Tofacitinib (Xeljanz) Utilization Patterns and Persistency Among 4.4 Million Continuously Enrolled Commercially Insured Members Over Four Years

**Background**

- Tofacitinib (Xeljanz), an oral Janus kinase inhibitor, was approved in 2012 to treat patients with moderate to severe rheumatoid arthritis (RA). While no head-to-head comparisons with other agents are available, it has produced an adequate response in randomized placebo-controlled trials.
- According to the prescribing information, tofacitinib may be used for the treatment of adults with moderate to severe RA with an inadequate response to or intolerance of tumor necrosis factor (TNF) blockers, nonbiologic disease-modifying antirheumatic drugs (DMARDs), and biologic DMARDs.
- There are many DMARDs available for the treatment of RA including nonbiologic DMARDs and biologic DMARDs. DMARDs may be categorized into drug classes based on pharmacologic mechanisms.
- The American College of Rheumatology guidelines recommend addition of tofacitinib to nonbiologic DMARD therapy for RA and a lack of effectiveness with DMARDs.
- According to the prescribing information, tofacitinib is an oral prescription for the treatment of RA patients.
- In a prospective cohort analysis of 455 patients with RA and at least one tofacitinib claim, therapy discontinuation was declared if the member had no subsequent tofacitinib claim plus days supply. For example, if a tofacitinib claim was incurred on Jan 1, 2013 and the days supply was 30, then discontinuation would be declared if the member had no subsequent tofacitinib claim plus days supply of 30.
- The utilization trend line equation is calculated by averaging the numbers of days of supply of the last tofacitinib claim and does not account for medications taken for a year prior to each member's first tofacitinib claim and did not account for medications taken for a year prior to each member's first tofacitinib claim.
- The analyzable population follow-up time was calculated by averaging the numbers of days of supply of the last tofacitinib claim and the member had no subsequent tofacitinib claim plus days supply of the last tofacitinib claim. The study design utilized DMARD use and tofacitinib utilization patterns and the most cost-effective RA treatment strategy. The study design utilized DMARD use and tofacitinib utilization patterns and the most cost-effective RA treatment strategy. These programs should emphasize the use of a

**Objective**

- To measure tofacitinib utilization patterns and persistency in order to optimize managed care pharmacy programs.

**Methods**

- Members in the study are from a Blue Cross and Blue Shield commercial and Medicare advantage commercial insured population of 3.9 million members.
- Prior and concurrent disease-modifying antirheumatic drug (DMARD) use was queried for a 12-month period before initiating tofacitinib use. Tofacitinib utilization trend line equation is calculated by averaging the numbers of days of supply of the last tofacitinib claim and does not account for medications taken for a year prior to each member’s first tofacitinib claim.
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**Results**

- Tofacitinib analyzable population demographics were calculated by averaging the numbers of days of supply of the last tofacitinib claim and the member had no subsequent tofacitinib claim plus days supply of the last tofacitinib claim. The study design utilized DMARD use and tofacitinib utilization patterns and the most cost-effective RA treatment strategy. These programs should emphasize the use of a

**Limitations**

- The data used in this study is limited to a continuously enrolled commercial plan population in the United States. Findings may not be generalizable to Medicare or Medicaid populations in the United States.
- Administrative and pharmaceutical claims have the potential to be misread and include assumptions of members’ drug utilization. Medication use is reviewed among diagnoses.
- The study design utilized DMARD use and tofacitinib utilization patterns and the most cost-effective RA treatment strategy. These programs should emphasize the use of a

**Conclusions**

- Although tofacitinib utilization has been high, no long-term randomized placebo-controlled trials have been adequately undertaken to reveal increases in RA treatment patterns and persistency.
- Despite tofacitinib being identified in the American College of Rheumatology guidelines as a second-line therapy after nonbiologic DMARDs, there are no long-term randomized placebo-controlled trials that demonstrate tofacitinib use in patients with RA.
- No long-term randomized placebo-controlled trials that demonstrate tofacitinib use in patients with RA have been conducted.
- A randomized placebo-controlled trial prior to initiating therapy, in the guidelines.
- The prior DMARD use was assessed results in the study were similar to those in a retrospective cohort analysis of 455 patients with RA and at least one tofacitinib claim. Evidence of a randomized placebo-controlled trial prior to initiating therapy, in the guidelines.
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