Patterns of ICS Reduction in Patients with Severe Asthma on Mepolizumab

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Aims
- Mepolizumab has been shown to improve severe eosinophilic asthma control in clinical trials. Further, real-world studies examining mepolizumab have established efficacy in routine clinical practice. Therefore, there is anecdotal evidence that patients treated with mepolizumab reduce their inhaled corticosteroid (ICS) dose, there is currently no available data to support this observation.
- The objective of this study was to describe ICS utilization after initiating treatment of mepolizumab.

Methods
- This was a retrospective analysis of US patients from November 1, 2015 – March 31, 2018 using the MarketScan Commercial and Medicare Supplemental Databases.

Key Inclusion Criteria
1. At least 1 mepolizumab administration between 11/01/2015-03/31/2018 index period
2. Age ≥ 12 years at index
3. Continuous enrollment with medical and pharmacy coverage during 12-month baseline and follow-up
4. At least 3 months of mepolizumab use during baseline period
5. No mepolizumab administration E-Register post-index

Key Exclusion Criteria
- Evidence of mepolizumab use during the baseline period
- Evidence of omalizumab, reslizumab, benralizumab, or dupilumab during the baseline or follow-up period
- Evidence of high dose ICS* use in the last 90 days of baseline

Dose Change Defined by GINA Guidelines
- Patients were classified into three subgroups each quarter of the 12-month follow-up period.
- Patients received on average 10.7 injections of mepolizumab over the 12-month follow-up period.

Outcomes of Interest - Quarterly Change in ICS
- Patients received on average 10.7 injections of mepolizumab over the 12-month follow-up period.
- The number of patients on high dose ICS decreased and those on other dose or no ICS use increased during the follow-up period. 179 patients (51%) remained on high ICS for the duration of follow-up. Only 14 patients (4%) who discontinued ICS during the follow-up period remained off ICS for the 12-month duration of follow-up.

Results
- Although the number of patients on high dose ICS decreased and those on other dose or no ICS use increased during the follow-up period. 179 patients (51%) remained on high ICS for the duration of follow-up. Only 14 patients (4%) who discontinued ICS during the follow-up period remained off ICS for the 12-month duration of follow-up.

Conclusions
- Half of patients with severe asthma on mepolizumab remained on high-dose ICS for 12 months following treatment initiation: the other half discontinued ICS for some time period. In patients with 24 months of follow-up, decreases in ICS dose also persisted in the 2nd year following mepolizumab initiation.
- These data may have relevant clinical implications for HCPs and patients with severe eosinophilic asthma, illustrating the need for close patient monitoring and an early, robust discussion on asthma therapeutic action plans, particularly in the context of biologic initiation.

References

Disclosures
1. SC has received honorarium from AstraZeneca, MedImmune, and Genentech/Roche, and has received speaking honorarium from AstraZeneca, MedImmune, and Genentech/Roche.
2. BH is a speaker for Genentech/Roche, BH, is a speaker for AstraZeneca, and has received speaking honorarium from AstraZeneca and Genentech/Roche.
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