# *THE DIFFERENCES IN APGAR SCORES BASED ON VAGINAL DELIVERY AND SECTIO CAESARIA AT PRATAMA HOSPITAL YOGYAKARTA IN 2025*

Rosa Fatmaningrum[1], Dyah Noviawati Setya Arum[2], Margono[3]
[1,2,3] *Department of Midwifery,* Poltekkes Kemenkes Yogyakarta
Mangkuyudan *street* MJ III/304, Yogyakarta 55143
[1]Email: rrfatmaningrat@gmail.com

## ABSTRACT

***Background****: Neonatal asphyxia remains a major cause of neonatal mortality in Indonesia and continues to contribute significantly to the national infant mortality rate. The APGAR score is a widely used clinical tool for assessing the condition of newborns immediately after birth and their adaptation to extrauterine life. APGAR scores may be influenced by various maternal and obstetric factors, including mode of delivery, maternal age, parity, premature rupture of membranes, and hypertension.*

***Objective****: To determine the differences in APGAR scores based on mode of delivery and maternal factors among newborns at Pratama Hospital Yogyakarta in 2025.*

***Methods****: This analytical observational study employed a cross-sectional design using secondary data from newborn medical records. A total of 206 newborns who met the inclusion criteria were selected through proportionate stratified sampling. Data were analyzed using univariate, bivariate (Mann–Whitney test), and multivariate (logistic regression) analyses.*

***Results****: No significant differences in APGAR scores were observed according to mode of delivery, maternal age, or parity ($p>0.05$). In contrast, premature rupture of membranes and hypertension were significantly associated with APGAR scores ($p<0.05$). Premature rupture of membranes was the most dominant factor associated with low first-minute APGAR scores, whereas no significant factors were identified for fifth-minute APGAR scores.*

***Conclusion****: Mode of delivery, maternal age, and parity were not significantly associated with APGAR scores. Premature rupture of membranes and hypertension were significantly associated with first-minute APGAR scores, while no significant factors were identified for fifth-minute APGAR scores.*

***Keywords****: APGAR score, vaginal delivery, caesarean section, premature rupture of membranes, newborn.*

# PERBEDAAN NILAI APGAR PADA PERSALINAN PERVAGINAM DAN *SECTIO CAESARIA* DI RS PRATAMA YOGYAKARTA TAHUN 2025

Rosa Fatmaningrum[1], Dyah Noviawati Setya Arum[2], Margono[3]
[1,2,3]Jurusan Kebidanan, Poltekkes Kemenkes Yogyakarta
Jl. Mangkuyudan MJ III/304, Yogyakarta 55143
[1]Email: rrfatmaningrat@gmail.com

## ABSTRAK

**Latar Belakang**: Asfiksia neonatorum masih menjadi salah satu penyebab utama kematian neonatal di Indonesia dan berkontribusi terhadap tingginya angka kematian bayi. Penilaian kondisi bayi segera setelah lahir melalui nilai APGAR penting untuk mengidentifikasi gangguan adaptasi neonatal secara dini. Nilai APGAR dipengaruhi oleh berbagai faktor maternal dan obstetri, termasuk persalinan vaginam dan *sectio caesaria*, usia ibu, paritas, ketuban pecah dini, dan hipertensi.

**Tujuan**: Mengetahui perbedaan nilai APGAR berdasarkan persalinan pervaginam dan *sectio caesaria* serta faktor maternal pada bayi baru lahir di Rumah Sakit Pratama Yogyakarta tahun 2025.

**Metode**: Penelitian ini menggunakan desain observasional analitik dengan pendekatan *cross-sectional*. Data sekunder diperoleh dari rekam medis bayi baru lahir dan ibu. Sebanyak 206 data bayi baru lahir yang memenuhi kriteria inklusi dipilih menggunakan teknik *proportionate stratified sampling*. Analisis data dilakukan secara univariat, bivariat menggunakan uji *Mann–Whitney*, dan multivariat menggunakan regresi logistik.

**Hasil**: Tidak terdapat perbedaan nilai APGAR berdasarkan persalinan pervaginam dan *sectio caesaria*, usia ibu, dan paritas ($p>0,05$), sedangkan ketuban pecah dini dan hipertensi menunjukkan perbedaan yang bermakna ($p<0,05$). Ketuban pecah dini merupakan faktor paling dominan yang berhubungan dengan rendahnya nilai APGAR menit pertama, sementara tidak terdapat faktor yang berhubungan dengan nilai APGAR menit kelima.

**Kesimpulan**: Persalinan pervaginam dan *sectio caesaria*, usia ibu, dan paritas tidak berhubungan dengan nilai APGAR. Ketuban pecah dini dan hipertensi berhubungan dengan nilai APGAR menit pertama, sedangkan tidak terdapat faktor yang berhubungan secara signifikan dengan nilai APGAR menit kelima.

Kata kunci: nilai APGAR, persalinan pervaginam, *sectio caesaria*, ketuban pecah dini, bayi baru lahir.