Risk Factors for Advanced Imaging
Adapted from Stiell et al. The Canadian CT Head Rule for Patients with Minor Head Injury. Lancet 2001;357:1391-96

**Red Flags**
- GCS score < 15 at 2 hours after injury
- Suspected open or depressed skull fracture
  - Any sign of basal skull fracture
  - Vomiting > 2 episodes
  - Age > 65 years
- Amnesia before impact > 30 minutes
- Dangerous mechanism

Risk Factors for Prolonged Concussion Recovery
Synthesized from the Concussion Recovery Pattern and Pathway – concussionsontario.org and Table 1.1 Risk Factors Influencing Recovery Post mTBI – braininjuryguidelines.org

**Medical Factors**
- History of traumatic brain injury, neurological, sleep or psychiatric problems
- Signs/symptoms of vestibulo-ocular abnormalities or cognitive difficulties
  - Increased symptoms with return to school, work or exercise
  - Reduced balance or dizziness
  - Memory problems after injury
  - Nausea after injury

**Contextual Factors**
- Being a student, female gender or of older age
- Injury sustained in an motor vehicle collision
  - Low educational/social economic status
  - Higher levels of symptom reporting
  - Secondary gain issues i.e. litigation

**If one or more risk factors are identified:**
Encourage immediate follow-up with the patient’s primary care provider
Provider further education and re-assurance
The primary care provider should request additional examinations and consultations as needed and refer for active treatment for symptom management. Interdisciplinary care may be required.

www.braininjuryguidelines.org/concussion