

We use cookies to improve our service and to tailor our content and advertising to you. [More info](#)

RMD Open
Rheumatic & Musculoskeletal Diseases
eular **BMJ**



Share your research
with the world
Submit your paper today ▶



[Home](#) / [Archive](#) / [Volume 77, Issue 8](#)

 Article Text

Article menu



Clinical and epidemiological research

Risk of myocardial infarction with use of selected non-steroidal anti-inflammatory drugs in patients with spondyloarthritis and osteoarthritis

PDF

Maureen Dubreuil^{1, 2}, Qiong Louie-Gao¹, Christine E Peloquin¹, Hyon K Choi³, Yuqing Zhang¹, Tuhina Neogi¹

[Author affiliations](#)

Abstract

Objectives Spondyloarthritis (SpA) is associated with an increased risk of myocardial infarction (MI) due to underlying inflammation and possibly due to medications such as certain non-steroidal anti-inflammatory drugs (NSAIDs). We sought to describe MI risk among patients with SpA who were prescribed NSAIDs, and to compare the pattern of risk in SpA with that in osteoarthritis (OA).

Methods Nested case-control studies were performed using The Health Improvement Network (THIN). Underlying cohorts included adults with incident SpA or OA who had ≥ 1 NSAID prescription and no history of MI. Within each cohort, we matched each MI case to four controls without MI. NSAID use was categorised as: (a) current (prescription date 0–180 days prior to index date), (b) recent (181–365 days) or (c) remote (>365 days). We performed conditional logistic regression to compare the odds of current or recent NSAID use relative to remote use of any NSAID, considering diclofenac and naproxen specifically.

Results Within the SpA cohort of 8140 and the OA cohort of 244 339, there were 115 and 6287 MI cases, respectively. After adjustment, current diclofenac use in SpA was associated with an OR of 3.32 (95% CI 1.57 to 7.03) for MI. Naproxen was not associated with any increase (adjusted OR 1.19, 95% CI 0.53 to 2.68). A ratio of ORs for SpA/diclofenac relative to OA/diclofenac was 2.64 (95% CI 1.24 to 5.58).

Conclusions MI risk in SpA is increased among current users of diclofenac, but not naproxen. The MI risk with diclofenac in SpA appears to differ from that in OA.

<http://dx.doi.org/10.1136/annrheumdis-2018-213089>

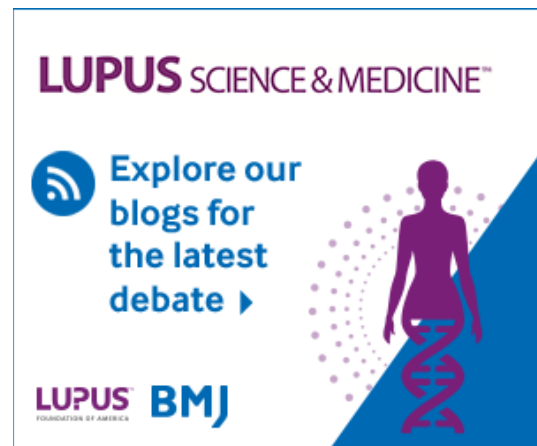
Statistics from [Altmetric.com](#)



■ Picked up by **2** news outlets
■ Tweeted by **49**
■ On **2** Facebook pages
■ **13** readers on Mendeley

[See more details](#)

[Request Permissions](#)



[View Full Text](#)

Footnotes

Handling editor: Josef S Smolen

Contributors: Study conception/design: MD, HKC, YZ, TN. Data coding/analysis: QL-G, CEP. Manuscript drafting: MD, CEP, YZ, TN. All authors substantially contributed to the data interpretation, manuscript revising, critical review and final approval.

Funding: MD: Arthritis Foundation Clinical to Research Transition Award, NIH/NIAMS K23 AR069127. MD, QL-G, CEP, HKC, YZ and TN: NIH NIAMS P60 AR047785. TN: NIH NIAMS K24 AR070982.

Competing interests: None declared.

Patient consent: Not required.

Ethics approval: This study is not Human Subjects Research and was judged exempt from IRB review.

Provenance and peer review: Not commissioned; externally peer reviewed.

Data sharing statement: THIN is a licensed proprietary database from IMS Health Real World Evidence Solutions.

Request Permissions

If you wish to reuse any or all of this article please use the link below which will take you to the Copyright Clearance Center's RightsLink service. You will be able to get a quick price and instant permission to reuse the content in many different ways.

[Request permissions](#)

Copyright information: © Article author(s) (or their employer(s) unless otherwise stated in the text of the article) 2018. All rights reserved. No commercial use is permitted unless otherwise expressly granted.

Read the full text or download the PDF:

[Buy this article \(£27.60\)](#)

Subscribe

Log in



Consultant Rheumatologist (1 Post)

Birmingham, West Midlands |

Sandwell & West Birmingham Hospitals NHS Trust is one of the largest teaching Trusts in the UK.

Recruiter: Sandwell & West Birmingham Hospitals NHS Trust

[Apply for this job](#)

SHO

Ireland (IE) |

SHO required in General Medicine including Rheumatology and Gastroenterology to start from January 2019.

Recruiter: HSE Health Service Executive

[Apply for this job](#)

Registrar

Ireland (IE) |

Registrar required in General Medicine including Rheumatology & Gastroenterology to start from January 2019.

Recruiter: HSE Health Service Executive

[Apply for this job](#)

Consultant Rheumatologist

Crewe, Cheshire | £76,761 to £103,490

Applicants are invited for a fixed term 0.5 WTE Consultant Rheumatologist

Recruiter: Mid Cheshire Hospitals NHS Foundation Trust

Other content recommended for you

[Association between use of non-steroidal anti-inflammatory drugs and risk of myocardial infarction in patients with spondyloarthritis and osteoarthritis](#)

Jian Zhou et al., Ann Rheum Dis

[FRI0119 Diclofenac Use and Risk of Myocardial Infarction in Spondyloarthropathy Patients](#)

M. Dubreuil et al., Ann Rheum Dis

[Multimodal analgesia to reduce NSAID induced myocardial Infarction](#)

Leigh White et al., Ann Rheum Dis

[The balance between severe cardiovascular and gastrointestinal events among users of selective and non-selective non-steroidal anti-inflammatory drugs](#)

M W van der Linden et al., Ann Rheum Dis



eular
fighting rheumatic & musculoskeletal
diseases together



eular
TEXTBOOKS

CONTENT

[Latest content](#)

[Current issue](#)

[Lay summaries](#)

[Archive](#)

[Browse by topic](#)

[Most read articles](#)

[Responses](#)

JOURNAL

[About](#)

[Editorial board](#)

[Thank you to our reviewers](#)

[Sign up for email alerts](#)

[Subscribe](#)

[EULAR textbooks](#)

AUTHORS

[Instructions for authors](#)

[Submit an article](#)

[Editorial policies](#)

[Open Access at BMJ](#)

[BMJ Author Hub](#)

HELP

[Contact us](#)

[Reprints](#)

[Permissions](#)

[Advertising](#)

[Feedback form](#)



[Website Terms & Conditions](#)

[Privacy & Cookies](#)

[Contact BMJ](#)

Online: ISSN 1468-2060 Print: ISSN 0003-4967

Copyright © 2018 BMJ Publishing Group Ltd & European League Against Rheumatism. All rights reserved.

京ICP备15042040号-3

A horizontal banner for RMD Open. On the left, the text reads "RMD Open" in green, "Rheumatic & Musculoskeletal Diseases" in a smaller green font, and "eular BMJ" in blue. In the center is a stylized logo of a hand holding a pen, surrounded by green dots. On the right, a blue background contains the white text "Share your research with the world" and "Submit your paper today" with a white right-pointing arrow.

RMD Open
Rheumatic & Musculoskeletal Diseases
eular **BMJ**

Share your research
with the world
Submit your paper today ▶