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Title

A Scoping Review of Interventions to De-implement Potentially Harmful NSAIDs in Healthcare Settings

Priority 1 (Research Category)

Systematic review, meta-analysis, or scoping review

Presenters

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Abstract

CONTEXT: Although numerous professional organizations recommend against the chronic use of nonsteroidal anti-inflammatory drugs (NSAIDs) by high-risk patients, potentially harmful use persists. Approaches to de-implement potentially harmful NSAIDs are needed.

OBJECTIVE: To provide an overview of published interventions to reduce potentially harmful NSAIDs in healthcare settings, identify literature gaps, and suggest priorities for future research.

STUDY DESIGN: Scoping review of the scientific and gray literature from 2000-2021 guided by the PRISMA Scoping Review extension.

DATASET: We searched PubMed, CINAHL, Embase, Cochrane Central, and Google for active interventions focused on de-implementing potentially harmful NSAIDs in adults in healthcare settings. "Potentially harmful" was defined as prescribed or taken in a manner inconsistent with professional recommendations.

INTERVENTION: Two authors screened abstracts, two authors reviewed full text articles that passed abstract screening, and two authors extracted data from qualifying articles. Consensus was achieved between the two authors at each step if there was disagreement. We used Covidence for review management.

OUTCOME MEASURES: Extracted data included country, study design, setting, intervention approach, participants, patient population, and NSAIDs type. We also recorded the change in NSAIDs use and patient-reported outcomes.

RESULTS: Of the 7,720 abstracts initially identified, 60 met inclusion criteria. Almost all studies were conducted in the US, Canada, or Europe. Most (57%) employed a randomized controlled trial design. Interventions were most commonly clinician-facing (78%), focused on older adults (57%) or gastrointestinal risks (27%), administered in primary care (83%), and were single component (58%), with

education, academic detailing, and audit & feedback being the most widely used approaches. Some (27%) interventions focused on specific NSAIDs (e.g., COX-2 inhibitors) and 15% included both OTC and prescription NSAIDs. The majority (88%) of interventions were associated with reduced NSAIDs use. Patient-reported outcomes were infrequently evaluated.

CONCLUSIONS: Many interventions are effective for de-implementing potentially harmful NSAIDs in healthcare settings. Further research is needed to expand interventions to other high-risk populations, incorporate OTC NSAIDs, evaluate patient outcomes such as pain and quality of life, and more broadly disseminate interventions.