Background & Objective

- P2Y12 inhibitors (P2Y12i) are antiplatelet medications used to prevent or treat heart attacks, strokes, and other cardiovascular events.¹
- Factor Xa inhibitors (FXaI) and dabigatran, a direct thrombin inhibitor (DTI), are anticoagulants indicated to prevent venous thromboembolism and clots associated with atrial fibrillation and joint replacements.²
- There is an increased risk of bleeding events associated with each of these medication classes, though reversal agents are currently approved only for FXaI and DTI.
- The purpose of this study was to describe all-cause and bleeding-related healthcare costs among patients initiating P2Y12I, FXaI, or DTI.

Methods

Study Design and Data Source
- This retrospective cohort study used administrative claims data from the IBM® MarketScan® Commercial and Medicare. Supplemental Research Databases spanning 1/1/2013-6/30/2019.
- Inclusion and exclusion criteria are displayed in Figure 1.

Outcomes
- All outcomes were assessed while patients were persistent on their index medication, defined as the time period between the index date and the earliest appearance of either a ≥30-day gap in days of supply, the end of the patient’s continuous enrollment period, or the end of the study window (6/30/2019).
- Outcomes included:
  - All-cause healthcare costs: paid amounts from all medical and pharmacy claims.
  - Bleed-related healthcare costs: paid amounts from all emergency room (ER) and inpatient (IP) medical claims with a diagnosis code for a bleed.
  - Internal bleeds (gastrointestinal [GI], intracranial, other internal), external bleeds, and bleeds related to medical procedures were included.
  - All-cause and bleed-related costs are reported per patient per year, and (PPPY) to account for the variable length of the persistence period.
  - Costs per individual bleeding events were also assessed.

Analysis
- Outcomes were compared between P2Y12I and FXaI users, and between P2Y12I and DTI users using t-tests for continuous variables, and chi-square or Fisher’s exact tests for categorical variables.

Results
- Patients in the commercial sample presented a mean age in the early-to-mid 50s, while Medicare patients were aged in the mid-to-late 70s; the majority of patients were male (Table 1).
- Baseline all-cause healthcare costs were 15%-38% higher among Commercial and Medicare P2Y12I patients vs. FXaI and DTI patients (Figures 2 and 3).
- While persistent on their index medication, Commercial P2Y12I and DTI patients incurred similar all-cause healthcare costs (Figure 2).
- Baseline costs per bleeding event among P2Y12I patients were 9%–20% higher than FXaI patients, and 17%-40% higher than DTI patients (Figure 4).
- Costs per bleeding events while patients were persistent on their medication were similar between P2Y12I and FXaI patients in each of the commercial and Medicare cohorts (Figure 4).

Conclusion
- Results highlight the need for an effective reversal agent for the FXaI and DTI medication class, which could decrease bleeding events and associated costs among patients prescribed these therapies.

References

Disclosures
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