

A are a common
class of analgesic
typically



**ASSIGN
BUSTER**

A lot of older patients take NSAIDS chronically. There are a lot of adverse effects associated with chronic NSAID use including the risk of acute renal failure, stroke/myocardial infarction, peptic ulcer disease, as well as worsening of other chronic diseases including heart failure, hypertension. NSAIDs can also interact with a number of drugs (warfarin, corticosteroids) ultimately increasing hospitalizations amongst the elderly population.

(4). Adverse drug events are more likely to affect geriatric patients due to physiological changes occurring with aging, from changes in renal function and metabolic changes. (3).

Non-steroidal anti-inflammatory drugs are a common class of analgesic typically used chronically for pain such as musculoskeletal pain including osteoarthritis. It is commonly used in the elderly population. Approximately 40% of people over 65 years of age fill one or more prescriptions of NSAIDs each year not including the over the counter NSAIDs. (5) The main risk factors for ADR admissions include older age, comorbidity, polypharmacy, and potentially inappropriate medications. (7). One study emphasized on the need for an ADR events prediction tool to identify patients who are high-risk (elderly population) thus target appropriate medications in order to prevent Adverse drug related hospital admissions. Study further emphasized on the role of primary care doctors and pharmacists in the communities in identifying patient at risk for ADR. (7).

There are currently no validated tools to assess the risk of ADRs in primary care. According to a systematic review and meta-analysis that was performed through a computerized search of main databases, between 1988

to 2015, addressing adverse drug reaction-induced hospital admissions inpatients over 60 years of age, NSAIDs was the most common medication-induced adverse effects leading to hospitalizations ranging for 2.3 to 33.3%. (6) According to a prospective cohort study done, participating pharmacies were called the intervention group (IG) and received feedback on drug dispensing in non selective -NSAID users of ? 60? years of age at risk for UGI damage and were instructed to select patients to improve ns-NSAID prescribing, in collaboration with primary care physicians. ns-NSAID users from other pharmacies without concomitant Gastro-protective agents (GPA) use were followed in parallel as a control group (CG). Changes in the UGI risk of ns-NSAID users between baseline and follow-up measurement, assessed either by the addition of GPAs or the cessation of ns-NSAIDs, were compared between the two study arms.

Results showed that persistent ns-NSAID users from the selected IG patients had an additional 7% likelihood of reduced UGI risk at follow-up (odds ratio 0.93, 95% confidence interval 0.89-0.97) compared with CG patients. In the IG, 91% of selected IG patients at UGI risk from ns-NSAIDs at baseline were no longer at increased risk at follow-up because of cessation of ns-NSAIDs or concomitant GPA use. (10) There is approximately one per 1000 persons per year in the general population with an incidence of hospitalization for complicated peptic ulcer disease among non-users of anti-inflammatory drugs compared to four and five events of hospitalization amongst ns-NSAIDs users with higher incidence with higher dose of any NSAIDs (1) It is important to understand the negative complications of

NSAIDS which includes increased mortality, morbidity and increased health care cost.

Providers should discuss potential adverse effects of NSAIDS to patients and also review medication list as some patients may be taking multiple NSAIDS without understanding the adverse effects of NSAIDS and recognize patients at risk for developing adverse events. It is one of the most preventable causes for hospital admissions in the elderly. Patients taking NSAIDS are more likely to be hospitalized versus those not taking NSAIDS. Patients with a history of peptic ulcer disease could benefit the most from a reduction in NSAID induced gastro toxicity (2). Primary Care Physicians should lower doses of NSAIDs to reduce adverse effects risk especially in the group of patients with the greatest risk.