Primary hyperparathyroidism (PHPT): diagnosis

Measure albumin-adjusted serum calcium (Ca) if any features that might indicate PHPT:

- thirst, frequent or excessive urination, constipation
- osteoporosis or fragility fracture, or renal stone
- incidental Ca ≥ 2.6 mmol/litre

Consider measuring Ca if chronic non-differentiated symptoms

↓

If Ca:

- ≥ 2.6 mmol/litre **or**
- ≥ 2.5 mmol/litre with features that might indicate PHPT

Re-measure Ca

↓

If Ca on at least 2 separate occasions:

- ≥ 2.6 mmol/litre **or**
- ≥ 2.5 mmol/litre and PHPT suspected

Measure parathyroid hormone (PTH) with concurrent Ca measurement

↓

- PTH above midpoint of reference range **and**
- PHPT suspected

→ **Seek advice from a specialist** with expertise in PHPT

- PTH below midpoint of reference range **and**
- concurrent Ca ≥ 2.6 mmol/litre

→ **Seek advice from a specialist** with expertise in PHPT

- PTH below midpoint, but within reference range **and**
- concurrent Ca < 2.6 mmol/litre

→ No further investigation for PHPT

PTH below lower limit of reference range

→ **Seek alternative diagnosis,** including malignancy

Primary care

↓

Measure vitamin D and offer supplements if needed

Measure urine calcium excretion using one of:

- 24-hour urinary calcium excretion
- random renal calcium:creatinine excretion ratio
- random calcium:creatinine clearance ratio

Exclude familial hypocalciuric hypercalcaemia

→

Assess after diagnosis of PHPT:

- symptoms and comorbidities
- eGFR or serum creatinine
- DXA scan of lumbar spine, distal radius and hip
- ultrasound of renal tract

Secondary care

This is a summary of the recommendations on diagnosis from NICE's guideline on primary hyperparathyroidism.
See the original guidance at www.nice.org.uk/guidance/NG132

NICE National Institute for Health and Care Excellence

© NICE 2019. All rights reserved. Subject to Notice of rights.