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## Evaluation of antibiotic prescribing patterns among inpatients at the Northern Provincial Hospital medical ward-a retrospective study

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### Abstract

**Background:** The excessive and inappropriate use of antimicrobial agents in human health is contributing to worldwide antibiotic resistance. Clinicians are frequently faced with the dilemma of whether or not to prescribe antibiotics. On many an occasion, they yield to the pressure of prescribing antibiotics, even when the diagnosis is unclear. There is growing concern amongst our staff that we may be overly reliant on ceftriaxone because of its broad-spectrum cover and convenient dosing. It is the only 3<sup>rd</sup> generation cephalosporin available in the Vanuatu essential drug list and overuse risks exhausting our antibacterial arsenal. There is a need to establish baseline data on our local prescribing patterns upon which we may draw to help rationalize our use of antimicrobials in the future.

**Methods:** We conducted a retrospective observational study on all inpatients admitted at the Northern Provincial Hospital (NPH) medical ward or isolation ward during the 3-month period from March to May 2022. Patients were identified from the ward admission register and clinical information collected from patient records. Data entry and analysis was done on Microsoft excel spread sheet.

**Results:** A total of 75 patients were admitted to both the medical and isolation ward during the period of interest. The antibiotic prescription rate was 71%. The three most commonly prescribed antibiotics were ceftriaxone (66%), intravenous Penicillin G (26%) and cloxacillin (23%). The most common conditions for which antibiotics were prescribed were respiratory infections (26%), leptospirosis (25%) and acute febrile illness (21%).

**Discussion:** There are varying rates of inpatient antibiotic prescription in literature ranging from 52% (1) to 60% (2). Our prescription rate of 71% is comparatively high. The preference for ceftriaxone is cause for concern. There is a need to implement antibiotic stewardship programs in the department to help combat antibiotic resistance.