

## Outpatient Testing: I Can Order That!?

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1 hour

### Course Description

Patients with ocular conditions may often have underlying systemic pathology that needs to be diagnosed through outpatient testing. As a contemporary optometrist, it is within our training to order the appropriate laboratory testing and imaging. This course will help the average optometrist to become comfortable in ordering outpatient testing.

### Course Objectives

- Learn how to properly order imaging including MRI, CT-scans, and X-rays.
- Learn how to properly order bloodwork for cases involving inflammation and possible diabetes.
- Learn how to properly order bloodwork for atypical cases such as thyroid dysfunction or myasthenia gravis.

### I. Neuro-Imaging

- Idiopathic Intracranial Hypertension (IIH)
  - Case – presentation and imaging
- Radiology of the Orbit and Brain
  - CT Scan (advantages)
  - MRI (advantages)
- T1 vs T2 Weighted Images
  - fat vs water differentiation
- Imaging Views and Contrast
  - renal cautions
  - Creatinine/BUN before contrast
- How to order and where to send for MRI
  - Interpretation considerations
    - local radiologist
    - vs. tele-radiology subspecialist
- Intraocular Metallic Foreign Body Case
- CT vs X-ray
  - advantages/disadvantages
- How to order CT Scan of the orbit
  - sample order

## II. Labs and Bloodwork

- General Considerations
  - where to send (independent lab, PCP, hospital)
- Recurrent Iritis Case
  - CBC
  - ESR
  - CRP
  - VDRL/RPR
  - TB
  - ACE
  - Lyme Titer
  - HLA-B27
  - ANA
  - RF
  - Chest X-ray
- Order for Uveitis Labs
  - sample order
- Diabetes (Diabetic Retinopathy) Case
  - glucose (CMP)
  - fasting, HbA1c
  - Order for Diabetic Labs
    - sample order
- Ischemic Optic Neuropathy (ION) Case
  - CRP
  - ESR
  - CBC
  - Order for ION Labs
    - sample order
- Thyroid Eye Disease (TED) Case
  - TSH
  - Free T4
  - T3
  - TRAb
  - TSI
  - Order for Thyroid Labs
    - sample order
- Myasthenia Gravis Case
  - AChR antibody (binding, blocking, modulating)
  - Myasthenia Gravis Lab Order
    - example order

## III. Case-Based Applications

- Review of integrated case presentations with images

- Application of imaging
  - Lab ordering in real-world practice
- Emphasis on interdisciplinary coordination
  - PCP, radiology, labs

#### **IV. Wrap-Up and Discussion**

- Summary of key concepts
- Ethical and professional responsibilities

#### **V. Open questions and discussion**