Association for Laboratory Medicine

Summary of NICE Guidelines

Title	Hyperparathyroidism (primary): diagnosis, assessment and initial management
NICE Reference	NICE guideline [NG132]
Previous NICE Reference (if applicable)	N/A
Date of Publication	*23 May 2019*
Date of Review/Update by NICE	*23 May 2019*
Date of Summary by Trainee	*20/02/2024*
Summary of Guidance (Max 250 words)	**Diagnostic testing in primary care** Measure albumin-adjusted calcium (CoCa) in those with features that may indicate primary hyperparathyroidism (PHPT). Ionised calcium should not be used. Results should guide parathyroid hormone (PTH) measurement. **Testing and assessment in secondary care** Measure vitamin D and supplement if needed. To differentiate PHPT from familial hypocalciuric hypercalcaemia, determine the calcium-creatinine excretion ratio (CCCR): $$CCCR = \frac{urine\ calcium\ \times\ serum\ creatinine}{serum\ calcium\ \times urine\ creatinine}$$ **Assessment after diagnosis** • Assess the patient's symptoms and comorbidities. • Measure estimated glomerular filtration rate (eGFR) or serum creatinine. • Perform a dual-energy X-ray absorptiometry (DxA) scan of the lumbar spine, distal radius, and hip. • Perform a renal tract ultrasound. **Referral for surgery** After diagnosis, those with symptoms of hypercalcaemia, end-organ disease, or elevated CoCa levels must be referred for surgery. Other patients can be considered for surgery. **Surgical management** This section discusses surgical options. Recommendations that affect the laboratory include: • CoCa and PTH should be measured prior to discharge. • CoCa should be measured 3-6 months later to check surgery success. • If unsuccessful, conduct a multidisciplinary meeting to discuss next options. **Non-surgical management**

	Offer calcimimetics and bisphosphonates depending on surgical outcome, CoCa results, and symptoms. **Monitoring** If surgery was successful, measure CoCa annually. If surgery was unsuccessful or not performed, measure CoCa and eGFR. Frequency is dependent on Calcimimetic use. Also consider DxA and renal tract ultrasound. Cardiovascular and fracture risk must also be assessed in accordance with guidelines. Specialist opinion is needed in multi-gland disease, osteoporosis, or renal stones. Seek specialist advice for pregnant patients.
Impact on Lab (See below)	☐ **Moderate**: This NICE guideline has information that is of relevance to our pathology service and may require review of our current service provision.
Lab professionals to be made aware *Please select/highlight appropriate choices*	Laboratory Manager Chemical Pathologist Clinical Scientist Biomedical Scientist
Please detail the impact of this guideline (Max 150 words)	There may be an increased demand for primary care services (such as appointments or blood tests) because of increased awareness of symptoms. Repeating CoCa measurements will increase the number of such tests but can be expected to reduce the number of PTH tests. Vitamin D testing availability currently varies however it is expected to be a change for some services. It should lead to reduced delays in testing and more prompt treatment. Intraoperative PTH testing is no longer recommended for first time surgery. This may be a change for some specialist centres. Most other aspects reflect current practice. This guideline aims to improve recognition and treatment of PHPT, reduce long-term complications, and improve quality of life. Overall, laboratories can expect an increase in CoCa and vitamin D requests with a decrease in PTH requests due to the published guidance.

Impact on Lab

- ☐ **None**: This NICE guideline has no impact on the provision of laboratory services
- ☐ **Moderate**: This NICE guideline has information that is of relevance to our pathology service and may require review of our current service provision.
- ☐ **Important:** This NICE guideline is of direct relevance to our pathology service and will have a direct impact on one or more of the services that we currently offer.

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