Addressing Inpatient Admissions and Readmissions Due to Adverse Drug Reactions in the Oldest Old

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Adverse drug reactions (ADRs) in the older population are a major healthcare problem resulting in significant morbidity, healthcare consumption and high costs. In accordance, all ADR-related admissions of patients aged ≥65 years are prospectively identified through a systematic daily review of admission diagnosis of all patients urgently hospitalized at the Bellvitge University Hospital, a tertiary care public institution in Barcelona, Spain. Furthermore, we undertook a cross-sectional study through the database of the Pharmacovigilance Program for assessing the prevalence and mortality rates of urgent hospitalization due to ADRs in patients aged ≥65 years. From 2008 to 2014, ADRs were suspected to be the main reason for urgent admission in 1,976 out of 60,263 patients aged ≥65 years (prevalence of ADR-related hospitalization: 3.3% [95% CI 3.1-3.4%]). The crude in-hospital mortality rate was 10.2% in patients with ADR-related admission and 9% in patients admitted for other causes (p=0.077). Most patients (86%) were exposed to polypharmacy and a drug-drug interaction was suspected in 49% of cases. The most frequent drug-reaction associations were acute renal failure related to renin-angiotensin system (RAS) inhibitors, gastrointestinal bleeding caused by antithrombotics and/or non-steroidal anti-inflammatories, and intracranial bleeding induced by vitamin K antagonists.