Real World Analysis: Key Trends in Biologic Medication Adherence and Overall Costs and Outcomes in Patients with Rheumatoid Arthritis

Sam Leo, Michael Poislon, Yuqian Liu, Hatta Makarangi, and Steve Cutts

Background

While it is well established that better disease control improves outcomes, the evidence regarding adherence to long-term therapies that cannot be re-administered in patients and their providers is more limited. To address this gap, a recent study examined patterns of adherence and real-world costs for a sample of patients with rheumatoid arthritis (RA).

Objective

The objective of this study was to determine key trends in adherence, costs of care, and medical outcomes for patients with RA.

Methods

Data Source and Study Time Period

The study utilized data from the Clinformatics Data Mart (CDM), a statistically de-identified database of administrative health claims for a national health plan. The study included patients with a diagnosis of RA (ICD-9, 714.0) between January 1, 2004, and December 31, 2013. The index date was defined as the first fill date for a self-administered biologic drug indicated for the treatment of RA.

Inclusion Criteria

- Age ≥18 years old at the time of index date.
- A diagnosis of RA (ICD-9, 714.0).
- Drug fill for the index date through at least 24 months after the index date.

Exclusion Criteria

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Results

Health Care Resource Utilization Outcomes, All Patients (Mean Value per Patient)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Baseline</th>
<th>PDC ≥ 85%</th>
<th>PDC &lt; 85%</th>
<th>Difference</th>
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<tbody>
<tr>
<td>Medical Cost</td>
<td>$47,406</td>
<td>$42,189</td>
<td>$16,769</td>
<td>$5,351</td>
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<td>Inpatient Visits*</td>
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<td>0.02</td>
<td>0.01</td>
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<tr>
<td>Emergency Room Visits*</td>
<td>0.26</td>
<td>0.22</td>
<td>0.02</td>
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Discussion

- Better adherence (PDC ≥85%) was associated with a significant reduction in both medical and pharmacy costs. Adherent patients had an average annual medical and pharmacy costs greater than non-adherent patients ($4,614 and $5,345 greater for medical and pharmacy costs, respectively).

Conclusion

- Patients who achieve adherence goal (PDC ≥85%) may have lower medical and pharmacy costs. Longer follow-up periods may provide further insights on the long-term impact of improved adherence on subsequent medical outcomes and associated costs in patients with rheumatoid arthritis.

References