

Pediatric Inpatient Antibiotic Prescription Practices in the Chain Network Hospitals at Baseline

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Antimicrobial resistance (AMR) is a growing global concern. Antibiotic stewardship is being promoted to reduce AMR. However, few studies have documented inpatient antibiotic prescription practices in low resource settings. We audited the 240 clinical notes of 2-23 month-old inpatient children in Bangladesh (2), Kenya (3), Malawi (1), Pakistan (1) and Uganda (1) as part of a baseline assessment in a study to identify risk factors for mortality in acutely ill inpatients, particularly in undernourished children. This analysis describes adherence to antibiotic guidelines during the first 48 hours of admission. Adherence was defined as a regimen consistent with institutional, national, or international recommendations.

The cases reviewed included diagnoses of diarrhea (n:107), severe acute malnutrition (n:101), pneumonia (n:76), malaria (n:35), sepsis (n:25), meningitis (n:12), and shock (n:8). Antibiotics were prescribed to 98% with at least one documented indication for antibiotics (n:173); 80% of these were consistent with recommended regimens. Antibiotics were prescribed in 93% of

admitted diarrhea cases, 85% of whom had a comorbidity warranting antimicrobials (n:85) or dysentery (n:1). Among children with malaria noted as a diagnosis and without a documented indication for antibiotics (n:22), those who did not receive a malaria test (n:6) were all prescribed antibiotics. In comparison, 63% of those with a documented positive malaria test (n:16) were prescribed antibiotics without indication. Among those with diarrhea (n:15) and malaria (n:16) without a documented indication for antibiotics, 58% were prescribed an antimicrobial regimen consistent with treatment for a severe bacterial infection. Antibiotics were almost universally prescribed when indicated and adherence to a recommend regimen was comparable to other studies