

Antibiotics Utilization Patterns of Neonates in the Pediatric Baby Care Unit at Lady Ridgeway Hospital, Sri Lanka

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Antibiotic resistance compromises global health due to associated morbidity, mortality, and cost. Antibiotics are the most common and frequently used therapeutic agents on neonates, prescribed to overcome infections with their immature immune systems. Limited studies have been conducted on the antibiotic utilization patterns among neonates in Sri Lanka. This study aimed to identify antibiotic utilization patterns according to the World Health Organization (WHO) Access, Watch and Reserve (AWaRe) classification in the pediatric baby care unit at the Lady Ridgeway Hospital (LRH), Sri Lanka. A retrospective descriptive study analyzed 123 Bed Head Tickets (BHT) of neonates admitted to the pediatric baby care unit from October to December 2022. Out of 123 BHTs, 02 BHTs were excluded due to the incompleteness of the data. The sex ratio of the sample was nearly 2:1 (female/male). Most neonates (72.71%) were in their 1st week of life, and nearly 75% were below 2700 g, the lower normal birth weight of Sri Lankan neonates. The common indication for antibiotics among neonates was sepsis (38.84%). It was followed by pneumonia (36.36%) and respiratory infections (16.53%). The most frequently used antibiotic for sepsis was IV teicoplanin (21.7%). The three common antibiotics prescribed were benzylpenicillin (30.08%), cefotaxime (26.17%), and teicoplanin (11.3%). When considering the frequency of prescribed antibiotics, 47.66% belong to the "Access" category of antibiotics followed by 44.92% from the "Watch" category and 7.42% from the "Reserve" group. The study concludes that antibiotic use for neonates at LRH aligns with WHO AWaRe guidelines and there is a need for enhanced antibiotic stewardship, particularly in the careful monitoring of the "Watch" and "Reserve" categories.

Keywords: *WHO AWaRe classification, neonatal care, antibiotic utilization, Lady Ridgeway Hospital, Sri Lanka*