

# **Adrenal Mass Panel Clinical Data Definition** of Malignancy Predictors

# Mode of Discovery (Incidental, Cancer Staging, Other)

#### Incidental

Adrenal mass discovered incidentally on imaging performed for a reason other than adrenal mass.

Example: Computed tomography (CT) of abdomen was performed for work up of hematuria, adrenal mass was incidentally discovered.

Note: This option should be selected even if subsequently, adrenal mass was found to be hormonally active (ie, aldosterone excess, cortisol excess) and in retrospect, patient did have symptoms of hormonal excess.

Cancer Staging Adrenal mass discovered during imaging performed during staging or monitoring of an extra-adrenal malignancy.

Example: A patient with newly diagnosed melanoma or lung cancer undergoes abdominal imaging for staging purposes and is discovered with a new adrenal mass.

Note: If adrenal mass was discovered in a patient with a remote history of extra-adrenal malignancy in remission, and imaging was not performed specifically for extra-adrenal malignancy, then this option should **not** be selected.

#### Other

Adrenal mass discovered through other mode of discovery, not incidental or cancer staging, such as symptoms of hormonal excess. This mainly includes symptoms of hormonal excess (suspected Cushing syndrome, suspected primary hyperaldosteronism, suspected androgen excess) and mass effect, abdominal pain caused by a large adrenal mass.

# **Examples:**

- 1. CT of abdomen was ordered for a patient who presented with hypertension and hypokalemia, positive screen for aldosterone excess.
- 2. CT of abdomen was performed because of new onset hirsutism and elevated androgens.
- 3. CT of abdomen was performed for a patient with cushingoid features and findings of corticotropin (formerly adrenocorticotropic hormone [ACTH]) independent cortisol excess.
- 4. CT of abdomen was performed because of sharp abdominal pain and demonstrated a large adrenal mass with intra-tumoral hemorrhage.

# Hormonal Excess (Yes = Present, No = Absent)

#### Present

**Definition:** Presence of ACTH independent Cushing syndrome, mild autonomous cortisol secretion (defined as dexamethasone suppression test > 1.8 mcg/dL), confirmed primary aldosteronism, androgen excess (elevated dehydroepiandrosterone [DHEAS] or testosterone/androstenedione).

Rationale: Only cortical tumors (whether benign or malignant) are capable of steroid production. Presence of hormonal excess excludes non-cortical tumors. On the other hand, absence of hormonal excess does not exclude cortical tumors.

**Note:** Catecholamine excess suggestive of pheochromocytoma does not apply. Steroid profiling does not diagnose or exclude pheochromocytoma.

### Absent

**Definition:** Normal dexamethasone suppression test (cortisol < 1.8 mcg/dL), absence of features (hypertension), or biochemical confirmation of primary hyperaldosteronism. Absence of androgen excess.

Rationale: Only cortical tumors (whether benign or malignant) are capable of steroid production. Presence of hormonal excess excludes noncortical tumors. On the other hand, absence of hormonal excess does not exclude cortical tumors.

# Tumor Diameter and Density from an Unenhanced CT

Accurate data are imperative for accurate interpretation. Testing requires a tumor diameter (mm) as well as a CT tumor density measurement (Hounsfield units - HU) from an unenhanced CT scan.