Follow-up

bDMARD, biologic disease modifying antirheumatic drug

For rheumatoid arthritis (RA) patients not meeting treat-to-target goals on a biologic disease-modifying antirheumatic drug (bDMARD), real-world persistence has been variable. This study described persistence rates, patient healthcare costs, and the use of glucocorticoids and opioid use in Medicare fee-for-service (FFS) RA patients on the first bDMARD.

Objectives

- To describe the rate of treatment disruption among non-persisters (i.e., switching, stopping, or gap ≥60 days) on any of their bDMARDs or Janus kinase inhibitor (JAKi) targeted immunomodulators (TIMs) in Medicare recipients initiating a first bDMARD
- To map trends in healthcare costs and the use of glucocorticoids and opioids by persisters and non-persisters and those who experienced disruptions of their first bDMARD treatment

Methods

Study design: Real-world, longitudinal, retrospective cohort study of Medicare FFS beneficiaries initiating a first bDMARD from 1/1/2011 to 12/31/2014.

- Cohort: All Medicare FFS beneficiaries who initiated a first bDMARD (cripters 1085, 1086, 1087, or 1088), or Janus kinase inhibitor (JAKi) targeted immunomodulators (TIM): tumor necrosis factor-α inhibitors, interleukin-17 inhibitors, interleukin-6 inhibitors, or IL-23 inhibitors.

- Cohort exclusion criteria:
  - Nineteen digits, 5th character was not a 7 or 8 or 9 (implies Medicare dual enrollment patients and excluded from study).
  - Utilized a dual coverage status in this population.

Statistical analysis:

- Descriptive statistics—mean±SD, median (Q1, Q3)—characterized patient demographics and study follow-up
- Unadjusted Kaplan-Meier curves assessed persistency on 1st bDMARD
- Cox proportional hazards models (PHM) to determine factors associated with discontinuation of 1st bDMARD

Results

- Table 1: Patient disposition

- Table 2: Patient demographics and study follow-up

- Figure 1: Study schema

- Figure 2: Flowchart of study population

- Figure 3: First bDMARD disruptions: restarts, switches, or stops

- Figure 4: Unadjusted longitudinal costs (2011 USD, PPPM) by cohorts, in 4-month increments

- Figure 5: Longitudinal prevalence of glucocorticoid use (%) and total PED exposure (mg/day per patient) by cohorts, in 6-month increments

- Figure 6: Longitudinal prevalence of opioid use (%) and doses exposure (mg/60 days per patient by cohorts, in 6-month increments

Limitations

- Although the majority of patients used intravenous bDMARDs (which are covered by Medicare Part B), the discontinuations in those who used oral bDMARDs were examined as a post-hoc analysis.
- The Medicare 20% Medicare fee-for-service database may differ from the national Medicare fee-for-service database.
- This study design did not identify medical nor non-medical reasons for treatment disruption.
- Among the patients who used intravenous bDMARDs, the discontinuations in those who used oral bDMARDs were examined as a post-hoc analysis.
- The Medicare 20% Medicare fee-for-service database may differ from the national Medicare fee-for-service database.
- Although the majority of patients used intravenous bDMARDs (which are covered by Medicare Part B), the discontinuations in those who used oral bDMARDs were examined as a post-hoc analysis.

Conclusions

- The longitudinal analysis of rheumatoid arthritis treatment patterns in this fee-for-service Medicare population showed improved treatment intensification over time, with over 90% of patients using dual coverage in this population.
- Opioid use (prevalence and doses) showed a decline in prevalence of glucocorticoid use and in PED exposure longitudinally.
- Patients with treatment disruptions demonstrated increased costs and glucocorticoid use and decreased treatment adherence over time.
- Patients with treatment disruptions demonstrated increased costs and glucocorticoid use and decreased treatment adherence over time.
- Patients with treatment disruptions demonstrated increased costs and glucocorticoid use and decreased treatment adherence over time.
- Patients with treatment disruptions demonstrated increased costs and glucocorticoid use and decreased treatment adherence over time.
- Patients with treatment disruptions demonstrated increased costs and glucocorticoid use and decreased treatment adherence over time.