DSEN ABSTRACT

Comparative effectiveness of pharmacological treatments for rheumatoid arthritis

Summary

- We evaluated the influence of early exposure to DMARD on time to joint replacement surgery among patients with rheumatoid arthritis (RA).

Key messages

- Early intensive treatment to prevent joint damage and restore physical function may ultimately reduce the need for joint replacement surgeries and improve overall population health among patients with RA.

What is the issue?

- Rheumatoid arthritis (RA) is a serious inflammatory arthritis affecting almost 4 million people in North America. Aggressive treatment with disease-modifying drugs (DMARDs) soon after diagnosis may prevent joint damage and improve outcomes. However, no real-world Canadian studies exist regarding the benefits of early DMARD use (particularly methotrexate, MTX) in RA.

What was the aim of the study?

- To evaluate early cumulative use of DMARDs within the first year of RA diagnosis, and time to joint replacement surgery.

How was the study conducted?

- CAN-AIM conducted two independent population-based cohort studies of patients with incident RA aged 66 years or older in Ontario (ON) and Quebec (QC) covering the period 2000-2013.
- We used Cox proportional hazards regression models with variables measuring duration of drug use in the first year, separately for MTX and other DMARDs. The outcome measure was any joint replacement, which we identified from administrative health data procedure codes.

What did the study find?

- Greater cumulative exposure to MTX and other DMARDs in the first year after RA diagnosis was associated with longer times until joint replacement in ON and QC.
- Given that biologic therapies were only recently introduced in the provinces studied, our study was unable to make any definitive conclusions about the potential effect of these novel therapies and later need for surgery.

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