Hypercalcemia Testing

INDICATIONS FOR TESTING
Hypercalcemia
(defined as serum calcium ≥10.3 mg/dL)

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ORDER
Calcium, Serum or Plasma
(add Albumin, Serum or Plasma by Spectrophotometry, if not previously tested)
OR
Calcium, Ionized, Serum

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Hypercalcemia confirmed

Clinical evaluation to rule out other causes, such as metastatic disease

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ORDER
Parathyroid Hormone, Intact

Low →
Normal or high →

Low:

ORDER
Parathyroid Hormone-Related Peptide (PTHrP) by LC-MS/MS, Plasma

Low or normal →
High →

High: Cancer

Low or normal:

ORDER
Vitamin D, 1, 25-Dihydroxy

Low or normal → Vitamin D excess / Cancers / Milk-alkali Syndrome / Hyperthyroidism

High → Lymphoma or granulomatous disease (sarcoidosis)

Normal or high: Primary hyperparathyroidism

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ORDER
Calcium, Urine

Low (<100 pg/mL) → Familial benign hypercalcemia

High (≥100 pg/mL) → Primary hyperparathyroidism