Incretin therapies and endoscopy safety

Both NHS and private prescribing of GLP-1 and GIP/GLP-1 receptor agonists for type 2 diabetes and weight loss are increasing rapidly in the UK. OCULUS was a small, randomised, single-masked trial conducted in people taking these drugs who were undergoing upper gastrointestinal endoscopic procedures (some also undergoing colonoscopy). Participants were randomised to either continue their incretin medications as normal or to withhold one (weekly or daily) dose prior to the procedure. The study, published in *JAMA Internal Medicine*, was stopped early due to an increased risk of clinically significant residual gastric volume, precluding an adequate examination, in those who continued these drugs prior to the procedure. This was reduced in those who withheld incretin drugs, and was not seen in those who continued the drugs but had taken only clear liquids for 24 hours prior to the procedure as they were also undergoing colonoscopy. Importantly, upper gastrointestinal symptoms, such as nausea, vomiting or dyspepsia, did not predict or correlate with significant residual gastric volume. Incretin therapies are known to delay gastric emptying, and perioperative guidelines now make recommendations for improving safety and reducing risk of aspiration in people taking these drugs. It is important that patients share whether they are receiving these drugs from private providers so that this can be taken into account during procedures and surgery.

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In a nationally representative UK household survey conducted in 2025, 2.9% of participants – equivalent to 1.6 million people across the country – had used a GLP-1 or GIP/GLP-1 receptor agonist for weight loss in the previous year, with 1.7% having used the drugs solely for weight loss (Jackson et al, 2026). Of those who had not used the drugs in the last year, 6.6% (equivalent to around 3.3 million people across the UK), expressed an interest in using them in the next year. Interest was higher in women, people in midlife, those with psychological stress in the past month and those facing higher socioeconomic disadvantage.

One of the mechanisms of incretin agents, whether prescribed for type 2 diabetes or weight loss, is delayed gastric emptying. The MHRA (2025) has issued a warning to clinicians about the potential risk of aspiration due to residual stomach contents, despite appropriate fasting, in people using GLP-1 or dual GIP/GLP-1 RAs who undergo surgery or deep sedation. It advises anaesthetists to ask directly about use of these drugs and to undertake a careful preoperative risk assessment.

In a literature review published in the *British Journal of Anaesthesia* in 2024, van Zuylen et al (2024) recommended particular care in those who have been using GLP-1 RA treatment for less than 12 weeks, with evidence suggesting that gastric emptying begins to normalise thereafter. The authors also highlighted that gastric emptying may be delayed in people with type 2 diabetes even if they are not treated with GLP-1 RAs, particularly in those with long-standing disease or high HbA_{1c}.

A multidisciplinary consensus statement from eight UK groups, including the Association of Anaesthetists, Association of British Clinical Diabetologists and British Obesity and Metabolic Specialist Society, guides the elective perioperative management of adults taking incretin therapies or SGLT2 inhibitors (the latter due to the risk of diabetic ketoacidosis perioperatively) (El-Boghdadly et al, 2025). For those taking GLP-1 and GIP/GLP-1 RAs, the consensus advises that:

- Aspiration risk should be discussed with the person preoperatively.
- Drug treatment can continue.

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- Fasting guidance should be followed.
- Regional anaesthesia is preferred where possible.
- Point-of-care gastric ultrasound can be used to assess residual gastric volume and help stratify risk.
- Careful anaesthetic and airway management should be implemented to reduce risk of aspiration.

Current perioperative guidelines are based on retrospective observational studies, however, and the present study is thought to be the first randomised clinical trial in this important area.

The study

OCULUS was a randomised, single-masked trial of people taking a stable dose of GLP-1 or GIP/GLP-1 RA therapy for at least 1 month who were undergoing elective upper gastrointestinal endoscopic procedures, including endoscopic retrograde cholangiopancreatography (under moderate sedation or anaesthetic monitoring). Ahmad and colleagues compared the risk of clinically significant residual gastric volume (RGV) in those who continued medication unchanged versus those who held or paused one (weekly or daily) dose prior to the procedure.

Clinically significant RGV was defined as gastric contents that caused endoscopy to be impossible or terminated prematurely, or which required endotracheal intubation or resulted in an aspiration event requiring extended monitoring, unplanned management or admission.

People with known gastroparesis, achalasia, gastric outlet obstruction, previous RGV at endoscopy, planned general anaesthesia or recent opioid use were excluded.

Results

A preplanned interim analysis was carried out once 50% of the target sample had been recruited – that is, when 60 procedures had been completed. Of these 60 participants, half of whom were female, 32 withheld one dose of incretin therapy while 28 continued medication prior to endoscopic procedures. Thirty-five participants were scheduled for upper gastrointestinal endoscopy only, while 25 were also scheduled for a colonoscopy at the same time. The latter group had received bowel preparation and were only permitted clear fluids for 24 hours prior to the procedures.

Clinically significant RGV occurred in 25% of the continue group, versus 3.1% in the withhold group, an absolute difference of 21.9%. Thus, despite the small numbers enrolled, the preplanned criteria for stopping the study were met after this interim analysis.

Importantly, upper gastrointestinal symptoms, such as nausea, vomiting or dyspepsia, were not associated with, and could not be used to predict, clinically significant RGV. All of those with RGV were asymptomatic, and the one participant who did have symptoms did not have RGV on endoscopy.

Fortunately, although an increased risk of clinically significant RGV was identified, particularly in those who continued their incretin drug, this only resulted in an adequate examination being precluded and the procedure being rescheduled; there were no aspiration events, need for endotracheal intubation or other adverse events.

In the 35 participants undergoing only upper gastrointestinal endoscopy, 46.7% in the continue group versus 5.0% in the withhold group had significant RGV. In contrast, among the 25 attending for combined endoscopy and colonoscopy, who had been on clear fluids for 24 hours prior to the procedure, no participants in either the continue or withhold group had clinically significant RGV. Thus, the authors propose that clear fluids only for 24 hours prior to upper gastrointestinal endoscopy may mitigate the risk of clinically significant RGV in those taking incretin therapies.

Implications for practice

The recent NICE NG28 guideline update is likely to increase NHS prescribing of GLP-1 and GIP/GLP-1 RA drugs for type 2 diabetes, and the implementation of NICE obesity guidance and new QOF obesity indicators in England will result in more prescriptions for weight loss.

The survey results of Jackson et al (2026) demonstrate that large numbers of people in the UK are already being prescribed these drugs for weight loss, many privately. One of the emerging challenges is that many of those buying the drugs privately have not agreed to notify their primary care providers, meaning we are unable to provide vital education and support.

Evidence from OCULUS and other studies shows that people using incretin drugs for weight loss or type 2 diabetes management could be potentially at risk of clinically significant RGV, risking aspiration when undergoing endoscopy or surgery, which could have serious health consequences as well as the inconvenience and cost of rescheduling the procedure. In this study, holding or pausing one dose of the drugs prior to the procedure reduced but did not wholly eliminate the risk, whereas restricting to clear fluids for 24 hours prior to upper gastrointestinal endoscopic procedures appeared to eliminate the risk. Hopefully this will be confirmed by additional studies and can be incorporated into perioperative and endoscopy guidance, reducing risk. However, this extra advice and perioperative care relies on people sharing that they are taking incretin therapies.

We therefore have a shared responsibility to help ensure our colleagues are aware when people we refer are taking these drugs. For drugs prescribed in primary care, the details will be automatically documented on the medication section of our electronic referrals, and we can encourage people to highlight this when a procedure or surgery is planned. However, when incretin drugs are privately prescribed for weight loss and our patients choose not to share this information with us, it is important to ask specifically about these and any other drugs or supplements when referring for elective surgery, endoscopy or other procedures which may require sedation or anaesthesia.

In my experience, people are usually happy to share details of their drug and dose (although often not their supplier, which in itself is a red flag that their drug may not have been prescribed by a pharmacy), allowing us to share this information with the specialist team. Documenting drugs prescribed by private providers on the electronic medication record is good practice, both to ensure we do not duplicate the prescription and to remind us to include details in referrals.

There is an additional challenge with private prescriptions: once we know that someone is prescribed these weight loss drugs, although the responsibility for safe prescribing lies with the prescriber, we will want to check for contraindications, and consider counselling about safe use, including resistance exercise and optimal diet and when to seek medical advice, in case this advice has not been provided by the prescriber. This new shared responsibility will be time-consuming. ■

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Practice points

1. People taking incretin-based therapies are at increased risk of residual gastric volume, despite appropriate fasting, when undergoing upper gastrointestinal endoscopic procedures.
2. Withholding one dose of the incretin therapy prior to the procedure may somewhat mitigate this risk, as may consuming only clear fluids in the 24 hours prior to endoscopy.
3. It is important to ask specifically about private GLP-1 or GIP/GLP-1 RA prescriptions, and any other drugs or supplements, when referring for elective surgery, endoscopy or other procedures which may require sedation or anaesthesia.
4. Guidelines are now in place to help protect people perioperatively who are taking these drugs, whether for type 2 diabetes or weight loss.