TOOL 7.1: Prolonged Post-concussion Sleep Disturbances Algorithm

**Medical follow-up**
(Sleep disturbances >1-4 weeks)

- Screen for medical conditions, current medication use, comorbid psychopathology, and risk factors for sleep disturbances (Sidebar 1)
- Reinforce the importance of sleep hygiene and physical and cognitive activity
- Assess return to school and return to sport status
- Consider treating with cognitive behavioural therapy (CBT) or refer to interdisciplinary concussion team if symptoms last longer than 4 weeks (or sooner as needed/using clinical judgment)

Sleep disturbances persist > 4 weeks post-concussion

**Cognitive behavioural therapy or referral to healthcare professionals/interdisciplinary concussion team**

2. Daily supplements: magnesium, melatonin, and zinc
3. If CBT is not available: monitor behavioural interventions weekly, consider referral to an interdisciplinary concussion clinic or occupational therapist

Sleep disturbances persist > 6 weeks post-concussion and interventions at 4-weeks have been unsuccessful

**Referral to healthcare professionals/interdisciplinary concussion team**

**SIDEBAR 1**
Factors that may influence the child/adolescent’s sleep/wake cycle

- **Medical conditions**
  - Endocrine dysfunction
  - Metabolic dysfunction
  - Obesity
  - Enlarged tonsils
  - Obstruction
  - Sleep-related breathing disorders
  - Early morning headaches

- **Current medication use**
  Verify if patient’s prescribed or non-prescribed medications impact sleep:
  - Inadequate medication
  - Dosage
  - Timing of administration
  - Screen for stimulants

- **Comorbid psychopathology**
  - Mood and anxiety disorders
  - Post-traumatic stress disorder (PTSD)
  - Query nightmares and/or night terrors

- **Unhealthy habits**
  - Lack of exercise
  - Variable sleep-wake schedule
  - Excessive napping
  - Excessive time spent in bed
  - Exercising close to bedtime
  - Screen time
  - Use of nicotine, caffeine, energy drinks, processed foods, processed sugars, alcohol and drugs

**SIDEBAR 2**
Potential medication options – short-term basis only

- Trazodone 12.5 mg
- Amitriptyline 5.0 – 10.0 mg