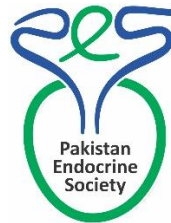


PES Endocrine Monthly Round-Up

August 2026



Editor's Perspective

August's selection turns on one distinction: what the evidence establishes, versus what it is assumed to establish. A consensus statement on thyroid storm, a network meta-analysis of oral GLP-1 receptor agonists, the thyroid response to fasting, preoperative fasting before endoscopy, and endocrine deterioration after pituitary surgery. In each case the finding is useful, and in each case it is narrower than it first appears.

Research Highlights

1. Management of Thyroid Emergencies: Joint Consensus Statement on Management of Thyroid Storm

Guideline Focus: Joint consensus from the European Thyroid Association, British Thyroid Association, Society for Endocrinology, and Welsh Endocrine and Diabetes Society. Not formally graded, given the condition's rarity and the predominance of observational data.

Key Messages:

- Diagnosis is clinical. Burch–Wartofsky: below 25 unlikely, 25–44 impending, 45 or above highly suggestive. Neither this nor the JTA/JES criteria is validated against a gold standard, and the weighting of fever and tachycardia risks overdiagnosis in sepsis.
- Propranolol 60–80 mg every 4 hours, which also blocks T4-to-T3 conversion; IV esmolol where there is cardiomyopathy, hypotension, or evolving shock. MMI 60–80 mg/day, CBZ 80–100 mg/day, or PTU 500–1000 mg loading then 250 mg every 4 hours — prefer MMI or CBZ if transaminases or bilirubin exceed three times normal. Hydrocortisone 100 mg IV then 50 mg four times daily.
- Iodine must follow antithyroid drugs by one hour, or thyrotoxicosis may worsen: Lugol's 8 drops or SSKI 5 drops four times daily. Avoid aspirin, which raises free T4 and T3. TSH does not guide early response; expect improvement within 24–72 hours.

Clinical Takeaway: The value is in the detail most easily lost under pressure — the interval before iodine, the aspirin contraindication, the uselessness of early TSH, and scores as aids rather than tests. Esmolol, IV methimazole, iopanoic acid, and ECMO are variably available, so adapt rather than adopt.

2. Role of Oral GLP-1 Receptor Agonists in Weight Management for Individuals With Overweight or Obesity Without Diabetes: A Network Meta-Analysis

Study Design: Frequentist random-effects network meta-analysis of 9 RCTs (N = 5766, 20–72 weeks) comparing oral semaglutide, orforglipron, danuglipron, and lotiglipron with placebo in adults without diabetes, searched to April 2026. Certainty assessed by CINeMA.

Key Findings:

- All agents except low-dose lotiglipron outperformed placebo for percentage weight reduction, with high-dose semaglutide (MD –11.6%) and orforglipron (MD –11.8%) showing the greatest effects.

- High-dose orforglipron gave the greatest absolute weight loss (MD -12.2 kg); high-dose semaglutide reduced BMI (-4.7 kg/m²) and waist circumference (-10.0 cm) the most, with higher attainment of the 5%, 10%, and 15% thresholds.
- Many comparisons rest on limited early-phase trials, and CINeMA certainty was mostly low to moderate.

Clinical Takeaway: High-dose oral semaglutide and orforglipron achieve roughly 11–12% weight loss against placebo, bringing oral agents within reach of injectable efficacy — relevant where injection hesitancy or cold-chain logistics limit uptake. There are no head-to-head trials, so the ranking between them should not be read as a real difference. Danuglipron and lotiglipron have since been discontinued for hepatotoxicity, so half the network is no longer clinically live.

3. Effects of Fasting on Thyroid Hormone Profiles: A Systematic Review and Meta-Analysis

Study Design: PRISMA meta-analysis of 15 studies of continuous zero-calorie fasting of at least 24 hours in adults.

Key Findings:

- Marked falls in FT3 ($g = -1.98$) and total T3 ($g = -1.34$), a moderate fall in TSH ($g = -0.58$), and no change in FT4 — reduced peripheral T4-to-T3 conversion rather than reduced glandular output.
- Meta-regression found no duration–response relationship. Heterogeneity was high for FT3 ($I^2 = 92.8\%$) but low for total T3, the most consistent signal.

Clinical Takeaway: A low FT3 with normal FT4 after fasting is expected physiology, not thyroid disease, and should not by itself prompt investigation. The review excluded Ramadan, intermittent, and time-restricted fasting; findings do not transfer. Studies were small.

4. Preoperative Fasting Status and Retained Gastric Contents in Patients Undergoing Endoscopy Who Are Using GLP-1 Receptor Agonists

Study Design: Retrospective cohort of 337 patients across five hospitals undergoing elective endoscopy, all taking or recently stopping a GLP-1 receptor agonist.

Key Findings:

- Retained gastric contents in 8.4%. Fasting from solids beyond 15 hours was associated with lower odds (adjusted OR 0.33, 95% CI 0.13–0.81). Liquid fasting duration and diabetes showed no association.
- Stopping the drug within 7 days was not significantly associated with retained contents (OR 5.23, 0.67–39.38); the interval is too wide to conclude anything either way.

Clinical Takeaway: Extending the solid fast, not suspending the drug, was the variable that mattered. The suspension estimate is uninformative rather than reassuring, and 15 hours is a cohort median, not a threshold to adopt as policy.

5. Predicting Hormonal Deterioration Following Transsphenoidal Surgery for Non-Functioning Pituitary Adenomas

Study Design: PRISMA meta-analysis of 11 observational cohorts (2350 patients) on predictors of new endocrine deficits after transsphenoidal resection, GRADE-assessed.

Key Findings:

- New endocrine deficits occurred in approximately one in six patients (pooled 16%, 95% CI 13–20%).
- Larger tumour volume was the only consistent predictor (mean 4.3 mL larger); diameter, age, sex, BMI, comorbidities, and surgeon experience showed none. Gross total resection carried lower odds than subtotal (OR 0.49), likely reflecting tumour characteristics rather than surgery.

Clinical Takeaway: A concrete counselling figure — one in six develops a new deficit, driven by the tumour rather than the patient or surgeon. All studies were observational, with GRADE certainty low to very low throughout.

For Further Reading

Management of thyroid emergencies: joint consensus statement on management of thyroid storm:
<https://doi.org/10.1530/ETJ-26-0043>

Role of Oral Glucagon-Like Peptide-1 Receptor Agonists in Weight Management for Individuals With Overweight or Obesity Without Diabetes: A Network Meta-Analysis of Randomized Controlled Trials:
<https://doi.org/10.1002/osp4.70181>

Effects of Fasting on Thyroid Hormone Profiles: A Systematic Review and Meta-Analysis of TSH, FT3, FT4, and Total T3 Responses: <https://doi.org/10.3389/fendo.2026.1876045>

Preoperative fasting status and retained gastric contents in patients undergoing endoscopy who are using glucagon-like peptide type 1 receptor agonists: a multicentre retrospective study:
<https://doi.org/10.1007/s12630-026-03187-3>

Predicting Hormonal Deterioration Following Transsphenoidal Surgery for Non-Functioning Pituitary Adenomas: A Systematic Review and Meta-Analysis: <https://doi.org/10.1007/s12020-026-04712-6>

Closing Note

The thread this month is interpretive discipline — knowing what a number does and does not mean. A low FT3 after fasting is adaptation, not disease. A wide confidence interval is an absence of information, not a finding. A diagnostic score is an aid, not a test. A ranking in a network meta-analysis is not a head-to-head result.

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