

Patient characteristics of new initiators of glycopyrronium bromide (GLY) – A multinational, multi-database real-world drug-utilization study

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Background: GLY is a long-acting muscarinic antagonist (LAMA) indicated as maintenance bronchodilator to relieve symptoms in adults with COPD. Patient characteristics in real life often differ from clinical trials.

Aim: To describe demographics, dosing, duration of use, COPD severity, comorbidities and prior use of respiratory drugs in GLY initiators.

Methods: GLY initiators were identified in 5 electronic databases: UK (THIN), The Netherlands (IPCI), Denmark (Aarhus), Italy (HSD) and Spain (SIDIAP). The study period was from 2012-2015. Patients with at least 1 yr of history were eligible. Using the pooled-study population, descriptive statistics were computed.

Results: 13,707 GLY initiators were identified, 8% in IPCI, 10% in Aarhus, 16% in THIN, 21% in HSD and 45% in SIDIAP. The median age was 71 yrs (IQR 62.9-78.7) and almost 60% were male. More than 98% used GLY once daily with a median duration of 61 days (IQR 30-183). COPD severity in patients with spirometry (41%) was as follows: 9% mild, 49% moderate, 36% severe and 6% very severe. Cardio- and cerebrovascular comorbidity was high with highest prevalences for cardiac arrhythmia (14%), heart failure (9%), angina pectoris (7%) and stroke (7%). More than half of patients had chronic kidney disease stage 2 or 3. 1 patient in 4 used LAMA (28%) or LABA (26%) in the 6 months prior to GLY start; prior use of LABA+ICS was even higher (46%).

Conclusion: In real life, majority of first-time GLY use was in line with product label regarding dosing and COPD severity. More than ¼ of patients used long-acting bronchodilators before GLY start. Cardiovascular comorbidity was considerable.