PHC Endocrinology Referral Guidelines

Condition:	Do the following before referral, as appropriate:	Second Level testing	Appropriate referrals include:	Urgent/Emergent Procedure:
Suspect Cushing's Disease	▪ 24-hour urine for creatinine and free cortisol – repeat for a total of 3 times (any one abnormal results in referral) http://www.questdiagnostics.com/testcenter/BUOrderInfo.action?tc=135286&labCode=AMD	▪ Dexamethasone (Decadron) suppression test (1mg. Decadron orally at 11pm or bedtime (which ever time is earlier) and fasting serum cortisol @ 0800 next morning) http://www.questdiagnostics.com/testcenter/BUOrderInfo.action?tc=6921&labCode=MET ▪ Midnight salivary cortisol http://www.questdiagnostics.com/testcenter/BUOrderInfo.action?tc=19897X&labCode=QBA	▪ Refer any patient with abnormal laboratory tests or with strong clinical suspicion even if tests are normal.	
Adrenal insufficiency (Addison's Disease)	▪ Electrolytes, serum AM cortisol , ACTH, plasma renin activity and aldosterone, FBS, TSH	▪ ACTH (Cortrosyn; Cosyntropin) Stimulation Test: Administration of 250 mcg ACTH IM or IV, followed by drawing of serum cortisol level drawn (twice) at 30 minutes & 60 minutes following ACTH injection. Cortisol values ≥ 18 mcg rules out adrenal insufficiency in most cases. ▪ http://www.questdiagnostics.com/testcenter/BUOrderInfo.action?tc=14930&labCode=MET	▪ Management advice. ▪ Management of a patient already on replacement steroids for subnormal Cortrosyn stimulated cortisol below 18 mcg.	Adrenal insufficiency, (unless partial): Patient needs to be on physiological replacement dose of steroid. Adrenal crisis/acute symptoms need appropriate steroid adjustments in hospital setting.

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Endocrine Hypertension (Pheochromocytoma)	▪ Plasma free metanephrine. ▪ 24 hour urine fractionated metanephrines, and creatinine during hypertensive and symptomatic period.		▪ Refer any patient with abnormal metanephrines.	
Endocrine - Galactorrhea	▪ Exclude pregnancy or history of recent pregnancy – serum Beta HCG test. ▪ Check medication list as some drugs may elevate prolactin level. ▪ TSH, prolactin, free T4	▪ Pituitary MRI imaging with and without contrast – only if already available	▪ Refer any patient with abnormal TSH or prolactin.	
Endocrine - Hirsutism	▪ Serum testosterone, DHEA-S, FSH and LH, ▪ 17- hydroxy-progesterone, fasting glucose, fasting Insulin, TSH, Free T4, prolactin.		▪ Refer any patient with hirsutism if symptomatically distressed/rapid growth/sign of virilization or clinically significant.	
Endocrine – Hyperaldosteronism **-Hypertension, resistant to 3 conventional antihypertensive drugs.** **-Hypertension & spontaneous or diuretic-induced hypokalemia.** **-Hypertension and adrenal incidentaloma;** **-Hypertension and + family history of early onset hypertension/cerebrovascular accident at a young age.**	▪ Aldosterone, plasma renin,		▪ Refer any patient with mentioned criteria and any patient with abnormal test results	

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Endocrine – Hypercalcemia / hyperparathyroidism	▪ Ca++ and albumin , phosphorus, intact-PTH ▪ 24 hour urine calcium and creatinine.	▪ Combined thyroid and parathyroid ultrasound to locate parathyroid adenoma. ▪ Sestamibi scan of parathyroids. (if available) especially if diagnosis is still uncertain. (Vitamin D should be normalized prior to the scan)	▪ Refer any patient with abnormal test results; ensure patient is not taking thiazides	
Hypocalcemia	▪ Ca++ and albumin, phosphorus, intact-PTH, Mg		▪ Refer patients if patient is hypocalcemic or if hypocalcemia management is complicated.	▪ Acute hypocalcemia/tetany needs emergency management in hospital setting.
Endocrine - Hypothyroidism	▪ TSH, free T4. If TSH is elevated, or thyroid is palpable the following lab tests need to be added. Thyroid peroxidase and thyroglobulin antibodies.		▪ Refer any patient with abnormal lab results and not on thyroid replacement; if patient on thyroid replacement, review dose and compliance with medication.	
Endocrine – Male Hypogonadism	▪ 8 A.M. serum total, free testosterone, sex hormone binding globulin. ▪ If low or borderline low testosterone, serum LH and FSH, CBC, Prolactin. ▪ PSA if age appropriate		▪ Refer any patient with sexual dysfunction, impotence, failure of normal pubertal development with abnormal sperm count, hypoandrogenization (decreased libido, decreasing beard or body hair).	

Endocrine – Suspect Pituitary Tumor	▪ Check basal 8 AM serum levels of Free T4,TSH, cortisol, ACTH, prolactin, FSH and LH, IGF-1 ▪ estradiol for women ▪ 24 hr urine creatinine and free cortisol ▪ 8 AM testosterone (for men) ▪ Pituitary MRI – obtained if highly suspicious or already available ▪ Urine specific gravity if diabetes insipidus suspected	▪ Pituitary MRI – obtained if highly suspicious or already available	▪ Refer any patient with acromegaly or Cushing syndrome; galactorrhea and amenorrhea or oligomenorrhea in females; hypogonadism; diabetes insipidus; hypopituitarism. Or pituitary radiological abnormality.	**Emergency:** sudden deterioration of vision, severe headache or signs of meningismus should be referred to the E.R. to exclude pituitary apoplexy.
Endocrine – Thyroid nodule	• Thyroid ultrasound • TSH, Free T4 and T3 • (if TSH is low): CMP, CBC.	• If hyperthyroid, thyroid uptake scan as long as patient is ot on treatment with propylthiouracil or tapazole. • biopsy (as needed)	▪ Refer any patient with high-risk history (hx of radiation to head or neck, FamHx thyroid CA), suspicious features on ultrasound, nodule ≥ 1 cm or abnormal TSH.	
Endocrine – Hyperthyroidism	▪ Serum TSH, Free T4, Total T3, TPO, Thyroglobulin antibody, Thyroid stimulating immunoglobulin, Thyrotropin receptor binding inhibitory immunoglobulin. ▪ Thyroid ultrasound	▪ If not pregnant: RAIU and scan if appropriate. Helps in differential diagnosis of hyperthyroidism.(Graves, thyroid nodule, thyroiditis)	• Refer patients with abnormal lab results, if patient is not responding to standard therapy, or there are questions regarding diagnosis and management	
Diabetes Mellitus – Type 1 or 2	▪ Hemoglobin A1C ▪ TSH, ▪ Fasting lipid panel ▪ Spot urine for microalbumin to creatinine ratio ▪ Retinal exam ▪ Monofilament exam Finger-stick diary log	▪ 24 hr urine for protein, creatinine if spot abnormal	▪ Dietician/Ophthalmologist and Podiatry referral when appropriate.	