TIP SHEET FOR ORDERING ADVANCED IMAGING STUDIES

With/Without Contrast CT, MRI

- Studies should NOT be ordered simultaneously as dual studies (i.e., with and without contrast). Radiation exposure is doubled and both views are rarely necessary.
- The study considered best for a specific clinical scenario should be ordered. The second study should be done ONLY if the first study does not provide adequate information.

Spine MRI, CT

- MRI is almost always preferred over CT scan; if ordering CT, CLEARLY document why MRI is not appropriate.
- In cases of back pain without “red flags”, six weeks of multi-modality supervised conservative therapy (without significant symptom improvement) must be completed before an imaging study can be approved.
- Provide clear documentation of all elements of conservative therapy, including details and dates of the physical therapy, home exercise program, or chiropractic care.
- Reproducible neurological deficits must be documented by a thorough neurological physical examination in the clinical notes.
- We adopt “Choosing Wisely” recommendations for Low Back Pain.
  - Don’t obtain imaging studies in patients with non-specific low back pain.
    
    (American College of Physicians)

Brain MRI, CT

- MRI is almost always preferred over CT scan; if ordering CT, CLEARLY document why MRI is not appropriate.
- Chronic headache (including chronic migraine) is an indication for advanced imaging ONLY if the headaches are increasing in frequency or have changed in severity or new neurological deficits are present.
- We adopt “Choosing Wisely” recommendations for headache and syncope (loss of consciousness).
  - Don’t perform neuro-imaging studies in patients with stable headaches that meet criteria for migraine.
  - Don’t perform computed tomography (CT) imaging for headache when magnetic resonance imaging (MRI) is available, except in emergency settings.

    (American Headache Society)
• Don’t perform brain imaging for uncomplicated syncope (loss of consciousness)
  o Do patients need brain imaging scans like a computed tomography (CT) or magnetic resonance imaging (MRI) after fainting, also known as simple syncope? Probably not. Research has shown that, with no evidence of seizure or other neurologic symptoms during an exam, patient outcomes are not improved with brain imaging studies. (American College of Physicians)

Abdomen and Abdomen Pelvis CT

• Abdomen and Abdomen/Pelvis CTs deliver a high radiation dose and performing them with and without contrast delivers roughly double the dose. Studies should be ordered sequentially if needed, not concurrently as the second study is rarely required.
• Alternative studies, such as ultrasound, are frequently indicated prior to CTs and must be documented in the clinical information accompanying the imaging request.
• Ultrasound should always be considered as the first imaging study in the evaluation of abdominal complaints in children.
• Laboratory work that will confirm or rule out inflammatory conditions such as appendicitis should be completed and documented in the clinical record before the CT request is made.
• We adopt “Choosing Wisely” recommendations for Functional Abdominal Pain
  o For a patient with functional abdominal pain syndrome, CT scans should not be repeated unless there is a major change in clinical findings or symptoms
  (American Gastroenterological Society)

Extremity (Hands, wrists, Knee, Shoulder) MRI

• An examination of the joint involved with documentation of findings consistent with the suspected diagnosis must be submitted as part of the clinical information when requesting an MRI.
• In cases of persistent pain or suspected fracture, a plain x-ray should be documented in submitted clinical information before MRI is ordered.
• Four weeks of conservative therapy without significant pain relief should be documented in submitted clinical information before MRI is ordered for chronic/persistent pain.
• We adopt “Choosing Wisely” recommendations for MRI monitoring of Rheumatoid disease
  o Do not perform MRI of the peripheral joints to routinely monitor inflammatory arthritis.
  o Data evaluating MRI for the diagnosis and prognosis of RA are currently inadequate to justify widespread use of this technology for these purposes in clinical practice.
  (American College of Rheumatology)

Chest CT
- A Chest CTA, not a Chest CT, is the most appropriate study to evaluate for pulmonary embolism
- A Chest CTA is NOT indicated in a patient at low clinical risk for pulmonary embolism
- Documentation must include a risk assessment for Suspected Pulmonary Embolism including a D-dimer study
  - Suggest application/use of the “Wells” or “PESI” criteria
- We adopt “Choosing Wisely” recommendations for Radiographic evaluation of suspected Pulmonary Emboli
  - Don’t perform chest computed tomography (CT angiography) to evaluate for possible pulmonary embolism in patients with a low clinical probability and negative results of a highly sensitive D-dimer assay.
    - (American College of Chest Physicians and American Thoracic Society)

**Sinus CT**

- The primary use of sinus CT scans is to aid in management of chronic sinusitis. Thus, sinus CT for sinusitis is appropriate ONLY after completion of a trial of observation to r/o the most common cause, viral rhinosinusitis. This must be followed by a trial of medical (antihistamines and antibiotic therapy without significant improvement in signs/symptoms.
- We adopt “Choosing Wisely” recommendations for Radiographic monitoring of Rhinosinusitis including plain films
  - Don’t order sinus computed tomography (CT) or indiscriminately prescribe antibiotics for uncomplicated acute rhinosinusitis.
    - (American Academy of Allergy, Asthma & Immunology)

- Brain/Sinus CT combination studies are rarely indicated since Brain CT almost always provides adequate views of the sinuses.