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Influence of hospitalization on potentially inappropriate prescribing among elderly patients in a Malaysian community (Article)

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Abstract

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Purpose: To compare the prevalence and type of potentially inappropriate medications (PIMs) and potential prescribing omissions (PPOs) on admission and discharge of patients, and to determine the associated predictors.

Methods: This was a prospective observational study conducted in the multidisciplinary medical and surgical units of Hospital Tengku Ampuan Afzan (HTAA), Malaysia. The medications of patients who had been admitted to the hospital from community-dwelling settings were reviewed to identify PIMs/PPOs using version 2 of STOPP/START criteria. A logistic regression model was applied to detect the risk factors associated with PIM or PPO at discharge. Results: Among the 300 patients involved in the study, the prevalence of PIMs was 27 % upon admission, which decreased to 22.3 % at discharge ($p = 0.014$) with PIMs pertaining to increasing the risk of physical falls in elderly people being the most common for pre- and post-hospitalization. The prevalence of PPOs was 47.6 % upon admission, which increased to 48 % at discharge ($p = 0.99$), with the omission of musculoskeletal medications being the most common PPOs at admission and discharge. Having a PIM at discharge was associated with the number of discharge medications and the history of falls, whereas having a high comorbidity index score or history of falls was associated with having a PPO at discharge. Conclusion: Hospitalization significantly reduces the prevalence of PIMs, but not PPOs or polypharmacy, among elderly patients. The number of discharge medications and the history of falls are predictors of discharge PIM, whilst high comorbidities and the history of falls were the predictors of discharge PPO. Improving the knowledge of hospital practitioners regarding geriatric pharmacotherapy is required to optimize prescribing in elderly patients during hospitalization. © Pharmacotherapy Group, Faculty of Pharmacy, University of Benin, Benin City, 300001 Nigeria.

Author keywords

Co-morbidity Elderly patients Hospitalization Inappropriate prescribing Polypharmacy START criteria
STOPP criteria

Indexed keywords

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major clinical study Malaysia male observational study polypharmacy
potentially inappropriate medication prevalence prospective study risk factor surgery

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