PREVALENSI DAN FAKTOR RISIKO READMISI 30 HARI ATAU PROLONGED STAY PADA BAYI KURANG BULAN: ANALISIS BIG DATA ACADEMIC HEALTH SYSTEM

INTISARI

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Pendahuluan: Bayi kurang bulan memiliki risiko morbiditas dan mortalitas lebih tinggi dibanding bayi cukup bulan, sehingga memerlukan perawatan intensif dan lama rawat lebih panjang. Readmisi 30 hari atau prolonged stay merupakan indikator penting kualitas pelayanan neonatal, namun hubungan langsung antara usia gestasi dengan risiko readmisi masih belum jelas, dan penelitian berbasis big data di Indonesia terbatas.
Tujuan: Menilai prevalensi serta faktor risiko readmisi 30 hari atau prolonged stay pada bayi kurang bulan dibanding bayi cukup bulan di RSUP Dr. Sardjito dan RSA UGM periode 2017–2021.
Metode: Penelitian ini merupakan penelitian observasional dengan desain retrospektif, menggunakan data yang diperoleh dari big data AHS UGM. Analisis univariat, bivariat, dan multivariat dilakukan menggunakan Jamovi untuk mengevaluasi hubungan usia gestasi, karakteristik klinis, dan risiko readmisi 30 hari atau prolonged stay.
Hasil: Prevalensi readmisi atau prolonged stay lebih tinggi pada bayi kurang bulan (16,4%) dibanding cukup bulan (11,4%). Faktor risiko signifikan meliputi berat lahir rendah, lama rawat ≥7 hari, perawatan NICU, kelas perawatan lebih rendah, dan rumah sakit tipe B. Analisis multivariat menunjukkan usia gestasi tidak berhubungan langsung dengan readmisi setelah dikontrol variabel lainnya, menunjukkan adanya peran faktor perantara.
Kesimpulan: Bayi kurang bulan memiliki prevalensi readmisi lebih tinggi, namun usia gestasi bukan faktor determinan langsung; faktor utama adalah berat lahir rendah, lama perawatan, perawatan di NICU, kelas perawatan, dan tipe rumah sakit sehingga diperlukan pemantauan faktor risiko tersebut untuk menurunkan readmisi dan meningkatkan kualitas pelayanan neonatal.
Kata kunci: Bayi Kurang Bulan, Readmisi 30 Hari, Prolonged Stay, NICU, Berat Lahir Rendah

PREVALENCE AND RISK FACTORS OF 30 DAY READMISSION OR PROLONGED STAY IN PRETERM INFANTS: A BIG DATA ANALYSIS OF AN ACADEMIC HEALTH SYSTEM

ABSTRACT

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Introduction: Preterm infants are at higher risk of morbidity and mortality compared to term infants, requiring intensive care and longer hospital stays. Thirty-day readmission or prolonged stay is an important indicator of neonatal care quality; however, the direct relationship between gestational age and readmission risk remains unclear, and big data–based studies in Indonesia are limited.
Objective: To determine the prevalence and risk factors of 30-day readmission or prolonged stay in preterm infants compared to term infants at Dr. Sardjito General Hospital and RSA UGM from 2017 to 2021.
Methods: This was an observational study with a retrospective design, using data obtained from the AHS UGM big data system. Univariate, bivariate, and multivariate analyses were conducted to determine the prevalence and to examine the associations between gestational age, clinical characteristics, and the risk of 30-day readmission or prolonged stay
Results: The prevalence of readmission or prolonged stay was higher in preterm infants (16.4%) compared with term infants (11.4%). Significant risk factors included low birth weight, length of stay ≥7 days, NICU admission, lower ward class, and type B hospital care. Multivariable analysis indicated that gestational age was not directly associated with readmission after adjusting for other variables, suggesting the influence of confounding factors.
Conclusion: Preterm infants have a higher prevalence of 30-day readmission and prolonged stay, but gestational age is not a direct determinant; primary determinants are low birth weight, length of stay, NICU admission, level of care, and hospital type. Close monitoring of these risk factors is important to reduce readmission and improve the quality of neonatal care.
Keywords: Preterm Infants, 30-Day Readmission, Prolonged Stay, NICU, Low Birth Weight