INTRODUCTION

• Treatments for high-risk MDS patients are limited mainly to hypomethylating agents (HMAs) and clinical trials.1

• However, 80% of MDS patients receiving HMAs fail to achieve remission, with nearly all patients eventually developing chemoresistant disease.2

• For patients who have failed initial treatment with HMAs, a variety of 2nd-line therapies are available. However, these interventions have been only modestly effective to date.3

• In this analysis, we documented the incidence of MDS following HMA treatment failure and characterized patient populations with MDS receiving 1st-line and 2nd-line therapy.

METHODS

• Study design: Retrospective cohort study using a commercial claims database

• Data source: Optum Clinformatics® Data Mart

• Patient population:
  - All MDS Patients: Defined as patients with an MDS-associated medical claim (CDD-9-CM codes 283.7z) in the identification (ID) period (1/1/2008-12/31/2008)
  - Newly diagnosed: Among All MDS Patients, persons with no MDS diagnosis in the pre-ID period (1/1/2008-12/31/2008)
  - Newly treated with HMA: Defined as newly diagnosed patients with a claim for HMA treatment in the ID period, but not in the pre-ID period

• Candidates for 2nd-line treatment: MDS patients who used an HMA in the ID period and:
  - Stopped 22 months ago
  - Switched to another HMA
  - OR remained on the first HMA for >7 months

• Key outcomes:
  - MDS incidence
  - Treatment patterns in newly diagnosed MDS patients
  - MDS incidence in patients treated with HMAs

• Software used for analyses: SAS® version 9.4 (SAS Institute, Cary, NC)

RESULTS

General Characteristics and Trends

• During 2009, in a cohort of 5,942,153 enrollees, there were 9,209 prevalent cases of MDS

• Consistent with current understanding of MDS, the majority (9,209) of MDS patients identified in our study were at least 65 years of age or older

• Over 80% of all MDS patients received a “watch and wait” strategy, receiving no chemotherapy and no supportive care

• A modest proportion of patients received supportive care (16.6%), defined as receipt of erythropoiesis-stimulating agents (ESAs) or growth factors

• A smaller proportion of patients received chemotherapy (3.9%), most commonly azacitidine (197,159; 54.9%)

Figure 1. Selection of Study Cohort

CONCLUSION

• The majority (over 80%) of MDS patients, whether newly diagnosed or established, are managed with a “watch and wait” strategy.

• The incidence of newly-diagnosed MDS patients in this study was 69.9/100,000, which is consistent with published literature on US populations.3-5

• Patients receiving first-line HMA therapy used the drug a median of 4.5 months before stopping.

• Patients considered eligible for 2nd-line therapy (N=135-176) were much more likely to have received supportive care (73.8%) compared to the overall MDS population (16.8%).

• Results from this analysis can inform population-based estimates of the MDS burden of disease among Medicare and commercially-insured patients, as the prognosis for patients in whom HMA therapy has failed is grim.6

REFERENCES


Figure 2. Time to First HMA among Newly Treated Patients (N=176)

Figure 3. Time on First HMA among Newly Treated Patients (N=186)