METHODOLOGY
A retrospective cohort of adults with obesity and T2DM receiving GLP-1 RAs (semaglutide or liraglutide) from January 2023 to December 2024 was analyzed. Baseline physical activity was classified as active or inactive. Primary outcomes were achievement of ≥3 and ≥5% weight loss over 6–12 months. Associations were assessed using Fisher's exact test and logistic regression.

RESULTS
Among GLP-1-treated patients, those reporting baseline physical activity were more likely to achieve ≥3% weight loss and demonstrated trends toward higher, ≥5%, weight loss. Logistic regression suggested baseline activity increased the odds of clinically meaningful weight reduction, though statistical significance was limited by sample size.

CONCLUSION
Baseline physical activity may enhance GLP-1 receptor agonist-mediated weight loss in obese patients with T2DM. Integrating lifestyle interventions with pharmacotherapy may optimize treatment outcomes. Larger prospective studies are warranted to confirm these findings.

EP_A078

GRAY-MARKET PEPTIDES, GRAVE CONSEQUENCES: SADDLE PULMONARY EMBOLISM AND DIABETIC KETOACIDOSIS FROM UNSUPERVISED RETATRUTIDE, AOD-9604, AND TESAMORELIN

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INTRODUCTION
The growing popularity of glucagon-like peptide-1 receptor agonists (GLP-1 RAs) for weight management has inadvertently perpetuated demand for unregulated experimental peptides procured through gray markets. Retatrutide, a novel triple GLP-1/glucose-dependent insulinotropic polypeptide (GIP)/glucagon receptor agonist undergoing Phase III trials; AOD -9604, an abandoned synthetic human growth hormone fragment; and tesamorelin, a synthetic GHRH analogue, are increasingly self-administered without medical supervision. Their combined metabolic and thromboembolic risks remain unknown and unreported.

CASE
A 50-year-old Malaysian female with morbid obesity and poorly controlled type 2 diabetes mellitus (hemoglobin A1c 13%) presented with acute dyspnea, chest tightness, syncope, and cardiogenic shock. Three weeks prior, she had self-initiated subcutaneous retatrutide, AOD-9604, and tesamorelin procured through unregulated online platforms, achieving rapid weight loss of 10 kg. Despite markedly reduced oral intake from GLP-1-mediated gastrointestinal side effects, she continued her prescribed high-dose insulin regimen and sodium-glucose cotransporter-2 (SGLT2) inhibitor without dose adjustment. She developed concurrent diabetic ketoacidosis, confirmed biochemically, alongside massive saddle pulmonary embolism with right ventricular strain on echocardiography and computed tomography pulmonary angiography. She was successfully treated with systemic thrombolysis using alteplase, guideline-directed diabetic ketoacidosis management including fixed-rate insulin infusion and fluid resuscitation, and anticoagulation. The SGLT2 inhibitor was withheld throughout admission. She was discharged on rivaroxaban with counseling to cease all unregulated compounds. All three agents were submitted to the National Pharmaceutical Regulatory Authority/Malaysian Adverse Drug Reactions Advisory Committee for adverse drug reaction reporting.

CONCLUSION
To our knowledge, this is the first reported case of concurrent massive pulmonary embolism and diabetic ketoacidosis precipitated by unsupervised gray-market retatrutide, AOD-9604, and tesamorelin. Clinicians should enquire about unregistered supplement use, counsel insulin-dependent patients on sick-day rules when appetite-suppressing agents are initiated, and report adverse events to pharmacovigilance authorities.

EP_A079

POST-BARIATRIC METABOLIC EMERGENCY: A CASE OF DKA IN A NON-INSULIN-DEPENDENT PATIENT

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INTRODUCTION
Bariatric surgery is an effective treatment for morbid obesity and metabolic syndrome, including type 2 diabetes mellitus. However, metabolic complications such as diabetic and starvation ketoacidosis may occur in the perioperative period, particularly in patients with reduced oral intake, rapid weight loss, and altered insulin requirements.

CASE
A 37-year-old male with type 2 diabetes mellitus, hypertension, dyslipidemia, and morbid obesity (body mass index 60 kg/m²) was referred for bariatric surgery. Preoperatively, he was initiated on subcutaneous semaglutide 1 mg weekly for weight optimization, resulting in weight loss from 178 to 127 kg. His hemoglobin A1c was 9.5%. He subsequently underwent laparoscopic proximal jejunal bypass sleeve gastrectomy on 5 November 2025.

Two weeks postoperatively, he reported lethargy and was clinically found to be dehydrated, following poor tolerance of nourishing fluids and inadequate caloric intake. Capillary blood glucose was 7.6 mmol/L. Investigations revealed metabolic acidosis with markedly elevated serum ketones (4.9 mmol/L), consistent with ketoacidosis. He was commenced on an intravenous insulin infusion and aggressive IV fluid resuscitation. Attempts to discontinue insulin infusion resulted in recurrent ketoacidosis, attributed to poor tolerance of nourishing fluids. Following multidisciplinary input involving endocrinologists, a diabetes educator, and a dietitian, he was able to tolerate enteral nutritional supplementation. Insulin infusion was successfully discontinued, and he was discharged on a basal bolus subcutaneous insulin regimen.

CONCLUSION
Ketoacidosis following bariatric surgery is an underrecognized complication and may occur even in patients with type 2 diabetes mellitus and relatively normal blood glucose levels. Contributing factors included prolonged caloric deprivation, rapid weight loss, post-surgical catabolic state, and relative insulin deficiency. Recently used glucagon-like peptide-1 receptor agonist may have further suppressed appetite, compounding postoperative nutritional intolerance. The involvement of a multidisciplinary team, including endocrinologists, a dietician, diabetic educators, and surgical teams, is essential to optimize outcomes and prevent severe complications.

EP_A080

STARVATION KETOACIDOSIS SECONDARY TO RETATRUTIDE-INDUCED GASTROPARESIS: A CASE REPORT

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INTRODUCTION
Retatrutide is an investigational triple agonist targeting glucagon-like peptide-1, glucose-dependent insulinotropic polypeptide, and glucagon receptors. Early clinical trials have demonstrated promising weight loss effects. Gastrointestinal side effects are common and dose-dependent; however, severe complications such as gastroparesis leading to starvation ketoacidosis are rarely reported. Increasing public interest in emerging anti-obesity pharmacotherapies has led to unsupervised access to investigational medications through unregulated channels. We report a case of starvation ketoacidosis associated with retatrutide-induced gastroparesis following unsupervised use of medication obtained from unregulated sources.

CASE
A 39-year-old female healthcare worker with prediabetes (hemoglobin A1c 5.7%), class I obesity (body mass index 31.2 kg/m²), and endometriosis presented with persistent vomiting and diarrhea. She reported using retatrutide for weight loss, initially obtained from an informal source, although the authenticity and origin of the medication could not be verified. She self-titrated retatrutide over 7 weeks, escalating from 1 mg twice weekly to 6 mg weekly, with only mild nausea. Subsequently, she purchased the medication from another unverified online source. Following this change, she developed worsening nausea at the 6 mg weekly dose, prompting a dose reduction to 5 mg weekly. Two days after the most recent dose, she developed intractable vomiting and diarrhea. On presentation, she was clinically dehydrated. Venous blood gas revealed metabolic acidosis (pH 7.33, bicarbonate 18.8 mmol/L) with elevated serum ketones (4.5 mmol/L) and normal lactate (1.2 mmol/L). Blood glucose was 4.5 mmol/L, and serum amylase was normal. She was treated with intravenous fluids, fixed-rate insulin infusion, and antiemetics. Ketoacidosis resolved by day 3, with improvement of gastrointestinal symptoms by day 5.

CONCLUSION
This case highlights a serious complication associated with retatrutide and underscores the risks of unsupervised use of investigational weight-loss therapies obtained from unregulated sources. It also emphasizes pharmacovigilance as emerging antiobesity therapies become widely used. Careful dose titration, close clinical monitoring, and use within regulated medical channels are essential for patient safety.