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Endocrinology Referral Guidelines

Endocrinology Clinic Location:	Valley Specialty Center 2nd floor 751 S. Bascom Ave.
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This information is designed to aid practitioners in making decisions about appropriate medical care. These guidelines should not be construed as dictating an exclusive course of treatment. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to the institutional type of practice.

E-CONSULT DISCLAIMER:

E-consults are based on the clinical data available to the reviewing provider, and are furnished without benefit of a comprehensive evaluation or physical examination. All advice and recommendations must be interpreted in light of any clinical issues, or changes in patient status, not available to the reviewing provider. The ongoing management of clinical problems addressed by the e-consult is the responsibility of the referring provider. If you have further questions or would like clarifications regarding e-consult advice, please contact the reviewing provider. If needed, the patient will be scheduled for an in-office consultation.

All URGENT consultations require provider-to-provider communication. If your patient has a medical emergency, please direct them to the closest emergency room for expedited care.

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ADRENAL NODULE

1. **Background**
    a. Unilateral incidental adrenal nodules are common, and the majority are benign

2. **Pre-referral evaluation and treatment**
    a. Testing
        i. CT adrenal protocol
        ii. Plasma metanephrines
        iii. If hypertensive, obtain 8am aldosterone, plasma renin activity, and panel 7
    b. Management
        i. If pheochromocytoma is suspected, avoid procedures until the patient has been adequately alpha-blocked
        ii. Biopsy is only considered if there is concern for metastatic disease from another primary tumor, and would only be done after pheochromocytoma has been excluded.
        iii. Biopsy cannot diagnose adrenal cortical carcinoma

3. **Indications for referral**
    a. Routine referral to assess for hormone secretion and monitoring.
    b. Adenomas ≥ 6 cm generally require excision. Please also refer to General Surgery

DIABETES MELLITUS

1. **Background**
    a. Referral to Endocrinology does not guarantee that the patient will be seen by a physician. Diabetes care is triaged to the appropriate provider based on patient characteristics and medical need.
    b. Patients may be seen by an advanced practice provider or may be seen by a “diabetes care manager.” A diabetes care manager is an RN-CDE or pharmacist who has received specialized training in diabetes management, and works under the supervision of an endocrinologist. They follow detailed protocols for medication management. They are authorized to prescribe and adjust diabetes medications and provide diabetes education. They refer to the endocrinologist as needed.
    c. Nutrition education with a registered dietician is also available.

2. **Pre-referral evaluation and treatment**
    a. Testing: all laboratory tests as outlined below must be included
        i. A1C (within 3 months)
        ii. Basic metabolic panel (within 3 months)

iii. Liver function tests (within 1 year)
iv. Fasting lipid panel (within 2 years)
v. Urine microalbumin screen (within 1 year)

b. Initial management
   i. We recommend initial evaluation by a diabetes care manager prior to referring to endocrinology
      1. If patient has a VMC PCP, please contact the appropriate diabetes care manager located in the medical home. Referral is not needed.
      2. If patient does not have a VMC PCP, patient may be referred to VSC Endocrinology if has failed initial therapy in primary care.
   ii. Primary care provider should maximize oral therapy and consider basal insulin prior to referral to VSC Endocrinology

c. Primary care to continue managing associated comorbidities:
   i. Hypertension
   ii. Hyperlipidemia
   iii. Nephropathy (ACE/ARB prescription)
   iv. Aspirin if indicated for CV risk reduction
   v. Foot examination and neuropathy pain management

3. Indications for referral

a. Routine patient referrals
   i. Failing primary care/diabetes care management
      1. Patient with HgbA1C ≥ 9% on maximum oral therapy
      2. Patients with HgbA1C < 9 % but high-risk features may be accepted at the discretion of the endocrinologist
   ii. Insulin pump initiation or ongoing management
   iii. Severe insulin resistance or extreme insulin sensitivity
   iv. History of severe hypoglycemia

b. Urgent referrals
   i. Pregnancy and diabetes (refer urgently to MFM)

4. Please include the following with your referral

a. Hemoglobin A1C within 3 months of referral
b. Relevant other labs
   i. Basic metabolic panel (within 3 months)
   ii. Liver function tests (within 1 year)
   iii. Fasting lipid panel (within 2 years)
   iv. Urine microalbumin screen (within 1 year)
c. Progress notes
d. Advise all patient to bring diabetes log book and glucose meter to clinic appointment(s)

HYPERCALCEMIA (and/or elevated PTH)

1. **Background**
    a. Certain medications such as lithium and HCTZ may cause hypercalcemia
    b. Elevated PTH with low-normal calcium is concerning for vitamin D deficiency
2. **Pre-referral evaluation and treatment**
    a. Replace HCTZ with another anti-hypertensive medication and repeat calcium in 2 weeks.
    b. Testing
        i. Serum calcium, phosphorus, creatinine, PTH, vitamin-d-25, albumin
        ii. DXA (if greater than 50 years old)
    c. Management
        i. Encourage hydration
        ii. If calcium is normal and vitamin D is low, vitamin D deficiency must be treated to rule out hyperparathyroidism secondary to vitamin D deficiency

3. **Indications for referral**
    a. Urgent referral for: Severe symptoms of hypercalcemia (abdominal pain, dehydration, confusion), call endocrinologist on-call

HYPERTHYROIDISM

1. **Background**
    a. Subclinical hyperthyroidism may be transient. Confirm with repeat testing in 1-3 months.

2. **Pre-referral evaluation and treatment**
    a. Testing
        i. TSH, free T4, TSI (do not need anti-TPO or anti-TG)
        ii. Consider RAI uptake and scan if cause of hyperthyroidism is unclear (obtain TSH the day of the RAIU and scan)
        iii. Pregnancy test (if appropriate)
        iv. If patient is taking a supplement containing biotin, repeat the TFTs 1 week after stopping the biotin.
    b. Management
        i. Beta-blocker if tachycardic or tremulous (propranolol typically preferred, but use B-1 selective such as atenolol or metoprolol if has asthma)

3. **Indications for referral: Urgent referral is indicated for**

a. If patient is very symptomatic (tachycardic, weight loss, fatigued, weak) from hyperthyroidism or with extremely elevated free T4 (>7.7); consider starting methimazole.
b. Pregnancy and hyperthyroidism
c. Suspected thionamide-induced agranulocytosis or hepatotoxicity (contact endocrinologist on call)
d. Amiodarone-induced hyperthyroidism

HYPOGONADISM

1. **Background**
    a. Common in patients with morbid obesity, poorly-controlled diabetes and OSA
    b. Symptoms of hypogonadism include: **low libido**, erectile dysfunction, fatigue, depression, weight gain
    c. Patients with a history of prostate cancer generally are not candidates for testosterone replacement therapy

2. **Pre-referral evaluation and treatment**
    a. Testing
        i. 2 separate low AM **(before 10am)** testosterone levels (check total and free testosterone levels in overweight and patients over 60)
            1. **Testosterone levels exhibit diurnal variation and should be measured in the morning (before 10am) to reflect peak secretion**
            2. If low testosterone is confirmed, need to distinguish between primary and secondary causes
        ii. Measure LH, FSH, prolactin, TSH, free T4
        iii. Measure PSA, CBC (Hct >52 is a contraindication to therapy)
    b. Management
        i. Evaluate and treat for OSA
        ii. Optimize glycemic control in diabetic patients

3. **Indications for referral**
    a. Patient with symptoms and 2 low testosterone levels drawn in the morning, in addition to above studies
    b. Patients with erectile dysfunction but normal testosterone levels will not be accepted. Consider referral to Urology.

HYPOTHYROIDISM

1. **Background**

a. **Primary hypothyroidism should be managed by a primary care provider.** We do not accept referrals for routine initiation and management of levothyroxine.
b. **Patients with Hashimoto's thyroiditis are expected to have chronically elevated anti-**TPO antibodies. Antibody positivity is not an indication for referral, and antibody levels should not be monitored.
c. Patients should be advised on appropriate medication administration and drug interactions

2. **Pre-referral evaluation and treatment**
    a. Testing
        i. TSH, free T4
    b. Management
        i. A full, weight-based replacement dose of levothyroxine is 1.6 mcg/kg/day.
            1. Young, healthy individuals can be started on doses approaching a full replacement dose, depending on the degree of hypothyroidism.
                a. Repeat a TSH, fT4 in 8-12 weeks after starting/changing the dose of levothyroxine.
                b. Titrate the dose of levothyroxine to target a normal TSH
        ii. Older individuals, or patients with CAD or CAD risk factors should be started on lower doses of levothyroxine (e.g. 25-50 mcg/day) with slower titration
        iii. Advise patient to take levothyroxine on an empty stomach and wait 30 minutes before eating
        iv. Advise patient that multivitamins, calcium and iron supplements should be taken at least 4 hours after levothyroxine to avoid interference.

3. **Indications for referral**
    a. Pregnancy and hypothyroidism: Refer urgently
    b. Thyroid cancer history
    c. Hypothyroidism due to pituitary dysfunction

OBESITY

1. **Background**
    a. Obesity is common, but endocrine causes of obesity are limited (Cushing's syndrome, uncontrolled hypothyroidism) are rare.
    b. VSC Endocrinology does NOT accept referrals for weight management or for use of weight loss medications

2. **Pre-referral evaluation and treatment**

a. Referral to dietician or weight loss class
b. Testing
    i. TSH, free T4, 24-hour urine free cortisol and urine creatinine if clinically indicated

3. Indications for referral

a. Referrals to endocrine for obesity are appropriate if an endocrine cause of obesity is suspected and above testing has been done
b. Do <u>not</u> refer:
    i. Patients considered appropriate for bariatric surgery should be referred through primary care
    ii. Patients seeking weight loss medications (will not be prescribed by endocrine) or medically-supervised weight loss diets

OSTEOPOROSIS

1. Background

2. Pre-referral evaluation and treatment

a. Testing
    i. DXA scan (within 1 year)
    ii. Serum calcium, albumin (within 6 months)
    iii. Serum vitamin D-25 level (within 3 months)
    iv. TSH
b. Management
    i. Ensure sufficient calcium intake (1000 mg daily)
    ii. Treat vitamin D deficiency to goal ≥ 30 **prior** to referral

3. Indications for referral

a. Fractures despite appropriate bisphosphonate therapy
b. Intolerance or contraindication to bisphosphonate therapy
c. Consideration of anabolic therapy

PITUITARY MASS

1. Background

a. 10% of population will have a small nonfunctional pituitary adenoma
b. Management requires assessment to:
    i. Determine if the lesion is hormonally active
    ii. Determine if hypopituitarism is present
    iii. Determine if visual fields are affected

2. Pre-referral evaluation and treatment

a. Testing
    i. MRI sella with and without contrast
    ii. Labs: Prolactin, TSH and FT4, IGF-1, 8AM cortisol and ACTH, LH, FSH

3. **Indications for urgent referral**
    a. Mass effect on optic chiasm: need urgent referral to Neurosurgery for operative management (assuming normal prolactin)

THYROID NODULES

1. **Background**
    a. Increasing prevalence with increasing age
    b. <10% of all thyroid nodules are malignant
    c. Subcentimeter and purely cystic nodules do not require FNA

2. **Pre-referral evaluation and treatment**
    a. Testing
        i. Thyroid ultrasound within 1 year (CT, PET, MRI are not sufficient)
        ii. If ultrasound is performed outside of VMC, advise patient to obtain CD with ultrasound images for review. **CD of images is required for FNA**.
        iii. All patient with thyroid nodules should have a TSH measured
            1. If TSH is low, please obtain an uptake and scan
            2. If TSH is normal or elevated, FNA may be indicated based on sonographic criteria
            3. Consider referral to IR if urgent biopsy is requested
                a. FNA will not be performed at the initial endocrine consult visit

3. **Indications for referral**
    a. Nodules requiring FNA (usually ≥ 1 cm)
    b. Large nodule(s) causing compressive symptoms. Such patients may require surgery. Consider referral to ENT.

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