CKM Fatigue and Sleep Disturbances Guideline for Healthcare Professionals

Guiding Principles: Fatigue is a very common symptom in ESKD and it is often multifactorial. Treat the patient's tiredness and/or daytime drowsiness **if it is affecting** their quality of life.

Step 1: Assess for possible modifiable factors contributing to fatigue:

- Vitamin D deficiency
- Metabolic acidosis
- Hypothyroidism/hyperthyroidism
- Anemia
- Malnutrition: consider referral to a registered dietitian
- Mood disorders such as anxiety, depression
- Sleep disorders and symptoms affecting sleep

Step 2: If the patient reports ongoing difficulties with falling and/or staying asleep, consider the following possible contributing factors:

- Restless Legs Syndrome
- Pruritus
- Pain
- Breathlessness
- Cognitive Impairment
- Medications
- Generalized insomnia
- Mood disorders such as anxiety, depression
- Apnea

Step 3: Consider non-pharmacological management:

- Exercise (if appropriate)
- Nutrition and hydration management
- Cognitive and psychological approaches (eg. relaxation therapy, hypnosis, stress management, delegating and setting limits)
- Complementary treatments such as acupressure/acupuncture (no high quality evidence to support this; no lasting adverse effects)
- Energy Conservation Strategies (See: Tiredness Patient Handout)
- Promote good sleep hygiene (See: Sleep Patient Handout)
- Incorporate relaxation techniques
- Consider suggesting to your patient:
  - Wake up at the same time every morning
  - Do not go to bed until you feel sleepy
  - Do not "try" to fall asleep
  - Avoid napping during the day
  - Avoid caffeine in the evening
  - Save your bedroom for sleep (and sex) only
  - Leave your day's dilemmas at the door

Step 4: If the patient continues to report tiredness +/- drowsiness, consider pharmacological management:

- Reassess medications prescribed for the treatment of insomnia after 2-4 weeks. Avoid OTC sleep aids and benzodiazepines if possible.
- Consider low-dose gabapentin or pregabalin (*particularly if the patient has concomitant symptoms of* ***neuropathic pain, RLS, or uremic pruritus***):
  - **Gabapentin**: 50-100* mg PO nightly. If not effective, it can be further titrated by 100 mg every 7 nights to a maximum of 300 mg PO at bedtime. It should be taken 2-3 hours before bed due to delay of peak onset. *Note that gabapentin is not commercially available in 50 mg capsules, but can be compounded for patients if the recommended low starting dose is desired*. The most common side effects are drowsiness, dizziness, confusion, and fatigue. Peripheral edema may also be a side effect.
  - **Pregabalin:** Similar to gabapentin, but more expensive and not covered by Seniors' or Basic Alberta Blue Cross plans. Other private plans may cover the cost. Pregabalin can be initiated at 25 mg PO nightly and titrated by 25 mg every 7 nights to a maximum of 75 mg PO qhs. It should be taken 2 hours before bedtime. Potential side effects are similar to those of gabapentin.
- If ineffective, cautiously consider:
  - Mirtazapine (Remeron) 7.5 mg PO at bedtime (not if taking Tramadol or antidepressants)
  - Doxepin 10 mg PO at bedtime (monitor carefully for anticholinergic side effects and cardiac arrhythmias)
  - Zopiclone 3.75-5 mg PO at bedtime for short term use
  - Melatonin 2-5 mg PO at bedtime (although the evidence is somewhat limited and inconclusive)

Special Considerations at the End of Life:

As a patient's condition deteriorates, certain non-pharmacological interventions will become less realistic (eg. exercise). Energy conservation and restoration will become of utmost importance. Ensure that appropriate supports are in place to assist with activities of daily living and that nursing care is available as needed.

Drowsiness may increase as the end of life approaches due to disease progression (and/or medications.) Some patients and families may even prefer increased sleepiness if the patient remains comfortable.

Conservative Kidney Management Acronym Legend

Acronym:	Intended Meaning:
ATC	Around the Clock
BID	Twice Daily
CKD	Chronic Kidney Disease
CKM	Conservative Kidney Management
COPD	Chronic Obstructive Pulmonary Disease
CO2	Carbon Dioxide
EOL	End of Life
ESA	Erythropoietin Stimulating Agent
ESKD	End Stage Kidney Disease
GFR	Glomerular Filtration Rate
GI	Gastrointestinal
g/L	Grams per litre
HgB	Hemoglobin
IN	Intranasal
IU	International Units
IV	Intravenous
kg	Kilogram
mcg	Microgram
mg	Milligram
mL	Millilitre

Acronym:	Intended Meaning:
mmol/L	Millimoles per Litre
OTC	Over the Counter
PO	By Mouth
PRN	As Needed
NSAID	Non-steroidal Anti-inflammatory Drugs
q(1-8)d	Every (Time Eg, 2) Days
q(1-8)h	Every (Time Eg, 4) Hours
q(1-8)weeks	Every (Time Eg. 2) Weeks
QHS	At Bedtime
RLS	Restless Leg Syndrome
SC	Subcutaneous
SL	Sublingual
SNRI	Serotonin and Norepinephrine Reuptake Inhibitors
SSRI	Selective Serotonin Reuptake Inhibitors
TCA	Tricyclic Antidepressant
TID	Three Times a Day
>	Greater Than
≥	Greater Than or Equal To
<	Less Than
≤	Less Than or Equal To