Screening and Assessment – Sleep Disturbance in Adults with Cancer*

Screen for sleep-wake disturbances[1] at start of treatment, periodically during treatment and periodically during post-treatment survivor follow-up care.[2]

- ☐ Review all ESAS or ESAS-r scores and problem checklist in conversation[3] with patient/family and discuss expectations and beliefs about support needs (e.g., Canadian Problem Checklist[1]).
- ☐ Sleep problems are identified by patient endorsement of a sleep problem on the Canadian Problem Checklist (checked yes for sleep problem) or as an "other" item on the ESAS scale with any score >"0" (sleep severity is an imprecise measure of sleep problems). Indicates occurrence of a sleep problem.
- ☐ Occurrence of a sleep problem should prompt two additional screening questions to identify sleep-wake disturbance: 1) Do you have problems with sleep for three or more nights/week? 2) If yes, does this sleep problem interfere with daytime functioning? If answer is yes to one or both: focused assessment needed.

Step 1: Identify need for **immediate** referral to a sleep specialist.

Assess for symptoms of sleep apnea: loud chronic snoring, choking or gasping during sleep, witnessed periods of apnea during sleep, excessive daytime sleepiness (can use Epworth Sleepiness Scale to assess), morning headaches, poor concentration and/or memory problems.

Referral is also required if patient complains of restless leg/movement disorders.

Immediate referral to a sleep clinic or sleep specialist for sleep study work-up and a polysomnogram.

Step 2: Focused Assessment (clarify nature/extent of sleep-wake disturbance)

- O** - When did it start? How many nights is sleep disturbed? Number and duration of night wakening? Early morning wakening? Non-restorative sleep?
- P – Pre-sleep activities (before bed and in bed); bedroom environment; precipitating factors (stress, pain); sleep–wake schedule and regularity of following this? Medications used for sleep (which can aggravate sleep problems)?
- Q - Assess sleep quality. Non-restorative sleep. Consider daily sleep logs over a two-week period (i.e., Consensus Sleep Diary).
- R - In what ways does it affect you day-to-day (e.g., daily tasks, daytime somnolence, emotional distress, attention and memory impairment, slow response time, adverse effects on work, social life and family)?
- S - How bothered are you by your sleep problem?
- T - What do you do to manage your sleep problem? How effective are your efforts? Assess use of sleep hygiene strategies.
- U - What do you believe is causing your sleep problems? What about it concerns you the most?
  - I – What is the effect on daily function and other aspects of life?
- V - What is your goal for this symptom? What is your comfort goal or acceptable level for this symptom (able to work, attend leisure activities, etc.)?

PROMIS-short form sleep or Insomnia Severity Index can be used for systematic assessment.

Insomnia Symptoms: Non-restorative; difficulty falling asleep (>30 minutes); early wakening; night wakening (30 minutes) more than 3 nights/week; significant distress or negative mood due to sleep disturbance; diminished concentration or attention; slow response time; impairment of ADLs; rumination about sleep problems.[9]

Identify Pertinent History: Specific Risk Factors for Sleep-Wake Disturbances

- History of sleep-related problems, depression, other pre-existing mental health problems
- Stressors (e.g., life events; disease status: diagnosis, recurrence, advanced or progressive disease [i.e., vulnerable points])
- Current or recent change in medications associated with depression (can cause insomnia) or sedating medications
- Cancer treatment modalities (e.g., treatment with chemotherapy, other agents such as steroids that can impact sleep)
- Assess for specific contributing factors that should be treated based on other guidelines (e.g., pain, fatigue, depression). Sleep problems often occur as part of symptom cluster of sleep, pain and fatigue.

Mild Sleep Disturbance | **Transient Insomnia Symptoms** | **Insomnia Syndrome**

* Refer to the full technical guideline document for the disclaimer statement on the Canadian Association of Psychosocial Oncology website (www.capo.ca).

1 Use Screening for Distress Tool (SDT), which includes Edmonton Symptom Assessment System (ESAS-r) and Canadian Problem Checklist (CPC).

2 At initial diagnosis, start of treatment, regular intervals during treatment, end of treatment, post-treatment or at transition to survivorship, at recurrence or progression, advanced disease, when dying, and during times of personal transition or re-appraisal such as family crisis, during survivorship, when approaching death (CAPO/CPAC guideline: "Assessment of Psychosocial Health Care Needs of the Adult Cancer Patient" by Howell et al., 2009).

3 The health care team for cancer patients may include surgeons, oncologists, family physicians, nurses, social workers, psychologists, radiation therapists, patient navigators and other health care professionals (HCPs).

** Fraser Health Symptom Assessment Acronym OPQRSTU(I)V: O = Onset; P = Provoking/Palliating; Q = Quality; R = Region or Radiating; S = Severity and Duration; T = Treatment; U = Understanding/I=Impact; V = Values

Care Map: Sleep-Wake Disturbances in Adults with Cancer*

Mild Sleep Disturbance	Transient Insomnia Symptoms	Insomnia Syndrome
• Occasional sleep disruption that does not impair daily functioning • Ability to carry out Activities of Daily Living (ADLs) = usual or desirable functioning (e.g., daily tasks, work, social life, other)	• Difficulty falling asleep at night or getting back to sleep after waking (takes >30 minutes to fall asleep, stay awake for >30 minutes) • Waking up frequently at night • Sleep feels light, fragmented, unrefreshing (poor sleep quality) • Sleepiness and low energy throughout the day • Disturbance occurs <3 times/week	• Symptoms of insomnia ≥3 nights a week for at least 1 month • Impairment of daily activities • Impairment of psychological function • Negative expectations regarding sleep • Hyper-arousal such as hyper-vigilance or racing thoughts about sleep at bedtime • Learned sleep-preventing associations
Care Pathway 1 *Prevention and Supportive Education*	***Care Pathway 2*** *Specific Interventions*	***Care Pathway 3*** *Specific Interventions*

Non-pharmacological Interventions

- Preventive and supportive education as in Care Pathway 1 should be used as an adjunct to more specific non-pharmacological interventions.
- Cognitive behavioural therapy (CBT) specific for insomnia (CBT-I) is the most effective intervention to improve sleep problems based on trials in the general population and cancer patients.
- CBT-I can initially be provided as a self-administered intervention or by trained front line providers, but insomnia syndrome is best managed by a psychologist or other specialist in CBT-I.
- Other interventions such as exercise may also be helpful for transient insomnia.
- Treat other conditions such as pain or fatigue or depression.

Pharmacological Interventions

- Pharmacological agents as appropriate on a short-term or intermittent basis (e.g., see indications section for pharmacological agents). Special monitoring is required for cancer patients on pharmacological agents and for adverse effects in combination with cancer treatment and other medications.
- Use lowest effective dose (e.g., minimize daytime sedation and confusion).

Preventive-Supportive Education Interventions for All Patients

- Provide patient anticipatory education to ensure they report changes in sleep quality or sleep problems.
- Advise patient in the use of the following sleep-promoting strategies:
  1. Wake up at the same time (regardless of how many hours of sleep and including weekends)
     - Morning anchor determines bed time based on sleep pressure
     - Ensure morning light exposure (natural or artificial): At least 30 minutes within 1 hour of waking
  2. Designate a "clear-your-head time"
     - 30-45 minutes devoted to problem solving, planning, worrying in the early evening
     - Remind yourself that you have already devoted time to topic if it re-appears
  3. Establish a 90-minute buffer zone before intended bed time
     - This time needs to be spent in *dim light*, while engaged in *individualized sedentary*, *pleasant* and *relaxing* activities (e.g., reading, meditation, prayer, TV/movies, crosswords, warm bath, magazines, audiobooks, music, relaxation/imagery or anything that does not produce cognitive or physiological arousal)
  4. Only go to bed when sleepy (regardless of what the clock says) and don't spend extra time trying to sleep
     - Don't confuse tired/fatigued or bored with being sleepy
     - Spending extra time awake in bed DOES NOT increase chances of falling asleep and adds to anxiety, frustration and conditioned arousal
  5. Use your bedroom for sleep and sex only
     - During recovery, the bed is often used for activities other than sleep, this weakens its power as a cue for sleep
     - Make other areas of the house as comfortable; minimize noise/disruption during night (use ear plugs/eye masks)
  6. If not asleep within 20-30 minutes, get up and return to bed when sleepy. Refer to #4. Esp. important if mind becomes active!
     - Return to buffer zone activity; plan for this in advance
  7. Ensure sleep expectations are realistic (sleep needs range: 6-10 hours; sleep quality becomes lighter with age but not need)
     - It is normal to awaken 1-2 times; it is not normal to remain awake. Most people feel sleepy in the afternoon.
  8. Avoid unnecessary time in bed during day and avoid napping multiple times throughout the day
     - For patients confined to bed, provide cognitive stimulation throughout the day
- Napping
  - While multiple naps throughout the day should be avoided, an afternoon nap of one hour or less may be helpful
  - A short nap (less than one hour) taken in the afternoon, starting before 4pm, are unlikely to interfere with nighttime sleep
  - It is possible to rest without necessarily sleeping
- Preparatory education to increase patient's awareness of the difference between normal and cancer-related sleep-wake disturbance and its persistence post-treatment and the need to optimize sleep quality during and post-treatment
- Provide counseling about general strategies such as:
  - Maintaining good sleep habits and sleep hygiene practices
  - Relaxation
- Educate about signs and symptoms to report to appropriate health care professional if sleep-wake disturbance worsens
- Refer for practical support (e.g., accommodation, transportation, financial assistance, additional health/drug benefits, employment advice) to manage reduced physical functioning and disability due to sleep-wake disturbances

Follow-Up and Ongoing Re-assessment[1] and change (reduction) from previous score

* Refer to the full technical guideline document for the disclaimer statement on the Canadian Association of Psychosocial Oncology website (www.capo.ca)

Authors: Howell D, Oliver T, Keller-Olaman S, Davidson J, Garland S, Samuels C, Savard J, Harris CA, Aubin M, Olson K, Sussman J, Taylor C