# Does time to remission differ depending on route of administration of Methotrexate in an Early Arthritis Treat to Target (T2T) cohort?

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## Background

Rheumatoid arthritis (RA) is a multisystem inflammatory disorder that affects the joints and other body tissues. Approximately 1% of the worldwide population is living with RA**.** Treat-To-Target (T2T) is recommended as the preferred method to manage Early Arthritis. Methotrexate is the first line DMARD used for treatment of RA.

## Objectives

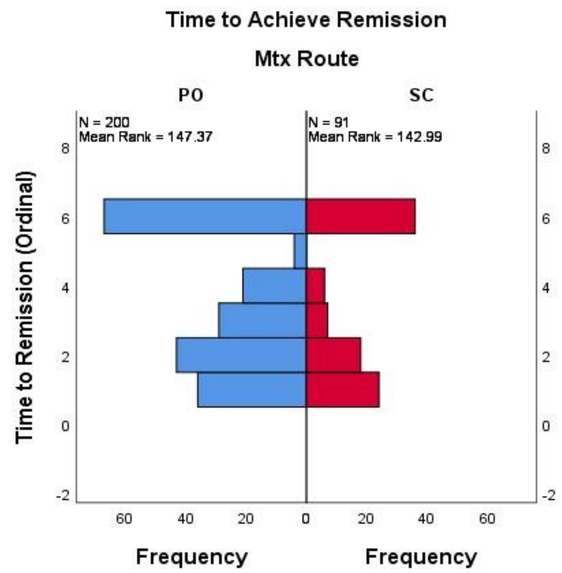
The aim of this study was to analyse MTX use in achieving remission in early arthritis patients and to compare the route of administration to see whether it affects the time interval to remission.

## Methods

An observational, prospective study was performed on patients' data available from our Early Arthritis Cohort. Newly diagnosed patients with RA meeting the American College of Rheumatology (ACR) criteria were enrolled in T2T programme led by Advanced Nurse Practitioner (ANP) with consultant supervision. To assess their response to treatment, we used the Clinical Disease Activity Index (CDAI)· SPSS was used to analyse the data.

## Results

A total of 353 have completed the programme and of these, 341were commenced on MTX. 208 patients (61%) were female. The MTX starting dose was 15mg for 88.4% (305/341) of patients. The median time to first increment in MTX dose was 7 weeks and the figure was identical for the second increment. Of the 238 patients who started oral MTX, 18.48% (44) discontinued. 21.4% (22) of the 103 who started on SC-MTX discontinued (The p-value for discontinuation was 0.538). P-value for likelihood of achieving remission based on oral versus SC MTX was 0.248 (see table). and the p-value for time to achieve remission was 0.671 for oral versus SC MTX groups, see figure attached.




**P-value for time to achieve remission for oral versus SC MTX groups**

| | Route | | |
|---|---|---|---|
| | Per Os Count (%) | Sub-Cutaneous Count (%) | Pearson Chi Square |
| Methotrexate Total population | 238 (69.4%) | 103 (30%) | |
| Remission | 134 (56.3%) | 51 (49.5%) | |
| Non-Remission | 104 (43.7%) | 52 (50.5%) | |
| | | | 0.248 |

**P-value for likelihood of achieving remission based on oral versus SC MTX**

## Conclusion

Patients in this cohort are being started promptly on an appropriate dose of MTX and are escalated in a timely manner in-line with guidelines. Analysis showed no statistically significant difference in terms of time to remission, likelihood of achieving remission or discontinuation of MTX between oral and SC-MTX groups.