

# Adrenal incidentalomas, a district hospital perspective.

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## Aims

- To determine the incidence of adrenal incidentalomas at our District General Hospital as reported from CT scans of the abdomen and pelvis.
- To audit the referral pathway and investigation of these adrenal incidentalomas.

## Introduction

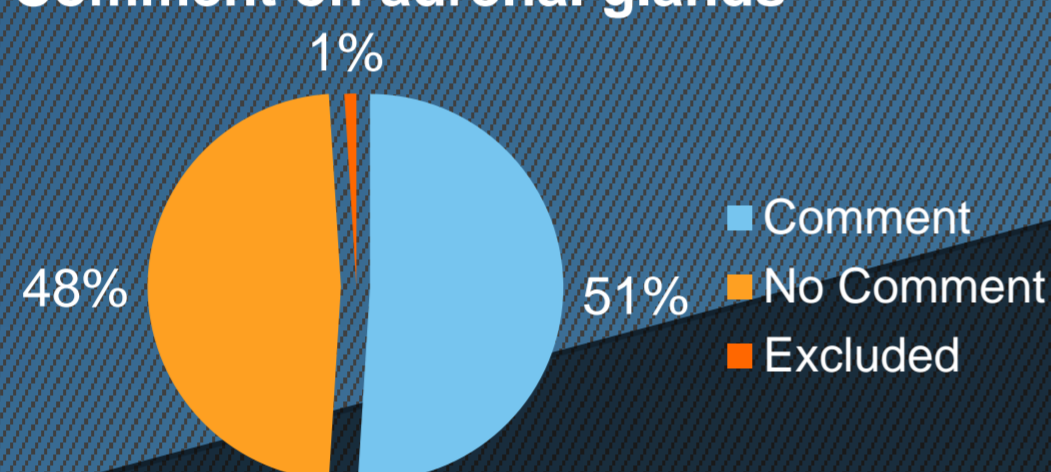
An incidentaloma is a mass greater than 1cm found by chance, on imaging for a reason unrelated to the site of the lesion.<sup>1</sup> Adrenal incidentalomas, as a result of advances in imaging technology, are having an increased incidence, especially in aging populations. The annual incidence is estimated as 1-9%<sup>2</sup> of which, 2-5% are malignant<sup>3,4,5</sup>.

Investigation of incidentalomas is required to assess their functionality and exclude malignancy. Radiological appearance can suggest diagnosis; a homogeneous mass with a smooth border and an attenuation value of less than 10 HU on unenhanced CT strongly suggests a benign adrenal adenoma<sup>4</sup> – calcification, necrosis and haemorrhage are uncommon<sup>5</sup>.

## Results

2701 images were pooled. 25 were excluded as the images were imported and did not have a formal report.

Comment on adrenal glands



## Method

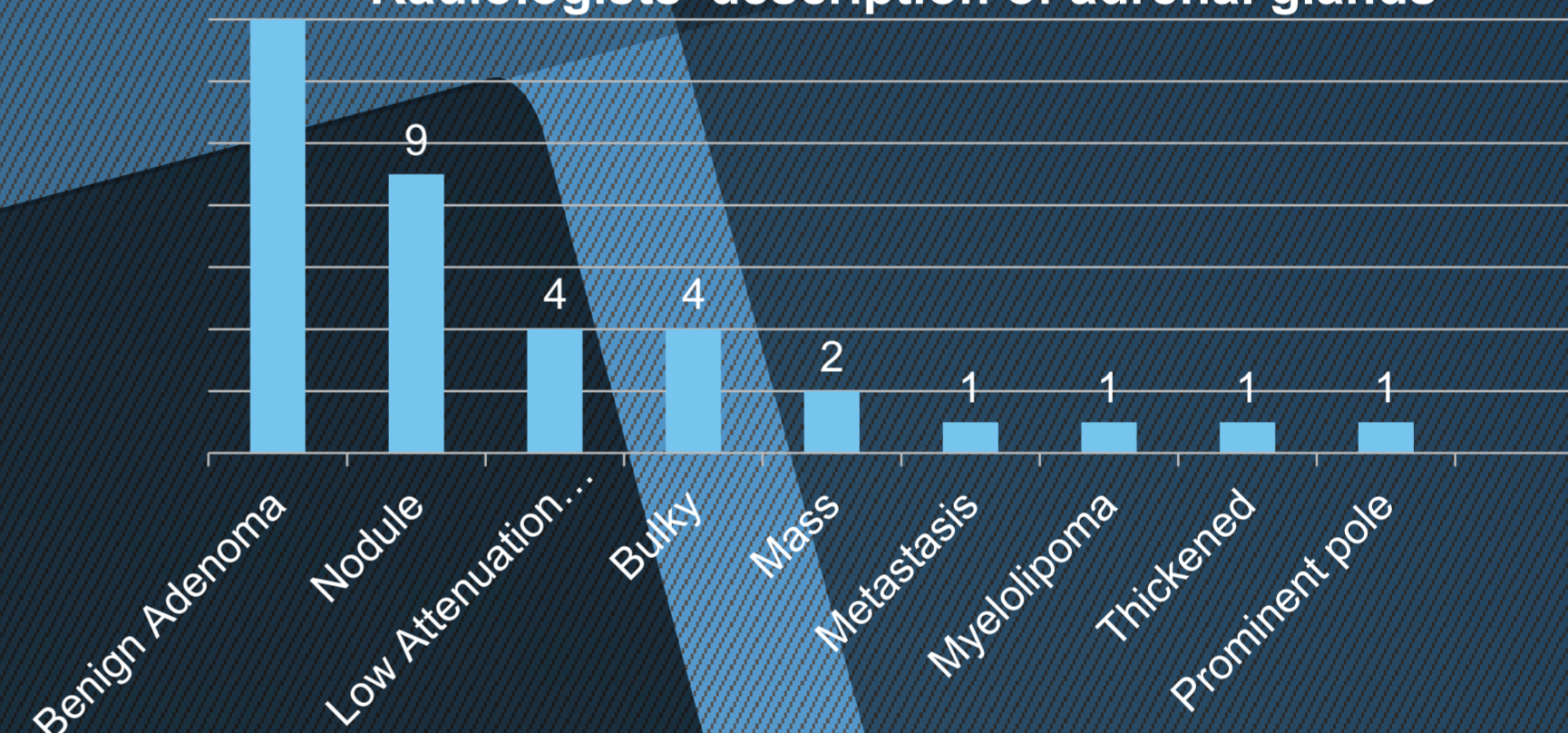
Abdomino-pelvic CT scan reports performed at our district hospital between 04/02/2012 and 04/02/2013 were retrospectively reviewed for a comment on the state of the adrenal glands. If noted as abnormal, then clinical records were reviewed.

Absence of radiologist comment on adrenals, triggered selection of CT scan images for review specifically for adrenal lesion by a selected radiologist using randomisation.

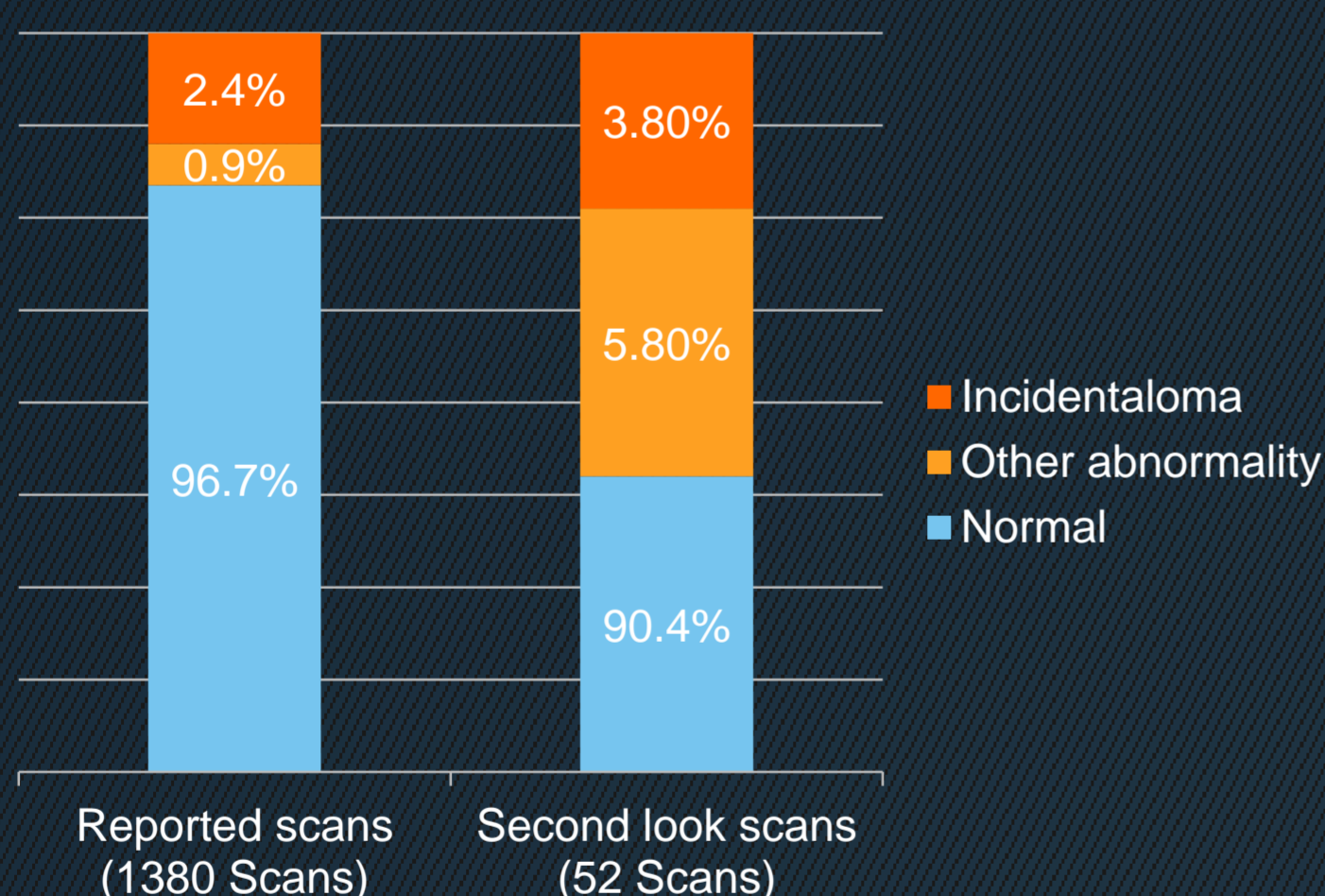
Clinical and laboratory records of patients with adrenal incidentalomas were reviewed. A record was made for any dedicated repeat adrenal imaging requests.

GPs for patients who were found to have missed adrenal incidentalomas on re-look by radiologist, were contacted advising endocrine referral.

Radiologists' description of adrenal glands



Reported state of adrenal glands



The incidentalomas were predominantly left sided (20), and 4 were bilateral. The reported diameters ranged from 9mm to 6 cm.

Only 3 patients had endocrine referrals.

6 patients died within 8 weeks of the CT scan due to other comorbidities.

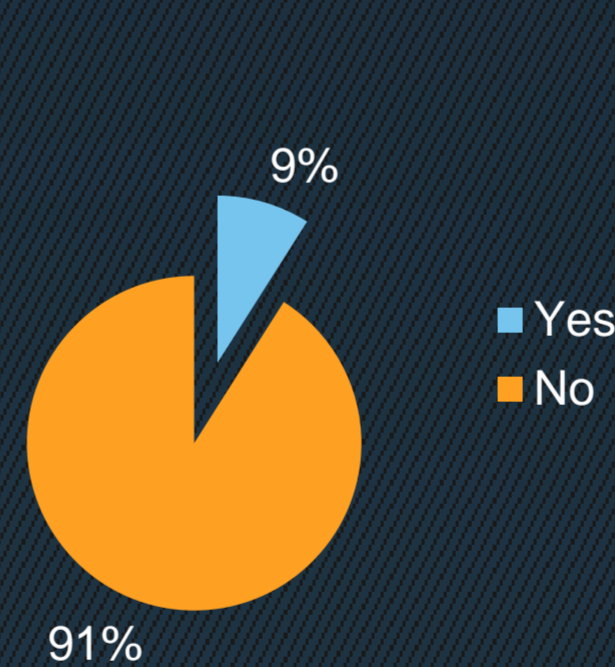
## Limitations of the audit

Tracking evidence of endocrinology referral was limited to the local hospital. It remains an unlikely possibility that some patients could have been followed up by external service providers as there was no documented evidence of this in the clinical records.

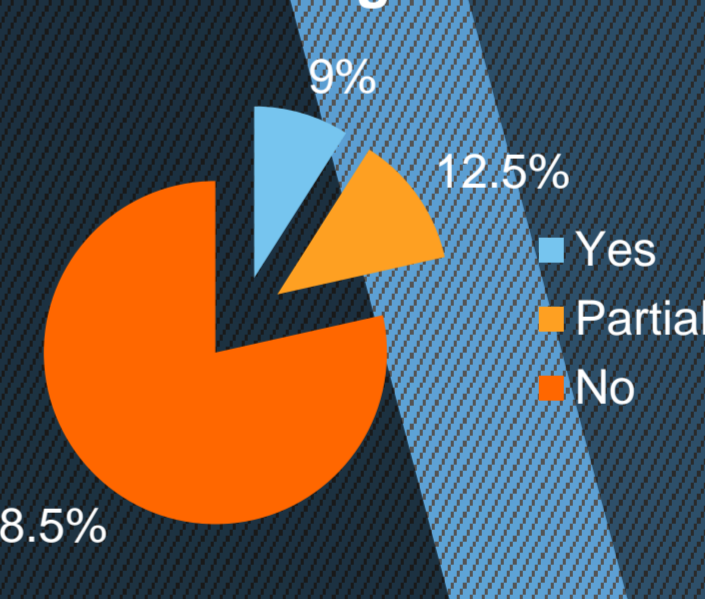
Thoracic CT scan images were not reviewed and commonly tend to extend into abdomen to include adrenal glands.

Not all 1296 CT scan images needing review were done so by the only consultant radiologist involved in this project due to time constraints.

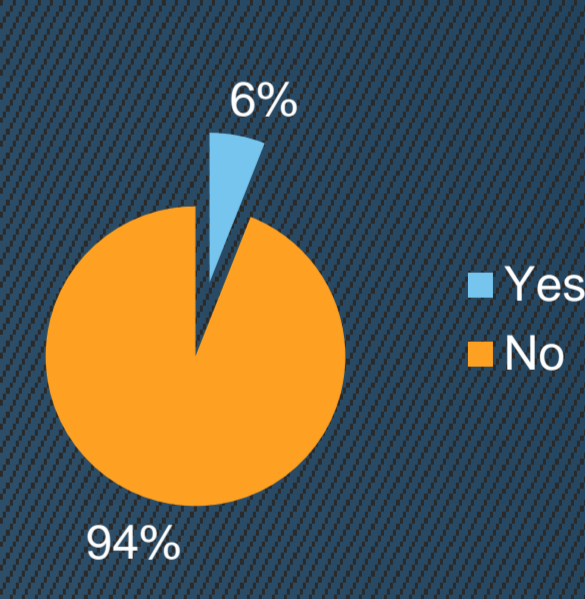
Endocrine referral



Correct biochemical investigation



Dedicated adrenal scan



## Discussion and conclusions

Clinicians in non-endocrine based MDTs need enhanced awareness of the importance of endocrine referral for all patients with adrenal incidentalomas.

Knowledge of incidence of adrenal incidentalomas may help endocrine teams plan for future increase in this clinical activity as imaging modalities improve.

We recommend to colleagues in radiology to always comment on state of adrenals and prompt an endocrine referral if the adrenals are abnormal.

Whether mandatory radiologist reporting on state of adrenal glands on appropriate CT scans improves patient outcomes can be formally evaluated with appropriately powered studies.

### References

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