

PENGARUH PENGGUNAAN *AIRWAY ADJUNCT (STYLET)* TERHADAP FREKUENSI DENYUT NADI DAN DURASI WAKTU INTUBASI PADA PASIEN GENERAL ANESTESI

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ABSTRAK

Latar Belakang: Intubasi endotrakeal merupakan prosedur esensial dalam manajemen jalan napas pada pasien yang menjalani general anestesi, namun tindakan ini berisiko memicu respons hemodinamik berupa peningkatan frekuensi denyut nadi akibat stimulasi sistem saraf simpatis pada area orofaring, laring, dan trakea. Penggunaan airway adjuncts berupa stylet diyakini dapat mempermudah pengarahannya endotrakeal tube menuju glotis, mengurangi manipulasi jalan napas, serta meminimalkan gangguan hemodinamik selama tindakan berlangsung.

Tujuan: Mengetahui pengaruh penggunaan *Stylet* terhadap frekuensi denyut nadi dan durasi waktu intubasi pada pasien general anestesi.

Metode: Penelitian kuantitatif dengan desain *quasi experimental (posttest only with control group)*. Sampel 68 responden dibagi menjadi kelompok intervensi (Penggunaan *stylet*) dan kontrol (Tanpa menggunakan *Stylet*) melibatkan 68 responden yang menjalani pembedahan elektif di Instalasi Bedah Sentral RSUD Kota Bogor pada Maret–April 2026, masing-masing 34 responden per kelompok yang ditentukan berdasarkan nomor antrean ganjil-genap. Data dikumpulkan menggunakan bed side monitor dan stopwatch, kemudian dianalisis dengan uji *Mann-Whitney* dan *Independent T-Test*.

Hasil: Rata-rata frekuensi denyut nadi kelompok intervensi lebih rendah (82,03 x/menit) dibandingkan kelompok kontrol (93,47 x/menit) dengan $p=0,001$, serta waktu intubasi kelompok intervensi lebih singkat (26,93 detik) dibandingkan kelompok kontrol (33,13 detik) dengan $p=0,000$.

Kesimpulan: Penggunaan *stylet* berpengaruh signifikan dalam menurunkan frekuensi denyut nadi dan mempersingkat durasi waktu intubasi pada pasien general anestesi.

Kata kunci: *stylet*, *airway adjuncts*, frekuensi denyut nadi, waktu intubasi, general anestesi

THE EFFECT OF AIRWAY ADJUNCTS (STYLET) USE ON HEART RATE AND INTUBATION DURATION IN PATIENTS UNDERGOING GENERAL ANESTHESIA

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ABSTRACT

Background: Endotracheal intubation is an essential procedure in airway management for patients undergoing general anesthesia; however, it carries the risk of triggering hemodynamic responses, particularly an increase in heart rate due to sympathetic nervous system stimulation of the oropharynx, larynx, and trachea. The use of an airway adjunct in the form of a stylet is believed to facilitate the direction of the endotracheal tube toward the glottis, reduce airway manipulation, and minimize hemodynamic disturbances during the procedure.

Objective: This study aimed to determine the effect of stylet use on heart rate and intubation duration in patients undergoing general anesthesia.

Metode: A quantitative study with a quasi-experimental design (posttest only with control group) was conducted involving 68 respondents divided into an intervention group (with stylet) and a control group (without stylet), each consisting of 34 respondents undergoing elective surgery at the Central Surgical Installation of RSUD Kota Bogor in March–April 2026. Data were collected using a bedside monitor and stopwatch, then analyzed using the Mann-Whitney test and Independent T-Test.

Results: The mean heart rate of the intervention group was lower (82.03 bpm) than the control group (93.47 bpm) with $p=0.001$, and the mean intubation time of the intervention group was shorter (26.93 seconds) than the control group (33.13 seconds) with $p=0.000$.

Conclusion: The use of a stylet significantly reduced heart rate and shortened intubation duration in patients undergoing general anesthesia.

Keywords: stylet, airway adjuncts, heart rate, intubation duration, general anesthesia