

UNIVERSITI TEKNOLOGI MARA

**INAPPROPRIATE PRESCRIBING
AND ADVERSE DRUG EVENTS
AMONG ELDERLY HOSPITALIZED
PATIENTS**

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ABSTRACT

This study was initiated as the result of lack published data on Adverse Drug Events (ADE) related to inappropriate use of medicine and prescribing among elderly patient in Malaysia and in the South East Asia region generally. It helps to determine association of inappropriate prescribing (IP) which lead to inappropriate use of drug to Adverse Drug Events using Screening Tool to Alert Right Treatment (START) and Screening Tool of Older Person Prescription (STOPP) criteria as defined by several studies conducted on aging population worldwide. The main aim of the study was to provide descriptive information on the prevalence of potential inappropriate medications among elderly patient in Malaysia and its association to Adverse Drug Events (ADE). This study was conducted using cross sectional study design as elderly patients admitted for hospitalization aged 65 years and above were studied over 5 months' period of time in 3 national referral hospitals in central Malaysia. Inappropriate prescribing and inappropriate medications use would be determined using START and STOPP criteria. The association of ADE causing hospitalization to inappropriate medication use as the result of inappropriate prescribing is identified and rate of ADE avoidability is observed. Inappropriate prescribing determined by the START and STOPP criteria showed a total of 176 (58.5%) from 301 elderly patients selected for the study. 198 out of 114 (31.4%) patients potential prescribing omission (PPO) was detected by START while for the STOPP criteria, a total of 120 Potential Inappropriate Medication (PIM) out of 105 (34.9%) patients detected. Number of medication prescribed is a risk factor for STOPP PIM (OR: 1.204, 95% CI: 1.096 – 1.322, $p < 0.01$) while STOPP PIM criteria was significantly associated to adverse drug events (ADE) related to hospitalization (OR: 11.483, 95% CI: 5.196 – 25.337, $p < 0.01$). Potential inappropriate medicines as the result of inappropriate prescribing defined by the START and STOPP criteria are among the leading causes and reasons of hospitalization among elderly patients as the result of adverse drug events.

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