Glycopyrronium (Seebri®) for the indication 'COPD' Pharmacotherapeutic report, summary

Approved on 26-11-2012 by the Medicinal Products Reimbursement Committee (CFH)

Medicine. Glycopyrronium bromide 63 µg inhalation powder in a hard capsule (equivalent to 50 µg glycopyrronium).

Registered indication. "Maintenance bronchodilator treatment to relieve symptoms in adult patients with chronic obstructive pulmonary disease (COPD)".

Posology. 50 µg glycopyrronium once daily, with Seebri Breezhaler inhaler. Each delivered dose (the dose that leaves the mouthpiece of the inhaler) contains 55 micrograms of glycopyrronium bromide equivalent to 44 micrograms of glycopyrronium.

Mechanism of action. Glycopyrronium bromide is a high affinity muscarinic receptor antagonist. A greater than 4-fold selectivity for the human M3 receptors over the human M2 receptor has been demonstrated using radioligand binding studies. Upon inhalation, glycopyrronium works by blocking the bronchoconstrictor action of acetylcholine on airway smooth muscle cells, thereby dilating the airways.

Summary of the therapeutic value

Intended effects. After 12, 26 and 52 weeks of treatment glycopyrronium produced similar improvements in lung function (FEV1) as tiotropium in patients with moderate to severe COPD. There was also no statistically significant difference in health-related quality of life measured using the St. George's Respiratory Questionnaire (SGRQ) or the rate of moderate or severe COPD exacerbations.

Unintended effects. Glycopyrronium has similar unintended effects to tiotropium.

Experience. Experience with glycopyrronium is limited, while ample experience has been gained with tiotropium.

Applicability. There are no major differences in applicability between glycopyrronium and tiotropium.

Ease of use. Glycopyrronium is taken once daily (by inhalation), similarly to tiotropium.

Final conclusion. For the treatment of COPD is the therapeutic value of glycopyrronium comparable with that of tiotropium.