DSEN ABSTRACT

Impact of using concomitant conventional DMARDs on adherence to biologic DMARD treatment in Rheumatoid Arthritis: Multi-Centre, population-based cohort study (Q14-01)

A study conducted by the Canadian Network for Observational Drug Effect Studies (CNODES)

Summary

- There was no clear evidence that RA patients treated with bDMARDs were less likely to discontinue or switch bDMARDs if they received concomitant csDMARD therapy.

Key messages

- This large, international, multi-centre retrospective cohort study provides new information regarding the real-world impact of the concomitant use of csDMARD in rheumatoid arthritis patients treated with bDMARDs.
- These data can assist in informing physicians prescribing these medications along with other evidence and patient preferences, while bearing in mind the limitations of the administrative claims data used in our analysis.

Project Lead & Team

- Dormuth C. MD, MSc, FRCP(c)
- Team members available here

Link to publication

- Dormuth et al. J Semin Arthritis Rheum 2021. DOI: 10.1016/j.semarthrit.2021.08.002

What is the issue?

- Guidelines for treatment of rheumatoid arthritis (RA) recommend the use of conventional synthetic DMARDs (csDMARD) as concomitant therapy with biologic disease modifying antirheumatic drugs (bDMARD) after failure of csDMARD treatment alone.
- Concomitant csDMARD therapy is thought to improve adherence to bDMARDs, but the available evidence for this guideline recommendation is inconsistent.

What was the aim of the study?

- CNODES evaluated the impact, in RA patients treated with bDMARDs, of concomitant use of csDMARD on adherence, switching and dose of bDMARDs.

How was the study conducted?

- CNODES undertook a retrospective cohort study using administrative health databases with 20,221 new users of bDMARDs from 5 Canadian provinces (Alberta, Manitoba, Ontario, Quebec and Sakstachewan) as well as the US IBM® MarketScan® Databases (MScan) between Jan 1, 2007 and March 30, 2014.
- Exposure to concomitant csDMARD was compared to non-csDMARD exposure using marginal structural models. The outcomes were discontinuation of bDMARD therapy, switching of bDMARDs, and percentage change in dose of bDMARD compared to the initial dose.
- Hazard ratios (HR) and 95% confidence intervals (CI) were estimated for discontinuation and switching of bDMARDs and pooled across sites using meta-analysis. The change in dosage was analyzed using linear regression.

What did the study find?

- Approximately 76% of the patients were women.
- Concomitant use of csDMARD therapy was:
  - not significantly associated with discontinuation of bDMARD treatment (HR 0.90; 95% CI: 0.79 to 1.02)
  - not significantly associated with switching of bDMARDs (HR 0.95; 95% CI: 0.80 to 1.11).
- Concomitant use of csDMARD therapy was:
  - associated with a small increase in bDMARD dose compared to the mean dose over the first three months of treatment (mean percentage change in dose +0.56% mg/day [95% CI +0.14% to +0.97%]).

This research was funded by CIHR – Drug Safety and Effectiveness Network and conducted by CNODES:

CIHR IRSC Canadian Institutes of Health Research / Instituts de recherche en santé du Canada

CNODES CANADIAN NETWORK FOR OBSERVATIONAL DRUG EFFECT STUDIES

For more information, please contact info@cnodes.ca.