Applicant Information

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Abstract Details

Title:

Prevalence and Appropriate use of Antibiotics among Hospitalized Paediatric Patients: A Cross-sectional survey

Category:

Communicable diseases (Malaria,Â TB,Â HIV,Â NTD)

Authors:

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Objectives:

The paediatric population is more often exposed to antibiotics due to their increased risk to infections. This makes them an important source of antimicrobial resistance (AMR shown to be driven by the increased and inappropriate use of antibiotics. This study was designed to assess both its prevalence and appropriate use.

Method:

The medical records of all paediatric patients (under 12 years) admitted and treated with antibiotics at a Teaching Hospital in Ghana between January 2022 to March 2022 were extracted from the hospitalâ€™s electronic database. Prevalence and appropriateness of antibiotic use based on choice of antibiotics and influencing factors were assessed.

Results:

Out of the 410 hospitalized paediatric patients during the study period, 319 were prescribed with at least one antibiotic giving a prevalence rate of 77.80%. Majority (68.65%, n=219/319) of the patients were between the ages of 0-2 years and were males (54.55%, n=174/319). The commonest (20.69%, n=66/319) antibiotic prescribed was ceftriaxone (20.69%, n=66/319) and while majority (27.13%, n= 66/319) of the systemic antibiotics used belonged to WHO Access and Watch class of antibiotics. Neonatal Sepsis (24.14%, n=77/319) followed by pneumonia (14.42, n=46/319) were commonly diagnosed among this population. Antibiotic appropriateness was 42.32% (n=135/319). It was reduced by the prescription of of ceftriaxone (aOR= 0.12, CI= 0.02-0.95, p-value= 0.044) and the prescription of surgical antibiotic prophylaxis (aOR= 0.07, CI= 0.01-0.42, p-value= 0.004), but was increased when pneumonia (aOR= 15.38, CI= 3.30-71.62, p-value <0.001) was diagnosed.

Conclusion:

With a high prevalence and sub-optimal appropriateness level influenced by antibiotic type, diagnosis and the use of surgical prophylaxis, continuous prescriber education on rational antibiotic prescribing practices are recommended.

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