

PREVALENCE, FACTORS AND COST COMPARISON ASSOCIATED WITH POTENTIALLY INAPPROPRIATE MEDICATIONS (PIMS) BY BEERS CRITERIA AMONG ELDERLY OUTPATIENTS IN HOSPITAL TUANKU FAUZIAH, MALAYSIA

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Introduction: Malaysia will be a full ageing nation by 2030. Elderly (aged ≥ 65 years old) population often has multiple comorbidities, which increases the risk of polypharmacy and potentially inappropriate medications (PIMs). This study aimed to investigate the prevalence, factors associated with PIMs among elderly outpatients, and its burden of direct pharmacotherapy cost to the Ministry of Health Malaysia. **Methodology:** This is a cross-sectional study involving clinic prescriptions among the elderly with more than one-month prescribing duration received from outpatient pharmacy from March to April 2017. Patient identifiers were screened using the Pharmacy Information System (PhIS) to exclude multiple visits and duplicate prescriptions. Patients were categorised as PIM group and non-PIM groups using Beers Criteria 2015. Logistic regression analysis was conducted to examine the factors associated with PIMs. The median monthly prescription cost was compared between PIM and non-PIM groups by Mann-Whitney test. **Results:** Among 472 patients, 38.9% patients had at least one PIM while 61.1% patients did not receive any PIM. 96.8% of patients only visited one type of clinic compared to only 3.2% visited more than one clinic. The number of medications prescribed was an independent risk factor contributing to PIMs (OR: 2.04; 95% CI: 1.40, 2.97). The median monthly prescription cost for PIM group was MYR29.50 (\approx USD7.53) which was not statistically significant ($p=0.735$) compared with non-PIM group which was MYR28.50 (\approx USD7.28). **Discussion/Conclusion:** PIM was frequently prescribed in HTF with the number of medications as the only factor. However, the prescribing of PIM did not add nor reduce the direct cost of pharmacotherapy.