### INDICATIONS FOR TESTING

Hypercalcemia (defined as serum calcium $\geq 10.3$ mg/dL)

#### ORDER

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

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

#### ORDER

**Parathyroid Hormone, Intact**

- **Low**
  - ORDER
    - Parathyroid Hormone-Related Peptide (PTHrP) by LC-MS/MS, Plasma
      - 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)
      - High
        - Cancer

- **Normal or high**
  - ORDER
    - Calcium, Urine
      - Low ($<100$ pg/mL)
        - Familial benign hypercalcemia
      - High ($\geq 100$ pg/mL)
        - Primary hyperparathyroidism