ABSTRACT NUMBER: 1997

Underuse of Methotrexate (MTX) in the Treatment of Rheumatoid Arthritis (RA) in the United States (US): Results of a Comprehensive Pharmaceutical Claims Analysis

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SESSION INFORMATION

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Session Title: ACR Plenary Session II: Discovery 2015

Session Time: 11:00AM-12:30PM

Background/Purpose:

MTX is the anchor DMARD for RA treatment, but there is limited information about its appropriate use in clinical practice. This claims analysis was aimed at gaining insight into how MTX is employed for RA treatment in the US.

Methods: The analysis used Symphony Health Solutions' anonymized patient-level claims data which captures ~274 million US patients. The analysis included RA patients identified by ICD-9 codes 714.0 and 714.30 who initiated treatment with oral MTX in 2009 and were followed to 2014. Information obtained included: demographic characteristics, switches from oral to subcutaneous (SC) MTX and/or biologics (with or without concomitant MTX), timing of treatment changes, and oral MTX or SC MTX dosing at the times of switches/additions or end of follow-up. Independent t-tests were used to assess significance of differences among treatment paths.

Results: The study included 35,640 patients (Table). Of these, 15,599 (43.8%) continued on oral MTX alone (Group 1), through the end of the follow-up period and 17,528 (49.2%) added or switched to a biologic agent (Group 2). The median time to adding a biologic in Group 2 was 170 days and 41.5% of the patients added a biologic within 90 days of initiating oral MTX. In addition, only 7% of patients switched from oral to SC MTX (Group 3) after a median of 534 days of oral therapy; 14.0% of these patients switched within the first 90 days of oral MTX treatment. Overall, 71% of patients who switched from oral to SC MTX remained on this treatment for approximately 3 years and those who added a biologic did so after a median of 289 days. Median time for progression to a biologic was significantly longer (823 days; time on oral + time on SC) for patients who received SC MTX vs those who received only oral drug (170 days) (P<0.0001).

		Duration of	Oral MTX	SC MTX	Duration of	MTX Dose at

Oral MTX Initiation 2009 N=35,640		Oral MTX Prior to Biologic (days)	Oral MTX Dose Prior to Biologic (mg/week)	SC MTX Dose Prior to Biologic (mg/week)	SC MTX Prior to Biologic (days)	MTX Dose at Last Follow-up 2014 (mg/week)
	n (%)	Mean ± SD Median				
Group 1: Remained on only oral MTX through 2014	15,599 (43.8%)	NA	NA	NA	NA	15 ± 5 15
Group 2: Biologic initiated during follow-up period	17,528 (49.2%)	478 ± 580 170	15 ± 5 15	NA	NA	NA
Group 3: Switched from oral to SC MTX and remained on this treatment or had biologic added	2,513 (7.0%)	729 ± 623[1] 534	17 ± 5[1] 15	21 ± 5[2] 20	457 ± 456[2] 289	21 ± 5[3] 20

1. P<0.0001 vs Group 2

2. For 711 patients who switched to a biologic

3. For 1,802 patients who remained on SC MTX until the end of follow-up

Conclusion:

In the US, MTX is frequently under-dosed, given for an inadequate length of time, and rarely switched to SC before the initiation of biologic therapy. More than 40% of RA patients who initiate treatment with oral MTX switched to or had a biologic added within 90 days after a median dose of only 15 mg/week. Switching to SC MTX prevents the need for or significantly extends time to a biologic. More appropriate optimization of MTX could lead to better control of RA and would be expected to produce significant cost savings.

Disclosure: J. R. O'Dell, Medac Pharma, Inc, 5,Antares, 5,Abbvie, 5,Eli Lilly and Company, 5,Pfizer Inc, 5; **M. Rohr**, None; **S. B. Cohen**, Amgen, 2,Bristol-Myers Squibb, 2,Abbvie, 2,UCB, 2,Janssen Pharmaceutica Product, L.P., 2,Pfizer Inc, 2,Roche Pharmaceuticals, 2,Amgen, 5,Bristol-Myers Squibb, 5,Pfizer Inc, 5,Medac Pharma Inc, 5; **J. C. Thorne**, Abbvie, 5,Amgen, 5,AstraZeneca, 5,Bristol-Myers Squibb, 5,Celgene, 5,Centocor, Inc., 5,Genzyme Corporation, 5,Hospira, 5,Pfizer Inc, 5,Roche Pharmaceuticals, 5,Genzyme Corporation, 8,Medac Pharma Inc, 8,Antares, 8,Abbvie, 2,Amgen, 2,AstraZeneca, 2,Celgene, 2,Eli Lilly and Company, 2,Novartis Pharmaceutical Corporation, 2,Pfizer Inc, 2; **T. R. Mikuls**, Roche Pharmaceuticals, 2,Pfizer Inc, 5.

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