THIS SECTION IS CURRENTLY UNDER EXPERT REVIEW

**Myxedema comma**

-Severe hypothyroidism, **STAT endo consult**

-Signs/symptoms: AMS, hypothermia, hypotension, bradycardia, ventricular arrhythmias, hyper carbic resp failure, seizure.

-Exam: puffy face, swollen lips, enlarged tongue.

-Labs: low T4, high TSH , sometimes low glucose and low sodium

-Treatment:

- **Give steroids before levothyroxine; hydrocortisone 100mg q8h until AI ruled out.**
- **Order cortisol stim test**
- Levothyroxine Loading dose 200-400 mcg IV followed by 50-100 mcg IV daily
- Liothyronine Loading dose 5-20 mcg followed by 2.5-10 mcg q8h
- Monitor FT4 and T3 Q1-2 days, avoiding very high T3 levels.

**Thyroid storm :**

-Manifestation of severe thyrotoxicosis, **STAT endo consult**.

-Signs/symptoms: AMS (agitation, delirium, coma), hyperpyrexia, tachycardia, atrial arrhythmias, CHF

-Exam: goiter, tremor, warm skin, exophthalmos

- Labs/dx: high T4/T3, low TSH, Burch-Wartofsky Point Scale (BWPS) ≥ 45 highly suggestive, check mdcalc

-**Treatment:**

- Beta blocker: e.g., propranolol 60-80 mg PO Q4-6H (only propranolol decreases T4 to T3 conversion), doses up to 2g/d. or esmolol gtt for rapid titration in case of heart failure when you can't use propranolol
- Anti-thyroid meds: Methimazole (20mg q4h-q6h) is preferred unless pt is critically ill. PTU (200mg q4h-q6h) higher rates of fulminant hepatic necrosis.
- Iodine (100-250mg q6h-q8h) blocks release of thyroid hormone, must be given at least 1h after thionamide
- Hydrocortisone (100mg q8h) to reduce T4→T3 conversion
- Cholestyramine (4 g PO qid) to reduce enterohepatic recycling of thyroid hormone
- Plasmapheresis for those unable to take thionamides and urgently being prepared for thyroidectomy

**Steroid:**

No tapering if steroid use less than 3weeks

Ppx:

-if taking pred ≥20mg for ≥4w + 2nd reason for immunocompromise-→prophy against PCP

-if taking aspirin/NSAIDs--→prophy against peptic ulcer disease

References: THE WASHINGTON MANUAL® Endocrinology , subspecialty consult