Glucagon-like peptide-1 receptor agonists for the treatment of obesity in women with polycystic ovary syndrome

HAYES, Inc

Record Status
This is a bibliographic record of a published health technology assessment. No evaluation of the quality of this assessment has been made for the HTA database.

Citation

Authors’ conclusions
Health Problem: Polycystic ovary syndrome (PCOS) is a common endocrine disorder affecting 6% to 20% of women of reproductive age. It is characterized by oligoovulation (menstrual irregularity), hyperandrogenism (increased testosterone levels), and polycystic ovaries. Obesity is a common feature of PCOS, affecting approximately 40% to 80% of women diagnosed with the syndrome. Weight loss is a central component of treatment for women with PCOS who are overweight or obese. Weight reduction can decrease androgen effects, increase ovulation, and improve insulin sensitivity. Technology Description: Glucagon-like Peptide-1 (GLP-1) receptor agonists are a class of drugs that mimic the effects of the naturally occurring gut hormone GLP-1. The GLP-1 hormone, which is released in the gastrointestinal tract after a meal, stimulates insulin secretion, inhibits glucagon release, delays gastric emptying, reduces food intake, and normalizes fasting and postprandial insulin secretion. GLP-1 receptor agonists have similar, but more enduring, effects to the naturally occurring hormone. Controversy: Prescribing information for Saxenda (liraglutide) and Byetta (exenatide) states that these drugs must be used in conjunction with a reduced-calorie diet and exercise. However, the randomized controlled trials evaluated in this report did not implement diet and exercise programs in conjunction with GLP-1 receptor agonists. Further, use of GLP-1 receptor agonists could potentially cause serious adverse events (AEs). While the most frequently occurring AEs associated with GLP-1 receptor agonists include mild to moderate gastrointestinal discomfort (e.g., nausea, diarrhea, and vomiting), the FDA has issued a black box warning for Saxenda (liraglutide) concerning the potential risk of thyroid C-cell tumors. The FDA also warns that Saxenda is contraindicated in patients with a personal or family history of medullary thyroid carcinoma and in patients with multiple endocrine neoplasia syndrome type 2. Key Questions: Are GLP-1 receptor agonists effective in treating obesity in adult women with PCOS? How do GLP-1 receptor agonists compare with placebo or other active drug therapies? Are GLP-1 receptor agonists safe? Have definitive patient selection criteria been identified for GLP-1 receptor agonists?

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