This algorithm is for adrenal masses 1 cm or greater; however, if a sub-centimeter adrenal mass is noted on the radiology report to be concerning for malignancy or pheochromocytoma, refer for subspecialty evaluation.

BOSTON MEDICAL CENTER

Adrenal Incidentaloma Quality Improvement Project — Identification, Evaluation, Treatment — AIQIP

Specialist Referral(s):

Endocrine Surgery: P:617.638.8446

Endocrinology: P:617.638.7470

Multi-specialty Adrenal Clinic: P:617.638.8446

This algorithm is not a substitute for clinical judgement. See full disclaimer in Detailed Algorithm

Incidental Adrenal mass > 1 cm

Obtain dedicated adrenal imaging (unless already done):
- Adrenal Protocol CT (if not available, order a non-contrast CT)
- Adrenal MRI (when radiation should be avoided)

History of cancer or concern for metastasis? PET scan OR oncology provider OR endocrine surgery referral

These also need standard hormonal work-up*

Do NOT biopsy

Hormonal Work-up*
- Plasma Free Metanephrines
- Aldosterone:Renin Ratio (if HTN or hypo-K)
- Dexamethasone Suppression Test (DST)

Positive Hormone Test → **Refer to Specialist**

Negative Hormone Test

- Radiographically benign cortical adenoma & < 4 cm → Repeat imaging in 6-12 months with no further imaging if stable → **If mass changes on follow-up** → Refer to Specialist
- Indeterminate on imaging & < 4 cm → Refer to Specialist
- > 4 cm or any concerning radiologic findings → Refer to Specialist

Refer to Specialist

Do NOT biopsy adrenal mass without hormone work-up & consultation

*Hormonal Work-up

More info: AIQIP Homepage Detailed Algorithm

1. **Plasma free metanephrines** (screen for pheochromocytoma)
- Considered positive if elevated more than two-fold the upper limit of normal [ULN].
- Elevations less than 2x ULN are equivocal and may be false positive. In these cases confirm with 24-hour urine metanephrines, which are less likely to be falsely positive.
- Certain medications are likely to cause false positive results on either test. See Detailed Algorithm for details.
- For positive results refer to Endocrinology or Endocrine Surgery. For equivocal results, consider referral.

2. **Aldosterone level and a plasma renin activity (PRA)** *If patient has HTN or a history of hypokalemia.* These must be drawn at the same time. They should not be done with the DST. Divide the aldosterone level by the PRA to calculate the **Aldo:Renin Ratio (ARR)**. If the ARR is > 20 AND the Aldo is > 8, refer to Endocrinology.

3. **Dexamethasone suppression test (DST):** Prescribe 1 mg of oral dexamethasone to be taken at 11 PM. The next morning at 8 AM, cortisol and dexamethasone levels are drawn.
- If the 8 AM cortisol is less than 1.8 mcg/dL, cortisol excess is ruled out.
- Failure to suppress below 5.0 mcg/dL raises concern for cortisol excess. Management will vary depending on the patient. 24-hour urinary cortisol can help assess severity and may be normal in mild cortisol excess. Assess and treat potential co-morbidities (DM, HTN, Osteoporosis). Refer to Endocrinology or Endocrine Surgery.
- DST with cortisol between 1.8 and 5.0 mcg/dL *may* represent mild cortisol excess. Assess for co-morbidities and consider referral to Endocrinology. Repeat DST and/or 24 hour urine cortisol in 1 year. See Detailed Algorithm for more information.