



# B.C. INTER-PROFESSIONAL PALLIATIVE SYMPTOM MANAGEMENT GUIDELINES

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# FATIGUE

## DEFINITION

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**Fatigue** or “**asthenia**”<sup>1, 2</sup> is a subjective symptom, ranging from tiredness to exhaustion, that is out of proportion to recent activity.<sup>3-5</sup> It occurs as a result of disease, emotional state and/or treatment, and may be acute or chronic. Major features<sup>5</sup> include: easy tiring and reduced capacity for activity; generalized weakness; and impaired concentration, with memory loss and emotional lability.

## PREVALENCE

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Fatigue is the most frequent and debilitating symptom in advanced cancer (60-90%)<sup>5</sup> and advanced chronic illness (75-99%).<sup>6-8</sup>

## IMPACT

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Fatigue is expected in disease progression and is part of the normal clinical changes that occur approaching end of life.<sup>6</sup> It interferes with function and impacts all aspects of well-being and quality of life, leading to economic consequences and significant distress for both patient and family.<sup>6, 7, 9-13</sup> Education and anticipatory guidance is essential to support patient and family self-management with coping abilities and to enable them to set realistic goals and expectations.<sup>8</sup>

## STANDARD OF CARE

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### Step 1 | Goals of care conversation

Determine goals of care in conversation with the patient, family and inter-disciplinary team. Refer to additional resources ([Additional resources for management of fatigue](#)) for tools to guide conversations and required documentation. Goals of care may change over time and need to be reconsidered at times of transition, e.g., disease progression or transfer to another care setting.

## Step 2 | Assessment

### Fatigue Assessment: Using Mnemonic O, P, Q, R, S, T, U and V<sup>60</sup>

<b>Mnemonic Letter</b>	<b>Assessment Questions</b> <i>Whenever possible, ask the patient directly. Involve family as appropriate and desired by the patient.</i>
<b>O</b> nset	When did you start to feel fatigued? How long does it last? How often does it occur?
<b>P</b> rovoking / <b>P</b> alliating	What brings it on? What makes it better? What makes it worse?
<b>Q</b> uality	What does it feel like? Can you describe it?
<b>R</b> egion/ <b>R</b> adiation	Not applicable
<b>S</b> everity	How severe is this symptom? What would you rate it on a scale of 0-10 (0 being none and 10 being the worst possible)? Right now? At worst? On average? How bothered are you by this symptom?
<b>T</b> reatment	What medications and treatments are you currently using? Are you using any non-prescription treatments, herbal remedies, or traditional healing practices? How effective are these? Do you have any side effects from the medications and treatments? What have you tried in the past? Do you have concerns about side effects or cost of treatments?
<b>U</b> nderstanding	What do you believe is causing this symptom? How is it affecting you and/or your family? What is most concerning to you? How is this affecting your emotional, spiritual and social health? Have you had to change any of your daily activities? Does it impact your ability to work? Enjoy hobbies? Exercise? Visit with family and friends? Are there any other symptom(s) that accompany this symptom (e.g., shortness of breath)?
<b>V</b> alues	What overall goals do we need to keep in mind as we manage this symptom? What is your acceptable level for this symptom (0-10)? Are there any beliefs, views or feelings about this symptom that are important to you and your family?

## **Symptom Assessment:** Physical assessment as appropriate for symptom

A comprehensive history with careful systems review including sleep and psychiatric history, detailed physical examination, and review of prescribed and over the counter medication use, to identify side-effects and possible drug-drug interactions that may be reversible is of importance.<sup>2</sup> Identified underlying conditions and contributing factors should be assessed for reversibility and optimized, as appropriate, recognizing patient condition, preferences and goals of care.<sup>8</sup>

## **Diagnostics:** consider goals of care before ordering diagnostic testing

- Diagnostic tests may include hemoglobin, WBC, serum sodium, potassium, calcium, magnesium, blood glucose, serum urea, creatinine, liver enzymes, triiodothyronine, thyroxine, drug levels (phenytoin, digoxin),<sup>49, 50</sup> and urinalysis, as UTI can be common cause in frail patients.

## **Step 3 | Determine possible causes and reverse as possible if in keeping with goals of care (For more details, see [Underlying causes of fatigue in palliative care](#))**

Fatigue usually has multiple causes<sup>10,49-56</sup> and may be related to underlying disease, treatments, or a variety of reversible and non-reversible factors. Symptom problems, psychosocial factors and mood disturbances, such as depression and anxiety,<sup>57, 58</sup> may all disrupt sleep and/or contribute to fatigue.

## PRINCIPLES OF MANAGEMENT

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When considering a management approach, always balance burden of a possible intervention against the likely benefit (e.g., does the intervention require transfer to another care setting?)

- Focus on identifying and optimizing underlying conditions and somatic causes<sup>1, 2, 14</sup>
- For mild fatigue (1-3/10), provide patient and family education on methods of energy conservation, and counselling to support self-management and coping. Encourage moderate physical activity to preserve muscle function.<sup>10</sup>
- For moderate fatigue (4-6/10), refer to Physiotherapy and Occupational Therapy to support comfort & safety in activities. Include pharmacological, and non-pharmacological approaches, as appropriate.
- For severe fatigue (7-10/10), provide counselling and anticipatory guidance to support coping and realistic expectations.
- Multidisciplinary team involvement is beneficial to support psychosocial, emotional and spiritual concerns.<sup>6, 8, 11</sup>
- For patients who are near end of life, re-direct focus from physical function to other enjoyable activities. Eg. Massage, music
- Encourage the patient and family to prioritize meaningful activities, and to give themselves permission to take a less active role in housework, etc.

## Step 4 | Interventions





### LEGEND FOR USE OF BULLETS

Bullets are used to identify the type or strength of recommendation that is being made, based on a review of available evidence, using a modified GRADE process.

	<b>Use with confidence:</b> recommendations are supported by moderate to high levels of empirical evidence.
	<b>Use if benefits outweigh potential harm:</b> recommendations are supported by clinical practice experience, anecdotal, observational or case study evidence providing low level empirical evidence.
	<b>Use with caution:</b> Evidence for recommendations is conflicting or insufficient, requiring further study
	<b>Not recommended:</b> high level empirical evidence of no benefit or potential harm





### Non-pharmacological Interventions

#### Interventions available in the home and residential care facilities



-  **Physical activity or exercise** - Maintains independence, physical function, well-being, self-esteem and energy, in patients who are able.<sup>5, 6, 32-34</sup> Moderate benefit for cancer-related fatigue.
-  **Moderate activity** helps maintain strength, performance and well-being in advanced cancer patients, but no change to fatigue.<sup>5, 36</sup>
-  limited evidence in palliative care patients.<sup>5, 33, 35</sup> Tailor activity to patient status.
-  **Patient education and cognitive behavioural therapy** improves sleep and fatigue in patients with advanced-stage cancer; helpful for patients and families.<sup>5, 6, 37</sup>

*Non-pharmacological interventions continued on [next page](#)*




## Non-pharmacological Interventions *continued*

-  **Cognitive restructuring** to change dysfunctional beliefs, such as catastrophizing or feeling helpless with respect to fatigue.<sup>41-43</sup>
-  **Multidisciplinary team involvement** supports psychosocial, emotional, spiritual and cultural concerns.<sup>6, 11</sup>
-  **Physiotherapy** improves physical wellbeing, fatigue, depression, and overall quality of life, functional mobility, anxiety, stress, and depression.<sup>36, 38-40</sup> Helps with de-conditioning<sup>5</sup> in earlier stages. Passive range of motion exercises maintain flexibility and reduce painful tendon retraction in the immobile patients.<sup>5</sup>
-  **Occupational therapy** provides education/physical review to simplify tasks and conserve energy; recommends equipment to support safe transfers, mobility and self-care; and prevents further muscle atrophy, tendon retraction, and pressure ulcers.<sup>5</sup>


## Alternative and complementary therapy

-  Mind-body techniques, music and art therapy, and spiritual practices.
-  Massage has a beneficial effect on patient's experience of fatigue.<sup>6</sup>

## Interventions requiring additional equipment or admission to acute care

-  **Transfusion of packed red blood cells** benefits severe anemia (hemoglobin <8g/dL). Improves patient fatigue, dyspnea and well-being for 15 days.<sup>5, 6</sup> Consider patient status, goals and preferences. Short term benefit but risk of harm increases with multiple transfusions.
-  **Acupuncture** - benefits cancer-related fatigue and quality of life.<sup>5, 44</sup>
-  Little evidence for acupuncture effect on fatigue in the palliative, chronic disease population.

## Not recommended

-  **Parenteral Hydration.**<sup>45</sup> Benefit for fatigue uncertain, safety is not assured and may necessitate transfer from desired location.



## Pharmacological interventions

### Corticosteroids

- ✔ Monitor closely for drug interactions and adverse effects. Dose varies with indication. Short term use of dexamethasone.<sup>15</sup> Most commonly used at 2-4mg/d.<sup>59</sup>
- ✔ Methylprednisolone, 16 mg twice daily for one week; although very rarely used PO, also significantly improved fatigue.<sup>16</sup>
- ☰ Limit duration of treatment for fatigue. No benefit shown beyond 7 to 15 days. Adverse effects increase with longer treatment<sup>16, 17</sup> and higher doses. Give earlier in day to reduce insomnia. Physicians believe to be effective, but evidence is inconsistent.<sup>15, 17, 18</sup>

### Methylphenidate

- ☰ Consider use if fatigue due to **opioids** or **depression**.<sup>19</sup> Although lack of evidence, an individual trial could be appropriate, with monitoring for response and adverse effects.<sup>20</sup>
- ☰ Start with 5 mg daily (2.5 mg for elderly), increasing to twice daily: morning and at noon. Second dose given no later than 14:00 to minimize night-time insomnia. A favourable response occurs within one to a few days.<sup>21-23</sup> If no response, discontinue.
- ☰ Adverse effects of agitation, restlessness, tachycardia, delirium, confusion and insomnia; limit dose patient tolerability and willingness to continue use.<sup>24</sup>
- ☰ Intolerable adverse effects occurred within 7 days in one-third of cancer patients, most on 5 mg daily.<sup>22</sup> Note: Relative contraindication: pre-existing arrhythmia (e.g., AFib).

*Pharmacological interventions continued on [next page](#)*

## Pharmacological Interventions *continued*

### Modafinil

- Benefit shown in cancer-related fatigue, but **ONLY** for those with severe fatigue  $\geq 7/10$  on the Brief Fatigue Inventory (BFI).<sup>25, 26</sup> Minimal toxicities shown.<sup>26</sup>
- Not recommend use for mild or moderate fatigue.

### Melatonin

- No benefit in palliative patients with advanced cancer, 20 mg/day<sup>27</sup>
- Advanced breast cancer patients showed potential for improving circadian disruption resulting in improved sleep, quality of life, and fatigue, on 5 mg nightly<sup>28</sup>

### Not recommended

- Erythropoiesis stimulating agents**<sup>29-31</sup> due to serious increased health risks and high cost.





## Patient and family education

Education and counselling empowers patients and their family/caregivers to cope more effectively with fatigue<sup>1,5,10</sup> and supports their ability to develop realistic expectations.<sup>8</sup>

- Provide information on symptoms and expected disease progression to reduce feelings of anxiety and guilt related to patient's fatigue.
- Encourage exercise as appropriate to capability.
- Instruct on fatigue self-care through energy conservation and activity management.
- Balance activity and rest: too much rest may increase fatigue. Exercise as able.
- Request medication/dose changes in those that may be causing loss of energy.

*Patient and family education continued on [next page](#)*

## Patient and family education *continued*

-  Prepare patient and family to anticipate increasing need for activity assistance.
-  Encourage use of energy restoration strategies. This includes relaxation and pursuit of patient preferred enjoyable activities, e.g., music, massage, etc.
-  Direct focus away from fatiguing physical functions and towards other enjoyable activities.<sup>6</sup> This helps transition understanding and acceptance.
-  Provide supportive, goal-tailored information about the dying process.

## ADDITIONAL RESOURCES FOR MANAGEMENT OF FATIGUE

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### Resources specific to Fatigue

- BC Guidelines: Fatigue and weakness
  - [http://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/palliative2\\_fatigue.pdf](http://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/palliative2_fatigue.pdf)
- BC's Heart Failure Network: Fatigue
  - <http://www.bcheartfailure.ca/wp-content/uploads/downloads/2015/01/Fatigue-Jan-2015.pdf>

### General Resources

- **Provincial Palliative Care Line** – for **physician** advice or support, call **1 877 711-5757** In ongoing partnership with the Doctors of BC, the toll-free Provincial Palliative Care Consultation Phone Line is staffed by Vancouver Home Hospice Palliative Care physicians 24 hours per day, 7 days per week to assist physicians in B.C. with advice about symptom management, psychosocial issues, or difficult end-of-life decision making.
- BC Centre for Palliative Care: Serious Illness Conversation Guide
  - <http://www.bc-cpc.ca/cpc/>

*Additional resources for management of fatigue continued on [next page](#)*

## ADDITIONAL RESOURCES FOR MANAGEMENT OF FATIGUE *CONTINUED*

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- BC Guidelines: Palliative Care for the Patient with Incurable Cancer or Advanced Disease
  - <http://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/bc-guidelines/palliative-care>
- BC Palliative Care Benefits: Information for prescribers
  - <http://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/pharmacare/prescribers/plan-p-bc-palliative-care-benefits-program>
- National Centre for Complementary and Alternative Medicine (NCCAM) for additional information on the use of non-pharmacological interventions
  - <https://nccih.nih.gov/>
- Canadian Association of Psychosocial Oncology: Pan-Canadian Practice Guideline: Screening, Assessment and Management of Psychosocial Distress, Depression and Anxiety in Adults with Cancer
  - [http://www.capo.ca/wp-content/uploads/2015/11/FINAL\\_Distress\\_Guideline1.pdf](http://www.capo.ca/wp-content/uploads/2015/11/FINAL_Distress_Guideline1.pdf)
- Fraser Health psychosocial care guideline
  - <https://www.fraserhealth.ca/media/psychosocial%20care.pdf>

### Resources specific to health organization/region

- Fraser Health
  - <http://www.fraserhealth.ca/health-professionals/professional-resources/hospice-palliative-care/>
- First Nations Health Authority
  - <http://www.fnha.ca/>
- Interior Health
  - <https://www.interiorhealth.ca/YourCare/PalliativeCare/Pages/default.aspx>
- Island Health
  - [http://www.viha.ca/pal\\_eol/](http://www.viha.ca/pal_eol/)
- Northern Health
  - <https://www.northernhealth.ca/Professionals/PalliativeCareEndofLifeCare.aspx>

*Additional resources for management of fatigue continued on [next page](#)*

## ADDITIONAL RESOURCES FOR MANAGEMENT OF FATIGUE *CONTINUED*

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- Providence Health
  - <http://hpc.providencehealthcare.org/>
- Vancouver Coastal Health
  - <http://www.vch.ca/your-care/home-community-care/care-options/hospice-palliative-care>

### Resources specific to patient population

- ALS Society of Canada: A Guide to ALS patient care for primary care physicians
  - <https://als.ca/wp-content/uploads/2017/02/A-Guide-to-ALS-Patient-Care-For-Primary-Care-Physicians-English.pdf>
- ALS Society of British Columbia 1-800-708-3228
  - [www.alsbc.ca](http://www.alsbc.ca)
- BC Cancer Agency: Symptom management guidelines
  - <http://www.bccancer.bc.ca/health-professionals/clinical-resources/nursing/symptom-management>
- BC Renal Agency: Conservative care pathway and symptom management
  - <http://www.bcrenalagency.ca/health-professionals/clinical-resources/palliative-care>
- BC's Heart Failure Network: Clinical practice guidelines for heart failure symptom management
  - <http://www.bcheartfailure.ca/for-bc-healthcare-providers/end-of-life-tools/>
- Canuck Place Children's Hospice
  - <https://www.canuckplace.org/resources/for-health-professionals/>
    - 24 hr line – 1.877.882.2288
    - Page a Pediatric Palliative care physician – 1-604-875-2161 (request palliative physician on call)
- Together for short lives: Basic symptom control in pediatric palliative care
  - [http://www.togetherforshortlives.org.uk/professionals/resources/2434/basic\\_symptom\\_control\\_in\\_paediatric\\_palliative\\_care\\_free\\_download](http://www.togetherforshortlives.org.uk/professionals/resources/2434/basic_symptom_control_in_paediatric_palliative_care_free_download)

## UNDERLYING CAUSES OF FATIGUE IN PALLIATIVE CARE<sup>1, 2, 10, 14</sup>

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- Advanced aging-Frailty
- Anemia
- Anorexia - cachexia
- Autonomic dysfunction
- Bleeding
- Cancer: tumor, host-derived factors, cytokines
- Cardiac disease (CHF)
- Central nervous system (CNS) abnormalities
- Deconditioning (bed rest/immobility)
- Dementia (end-stage)
- Dehydration
- Endocrine disorders
- Electrolyte imbalances (hypercalcemia, hyponatremia, etc)
- Gastro-intestinal symptoms (nausea, vomiting, diarrhea, constipation)
- HIV-AIDS (end-stage)
- Hypoxemia
- Infection
- Other symptoms (dyspnea, pain, drowsiness, depression)
- Over-exertion
- Liver Failure (end-stage)
- Medications – monitor regularly
- Metabolic disorders
- Muscle abnormalities
- Neuro-muscular Diseases (ALS, MS)
- Nutritional deficiencies
- Para-neoplastic neurological syndromes
- Psychological issues
- Renal Failure (end-stage)
- Respiratory disease (copd, ild)
- Side-effects of Treatment
- Sleep disorders (insomnia)
- Unrelieved symptoms (pain, dyspnea, N/V, delirium, etc)

## MEDICATIONS FOR MANAGEMENT OF FATIGUE

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**Medication details for fatigue are included in the body of the guideline**

Prices for prescription drugs may be obtained from BC PharmaCare. The British Columbia Palliative Care Benefits Plan <http://www2.gov.bc.ca/assets/gov/health/health-drug-coverage/pharmacare/palliative-formulary.pdf> provides province wide drug coverage for many of the recommended medications– check website to confirm coverage. **Consider price when choosing similarly beneficial medications, especially when the patient / family is covering the cost.**

## FATIGUE MANAGEMENT ALGORITHM

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No management algorithm included in this document.

## FATIGUE EXTRA RESOURCES OR ASSESSMENT TOOLS

### Brief Fatigue Inventory

- <https://www.mdanderson.org/research/departments-labs-institutes/departments-divisions/symptom-research/symptom-assessment-tools/brief-fatigue-inventory.html>
- <http://www.rehabmeasures.org/Lists/RehabMeasures/DispForm.aspx?ID=1190>

### Edmonton Symptom Assessment System-revised (ESASr)<sup>46</sup>

- <http://palliative.org/NewPC/professionals/tools/esas.html>
- [http://palliative.org/NewPC/\\_pdfs/tools/ESAS-r.pdf](http://palliative.org/NewPC/_pdfs/tools/ESAS-r.pdf)

### European Cooperative Oncology Group Criteria (ECOG) Performance Status

- <http://ecog-acrin.org/resources/ecog-performance-status>

### Functional Assessment of Chronic Illness Tool-Fatigue (FACIT-F)<sup>47,48</sup>

- <http://qol.thoracic.org/sections/instruments/fj/pages/fact-f.html>
- <http://www.facit.org/FACITOrg/Questionnaires>

### Palliative Performance Scale (PPSv2)

- [http://www.victoriahospice.org/sites/default/files/pps\\_english.pdf](http://www.victoriahospice.org/sites/default/files/pps_english.pdf)



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