



Research Article

The quantity, quality and findings of network meta-analyses evaluating the effectiveness of GLP-1 RAs for weight loss: a scoping review

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Plain language summary

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Background

Some drugs that are used to treat diabetes have also been found to lower weight. We sought to review the evidence about whether they are safe and effective options for weight loss in people who are overweight or obese.

Our approach

We summarised recent research about six diabetic treatment drugs: semaglutide, liraglutide, tirzepatide, lixisenatide, exenatide and dulaglutide. The research we summarised looked at experiments on those drugs and compared them in something called a network meta-analysis. Essentially, this tells us about which drug is most effective, even if nobody has done an experiment to directly compare two drugs. We also looked at evidence about the safety and side effects of taking the drugs, because members of the public told us this was important.

Our findings

There were 22 pieces of evidence that compared the drugs of interest. Of these, we assessed 14 as being reliable enough to take data from. Two injectable drugs (semaglutide 2.4 mg and tirzepatide 10 and 15 mg) were most effective, and people taking these drugs could lose between 11.2 and 12.5 kg of weight compared to not taking any drugs (this is defined as taking a placebo). All drugs had some side effects, with things like nausea and upset stomach being common. Some more serious effects caused people to stop treatment. No one drug was particularly worse than others. There was a lack of information about long-term effectiveness and safety, and several limitations to the studies we reviewed.

Conclusions

The drugs we reviewed have huge potential for managing a global issue, but it is important to know how effective and safe they are. Our research showed the drugs can help people lose weight, but not without some risk of side effects. More experiments are needed to help to build the evidence about these drugs.