

OBJECTIVE

Alberta clinicians optimize laboratory testing for suspected hypercalcemia

TARGET POPULATION

Adults and children with signs and symptoms of hypercalcemia

EXCLUSIONS

Children <1 month of age

RECOMMENDATIONS

- ✓ Measure serum albumin with serum calcium, i.e., for each 10g/L decrease of albumin from 40g/L, correct calcium by adding 0.20 mmol/L
- X DO NOT apply a tourniquet during the specimen collection for calcium analysis
- ✓ Consider discontinuing thiazides for one month, then repeat serum calcium. Thiazide diuretics can mildly elevate calcium levels.
- ✓ Interpret a parathyroid hormone (PTH) level in relation to calcium concentration with mild hypercalcemia
- ✓ Treat hypercalcemia – mild to moderate elevations of calcium with no need for a detailed investigation in patients with known malignancy, i.e., myeloma or carcinoma of bronchus.
- ✓ Refer to Algorithm (see [Appendix A](#)) for diagnostic options

PRACTICE POINT

Symptoms of hypercalcemia include polyuria, altered mentation, nausea/vomiting and constipation

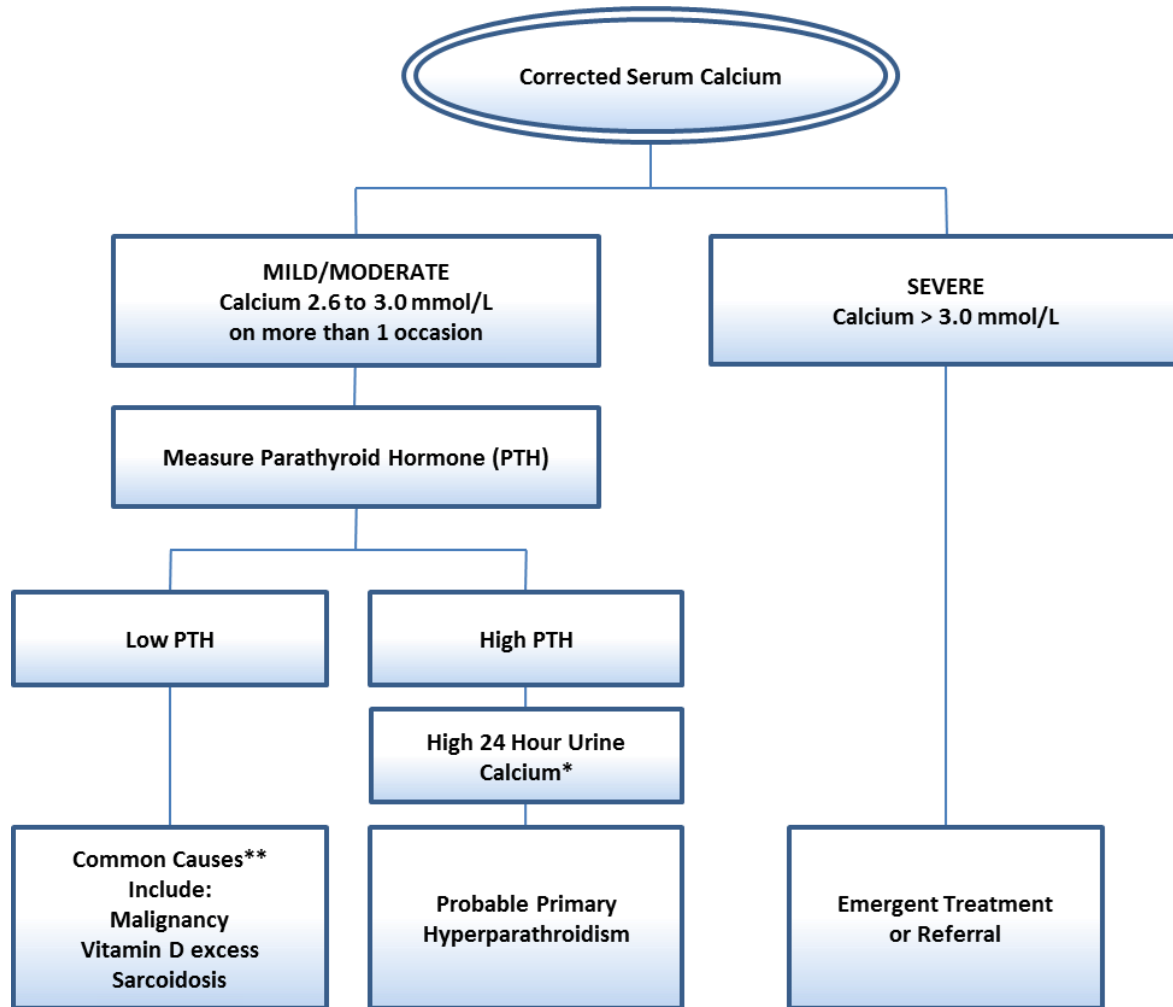
April 1998

Reviewed January 2008

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APPENDIX A

Algorithm for Investigation of Hypercalcemia



Note: The urgency of addressing an elevated calcium level depends on the degree of elevation of calcium, the rapidity of rise of serum calcium, and the clinical status of the patient.

* A patient with a low, or low normal, 24 hour urine calcium may have familial hypocalciuric hypercalcemia and referral is warranted. These patients do not require parathyroid surgery.

* Other causes include: granulomatous disease, milk alkali syndrome, Thiazide diuretics, hyperthyroidism, lithium, immobilization familial hypocalciuric hypercalcemia.