

# Audit on the Utility of Current Guidelines in the Assessment of Adrenal Incidentaloma

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## OBJECTIVES

Adrenal incidentalomas are a common clinical dilemma and are seen on 4% of abdominal CT scans (1), with incidence rising with increased utility of cross-sectional imaging (2, 3).

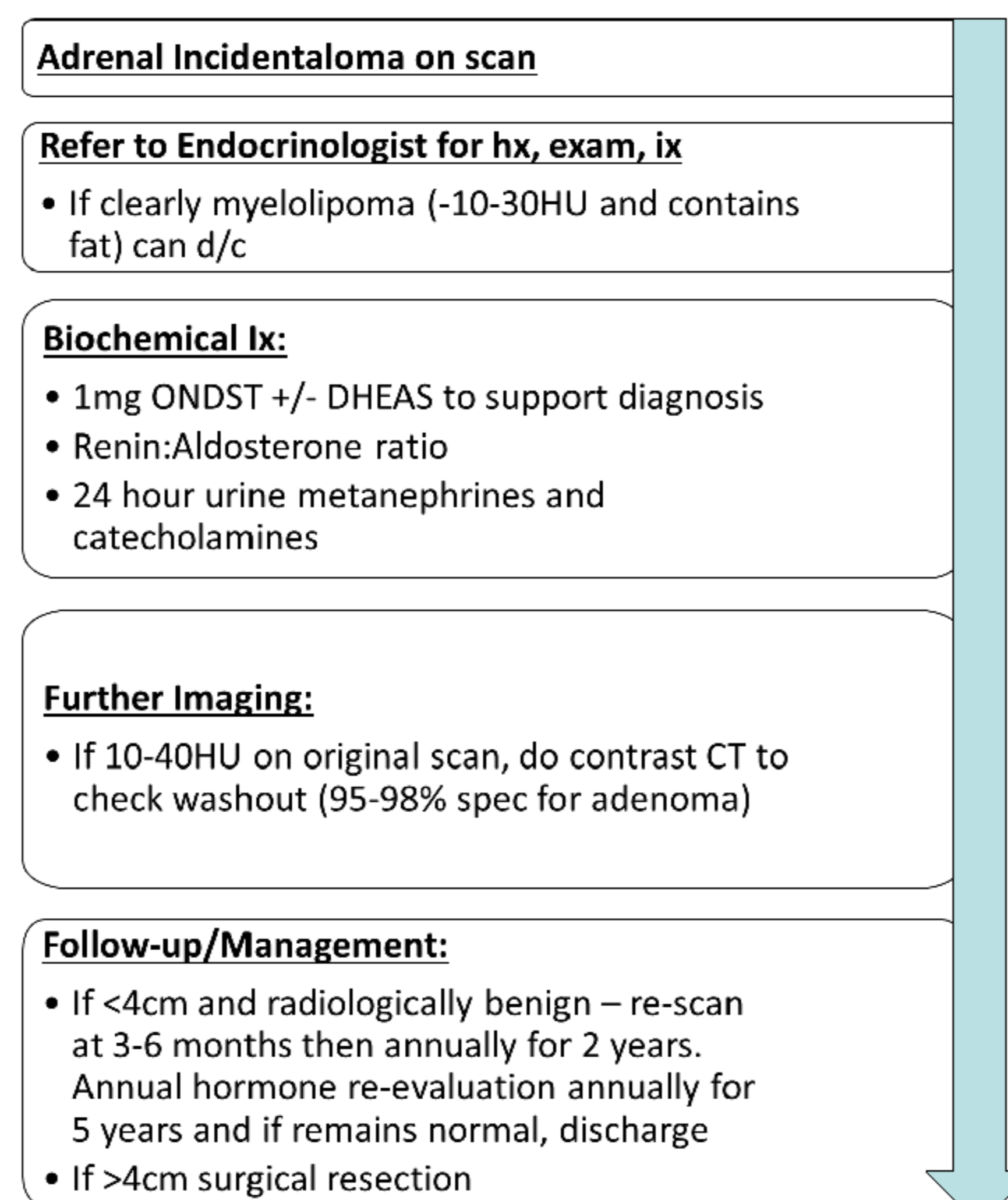
Management aims to exclude malignancy and hormonally active lesions.

This audit was performed to assess:

1. Adherence to current management guidelines (AACE)
2. Whether all of the recommended investigations are necessary to exclude serious pathology.

## STANDARD

**Figure 1 – AACE Guidelines (2) for investigation of Adrenal Incidentaloma**



## METHODS

A retrospective audit was performed of 100 consecutive cases referred to Endocrinology from June 2013 to November 2014.

### Data collected:

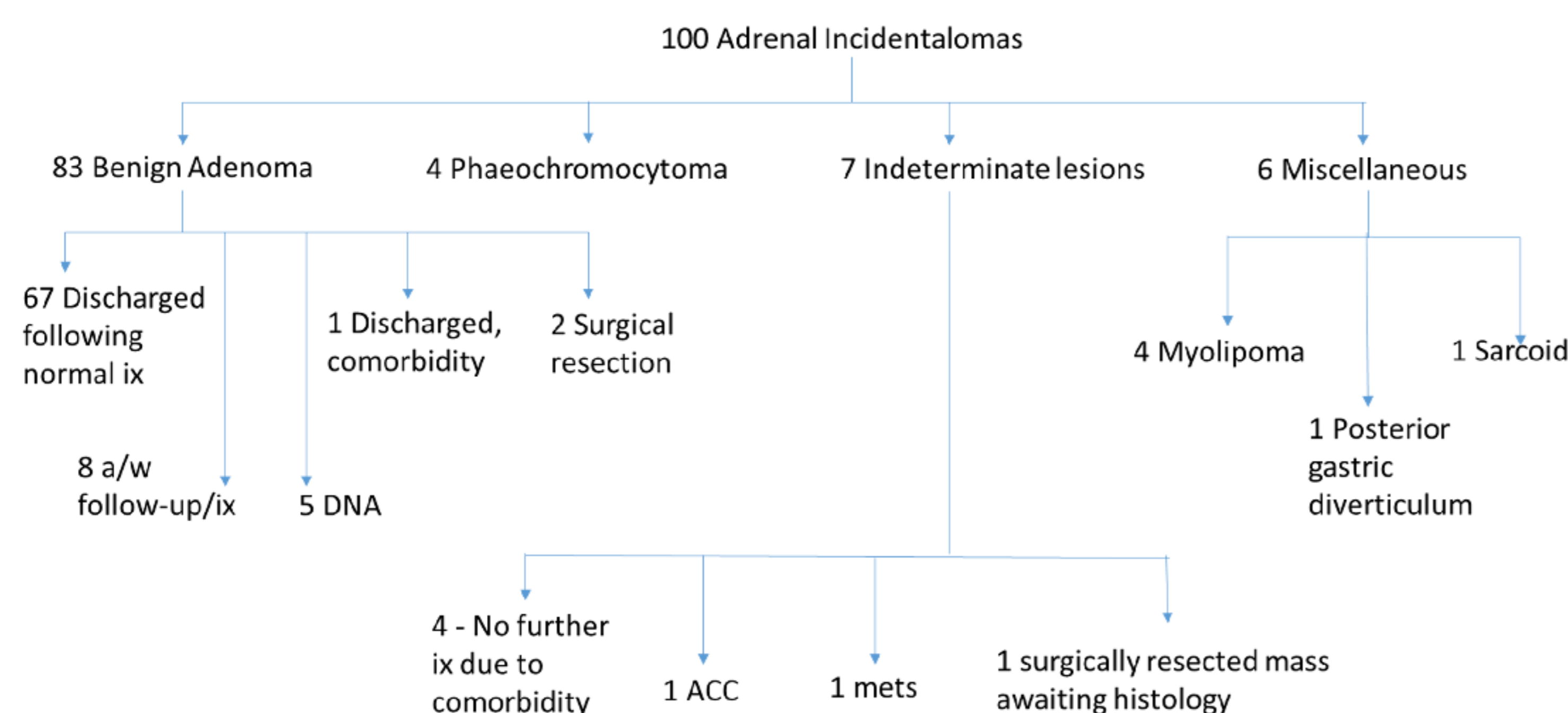
- Age
  - Laterality
  - Imaging results
  - Biochemistry results
  - BP and potassium level
  - Diagnosis/Follow-up/treatment plan
- The management of each patient was compared to the current standard – AACE Guidelines as summarised in figure 1.

### Cohort Demographics:

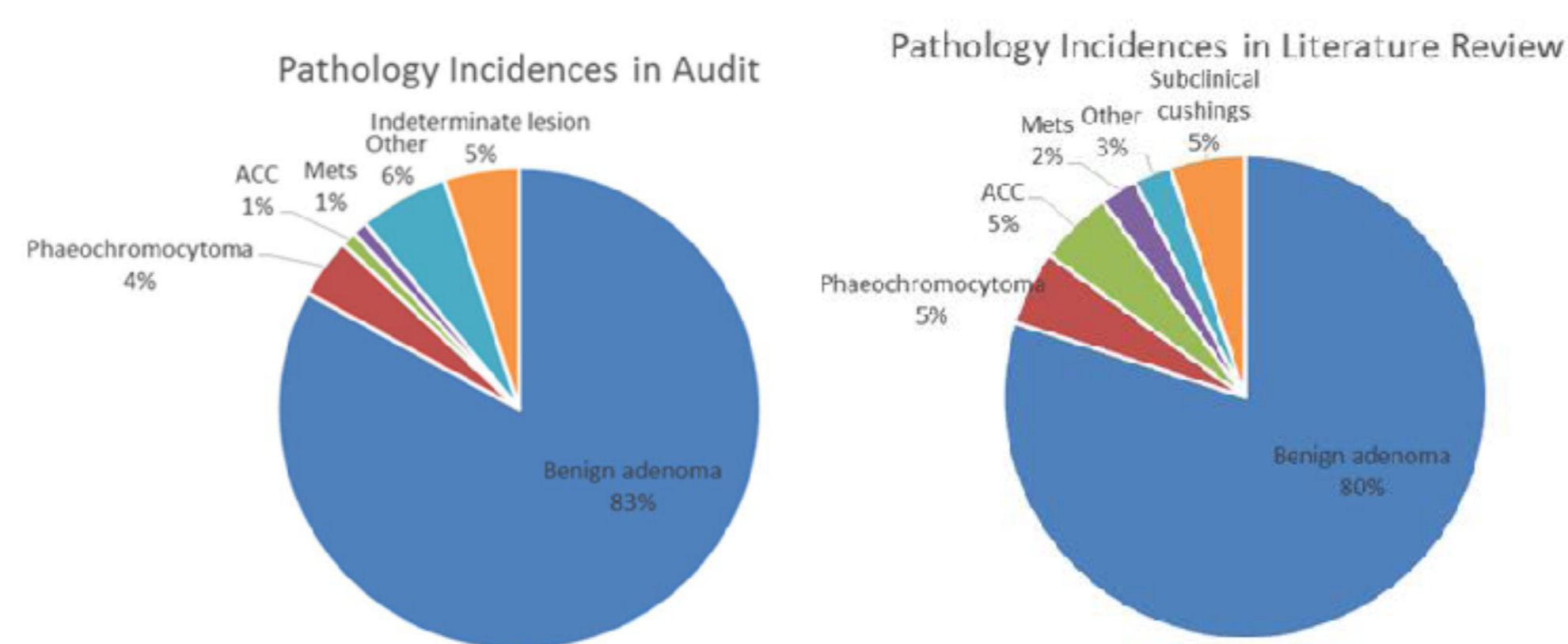
- Mean age 71 years (21-95)
- M:F = 38:62
- Laterality: 32 right, 62 left, 6 bilateral

## RESULTS

**Figure 2 – Summary of diagnoses**



**Figure 3 - Incidence of pathologies in audit compared to literature review (2)**



### Trust adherence to AACE Guidelines:

- 100% referred, underwent history and examination with an endocrinologist
- 88% had overnight dexamethasone suppression test
- 87% had renin:aldosterone ratio
- 90% had Urinary catecholamine/metanephrine levels
- Repeat imaging not done as follow-up of benign adenomas, and 80% of these patients discharged.

### Investigation outcomes:

- 80% (4/5) pheochromocytomas were highly suspected on initial imaging, 1 was an indeterminate scan.
- 50% had initial imaging consistent with benign adenoma, of which 12% had additional imaging to confirm diagnosis.
- 100% had normal renin-aldosterone and potassium levels.
- 83% were hormonally inactive.
- Of the hormonally active cases - 8 adenomas, 5 pheochromocytoma, 1 indeterminate lesion, 2 myelolipoma, 1 metastasis.

## CONCLUSIONS

Adrenal Incidentalomas with the following features may not require further investigation as results are largely unrewarding:

1. Imaging features consistent with benign adrenal adenoma
2. No symptoms/signs
3. Normotensive
4. Normokalaemic

All confirmed cases of hormonally active tumours and malignancy had abnormal or indeterminate imaging.

None of those tumours considered to be benign adenomas on imaging proved to be hormonally active and endocrine screening may therefore not be necessary.

## References

1. Kloos RT et al. Incidentally discovered adrenal masses. *Endoc Rev* 1995;16:460-484.
2. Zeiger M.A et al. American Association of Clinical Endocrinologists and American Association of Endocrine Surgeons Medical Guidelines for the Management of Adrenal Incidentalomas AACE Guidelines 2009.
3. Bovio S et al. Prevalence of adrenal Incidentaloma in a contemporary computerized tomography series. *J Endocrinol Invest*. 2006; 29:298-302

