Title: Cause for concern in the use of non-steroidal anti-inflammatory medications in the community - a population-based study.

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Reviewer: Gillian Caughey

Reviewer's report:

This is an interesting paper that describes the prevalence of NSAID use and their use in chronic conditions where their use is contraindicated or in groups of people at high-risk of adverse events, in a population based sample.

Abstract

Background: I would like to see a sentence of background into the context of the study and then the aims.

Methods: First sentence of methods is not a sentence.

Data were weighted and then statistical analysis was performed? (as presented in methods sections), present in abstract in this order.

Simply say that multiple logistic regression was used to examine associations between socio-demographic characteristics and use of NSAIDs.

Results: Report overall prevalence of NSAID use. Is it 3206 participants or 3175 as reported in methods section (p4) ‘this analysis was conducted in 3175 subjects who provided medication data’

Introduction

A study was published last year (Drugs and Ageing, Pratt N etal) that reported increased risk of hospitalisation with NSAID use in ‘at-risk’ populations (incl diabetes) (P3, 2nd paragraph, 6th line)

The manuscript would be clearer if the authors described the at-risk groups, chronic conditions or concomitant medicine use where NSAID use is contraindicated and why and referenced accordingly.

Results

Report the overall prevalence of NSAID use.

Is it possible to give an overall prevalence of those who have contraindications to NSAID use (either conditions, co-prescribed medicines) to give an overall quantification of potential treatment conflicts? ie. Xx% of those taking a NSAID had at-least one contraindication. This would provide an overview of the proportion of those who use a NSAID that are potentially at increased risk of adverse drug events. Obviously there would be some overlap with conditions and medicine use at the individual patient level that may need to be taken into account eg presence of CVD and use of ACE inhib
Discussion

Second paragraph, 1st sentence, I think you can be stronger in your language; the study (8) highlights the importance of examining patterns of NSAID use and also outcomes associated with use at a population level.

The section from the sentence beginning “Unlike COX-2 inhibitors (2nd para 3rd sentence) up to the sentence “COX-2 inhibitor use was more common in people with cardiac “ is hard to follow. Either re-write or it may be more succinct to say there were clear differences in the trends of use of ns-NSAIDs and COX-2 inhibitors with the socio-demographic characteristics examined.

P7 1st para line 5 is it possible that clinicians were unaware in some instances of the contra-indications?

P8 1st para, the authors suggest potential strategies for patients, do they have any potential solutions to assist prescribers? Particularly with regard to balancing the risk / benefits in those at-risk patients?

Conclusion

The first line of the conclusion is somewhat disjointed from the key results of the paper. The conclusion in the abstract is nice.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.