20/22 group obtained a p-value of 0.074.

**Conclusion:** The use of the chula formula method and the 20/22 standard has a significant effect on the accuracy of orotracheal tube depth in patients with general anesthesia.

Keywords: Chula formula, Standard 20/22, Accuracy of Orotracheal Tube Depth, General Anesthesia.

# Pengaruh Metode *Chula Formula* dan Standar 20/22 Terhadap Ketepatan Kedalaman *Orotracheal Tube* Pada Pasien Dengan *General Anestesi*

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## ABSTRAK

**Latar Belakang:** Intubasi *oro-tracheal tube* adalah salah satu metode untuk manajemen dan resusitasi jalan napas pada saat *general anestesi*. Ketepatan kedalaman pemasangan *oro-tracheal tube* harus diperhatikan untuk menghindari komplikasi. *Chula formula* dan standar 20/22 dapat digunakan untuk memprediksi Ketepatan Kedalaman *Orotracheal Tube*.

**Tujuan:** Untuk mengetahui pengaruh metode *chula formula* dan standar 20/22 terhadap ketepatan kedalaman *oro-tracheal tube* pada pasien dengan *general anestesi*.

**Metode:** Penelitian ini merupakan penelitian kuantitatif menggunakan metode *quasy experimental* dengan pendekatan *posttest only control group design* yang dilakukan di ruang IBS RSUD Kota Bandung pada bulan Februari – April 2025. Sampel penelitian berjumlah 44 responden per kelompok. Pengambilan sampel dengan teknik *random sampling* menyesuaikan dengan kriteria inklusi, penentuan jumlah sampel dengan rumus isaac & michael dan di uji dengan uji *chi square*.

**Hasil:** Hasil uji kelompok *chula formula* dengan *chi square* yaitu *p-value* 0,003, sedangkan hasil uji pada kelompok standar 20/22 didapatkan nilai *p-value* 0,074.

**Kesimpulan:** Penggunaan metode *chula formula* dan standar 20/22 memiliki pengaruh signifikan terhadap ketepatan kedalaman *oro-tracheal tube* pada pasien dengan *general anestesi*.

Kata Kunci: *Chula formula*, Standar 20/22, Ketepatan Kedalaman *Orotracheal Tube*, *General Anestesi*.