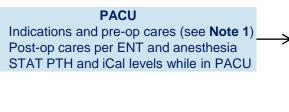
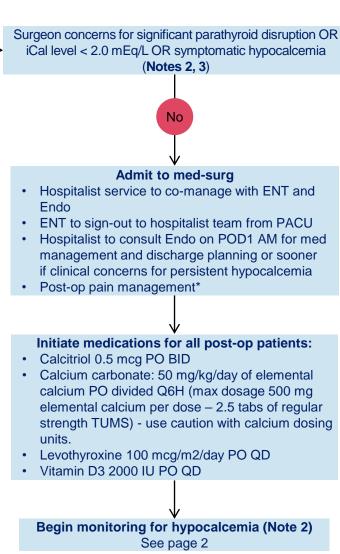
Post-op Thyroidectomy Management Guideline



Aim: To standardize the management of children following partial or total thyroidectomy.





Admit to ICU

- Intensivist to co-manage with ENT/Endo
- ENT to sign-out to ICU team from PACU

Yes

Off Guideline

*Post-op pain recommendations

Inpatient: Scheduled acetaminophen, PRN NSAID (ketorolac or ibuprofen), PRN oxycodone

After discharge: PRN acetaminophen and ibuprofen

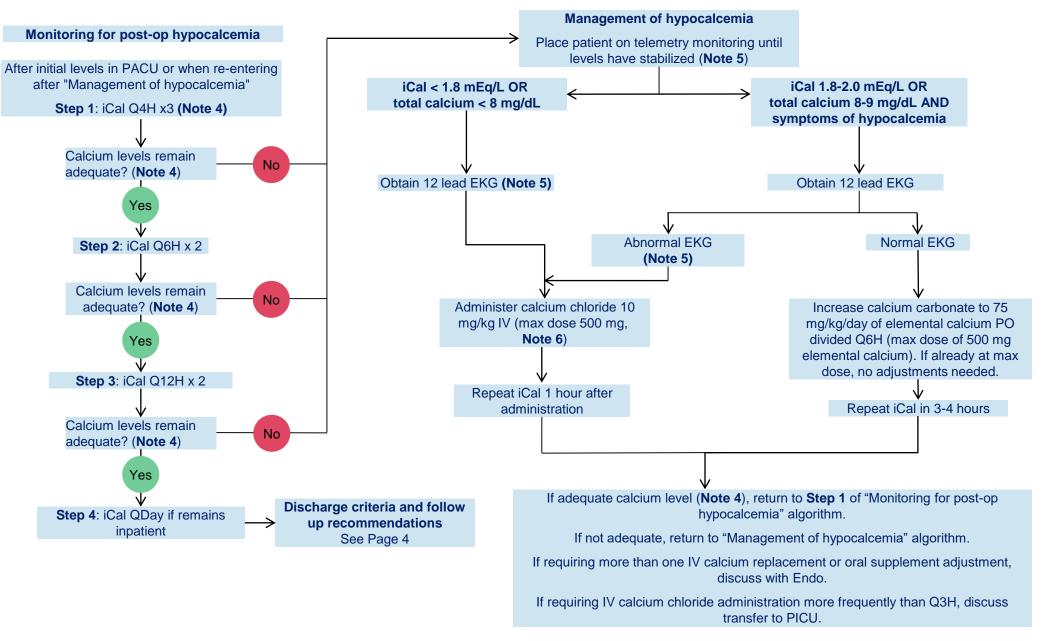
EXCLUSION CRITERIA

- ICU admission
- Oncologic indication for surgery (typically admit to Heme/Onc for management)

Post-op Thyroidectomy Management Guideline



Aim: To standardize the management of children following partial or total thyroidectomy.



Post-op Thyroidectomy Management Guideline Notes



NOTE 1

Indications

Common indications for pediatric total or subtotal thyroidectomy:

- · Thyroid nodules, certain goiters
- Failed medical management of Graves' disease, Hashimoto's
- · Thyroid cancer

Pre-op Optimization

Recommended initiation of calcitriol, calcium, and vitamin D3 supplementation 3 days prior to procedure (done by Endo):

- Calcitriol 0.5 mcg PO BID
- Calcium carbonate: 50 mg/kg/day of elemental calcium PO divided TID (max dosage 500 mg elemental calcium per dose)
- Vitamin D3 2000 IU PO QD

Continue supplementation until instructed to stop post-operatively.

NOTE 2

Symptoms of hypocalcemia:

- Tetany perioral numbness, paresthesias, muscle cramps
- Laryngospasm
- Seizures
- Hypotension

NOTE 3

Risk factors for hypocalcemia:

- Neck dissection/lymph node exploration
- Low PTH post-op
- · Younger age
- · Previous hyperthyroidism

NOTE 4

Adequate calcium levels:

- iCal ≥ 2.0 mEa/L
- Total calcium ≥ 9 mg/dL
- iCal 1.8-2.0 mEq/L or Total calcium 8-9 mg/dL WITHOUT symptoms of hypocalcemia

iCals can be obtained via venipucture OR fingerstick draw.

If assessing calcium level via BMP/CMP, you must also consider if correction is needed for hypoalbuminemia:

Corrected calcium (mg/dL) = (0.8*(normal albumin [g/dL] - serum albumin [g/dL])) + Serum calcium <math>(mg/dL)

NOTE 5

EKG changes from hypocalcemia*:

- Prolonged QTc
- Heart block, ventricular dysrhythmias (uncommon)

*If prolonged QTc, recommend repeat EKG once calcium levels have stabilized to demonstrate normalization. If EKG does not improve with calcium normalization, recommend discussion with cardiology. If any other EKG abnormality (i.e. heart block), recommend consultation with cardiology and PICU.

Calcium can be considered stabilized and telemetry can be discontinued after two iCals greater than 2.0 mEq/L.

NOTE 6

IV calcium chloride can be given on the med-surg floor via a PIV. For patients without central access (only PIV), calcium chloride dilute infusion (20 mg/mL) should be utilized to minimize vein irritation.

Max dose for IV calcium chloride on med/surg unit is 500 mg per dose.

Link to med administration guide on StarNet:

 $\underline{https://starnet.childrenshc.org/departments/Pharmacy/pediatric-iv-medication-administration-guidelines.pdf}$



Post-op Thyroidectomy Management Guideline Notes



Discharge criteria

- Stable calcium levels with no symptoms of hypocalcemia for 24 hours. If calcium levels remain low/borderline but meeting all other criteria, discuss possibility for outpatient lab monitoring with endocrinology.
- Pain managed with oral medications (After discharge: PRN acetaminophen and ibuprofen)
- Adequate oral intake
- Follow-up plan in place

Follow-up Recommendations

- Outpatient endo medications: Continue calcitriol, calcium carbonate, levothyroxine, and vitamin D3 as directed by endocrinology
- Typical clinic follow-up recommendations: 1 month endocrinology/thyroid nodule clinic, separate ENT follow-up at surgeon's discretion

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