Medications and the risk of falls among older people in a geriatric centre in Nigeria: a cross-sectional study

Wuraola Akande-Sholabi, Francis. S. Ogundipe & Lawrence. A. Adebusoye

International Journal of Clinical Pharmacy

ISSN 2210-7703
Volume 43
Number 1

Int J Clin Pharm (2021) 43:236-245
DOI 10.1007/s11096-020-01140-y

Springer

International Journal of Clinical Pharmacy (2021) 43:236–245
https://doi.org/10.1007/s11096-020-01140-y

RESEARCH ARTICLE

Medications and the risk of falls among older people in a geriatric centre in Nigeria: a cross-sectional study

Wuraola Akande-Sholabi[1] · Francis. S. Ogundipe[1] · Lawrence. A. Adebusoye[2]

Received: 3 March 2020 / Accepted: 25 August 2020 / Published online: 10 September 2020

Abstract

Background Falls are a major cause of morbidity and hospitalization in older people. Many drugs have been shown to increase the risk of falls in this population. Few empirical data exist on the use of fall-risk-increasing drugs among older people of sub-Saharan Africa countries. *Objective* This study aimed to assess the prevalence and predictors of falls, and the association between FRIDs, drugs causing orthostatic hypotension and falls. *Setting* Geriatric center, University College Hospital, Ibadan, Nigeria. *Methods* A cross-sectional study of 400 older patients aged ≥ 60 years selected consecutively at the geriatric centre, between September and November 2019, were interviewed using a semi-structured questionnaire. Socio-demographic information, medication utilization, and history of falls were obtained. Bivariate and multivariate analyses were carried out using SPSS 23. Alpha was set at 0.05. *Main outcome measure* Prevalence and predictors of falls among ambulatory older patients. *Results* The mean age of the older patients was 72.4 ± 7.3 years and 255 (63.7%) were females. The total number of FRIDs and ODs used by older patients was 578 (35.2%). The prevalence of fall was 181 (45.3%) which was significantly higher among the females compared with the males (51.8% vs 33.8%) $p = 0.01$. Classes of medications such as anti-Parkinson's ($p = 0.027$), sedatives ($p = 0.033$), antipsychotics ($p = 0.011$) and anticholinergic ($p = 0.027$) were significantly associated with fall. Predictive factors for falls on logistic regression were female [OR = 2.375; 95% CI 0.274–3.704, $p = 0.001$] and use of antipsychotics [OR = 5.132; 95% CI 1.352–19.480, $p = 0.016$]. *Conclusion* The prevalence of falls was high and being a woman ≥ 60 years is a major risk factor for falling. Interventions to decrease falls in older patients by drug modification and deprescribing of FRIDs and ODs might reduce fall-related injuries. Thus, a multidisciplinary approach is essential for intervention to reduce the risk of falls and improve therapeutic outcomes among older patients.

Keywords Falls · Fall-risk-increasing drugs · Geriatrics · Medications · Nigeria · Orthostatic drugs

Impacts on practice

- The use of antipsychotics is a significant risk factor for falls; therefore, patients using these medications should be given special consideration during medication therapy management and counselling by clinical pharmacists.
- Female (≥ 60 years) is a major risk factor for falls among ambulatory patients.
- Awareness of fall-risk-increasing drugs and orthostatic hypotension causing drugs among healthcare providers and the involvement of clinical pharmacists is essential for intervention to reduce the risk of falls among older people.

Introduction

Falls have been identified as the leading cause of injury, deaths, and emergency visits for trauma among older people ≥ 65 years and many of these falls are preventable [1]. Falls are a major public health problem in older people, with the occurrence of falls at least once a year in 30% of older people ≥ 65 years and in 50% of those ≥ 80 years [2]. There are various definitions for falls and hence no consensus on what fall is, however, the World Health

✉ Wuraola Akande-Sholabi
wuradol@gmail.com

[1] Department of Clinical Pharmacy and Pharmacy Administration, Faculty of Pharmacy, University of Ibadan, Ibadan, Nigeria

[2] Chief Tony Anenih Geriatric Centre, University College Hospital, Ibadan, Nigeria