

ABSTRACT

Appropriateness of Proton Pump Inhibitors (PPI) Prescribing Indication in All Wards of QEH in Accordance to the QEH PPI Prescribing Policy 2015 (APPI-QEH)

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Introduction: Widespread over-prescription of proton pump inhibitors (PPIs) without an appropriate indication has financial and potentially adverse clinical consequences. **Objective:** This study aimed to characterize and determine the appropriateness of both intravenous (IV) and oral PPIs indication in all hospitalized patients in Queen Elizabeth Hospital (QEH), Kota Kinabalu (KK) in accordance to the QEH PPI Prescribing Policy 2015. The policy was developed based on clinical guidelines in 2015, however it has little impact on clinical practice and to date, little is known about the prescribing practice of PPIs in our tertiary hospital. **Methodology:** A 1-day point prevalence study was conducted on 29 January 2018 in all 25 wards of QEH KK. A total of 506 inpatient medication charts were screened and medical records of 110 patients receiving IV and oral PPIs were investigated. Appropriateness of PPIs indication was rated by compliance to the QEH PPI Prescribing Policy 2015. **Results:** Out of 110 PPIs prescribed, 73.6% ($n = 81$) patients received oral PPIs while 26.4% ($n = 29$) patients received IV PPIs. Pantoprazole was the commonest PPIs used for both oral and IV route of administration. Higher proportion of oral PPIs (60.5%, $n = 49$) was indicated for prophylactic purposes, which include gastrointestinal bleeding prophylaxis (GIP) and stress ulcer prophylaxis. The most frequently-prescribed indication for IV PPIs was upper gastrointestinal bleed (UGIB). Approximately 60.5% ($n = 49$) of oral PPIs indication were considered to be appropriate

as they complied with the policy. Over half, 57.1% ($n=28$) of PPIs indicated for prophylactic purposes were deemed inappropriate as PPIs were used as GI prophylaxis in low-risk patients. Oral PPIs indicated as primary GIP in corticosteroid users was the commonest reason for inappropriate indication. The appropriateness rate of IV PPI was 86.2% ($n = 25$) and the main reason of inappropriateness was the ability to switch from IV to oral in GI prophylaxis and dyspepsia which can reduce medication cost. **Conclusion:** Overall, the

appropriateness rate of oral PPIs indication in accordance to policy was just 60.5% and inappropriate oral prophylactic PPIs is a concern. This study finding helps to highlight a high prevalence of oral PPIs prescribed for prophylactic purposes in our tertiary hospital and the lack of appropriate guidelines for prophylactic purposes as a major contribution to the rise of inappropriate PPI prescribing. Revision of current policy with re-enforcement is needed to guide rational prescribing of PPIs.