

**PENGARUH PENGGUNAAN “ANESTHESIA CIRCUIT STABILIZER”
TERHADAP SATURASI OKSIGEN PADA PASIEN ANESTESI
UMUM DI RS PKU MUHAMMADIYAH YOGYAKARTA**

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ABSTRAK

Latar Belakang: Salah satu komplikasi yang dapat terjadi selama anestesi umum adalah pergeseran atau terlepasnya sirkuit anestesi yang dapat menurunkan saturasi oksigen dan mengganggu efektivitas ventilasi. Metode fiksasi sirkuit anestesi yang umum digunakan saat ini adalah plester, namun metode ini dinilai tidak adekuat dalam menahan berat sirkuit. Oleh karena itu, dikembangkan alat bernama *Anesthesia Circuit Stabilizer* yang dirancang khusus untuk menstabilkan sambungan sirkuit anestesi selama tindakan anestesi umum berlangsung.

Tujuan: Mengetahui pengaruh penggunaan *Anesthesia Circuit Stabilizer* terhadap saturasi oksigen pada pasien yang dilakukan tindakan anestesi umum.

Metode: Penelitian ini menggunakan desain *quasi experiment* dengan rancangan *pretest-posttest with control group*. Penelitian ini dilaksanakan 9 Februari-14 Maret 2026. Sampel terdiri dari 62 pasien yang menjalani tindakan anestesi umum, dibagi menjadi kelompok intervensi yang menggunakan *Anesthesia Circuit Stabilizer* dan kelompok kontrol yang menggunakan plester. Analisis data menggunakan *Wilcoxon* dan *Mann-Whitney*.

Hasil: Pada kelompok intervensi, rata-rata saturasi oksigen meningkat dari 98,63% saat *pre test* menjadi 99,45% saat *post test*, dengan 20 responden mengalami peningkatan dan 11 responden tidak mengalami perubahan. Pada kelompok kontrol, rata-rata saturasi oksigen menurun dari 99,06% saat *pre test* menjadi 98,13% saat *post test*, dengan 22 responden mengalami penurunan dan 9 responden tidak mengalami perubahan.

Kesimpulan: Ada pengaruh penggunaan *Anesthesia Circuit Stabilizer* terhadap saturasi oksigen pada pasien anestesi umum di RS PKU Muhammadiyah Yogyakarta.

Kata Kunci: *Anesthesia Circuit Stabilizer*, saturasi oksigen, anestesi umum, hipoksia

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THE EFFECT OF USING AN “ANESTHESIA CIRCUIT STABILIZER” ON OXYGEN SATURATION IN PATIENTS UNDER GENERAL ANESTHESIA AT PKU MUHAMMADIYAH HOSPITAL IN YOGYAKARTA

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ABSTRACT

Background: One complication that can occur during general anesthesia is the shifting or dislodgement of the anesthetic circuit, which can decrease oxygen saturation and interfere with effective ventilation. The current common method of fixing the anesthetic circuit is taping, but this method is considered inadequate in supporting the weight of the circuit. Therefore, a device called the Anesthesia Circuit Stabilizer was developed, specifically designed to stabilize the anesthetic circuit connection during general anesthesia.

Objective: To determine the effect of using an Anesthesia Circuit Stabilizer on oxygen saturation in patients undergoing general anesthesia.

Methods: This study used a quasi-experimental design with a pretest-posttest with a control group. This study was conducted from February 9 to March 14, 2026. The sample consisted of 62 patients undergoing general anesthesia, divided into an intervention group using an Anesthesia Circuit Stabilizer and a control group using a plaster. Data analysis used the Wilcoxon and Mann-Whitney test.

Results: In the intervention group, the average oxygen saturation increased from 98.63% at the pre-test to 99.45% at the post-test, with 20 respondents experiencing an increase and 11 respondents experiencing no change. In the control group, the average oxygen saturation decreased from 99.06% at the pre-test to 98.13% at the post-test, with 22 respondents experiencing a decrease and 9 respondents experiencing no change.

Conclusion: There is an effect of the use of Anesthesia Circuit Stabilizer on oxygen saturation in general anesthesia patients at PKU Muhammadiyah Hospital Yogyakarta.

Keywords: Anesthesia Circuit Stabilizer, oxygen saturation, general anesthesia, hypoxia

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