

# Primary Hyperparathyroidism (PHPT) Audit

★Dr Mona Abouzaid, ^Dr Muhammad Pervaiz, ^Dr Dr Pey Yi Kwang, ^Dr Reem Taha, \*\*Dr Ashwin Joshi

^ Foundation year one, ^ Core medical training, ★ Specialist Registrar, \*\* Consultant in Department of Diabetes and Endocrinology, City Hospitals Sunderland NHS Foundation Trust.

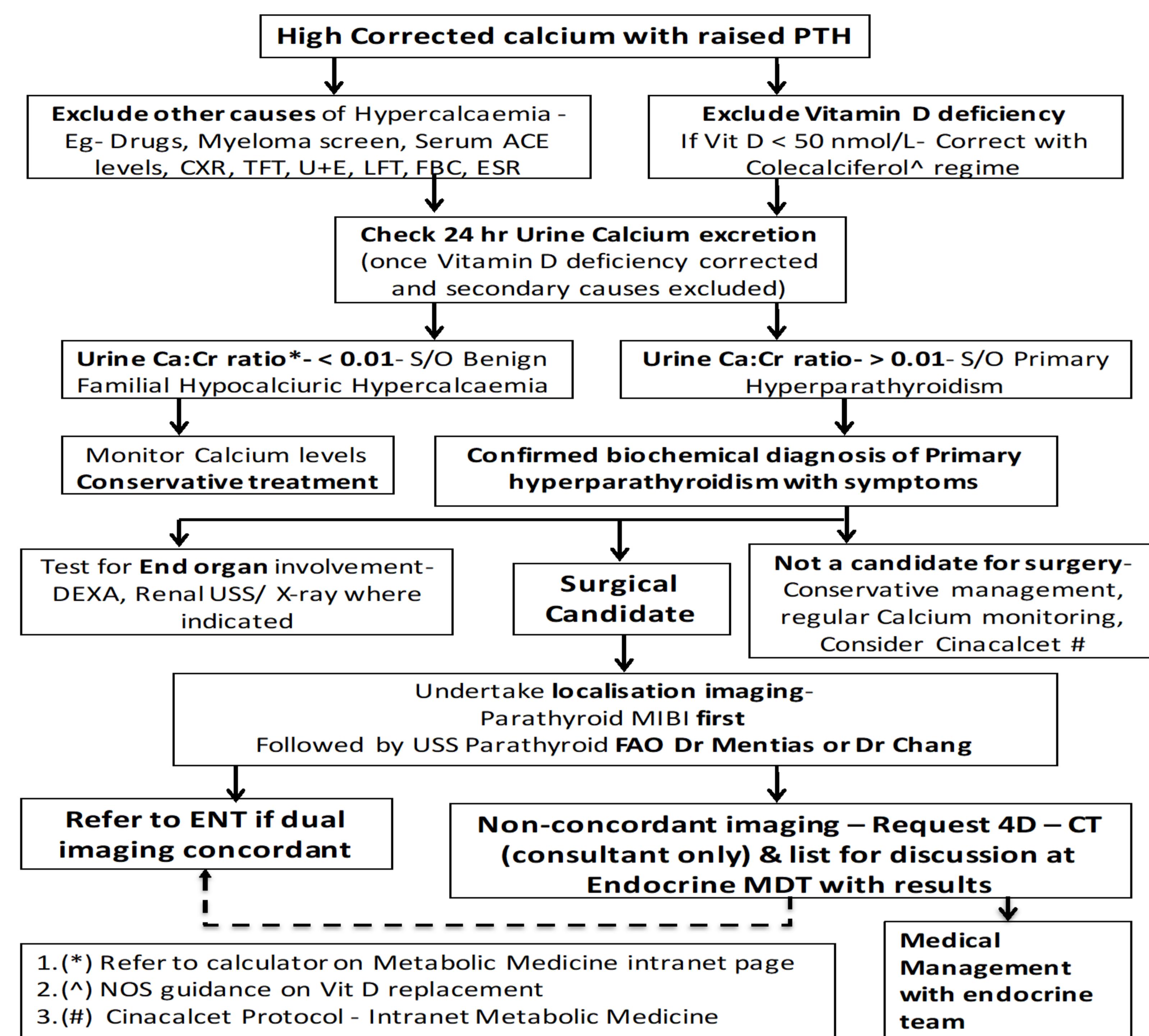
## OBJECTIVES

This audit was undertaken to determine whether Primary Hyperparathyroidism (PHPT) management in the clinical setting is compliant with the nine standards set of the existing PHPT pathway in the City Hospital Sunderland Foundation Trust (CHSFT). PHPT pathway was developed in (CHSFT) to allow effective management and surgical referral for this common condition in line with available national and international guidelines.

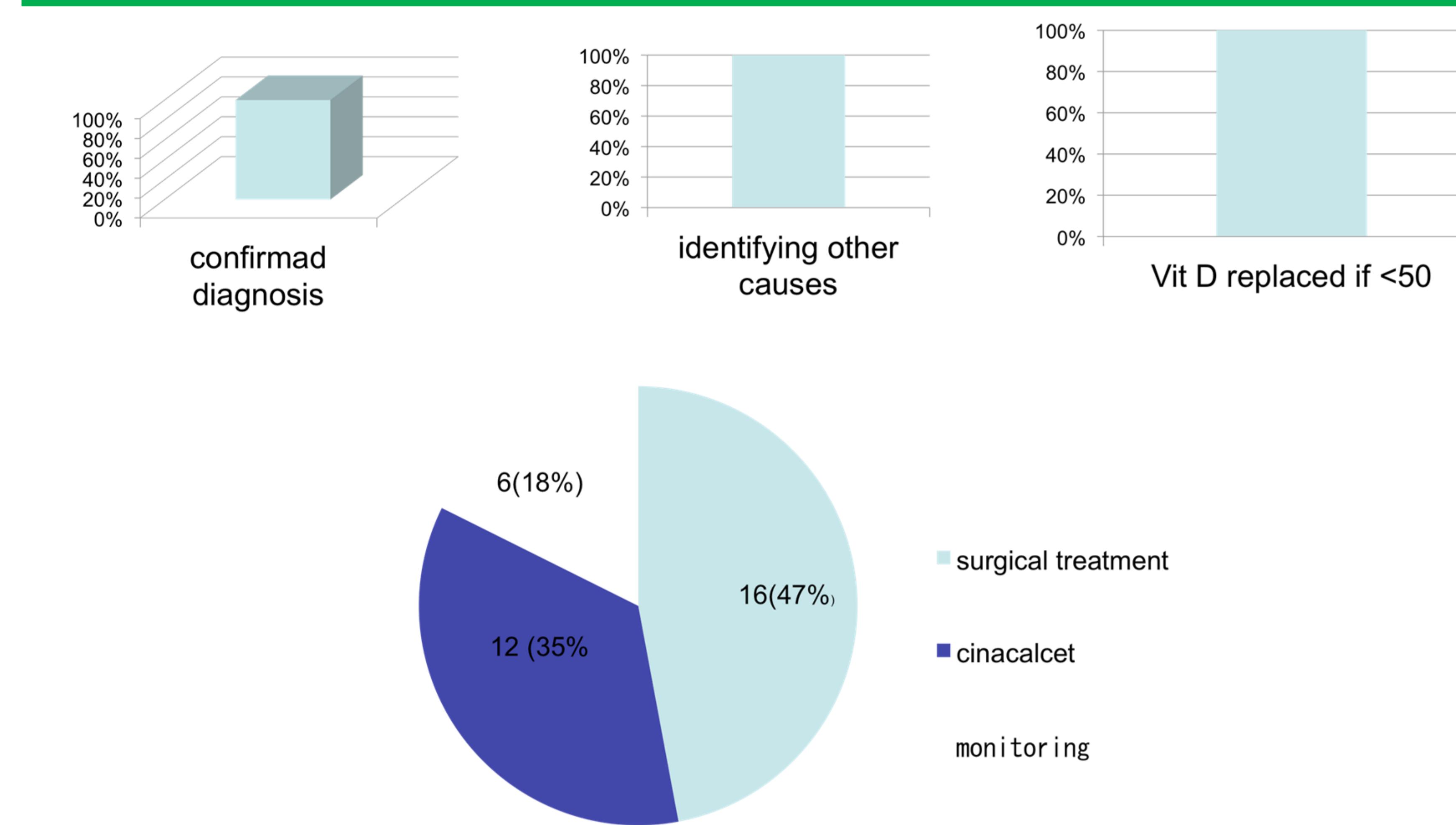
## METHOD

Data was retrospectively collected for 34 patients diagnosed with PHPT last year. A questionnaire based on these pathway nine standards was designed. These nine standards were 1- Confirmation of the diagnosis (hypercalcaemia and raised/inappropriate PTH) 2- Exclude other causes of hypercalcaemia. 3- Exclude vit D deficiency; and correct if <50 nmol/L with Cholecalciferol. 4- Check the 24 hours urinary excretion once vit D is corrected and other causes are excluded. 5- If urinary Ca: creatinine ratio <0.01, consider possibility of benign familial hypocalciuric hypercalcaemia (BFHH), if > 0.01 favours PHPT. 6- If the patient is symptomatic, has biochemically confirmed diagnosis of PHPT, willing and fit for surgery; arrange Parathyroid MIBI scan first and concurrently test for the end organ damage (Renal stones, Bone density). 7- Request Parathyroid Ultrasound scan only if focus identified on MIBI. 8- Refer to ENT if dual images are concordant. 9- For non-concordant imaging, discuss in Endocrine MDT and consider 4D-Parathyroid CT scan.

### Referral Pathway for Patients with Primary Hyperparathyroidism



## RESULTS



Urinary calcium creatinine ratio was done in 30 (88%) and not done in 4(11%) because of age.

MIBI scan was done first and end organs damage were excluded in 28 (82%). Ultrasound scans of the parathyroid not done as MIBI scans were negative in 3 (8%).

Concordant scans were found in 9 (26%). Referred to the surgical team. Non concordant scans were found in 9 (26%), Had 4D-CT and MDT discussion.

## CONCLUSIONS

Compliance with our PHPT pathway was extremely good. This illustrated the great value of following the pathway and indicated the good compliance with the guidelines. The study showed the importance of MDT approach and the liaison with the surgical team in order to achieve the desired outcome.

Since developing the pathway, our approach to management of Primary hyperparathyroidism has been streamlined. Surgical colleagues appreciate the uniformity in approach by the Endocrine team. This has resulted in fewer unnecessary scans and a more cost-effective approach, without compromising on quality.

Although patient cohort audited was small, no BFHH cases were detected in this audit.

## References

- Referral pathway for PHPT guidance CHSFT Dec 2015
- PHPT management guidelines Oct 2014 the Endocrine Society USA.
- The British Association of Endocrine and Thyroid Surgeons Fifth National Audit Report 2017.
- Nice Guidelines for PHPT 2012.
- European society guidelines for management of PHPT.