

Adherence and persistence of subcutaneous biologics delivered through homecare services to a cohort of patients with rheumatoid arthritis

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Objectives

Biologics are a class of medicines recommended by UK and international guidelines for treatment of patients with rheumatoid arthritis (RA) who are unresponsive, intolerant or who have contraindications to conventional therapies. Biologics are often supplied in the UK to patients in their home by external healthcare providers commissioned by the National Health Service (NHS). Patient adherence and persistence to biologics has not been assessed within NHS Scotland.

The aim of this study was to evaluate adherence and persistence patterns of subcutaneous biologics delivered by homecare services to patients with rheumatoid arthritis in a Scottish NHS Board.

Methods

A population-based cohort study was conducted using records from patients receiving medication through healthcare delivery companies in the NHS Greater Glasgow and Clyde health board. RA patients with deliveries between 2012- 2015 were linked via their Community Health Index number to their prescriptions in primary care, hospital admissions and death records. For this study those with at least two deliveries of biologics and who did not switch biologic treatment were included. Length of therapy was determined from first delivery to last day treatment was covered. Adherence rate referring to the supply received for the whole study period was evaluated through Medication Refill Adherence (MRA). Persistence from first delivery to discontinuation was estimated using survival analysis and a drug-free interval of 90 days.

Results

A total of 434 patients with RA received a subcutaneous biologic. The mean age at first delivery was 54.7 (SD 13.4) years and 78% were female. From this cohort, 322 had at least 2 deliveries of the same biologic. The overall median length of treatment was 387.5 days (IQR 544.5); the longest for certolizumab pegol users with a median of 511.5 days (IQR 629.2) and the shortest for tocilizumab (median of 187 days, IQR 90.5).

The adherence throughout the study had a mean MRA 79.73% (SD 29.95) and was similar across the different biologics. Persistence at follow-up decreased with time from 81% of the patients receiving a biologic at 6 months, to 67% after 1 year and 65% after two years. Adalimumab, certolizumab pegol, etanercept and golimumab users had higher persistence rates.

Conclusion

Length of treatment and persistence, but not adherence, are influenced by the type of subcutaneous biologic received by the RA patients in this cohort.

Future research will gain a better insight into the factors influencing adherence and persistence to these medicines.

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