Primary hyperparathyroidism (PHPT): management

Refer to a surgeon with expertise in parathyroid surgery if PHPT is confirmed and the person has:

- thirst, frequent or excessive urination, constipation
- osteoporosis or fragility fracture, or renal stone
- albumin-adjusted serum calcium (Ca) ≥ 2.85 mmol/litre

Consider referral to surgeon if PHPT is confirmed with no symptoms or signs

Consider a bisphosphonate to reduce fracture risk

Surgery agreed

- **Offer preoperative imaging** (usually ultrasound) if it will inform surgical approach
- **Consider second imaging type** (usually sestamibi) to further guide approach

Surgery declined or not suitable

- **Offer monitoring** (see next page)
- **Consider cinacalcet*** if:
  - Ca ≥ 2.85 mmol/litre with symptoms
  - Ca ≥ 3.0 mmol/litre

No adenoma identified → **Offer 4-gland exploration**

Single adenoma identified → **Offer choice of:**

- **4-gland exploration or**
- **focused parathyroidectomy**

Results not concordant → **Consider 4-gland exploration**

Ectopic adenoma identified → **Refer to a centre with specialist expertise**

Do not use intraoperative parathyroid monitoring in first-time surgery

Measure postoperative Ca before discharge and 3 to 6 months after surgery

- If surgery successful (Ca within reference range 3 to 6 months after surgery), **offer monitoring**
- If surgery unsuccessful, **conduct multidisciplinary review and offer monitoring**

(See next page for monitoring)

*At the time of publication (May 2019) cinacalcet did not have a UK marketing authorisation for use after unsuccessful surgery for primary hyperparathyroidism. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's Prescribing guidance: prescribing unlicensed medicines for further information.

Monitoring for people with primary hyperparathyroidism

All people with primary hyperparathyroidism

Assess cardiovascular risk and fracture risk (see NICE guidelines on cardiovascular disease and osteoporosis)

People who have had successful parathyroid surgery

- Measure Ca once a year
- Seek specialist opinion if the person has osteoporosis or renal stones

People who have not had parathyroid surgery, or whose surgery has not been successful

- Measure albumin adjusted serum calcium and eGFR or serum creatinine once a year, unless the person is taking cinacalcet
- For people taking cinacalcet*, decide whether to continue cinacalcet based on:
  - symptom reduction if initial Ca ≥ 2.85 mmol/litre, or
  - symptom reduction or Ca level if initial Ca ≥ 3.0 mmol/litre
- Monitor cinacalcet* treatment as set out in the summary of product characteristics
- Consider a DXA scan every 2 to 3 years
- Offer ultrasound of the renal tract if a renal stone is suspected

People who have had parathyroid surgery for multigland disease

- Seek specialist endocrine opinion on monitoring

People who have recurrence after successful surgery

- Seek specialist endocrine opinion on monitoring

Pregnant women with primary hyperparathyroidism

- Consult a specialist centre MDT for advice

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