Guidelines for Endocrinology Referrals:
Appropriate pre-consultation work-up for common endocrine disorders

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Housekeeping

- All lines are muted
- This session will be recorded
- Slides and recording will be posted on PHC Site [www.partnershipphp.org](http://www.partnershipphp.org)
- To ask a question:
  - Logistical question: Use Question/CHAT to the Host
  - Questions for Speakers: Use Question/CHAT and questions will be addressed at the end of the presentation
Today’s Speakers

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Objectives

- Be able to order appropriate laboratory and imaging studies for endocrine disorders sufficient for the consultant endocrinologist to advance the care of patients without delay

- The rationale behind the laboratory and imaging studies discussed in the referral guidelines

- Be able to order and if necessary, be able to perform the in-office provocative testing required to diagnose certain endocrine disorders
Endocrinologist consultations are one of the most sought after referrals and difficult to obtain due to relative scarcity.

We want to utilize the time efficiently to advance the care of the patients.

Guidelines for pre-consultation visit help the endocrinologist to make decisions and reduce the number of repeat visits opening up availability to other patients.
What this means

• If there are few specialty slots available then use them wisely

• Well prepared referrals

• Try to end with a treatment decision

• Avoid multiple visits when fewer would suffice

• Patients MUST show for their appointments
Do Not Dump

• In the world of endocrinology this means:
  ◦ Don’t refer non-adherent patients
    ◦ Type II diabetes
    ◦ Hypothyroid

• We are looking for diagnoses and resultant treatment decisions
Well Prepared Referrals

What is the question to be answered:

- All the necessary information
- BUT no unnecessary information
  - Chart litter – Last 5 visits / all labs since California Statehood / All imaging including kindergarten school pictures
  - No push button electronic records.
- All the labs / imaging necessary – but no extra
- Up to date med list
- Legible
- Received at the other end well before the appointment
- Ideally, a letter from the clinician – can be added to the clinical note plans
- Avoid a specialist consultation that generates more labs and another visit
  - This is taking a visit from someone else
Topics

- Diabetes mellitus
- Thyroid – hypo, hyper, nodule
- Hypercalcemia / hypocalcemia
- Male hypogonadism
- Adrenal disorders
- Pituitary
- Others
Diabetes Mellitus I & II

• Preliminary labs
  ◦ Hemoglobin A1C
  ◦ TSH
  ◦ Fasting lipid panel
  ◦ Spot urine for albumin / creatinine ratio
  ◦ Retinal exam
  ◦ Monofilament exam
  ◦ Finger-stick diary log

• Secondary labs
  ◦ 24 hr urine for protein, creatinine if spot abnormal

• Other referrals
  ◦ Dietician
  ◦ Ophthalmology
  ◦ Podiatry
Thyroid: hyperthyroid

- **Preliminary labs**
  - Serum TSH, Free T4, Total T3, TPO, Thyroglobulin antibody, Thyroid stimulating antibody, Thyrotropin receptor binding inhibitory immunoglobulin
  - Thyroid ultrasound

- **Secondary labs / imaging**
  - If not pregnant, RAIU and scan if appropriate (helps in the DD – Grave’s, nodule, thyroiditis).

- **Other referrals**
  - Revisit if not responding to therapy
Thyroid: hypothyroid

- **Preliminary labs**
  - TSH, Free T4

- **Secondary labs**
  - If TSH is elevated, or thyroid is palpable
    - Thyroid peroxidase
    - Thyroglobulin antibodies

- **Other referrals**
Thyroid: nodule

- **Preliminary labs / imaging**
  - Thyroid US
  - TSH, Free T4 and T3

- **Secondary labs**
  - If TSH is low CBC, CMP
  - If hyperthyroid
    - RAIU as long as not on treatment with propylthiouracil or tapazole

- **Other referrals**
  - Biopsy as needed
  - Any patient with high risk history (head/neck radiation, fam hx of thyroid cancer, suspicious features of US, nodule > 1 cm or abnormal TSH)
Calcium Disorders: hypercalcemia

• Preliminary labs
  ◦ Calcium, albumin, phosphorus, intact PTH
  ◦ 24 hour urine calcium and creatinine
  ◦ Make sure patient is not taking thiazides

• Secondary labs/ imaging
  ◦ Combined thyroid /parathyroid US to locate parathyroid adenoma
  ◦ Sestamibi scan of parathyroids especially if diagnosis uncertain
    ◦ Vitamin D should be normalized prior to the scan

• Other referrals
Calcium Disorders: hypocalcemia

- Preliminary labs
  - Calcium, albumin, phosphorus, intact PTH, Mg
- Secondary labs
- Other referrals
Male Hypogonadism

• Preliminary labs
  ◦ 8 a.m. serum total, free testosterone, sex hormone binding globulin

• Secondary labs
  ◦ If borderline or low serum LH, FSH, CBC, Prolactin

• Other referrals
  ◦ PSA if thought necessary
Adrenal: Insufficiency (Addison’s Disease)

- Preliminary labs
  - Electrolytes, serum a.m. cortisol, ACTH, plasma renin activity, aldosterone, FBS, TSH
- Secondary labs
  - ACTH (Cortrosyn, Cosyntropin) stimulation test
- Other referrals
  - May need referral for management if subnormal ACTH stimulation test and low result
  - Advice for stress periods
Adrenal: Cushing’s Disease

• Preliminary labs
  ◦ 24 hr urine for creatinine and free cortisol.
    ◦ May repeat up to 3 times. Any abnormal is referable

• Secondary labs
  ◦ Dexamethasone suppression test
  OR

• Midnight salivary cortisol

• Other referrals
**Pituitary: adenoma**

- **Preliminary labs**
  - 8 a.m. serum levels of:
    - Free T4, TSH, cortisol, ACTH, prolactin, FSH, LH, IGF-1
    - Estradiol in women
    - 24 hour urine creatinine and free cortisol
    - 8 a.m. testosterone for men

- **Secondary labs**
  - Pituitary MRI – if highly suspicious or already available
  - Urine specific gravity if diabetes insipidus concern

- **Other referrals**
  - Also refer for acromegaly, Cushing syndrome, galactorrhea/amenorrhea/oligomenorrhea, abnormal pituitary radiology
Others

- Endocrine hypertension (pheochromocytoma)
- Galactorrhea
- Hirsuitism
- Hyperaldosteronism – resistant hypertension
Questions?