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AB0265

OPIOIDS AND ANALGESIC USE IN EARLY RHEUMATOID ARTHRITIS: A LONGITUDINAL ANALYSIS OF LINKED REAL-WORLD PRESCRIPTION DATA

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Background: Large numbers of patients with rheumatoid arthritis (RA) receive regular opioids despite significant toxicity and a lack of evidence supporting their use in non-cancer pain. In order to address this situation, we need to understand when opioids are started in early RA where this has not been studied.

Objectives: To examine the temporal trend of opioid prescriptions before and after RA symptom onset and to compare this with DMARD and NSAID prescriptions.

Methods: RA participants (cases) were recruited as part of the Scottish Early Rheumatoid Arthritis (SERA) inception cohort¹. Controls without RA (five per case), matched for sex, age and post code over the same time period, were obtained through routine data linkage. Prescription data between Jan 2009 to Nov 2019 of cases and matched controls were compared using date of RA symptom onset as reference point. The Prescriptions Per Participant (PPP) for each three-month block was estimated by dividing the number of prescribed drugs in the selected drug classes (assigned using the British National Formulary) in that time block by the number of participants in each group. The differences between mean PPP of the RA cases and controls in each time block were tested by t-test for independent groups and subsequent adjustment for multiple testing.

Results: 1,720,335 prescriptions were available for analysis with 421,961 items for 950 RA cases and 1,299,374 items for 4,558 matched controls. As expected,

DMARD prescriptions in the SERA cases increased after the symptom onset period and were then sustained (Figure 1: top left panel). NSAID prescriptions in RA cases peaked during the 3 months after symptom onset and then reduced progressively (top right panel). Opioid analgesic prescriptions for the RA cases increased two-fold during the reference period and then reduced 6-9 months post-symptom onset. However, unlike NSAIDs, after this there was no further significant reduction in opioid prescriptions in the RA cases, which remained stable and significantly higher than in the controls for the remaining study period. The non-opioid analgesic mean PPP increased sharply at the time of symptom onset, with a steady gradual upward trend over time (lower right panel).

Conclusion: Opioid prescriptions increase significantly at the time of RA symptoms onset. Despite rapid introduction of DMARDs and resultant reductions in NSAIDs, analgesic use remains significantly higher than in controls. Further research is required to identify the factors associated with persistent opioid use in early RA with interventions aimed at the first 6 months.

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AB0266

METHOTREXATE AND CARDIOVASCULAR RISK IN RHEUMATIC DISEASES: A COMPREHENSIVE REVIEW

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Background: The management of inflammatory rheumatic disease has evolved in the last decade with the importance of the management of comorbidities. Methotrexate is the cornerstone of inflammatory rheumatic disease management, but its cardiovascular effects are still poorly understood.

Objectives: To assess the cardiovascular impact of methotrexate in inflammatory rheumatic disease.

Methods: A systematic review of the literature, following the prisma recommendations, was performed on the PubMed and Embase databases with the following keywords: ("Methotrexate") AND ("cardiovascular"). We included papers written in English and including patients older than 18 years.

Results: 570 references were identified and, 36 articles were kept for analysis. The mechanism of action of methotrexate lies mainly on the antagonism of purines. It reduces systemic inflammation, oxidative stress.

In Rheumatoid arthritis, the use of methotrexate was associated with a decreased incidence of high blood pressure, an improvement of the lipid profile and of the insulin resistance. Major adverse cardiovascular events were decreased with methotrexate. The effects of methotrexate on the endothelial