

Determinants of 30-Day Pneumonia Readmissions in The Pediatric Wards in Narok County Referral Hospital

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Abstract

Hospital readmission is a healthcare key performance indicator reflecting both treatment effectiveness and quality of care. Whereas pneumonia is the leading cause of hospitalization and mortality among pediatrics, pneumonia readmissions account for the highest hospital readmission rate, approximately 20 %, in the pediatric wards. This study focuses on factors linked to 30-day readmissions of pediatric clients with pneumonia for preventive strategies. A cross-sectional study was conducted in Narok County Referral Hospital in the Rift Valley in Kenya on patients and caregivers admitted to the pediatric ward in August 2022 with pneumonia. An interviewer-administered questionnaire and clinical records were used for data collection. Nearly 15% of all hospitalizations due to pneumonia in children aged < 11 years were readmitted within 30 days of discharge, with readmissions being more common among patients with comorbidities ($p < .05$). Two-thirds of readmissions occurred within 14 days of discharge. Female gender and specific chronic comorbid conditions were found to be significant risk *factors* for hospital readmission among *the* patients. In addition, various patient-related, caregiver-related, environmental, and health-system factors were highlighted as major predictors of pneumonia readmission among pediatric patients. The study findings suggest that patient demographics, admission care, comorbidities, and home environment can predict clients at a high risk of 30-day pneumonia readmission. Thus, early identification of high-risk patients allows for thorough pathogen characterization and treatment, vigilant monitoring, patient/caregiver education, and timely post-discharge follow-up to reduce readmissions.

Keywords: Pneumonia; Hospital readmissions; 30-day; Risk factors