GSH Surgical Endocrine Unit Calcium Replacement Protocol

Post Total or Completion Thyroidectomy

PTH Level at 4 hours post op

Purple tube and mark URGENT! – Either put on ice or walked down to the lab yourself

Calcium should be checked with arterial or venous gas (without tourniquet) and walked immediately to ICU or C15 blood gas machine.

PTH < 1.6

If ASYMPTOMATIC

Check calcium via blood gas

Oral calcium should be started at 3 tablets of calcium carbonate (Titralac ®) 8 hourly WITH Vitamin D 1 alpha at 0.5 ug twice daily

If SYMPTOMATIC, start calcium infusion

Check calcium via blood gas

Infusion mixture: 4 amps calcium gluconate (3600mg elemental calcium in 1000ml 5% D/W at 50ml/hr (2mg/kg/hr)

Continue management as per subtotal parathyroidectomy protocol

SYMPTOMS of Hypocalcaemia

- Tetany
- Carpopedal spasm
- Trousseau's sign
- Chvostek's sign
- Circumoral numbness

- Patients should be discharged on this and a follow up Calcium, TSH and T4 two days before 3 week visit (give form for local day hospital)
- Repeat PTH and calcium done two days before 3 month visit
- If PTH normal at 3 m visit, reduce calcium and vitamin D by half and recheck Ca and PTH after 1 month. (Give patients hypocalcaemia symptom guide)
- If PTH is normal on half dose calcium stop supplementation and repeat calcium and PTH in one month
- If PTH still low at 3m, continue calcium and vitamin D and follow up at 1 year for repeat levels

GSH Surgical Endocrine Unit Calcium Replacement Protocol

Subtotal parathyroidectomy for Renal Failure

In all renal failure patients with a successful operation (glands identified and removed appropriately), calcium replacement should be started immediately if possible in theatre at baseline rate

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Infusion dosage: 4 amps calcium gluconate in 200ml 5% dextrose at 10 ml/hr (2mg/kg/hr)

Oral supplementation: 4 tabs of Calcium gluconate (Titralac ®) 6 hourly with 1ug of Vit D twice daily

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Calcium (ionised) and PTH Level at 4 hours post op (baseline)

Purple tube and mark URGENT! – Either put on ice or walked down to the lab yourself

Calcium should be checked with arterial or venous gas (without tourniquet) and walked immediately to ICU or C15 blood gas machine.

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iCa check then 12 hourly (pre am and evening rounds) until normal.

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If Ca <0.9 – continue infusion

If calcium persistently <0.9 or sympotomatic increase infusion to 3 then 4 mg/kg/hr i.e. add another two amps to the 200ml bag to make it 6 amps in total, and again to 8 amps in total if further increase needed

If Ca > 0.9 on infusion, stop infusion for 12 hours and re check. If still >1 and patient asymptomatic, continue oral supplementation.

Discharge on oral supplementation when Ca >1 and asymptomatic for 24 hours

NOTE

- **Check full CMP on Day 2 post op and before discharge**
- **Patients should receive hypocalcaemia symptom chart on discharge**
- **Liaise with renal team to increase calcium in dialyte**
- **Patients may need intravenous treatment for many days – protect venous access and drips at all times!**
- **Avoid injuries to dialysis fistulas**