

*Original Article*

**Inpatient antibiotics pharmacology and physiological use in Hayata-bad medical complex, Pakistan**

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Received February 24, 2013; Accepted April 27, 2013; Epub May 27, 2013; Published June 15, 2013

**Abstract:** Antibiotics are used commonly and as powerful medicines, it well known that they affect the variety and composition of the micro-flora which has important physiological roles, therefore and for other health complications, the aim of the current study was to evaluate and estimate the appropriateness of antimicrobial drugs use in Hayatabad Medical Complex (HMC), Peshawar, Pakistan. The present work is based on the hospitalized patient's case studies. Individual patients were interviewed using the prepared questionnaire for the study. All hospitalized patients who received antibiotics were evaluated by a cross-sectional study. The total number of patients interviewed was 270 in medical department. According to our study in medical department, for prophylaxis 64.3% of antibiotic was used, whereas, an empirical use was 35.7%. Prodigious double regimen of antibiotics was observed throughout the study. The most prescribed antimicrobial group is penicillin and followed by tetracycline, macrolides, quinolones, and cephalosporin. Furthermore, 14.56% antibiotics were prescribed on generic name and 85.43% were prescribed on the basis of brand names. Taken together, the antibiotic use in medical department was unsatisfactory and irrational. In summary, in order to protect the physiological functions of flora microorganisms, a combination of both limitation, continuous education of physicians and elaboration of local guidelines appear to be necessary to improve rational antibiotic use. (IJPPP1302005).

**Keywords:** Irrational antibiotic use, rational use, drug resistance, empirical, prophylaxis

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