

Point Prevalence Study of Antibiotics Usage in Orthopedic Wards in a Tertiary University Hospital

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INTRODUCTION:

Point prevalence study of antibiotics is the audit of judicious antibiotic use in accordance to local and national antibiotic guidelines. Inappropriate antibiotic use is associated with prolonged hospitalization, increased healthcare costs and development of antimicrobial resistance.

METHODS:

Audit was done on 5th Oct 2023, starting at 8am. Case review were performed to screen for antibiotic prescription indication. Any discrepancies were clarified with the primary discipline team and Infectious Disease consultant. Data collected was analyzed for compliance to hospital antibiotic protocol and National Antibiotic Guidelines 2019.

RESULTS:

Out of 69 patients seen, 39 were on antibiotics (n= 39, 56.5%). Most of the antibiotic indications were documented (n=43, 97.7%), with majority cases used as empirical treatment (n=26, 60.5%). Out of 20 antibiotic issues listed, 9 was due to wrong choice of antibiotics selected (n=9, 45.0%), 5 due to wrong dose or frequency (n=5, 25.0%), 2 for spectrum too broad (n=2, 10.0%), 2 for surgical prophylaxis given exceeding 24 hours (n=2, 10.0%), and 1 each for overlapping spectrum of antibiotics (n=1, 5.0%) and not indicated for antibiotics (n=1, 5.0%).

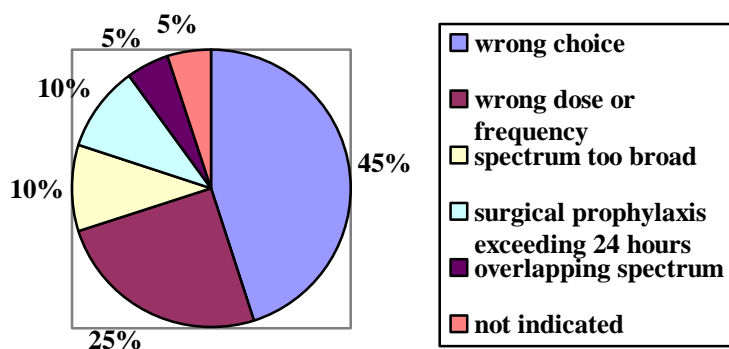


Figure 1. Antibiotic Issues in Orthopedic Wards

DISCUSSIONS:

Majority of antibiotic indications were documented as it is needed for supply of antibiotics during prescription screening. Most antibiotic issues arise due to preference on personal practice compared to current antibiotic guidelines and hospital antibiotic protocol among prescribers.

CONCLUSION:

Empirical antibiotic use could still be improved in orthopedic wards. Antimicrobial stewardship rounds with real time feedback and continuous education program could promote on appropriate antibiotic usage in Orthopedic Department.

REFERENCES:

1. National Antibiotic Guidelines, 2019
2. HCTM Antibiotic Protocol for Orthopedics, edited Jan 2023