

## Remote Symptom Practice Guides for Adults on Cancer Treatments

# Of the Pan-Canadian Oncology Symptom Triage and Remote Support (COSTaRS) Team

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#### Disclaimer

These COSTaRS Remote Symptom Practice Guides for Adults on Cancer Treatments are intended for use by trained nurses. They provide general guidance on appropriate practice informed using a synthesis of clinical practice guidelines and their use is subject to the nurses' judgment in each patients' individual situation. The COSTaRS Remote Symptom Practice Guides for Adults on Cancer Treatments are designed to provide information to assist decision-making and are not meant to be prescriptive. Individuals who use these practice guides are required to make their own determination regarding specific safe and appropriate clinical practices. While care has been taken to ensure that these practice guides reflect the state of general knowledge and expert consensus about practice in the field at the date of publication, neither the COSTaRS Steering Committee nor the Canadian Partnership Against Cancer who funded the original project make any warranty or guarantee in respect to any of the content or information contained in these practice guides. Neither group accept responsibility or liability whatsoever for any errors or omissions in these practice guides, regardless of whether those errors or omissions were made negligently or otherwise.

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#### **Overview and Practice Guide Development**

Management of cancer treatment-related symptoms is an important safety issue given that symptoms can become life-threatening and often occur when patients are at home. Over 50% of cancer nurses in Canada provide remote support, primarily by telephone.<sup>1,2</sup> Despite that higher quality telephone services require use of symptom practice guides to minimize risk, access to symptom practice guides and their use is variable.<sup>1,2</sup> With funding from the Canadian Partnership Against Cancer, in 2008 we established a pan-Canadian Steering Committee with representation from eight provinces to develop practice guides for specific common symptoms.

The practice guides were developed using a systematic process guided by CAN-IMPLEMENT<sup>©,3-5</sup>

- 1. We convened a pan-Canadian Oncology Symptom Triage and Remote Support (COSTaRS) Steering Committee including researchers, an information systems researcher, library scientist, advanced practice nurses, and nurse leaders.
- 2. We conducted a systematic review for *each symptom* to identify clinical practice guideline(s) published in the previous 5 years. Two identified guidelines (fatigue, anxiety/depression) were developed by pan-Canadian panels using rigorous processes.<sup>6,7</sup> Guidelines are syntheses of the best available evidence and are designed to support decision making in practice and health policy.<sup>8</sup> However, identified clinical practice guidelines were not adequate for remote symptom support.
- 3. We developed 13 symptom practice guides based on the available clinical practice guidelines (median 3 guidelines per practice guide; range 1 to 7). In total, we identified > 40 practice guidelines and their quality was appraised using the AGREE instrument (range 8% to 87%).<sup>9</sup> Higher rigour scores indicate higher confidence that potential biases in guideline development were addressed, and recommendations are valid (both internally and externally) and feasible for practice.<sup>10</sup> Principles for developing the symptom practice guides included:
  - Meeting the criteria on the AGREE rigour sub-scale items (e.g. explicit recommendations, linked to evidence, based on systematic review, reviewed by experts).
  - Adding relevant questions from the valid and reliable Edmonton Symptom Assessment System (ESAS); a widely used screening instrument for routinely identifying symptoms in cancer patients seen in Canadian programs.<sup>11,12</sup>
  - Enhancing usability for remote symptom support and with the potential to integrate into an electronic health record.
  - Using plain language to facilitate communication between nurses using the practice guides and patients/families (Flesch–Kincaid Grade Level 6.4).

Each symptom practice guide has five recommendations for the nurse: a) assess symptom severity; b) triage patient for symptom management based on highest severity; c) review medications being used for the symptom; d) review self-care strategies (presented using motivational interviewing techniques):<sup>13</sup> and e) summarize and document the plan agreed upon with the patient.

- 4. We tested the practice guide usability with cancer nurses and revealed that they: are easy to read; provide just the right amount of information; use appropriate terms; are likely to fit with clinical work flow; and have excellent self-care strategies.
- 5. We circulated the 13 practice guides for review by cancer experts across Canada. They validated the content of the practice guides and identified the need for local adaptation to integrate the practice guides with their current approaches for handling remote symptom assessments.
- 6. In March 2013, practice guides were updated with evidence from systematic reviews to identify guidelines published up until the end of December 2012. We circulated the 13 updated practice guides for review by the COSTaRS committee members.
- 7. In January 2016, with funding from the Canadian Cancer Society (#703679), the 13 symptom practice guides were updated with evidence from systematic reviews to identify guidelines published up to August 2015. As well, new practice guides for pain and sleep changes were added. AGREE Rigour Scores for source guidelines were removed given inconsistent reporting.

Evidence ratings were changed to indicate how well the medications work (e.g. effective, likely effective, or expert opinion). The 15 practice guides were reviewed by the current COSTaRS committee members and a summary of changes for the 2016 update are available at http://www.canadianoncologynursingjournal.com/index.php/conj/article/view/764.

8. In January 2020, the 15 symptom practice guides were updated with evidence using systematic review methods described previously and new practice guides for Mouth Dryness/Xerostomia and Skin Rash were added. At the COSTaRS priority setting meeting in 2017, adding evidence for patients receiving Immune Checkpoint Inhibitor therapy into the practice guides was identified as high priority given the increased use of immunotherapy and the special considerations required for managing treatment related symptoms. Key assessment and self-care items for patients receiving immunotherapy were added. End-users asked how severity assessment correlated with the NCI-CTCAE grading that they use in their assessments, clinical documentation and communications with physicians therefore NCI-CTCAE grading has been linked to applicable assessment questions in the practice guides.

In summary, we have developed 17 user-friendly remote symptom practice guides based on a <u>synthesis of the best available evidence</u>, validated the practice guides with oncology nurses, and used plain language to facilitate use with patients. Now they are available to be used in routine remote support practices.

References:

- (1) Stacey D, Bakker D, Green E, Zanchetta M, Conlon M. Ambulatory oncology nursing telephone services: A provincial survey. *Canadian Oncology Nursing Journal* 2007;17(4):1-5.
- (2) Macartney G, Stacey D, Carley M, Harrison M. Priorities, Barriers and Facilitators for Remote Support of Cancer Symptoms: A Survey of Canadian Oncology Nurses. *Canadian Oncology Nursing Journal* 2012;22(4):235-240. Priorités, obstacles et facilitateurs concernant le traitement à distance des symptômes du cancer: enquête après des infirmières en oncologie du Canada. P 241-47.
- (3) Harrison MB, Legare F, Graham ID, Fervers B. Adapting clinical practice guidelines to local context and assessing barriers to their use. *Canadian Medical Association Journal* 2010;182(2):E78-E84.
- (4) Harrison MB, van den Hoek J, for the Canadian Guideline Adaptation Study Group. CAN-IMPLEMENT©: A Guideline Adaptation and Implementation Planning Resource. Kingston, Ontario: Queen's University School of Nursing and Canadian Partnership Against Cancer; 2012.
- (5) Stacey D, Macartney G, Carley M, Harrison MB, COSTaRS. Development and evaluation of evidenceinformed clinical nursing protocols for remote assessment, triage and support of cancer treatment-induced symptoms. *Nurs Res Pract* 2013;2013:171872.
- (6) Howell D, Currie S, Mayo S et al. A Pan-Canadian Clinical Practice Guideline: Assessment of Psychosocial Health Care Needs of the Adult Cancer Patient. Toronto: Canadian Partnership Against Cancer (Cancer Journey Action Group) and the Canadian Association of Psychosocial Oncology; 2009.
- (7) Howell D, Keller-Olaman S, Oliver TK et al. A Pan-Canadian Practice Guideline: Screening, Assessment and Care of Cancer-Related Fatigue in Adults with Cancer. Toronto: Canadian Partnership Against Cancer (Cancer Journey Advisory Group) and the Canadian Association of Psychosocial Oncology; 2011.
- (8) Gagliardi AR, Brouwers MC, Palda VA, Lemieux-Charles L, Grimshaw JM. How can we improve guideline use? A conceptual framework of implementability. *Implementation Science* 2011;6(26):1-11.
- (9) The AGREE Collaboration. Appraisal of Guidelines for Research & Evaluation (AGREE) Instrument. www.agreecollaboration.org; 2001.
- (10) Brouwers M, Kho ME, Browman GP et al. Development of the AGREE II, part 2: assessment of validity of items and tools to support application. *Canadian Medical Association Journal* 2010;182(10):E472-E478.
- (11) Barbera L, Seow H, Howell D et al. Symptom burden and performance status in a population-based cohort of ambulatory cancer patients. *Cancer* 2010;116(24):5767-5776.
- (12) Nekolaichuk C, Watanabe S, Beaumont C. The Edmonton Symptom Assessment System: a 15-year retrospective review of validation studies (1991-2006). *Palliative Medicine* 2008;22(2):111-122.
- (13) Miller WR, Rollnick S. *Motivational interviewing: Preparing people for change (2nd ed.)*. New York: Guilford Press; 2002.

## **Example General Assessment Form**

Practice Guides for the Remote Assessment, Triage, and Self-care of Symptoms in Adults Undergoing Cancer Treatment

Date and time o	f encounter		Type of encounter (phone/in-person)				
Type of Cancer	s)		Primary Oncologis	st			
Other practition	ers (most responsible) _						
1. Which syn	nptom(s)						
<ul> <li>Anxiety</li> <li>Appetite Los</li> <li>Bleeding</li> <li>Breathlessn</li> <li>Constipation</li> </ul>	□ Fatigue/Tired ess □ Febrile Neutro	openia	Peripheral Neur	ing	<ul> <li>□ Skin Reaction to radiation</li> <li>□ Sleep changes</li> <li>□ Other:</li> </ul>		
	out your symptom(s voking factors, Quality, Ra				ms, Timing, Triggers, Location)		
Receiving ca	eneral symptom ass ancer treatment: ion: Site of radiation						
					or		
□ Other	systemic therapy (e.g. a	antiestrogen, n	nonoclonal antibodie	es, targeted			
□ Surge	ry:						
Date of I	ast treatment(s)						
Length of tin	ne since symptom starte	ed?					
New sympto	m? םי	Yes □No □U	Insure				
• •	m could occur? □						
Other sympt	oms? 🛛	Yes □No If	Yes, specify				
Recent expo	sure to known virus/flu	? □Yes □No	o ⊡Unsure If Yes,	specify			
4. Assess cui Medicatic		ions, herbs, Dose Prese			ame, dose, current use) s prescribed/Last dose if		
				□Yes □I □Yes □I			
				□Yes □I	No /		
Are any mee	lications new or are the	re recent chan	ges? □Yes □No	If Yes, spe	ecify:		

#### 5. See relevant symptom practice guide(s) for further assessment, triage and self-care.

## **Anxiety Practice Guide**

Anxiety: an emotional or physiologic response to known or unknown causes that ranges from a normal reaction to extreme dysfunction. It may impact on decision making, adherence to treatment, functioning, or quality of life; nervousness; concern; feeling of worry; apprehension.<sup>1-3</sup>

### 1. Assess severity of the anxiety (Supporting evidence: 10 guidelines)<sup>1-10</sup>

Tell me what number from 0 to 10 best describes how anxious you are feeling (0= "no anxiety"; 10= "worst possible anxiety") <sup>1,3,4,11</sup>	1 – 3		4 - 6		7 - 10	
Are you having panic attacks: □ periods/spells of sudden fear, □ discomfort, □ intense worry, □ uneasiness? <sup>1-4</sup>	No		Yes, some		Yes, many	
Does your anxiety affect your daily activities? <sup>1-4,12</sup>	Not at all <sup>G1</sup>		Yes, some <sup>G2</sup>		Yes, a lot <sup>G≥3</sup>	
Does your anxiety affect your sleep? <sup>1-4</sup>	Not at all		Yes, some		Yes, a lot	
Do any of these apply to you? <sup>1-4</sup> □ Female, □ Waiting for test results, □ Financial problems, □ History of anxiety or depression, □ Younger age (<30), □ Lack of social support, □ Alcohol/ substance use/withdrawal, □ Not exercising, □ Dependent children □ Recurrent/advanced disease, □ On steroids, □ Recently completed treatment	No		Yes, some		Yes, many	
Do have any concerns that are making you feel more anxious: <sup>1-4</sup> □ life events, □ new information about cancer/treatment, □ spiritual/ religious concerns?	No		Yes, some			
Do you have any other symptoms? <sup>1-4</sup> □ Fatigue, □ Breathlessness, □ Pain, □ Sleep changes	None		Some		Yes, many	
<ul> <li>→ Do you have (signs of hyperthyroidism):<sup>5-10</sup></li> <li>□ weight loss, □ heart pounding or racing,</li> <li>□ tremors, □ feeling overheated, □ diarrhea</li> </ul>	No				Yes	
Have you had recurring thoughts of dying, trying to kill yourself or harming yourself or others? <sup>1,3,4</sup>	No				Yes	
	1 Mil (Gree		2 Modera (Yellow		3 Severe (Red)	
2. Triage patient for symptom management based on highest severity (Supporting evidence: 4 guidelines) <sup>1-4</sup>	□ Review self- care □ Verify medications		<ul> <li>Review self-care</li> <li>Verify medications</li> <li>Advise to notify if symptom worsens, new symptoms occur, or no improvement in 1-2 days</li> </ul>		<ul> <li>☐ If potential for harm, refer for further evaluation immediately</li> <li>☐ If no, refer for non-urgent medical attention</li> <li>☐ Review self-care.</li> <li>☐ Verify medications</li> <li>☐ Alert clinician if on immunotherapy</li> </ul>	

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

# 3. Review medications patient is using for anxiety, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 4 guidelines)<sup>1-4</sup>

Current use	Examples of medications for anxiety*	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	Benzodiazepines - lorazepam (Ativan <sup>®</sup> ), diazepam, (Valium <sup>®</sup> ), alprazolam (Xanax <sup>®</sup> ) <sup>1-4</sup>		Likely effective
	SSRIs - fluoxetine (Prozac <sup>®</sup> ), sertraline (Zoloft <sup>®</sup> ), paroxetine (Paxil <sup>®</sup> ), citalopram (Celexa <sup>®</sup> ), fluvoxamine (Luvox <sup>®</sup> ), escitalopram (Lexapro <sup>®</sup> ) <sup>1,3,4</sup>		Expert opinion

\*Use of medications should be based on severity of anxiety and potential for interaction with other medications.<sup>1,4</sup> Benzodiazepines are intended for short term use. Caution: may cause confusion, ataxia and falls in the elderly.<sup>1,4</sup>

#### 4. Review 3 or more self-care strategies (Supporting evidence: 5 guidelines)<sup>1-4,13</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1.			What is your goal for managing when you feel anxious?
2. 🗆			What helps when you feel anxious? Reinforce as appropriate. Specify:
3. 🗆			Have you shared your concerns and worries with your health provider? <sup>2-4</sup>
4. 🗆			What are you doing for <b>physical activity</b> including yoga? <sup>1-3</sup>
5. 🗆			Do you participate in any <b>support groups</b> and/or have <b>family/friends you can rely on</b> for support? <sup>1-4</sup>
6. 🗆			Have you tried <b>relaxation therapy</b> , yoga, breathing techniques, listening to music, guided imagery? <sup>1-4,13</sup>
7. 🗆			Have you tried massage therapy with or without aromatherapy? <sup>1-3</sup>
8. 🗆			Have you tried a program such as <b>cognitive-behavioural therapy</b> , mindfulness- based stress reduction, or received personal counseling that provides more in- depth guidance on managing anxiety and problem solving? <sup>1-4</sup>
9. 🗆			If your concerns are spiritual or religious in nature, have you tried spiritual counseling, meaning-focused meditation, prayer, worship, or other <b>spiritual activities</b> ? <sup>2,3</sup>
10. 🗆			Would <b>more information about your symptoms, cancer or your treatment</b> help to ease your worries? If yes, provide relevant information or suggest resources. <sup>1-4</sup>

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

	No change, continue with self-c	o change, continue with self-care strategies and if appropriate, medication use					
	Patient agrees to try self-care it	ems #:					
	How confident are you that you	How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?					
	Patient agrees to use medicatio	n to be consistent with prescribed regimen					
	Specify:	Specify:					
	Referral (service & date):	Referral (service & date):					
	Patient agrees to seek medical	attention; specify time frame:					
	Advise to call back in 1-2 days if no improvement, symptom worsens, or new symptoms occur						
Nam	e S	ignature	Date				

**References:** 1) Howell 2015; 2) ONS 2017; 3) NCCN 2018; 4) Butow 2015; 5) Puzanov 2017; 6) Hryniewicki 2018; 7) BCCA 2017; 8) Brahmer 2018; 9) CCO 2018; 10) Haanen 2017; 11) Watanabe 2011; 12) NIH-NCI CTCAE 2017; 13) Bradt 2016 (see pages 40-48 for full references)

## **Appetite Loss Practice Guide**

Anorexia: An involuntary loss of appetite;<sup>1-3</sup> being without hunger.

### 1. Assess severity of the appetite loss (Supporting evidence: 8 guidelines)<sup>1-8</sup>

Tell me what number from 0 to 10 best describes your appetite (0= "best appetite" and 10= "Worst possible lack of appetite") <sup>2-4,9</sup>	1-3		4-6		7-10	
Are you worried about your lack of appetite? <sup>1-4</sup>	No/Some		Yes, very			
How much have you eaten in the past 24 hours (e.g. at each meal) $?^{24,10}$	Less than normal <sup>G1</sup>		Much less than normal <sup>G2</sup>		Not eating at all <sup>G≥3</sup>	
Have you lost weight in the last 4 weeks without trying? <sup>1-4</sup> Amount:	0-2.9%		3-9.9%		≥10%	
How much fluid are you drinking per day? <sup>2,3</sup>	6-8 glasses		1-5 glasses		Sips	
Are you feeling dehydrated, which can include feeling dizzy, a dry mouth, increased thirst, feeling faint, rapid heart rate, decreased amount of urine? <sup>2-4,10</sup>	No <sup>G0</sup>		Yes, some <sup>G1</sup>		Yes, a lot <sup>G≥2</sup>	
Is there anything causing your lack of appetite: <sup>1-4</sup> □ Recent surgery/treatment, □ New medication, □ Other	No		Yes, some		Yes, many	
Do you have any other symptoms? <sup>1-4</sup> □ Sore mouth, □ Early fullness, □ Taste/smell changes, □ Nausea/ vomiting, □ Swallowing problems, □ Pain, □ Constipation, □ Diarrhea, □ Fatigue, □ Depression, □ Breathlessness	None		Some		Yes, many	
<ul> <li>→ Do you have (signs of endocrine toxicity):<sup>5-8</sup></li> <li>□ fatigue, □ headache, □ eyes sensitive to</li> <li>light, □ confusion, □ dry skin, □ hair loss, □</li> <li>puffy face, □ constipation, □ nausea, □ fever</li> </ul>	No				Yes	
→ Do you have (signs of renal toxicity): <sup>8</sup> □ decreased urine, □ blood in urine, □ swelling of hands or legs	No				Yes	
Does your poor appetite affect your daily activities? <sup>1-4</sup>	No		Yes, some		Yes, a lot	
	1 Mild (Gree		2 Moderat (Yellow)		3 Severe (Red)	•
2. Triage patient for symptom management based on highest severity (Supporting evidence: 2 guidelines) <sup>2,3</sup>	□ Review set care □ Verify medications	lf-	<ul> <li>Review self- care</li> <li>Verify medications</li> <li>Advise to not if symptom worsens, new symptoms occu or no improvem</li> </ul>	r,	<ul> <li>☐ If severe loss o appetite is stabiliz review self-care strategies</li> <li>☐ If severe loss o appetite is new re for medical attenti immediately.</li> <li>☐ Alert clinician if</li> </ul>	ed, f fer on
		0	in 1-2 days.		immunotherapy.	

Legend: → Immune Checkpoint Inhibitor therapy; NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

# 3. Review medications patient is using for appetite loss, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 4 guidelines)<sup>1-4</sup>

Current use	Examples of medications for appetite*	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	Megestrol (Megace <sup>®</sup> ) <sup>1-4</sup>	prosonody	Effective
	Megestroi (Megace)		Ellective
	Corticosteroids - dexamethasone (Decadron <sup>®</sup> ), prednisone <sup>1-4</sup>		Effective
	Omega 3 fatty acids (EPA, Fish Oil) <sup>3,4</sup>		Expert Opinion
	Prokinetics (metoclopramide, domperidone) for early satiety and nausea <sup>2-4</sup>		Expert Opinion

\* Megestrol has potential for serious side effects such as blood clot.<sup>4</sup> Corticosteroids offer short-lived benefit; long-term use is associated with significant toxicities.<sup>1,3,4</sup> Cannabis/Cannabinoids are not recommended.<sup>1,3,4</sup>

## 4. Review 3 or more self-care strategies (Supporting evidence: 4 guidelines)<sup>1-4</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1.			What is your <b>goal</b> for improving your appetite? <sup>2,3</sup>
2. 🗆			What helps when you feel like you are not hungry? <sup>2,3</sup> Reinforce as appropriate.
3. 🗆			Are you trying to <b>eat 5-6 small meals</b> ? <sup>2-4</sup> Sitting upright for 30-60 min helps digestion. <sup>3</sup>
4. □			If food odours bother you, have you tried <b>eating foods that are cold, with less odour</b> , or avoiding being in the kitchen during meal preparation? <sup>3</sup>
5. 🗆			Are you trying to eat more when you feel most hungry? <sup>3</sup>
6. 🗆			Are you trying to eat foods that are higher in protein and calories? <sup>2-4</sup>
7. 🗆			Do you have <b>beliefs</b> about certain foods (e.g. cultural or think some foods cause cancer) or <b>pre-existing diet</b> (e.g. diabetes) that may affect your eating habits? <sup>1-4</sup>
8. 🗆			Are you able to <b>obtain groceries and prepare meals</b> (access to food, financial resources)? If not, suggest buying convenience foods or asking friends/family for help. <sup>2,3</sup>
9. 🗆			Are you drinking higher energy and protein drinks (Ensure, Glucerna)? <sup>1-4</sup>
10. 🗆			Are you <b>staying</b> as <b>active</b> as possible? <sup>2-4</sup> (e.g. walking 15-20 minutes 1-2x/day; 30-60 minutes 3-5x/week)
11. 🗆			Do you have a <b>diary</b> to track your food, fluid intake and weight? <sup>2-4</sup>
12. 🗆			If your food intake has been very low for a long time, are you slowly increasing your intake over several days (to prevent refeeding syndrome)? <sup>3,4</sup>
13. 🗆			Have you spoken with a dietitian? <sup>1-4</sup> If you are having taste changes, they can suggest ways to help lessen your symptoms.
14. 🗆			Would <b>more information</b> about your symptoms help you to manage them better? <sup>2,3</sup> If yes, provide appropriate information or suggest resources.

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

	No change, continue with s	o change, continue with self-care strategies and if appropriate, medication use					
	Patient agrees to try self-ca	Patient agrees to try self-care items #:					
	How confident are you that	How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?					
	Patient agrees to use medication to be consistent with prescribed regimen. Specify:						
	Referral (service & date):						
	Patient agrees to seek medical attention; specify time frame:						
	Advise to call back in 1-2 days if no improvement, symptom worsens, or new symptoms occur						
Name		Signature	Date				

**References:** 1) ONS 2017; 2) CCO 2012; 3) BCCA 2014; 4) Arends 2017; 5) CCO 2018; 6) Haanen 2017; 7) NCCN 2018; 8) Puzanov 2017; 9) Watanabe 2011; 10) NIH-NCI CTCAE 2017 (see pages 40-48 for full references)

## **Bleeding Practice Guide**

Bleeding: Loss of blood, bruising or petechiae that may be the result of a reduction in the quantity or functional quality of platelets, wound or ulcer, an alteration of clotting factors, a paraneoplastic syndrome, or a combination of these.<sup>1</sup>

### 1. Assess severity of the bleeding (Supporting evidence: 9 guidelines)<sup>1-9</sup>

Where are you bleeding from?<sup>1,2</sup>

How much blood loss? <sup>1,2</sup>	Minor (e.g. 1 tsp)		Some (e.g. 1 tbsp)		Gross (e.g. ¼ cup)		
Are you worried about your bleedin	g <sup>2</sup>	No/Some		Yes, very			
Do you have any new bruises? <sup>1</sup>	Do you have any new bruises? <sup>1</sup>					Generalized	
Bruising or bleeding more easi normal? <sup>3</sup>	ly than	No				Yes	
Have you had problems with blood >10-15min)? <sup>1-6</sup>	clotting (e.g. □Unsure	No				Yes	
Do you have a fever > 38° C? <sup>3-6,8,9</sup>	□Unsure	No				Yes	
Do you have any blood in your: stool or is it black/tarry? <sup>1-9</sup> urine? <sup>1-3</sup> vomit or does it look like coffee g phlegm/sputum when you cough nose and mouth? <sup>3</sup> other	No				Yes		
If you are having menstrual periods an increase bleeding? <sup>1,2</sup>	has there been	No		Yes, some		Yes, a lot	
→ Do you have (signs of hematolo effects): □ weak, □ pale, □ yellow	skin/eyes <sup>3-6</sup>	No				Yes	
Do you know what your last platele <sup>3,5,7</sup> Date:	t count was? <sup>1-</sup> □Unsure	≥ 100		20-99		< 20	
→ Results of your last liver function blood test? <sup>3-8</sup>	AST/ALT: Total bilirubin:	≤ 3x ULN ≤1.5x ULN		>3-5x ULN 1.5-3x ULN		> 5x ULN > 3x ULN	
Are you taking medicines that incre bleeding? <sup>2</sup> (e.g., NSAIDs, acetylsal warfarin, heparin, dalteparin, tinzap enoxaparin, herbal). If warfarin: do last INR blood count <sup>1,2</sup> Date:	iscylic acid, arin, apixaban	No		Yes, acetylsalicylic acid		Yes, other blood thinners	
		1 Mile (Gree		2 Modera (Yellow		3 Seve (Red	
2. Triage patient for symp management based on hig severity (Supporting evidence: 8	ghest	□ Review se care □ Verify medications	elf-	<ul> <li>Review self-c.</li> <li>Verify medications</li> <li>Advise to noti if symptom worsens, new symptoms occur or no improveme in 12-24 hours.</li> </ul>	fy ·,	<ul> <li>Refer for medical attent immediately.</li> <li>Alert clinicia on immunotherap</li> </ul>	an if

Legend: → Immune Checkpoint Inhibitor therapy

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

## 3. Review medications/treatment patient is using for bleeding, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 9 guidelines)<sup>1,3-10</sup>

Current use	Examples of medications for bleeding	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	Platelet transfusion for thrombocytopenia <sup>1,3-5,10</sup>		Effective
	Mesna oral or IV to prevent cystitis with bleeding <sup>1,2</sup>		Likely effective
	Tranexamic acid (Cyklokapron <sup>®</sup> ) <sup>1</sup>		Likely effective
	Pantoprazole IV (Panto IV <sup>®</sup> ) for GI bleeding <sup>2</sup>		Expert opinion
	Octreotide IV (Sandostatin <sup>®</sup> ) for GI bleeding <sup>2</sup>		Expert opinion
	->- Corticosteroids/prednisone <sup>3-9</sup>		Expert opinion
	→ Factor replacement for acquired hemophilia <sup>3</sup>		Expert opinion
	→ Eculizumab for hemolytic uremic syndrome <sup>3</sup>		Expert opinion

**Legend:** → Immune Checkpoint Inhibitor therapy

#### 4. Review 3 or more self-care strategies (Supporting evidence: 3 guidelines)<sup>1-3</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1. 🗆			Are you trying to apply direct <b>pressure for 10-15 minutes</b> when the bleeding occurs? <sup>1</sup>
2. 🗆			Are you trying to use <b>ice packs</b> ? <sup>1</sup>
3. 🗆			If you have a dressing, is there bleeding when it is changed? If yes, do you try to <b>minimize how often the dressing is done</b> , and use saline to help remove the dressing? <sup>1</sup>
4. 🗆			Are you using any <b>special dressings</b> to control bleeding of a wound (e.g. non- stick gauze, medicated dressing, packing)? <sup>1</sup>
5. 🗆			Have you spoken with a pharmacist or clinician about <b>medications</b> you are taking that <b>may affect bleeding</b> ? <sup>1-3</sup>
6. 🗆			Would <b>more information</b> about your symptoms help you to manage them better? If yes, provide appropriate information or suggest resources. <sup>1</sup>

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

Nar	ne	Signature	Date			
	Advise to call back in 12-24 hours if no improvement, symptom worsens, or new symptoms occur					
	Patient agrees to seek medical attention; specify time frame:					
	Referral (service & date):					
	Patient agrees to use medication to be consistent with prescribed regimen Specify:					
	Patient agrees to try self-care items #: How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?					
	No change, continue with self-care strategies and if appropriate, medication use					

**References:** 1) ONS 2019; 2) CCNS 2014; 3) Brahmer 2018; 4) CCO 2018; 5) Puzanov 2017; 6) Hryniewicki 2018; 7) Haanen 2017; 8) NCCN 2018; 9) BCCA 2017; 10)Estcourt 2012 (see pages 40-48 for full references)

### **Breathlessness/Dyspnea Practice Guide**

Breathlessness/Dyspnea: A subjective experience described as breathing discomfort of varying intensities (e.g. hard to breathe, feeling smothered, tightness in chest, unable to catch breath, panting, gasping.<sup>1-3</sup>

#### 1. Assess severity of the breathlessness (Supporting evidence: 13 guidelines)<sup>1-13</sup>

What number from 0 to 10 best describes your shortness of breath (0= "no shortness of breath"; 10= "Worst possible shortness of breath"? <sup>2,3,14</sup>	1-3		4-6		7-10	
Are you worried about your shortness of breath? <sup>1-3</sup>	No/Some		Yes, very			
Do you pause while talking every 5-15 seconds? <sup>2,3</sup>	No				Yes	
Is your breathing noisy, rattily or congested? <sup>2,3</sup>	No				Yes	
Do you have a new cough or wheezing? <sup>3-5,7</sup>	No		Yes (dry)		Yes (wet)	
→ Do you have (signs of pneumonitis): cough,						
wheezing, chest pain, fever, fatigue <sup>1,8-13</sup>	No				Yes	
Do you wake suddenly short of breath? <sup>2,3,5,7</sup>	No				Yes	
Do you have a fever > $38^{\circ}$ C? <sup>2,3</sup>	No				Yes	
Do you know your last red blood cell count? <sup>3,15</sup>	≥100 <sup>G1</sup>		80-99 <sup>G2</sup>		<80 <sup>G3</sup>	
Do you have new pale skin or bluish colour in your nail beds? <sup>2,3</sup>	No				Yes	
Do you have chest pain? <sup>2,3</sup>	No				Yes	
♥ Does it go away with: □ Rest or □ Medication? <sup>4</sup>	Yes				No	
What activity level are you short of breath? <sup>2,3,5-7,15</sup>	Moderate <sup>G1</sup>		Mild <sup>G2</sup>		At rest <sup>G≥3</sup>	
Do you have any other symptoms? <sup>1-4,7</sup> □ Fatigue, □ Anxiety, □ Depression, □ Pain	No		Yes, some		Yes, many	
♥ Have you gained or lost weight in the last week? <sup>3-7</sup> □ Unsure	No		≥4lbs in 2 days; 5lbs in 1 week		≥5lbs in 2 days	
Have you raised the head of your bed or increased the number of pillows you need to sleep? <sup>3-5,7</sup>	No		Yes		Need to sleep in a chair	
Do you have swelling in your hands, ankles, feet, legs or stomach? <sup>3-5,7</sup>	No		Yes, some		Yes, a lot	
Do you have a fast heartbeat that does not slow down when you rest? <sup>3-5,7</sup>	No				Yes	
→ Do you have (signs of cardiovascular toxicity): □ irregular heartbeat (e.g. too hard or too fast, skipping a beat, fluttering), □ fatigue <sup>8,10,11</sup>	No				Yes	
Does your shortness of breath affect your daily activities? <sup>3,4</sup>	No		Yes, some		Yes, a lot	
	Milc 1 (Green		2 Moderat (Yellow)	e	3 Seve (Red)	
2. Triage for symptom management based on highest severity (Supporting evidence: 9 guidelines) <sup>2-4,8-13</sup>	<ul> <li>Review se care</li> <li>Verify medications</li> </ul>	lf-	<ul> <li>Review self-c.</li> <li>Verify medications</li> <li>Advise to noti symptom worser new symptoms occur, or no improvement in 24 hours.</li> </ul>	fy if າຣ,	<ul> <li>Refer for medical attention immediately.</li> <li>Alert clinici if on immunotheral</li> </ul>	

Legend: → Immune Checkpoint Inhibitor therapy; VCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3+

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

## 3. Review medications for shortness of breath, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 14 guidelines)<sup>1-6,8-13,16,17</sup>

oountor	, and/or norbal supplemente (suppling e	vidence. It guidennes/	
Current	Examples of medications for shortness of breath*	Notes (e.g. dose, suggest	Evidence
use		to use as prescribed)	
	Immediate-release oral or parenteral opioids <sup>1-3,5</sup>		Effective
	Non-invasive ventilation (CPAP mask) <sup>1,2</sup>		Likely effective
	Oxygen for hypoxic patients <sup>2,3</sup>		Expert Opinion
	Bronchodilators <sup>3</sup>		Expert Opinion
	♥ Diuretics <sup>3-6,16,17</sup>		Effective
	♥ Nitrates <sup>16,17</sup>		Benefits Balanced with Harm
	Corticosteroids, infliximab, mycophenolate mofetil, or cyclophosphamide for pneumonitis <sup>8-13</sup>		Expert Opinion

\*Palliative oxygen is not recommended;<sup>1,3,5,6,17</sup>Other medications may be prescribed for heart failure<sup>4-7,16-18</sup>

#### 4. Review 3 or more self-care strategies (Supporting evidence: 8 guidelines)<sup>1-7,16</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1.			What is your comfort <b>goal</b> or acceptable level for this symptom? <sup>1-3</sup>
2. 🗆			What helps when you are short of breath? <sup>2,3</sup> Reinforce as appropriate. Specify:
3. 🗆			Have you tried a <b>fan, open window</b> , or humidifier to increase air flow to your face? <sup>2,3</sup>
4. 🗆			Have you tried to <b>turn down the temperature</b> in your house? <sup>1-3</sup>
5. 🗆			Are you trying to rest in <b>upright positions</b> that can help you breath? <sup>1-3</sup>
6. 🗆			Are you trying different <b>relaxation</b> and <b>breathing exercises</b> (e.g. pursed lip breathing)? <sup>1-3</sup>
7. 🗆			Are you trying to conserve your energy (e.g. balance activity with rest) or <b>use assistive devices</b> (e.g. wheelchair) to help with activities that cause your shortness of breath? <sup>1-3</sup>
8. 🗆			When breathing is stable, have you tried <b>physical activity</b> (e.g. walking 15-30 min) at least twice a week? <sup>2-4,7,16</sup>
9. 🗆			If you have difficulty eating, are you taking <b>nutrition supplements</b> <sup>1</sup>
10. 🛛			♥ Do you weigh yourself daily (after waking & voiding, before dressing and eating)? <sup>3-7</sup>
11. 🗆			♥ Have you tried <b>limiting your salt intake</b> to under 1/2 tsp (< 2000mg) per day? <sup>4,6,7,16</sup>
12. 🗆			♥ Are you trying to drink fluids, 6-8 glasses per day? <sup>4,6,7,16</sup>
13. 🛛			♥ If you drink >1-2 alcohol drinks/day, have you tried to reduce to 1 drink/day? <sup>4,5,7,16</sup>
14. 🗆			If you smoke, have you tried to stop? <sup>3-5,7,16</sup>
15. 🗆			Have you tried a program such as <b>cognitive behavioural therapy</b> (relaxation therapy, guided imagery) or <b>supportive counselling</b> ? <sup>1-3</sup>
16. 🗆			Would <b>more information about your symptoms</b> help you to manage them better? If yes, provide appropriate information or suggest resources. <sup>1,2</sup>

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

	No change, continue with self-care strategies and if appropriate, medication use					
	Patient agrees to try self-care items #:					
	How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?					
	Patient agrees to use medication to be consistent with prescribed regimen. Specify:					
	Referral (service & date):					
	Patient agrees to seek medical attention; specify time frame:					
	Advise to call back in 12-24 hours if no improvement, symptom worsens, or new symptoms occur					
Nam	e Signature Date					

**References:** 1) ONS 2017; 2) CCO 2010; 3) BCCA 2014; 4) BC Guidelines 2015; 5) SIGN 2016; 6) ACCF/AHA 2013; 7) ESC 2016; 8) Brahmer 2018; 9) NCCN 2018; 10) Puzanov 2017; 11) Haanen 2017; 12) Hryniewicki; 13) CCO 2018; 14) Watanabe 2011; 15) NCI-CTCAE 2017; 16) CCS 2012; 17) NHF 2011; 18) ACC/AHA/HFSA 2016 (see pages 40-48 for full references)

## **Constipation Practice Guide**

Constipation: A decrease in the frequency or passage of stool usually characterized by stools that are hard.<sup>1-3</sup>

### **1. Assess severity of the constipation** (Supporting evidence: 9 guidelines)<sup>1-9</sup>

Are you worried about your constipation <sup>2,3</sup>	No/Some		Yes, very			
How many days has it been since you had a	≤ 2 days		≥3 days		≥3 days on	
bowel movement (compared to normal)? <sup>1-3</sup>		_	_0 ddy0	_	meds	
How would you describe your stools (colour,					Blood in	
hardness, odour, amount, blood, straining)? <sup>1-3</sup>	NI-	-	N	-	stool	
Do you have hemorrhoids? <sup>2,3</sup>	No		Yes		<u> </u>	
Do you have any pain in your abdomen? <sup>1-3</sup>	No/Mild 0-3		Moderate 4-6		Severe 7-10	
Do you have loss of bladder or bowel control,						
numbness in your fingers, toes or buttocks, feel unsteady on your feet, or difficulty walking? <sup>1-3</sup>	No				Yes	
Does your abdomen feel bloated? <sup>1-3</sup> Unsure	No		Yes, some		Yes, a lot	
Do you have lots of gas? <sup>2,3</sup>	No		Yes			
Does it feel like your rectum is not emptying after						
a bowel movement, or diarrhea (possible overflow around blocked stool) <sup>1-3</sup>	No		Yes			
Have you recently had abdominal surgery? <sup>1,3</sup>	No				Yes	
Do you have a fever > $38^{\circ}$ C? <sup>3</sup> Unsure	No				Yes	
Are you feeling dehydrated, which can include feeling dizzy, a dry mouth, increased thirst, feeling faint, rapid heart rate, decreased amount of urine? <sup>1-3</sup>	No		Yes, some		Yes, a lot	
Do you have any other symptoms? <sup>1-3</sup> □ Appetite loss, □ Nausea/vomiting	No		Yes, some		Yes, many	
<ul> <li>→ Do you have (signs of hypothyroidism):<sup>4-6,8,9</sup></li> <li>□ weight gain, □ fatigue, □ depression,</li> <li>□ feeling cold, □ headaches, □ deeper voice,</li> <li>□ hair loss</li> </ul>	No				Yes	
→ Do you have (signs of autonomic neuropathy): <sup>5</sup> □ nausea, □ urinary problems, □ sweating changes	No				Yes	
Are you taking medications that cause constipation? <sup>1-3</sup>	No		Yes			
Does your constipation affect your daily activities? <sup>2,3,10</sup>	No <sup>G1</sup>		Yes, some <sup>G2</sup>		Yes, a lot <sup>G≥3</sup>	
	1 Mil (Gre		2 Moderat (Yellow)		3 Seve (Rec	
2. Triage patient for symptom management based on highest severity (Supporting evidence: 1 guideline) <sup>3</sup>	or symptom d on highest		<ul> <li>Review self-care</li> <li>Verify medicatio</li> <li>Advise to notify</li> <li>symptom worsens,</li> <li>new symptoms occording</li> <li>or no improvement</li> <li>12-24 hours</li> </ul>	ns if cur,	<ul> <li>Refer for medical attention immediately</li> <li>Alert clinician if on immunotherapy</li> </ul>	

Legend: → Immune Checkpoint Inhibitor therapy; NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

# 3. Review medications patient is using for constipation, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 3 guidelines)<sup>1-3</sup>

Current use	Examples of medications for constipation*	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	Oral sennosides (Senokot®) <sup>1-3</sup>		Likely effective
	Polyethylene glycol (PEG; RestoraLAX <sup>®</sup> , Lax-a-day <sup>®</sup> ) <sup>1-3</sup>		Likely effective
	Bisacodyl (Dulcolax®) and/or lactulose <sup>2,3</sup>		Expert Opinion
	Suppositories** (Dulcolax®/bisacodyl, glycerin) or Enema <sup>2,3</sup>		Expert Opinion
	Picosulfate sodium-magnesium oxide-citric acid <sup>2</sup>		Expert Opinion
	Methylnaltrexone injection for opioid as cause <sup>1-3</sup>		Effective
	Sorbitol <sup>2,3</sup>		Expert Opinion
	Amidotrizoate (Gastrografin <sup>®</sup> ) if laxative resistant/advanced cancer <sup>1</sup>		Likely effective

\*If opioid-induced constipation, fentanyl and oxycodone+naloxone have less constipation;<sup>1,3</sup> Docusate sodium (Colace®) was removed due to lack of evidence for its efficacy; Avoid non-sterilized corn syrup (can be a source of infection) and castor oil (can cause severe cramping)<sup>1</sup> \*\*Verify blood count before using suppositories.

### 4. Review 3 or more self-care strategies (Supporting evidence: 3 guidelines)<sup>1-3</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies				
1.			What is your <b>goal</b> for managing your constipation? <sup>2,3</sup>				
2. 🗆			What helps when you are constipated? <sup>2,3</sup> Reinforce a				
3. 🗆			What is your normal <b>bowel routine?</b> <sup>1-3</sup> Reinforce as a				
4. □			Are you trying to use the toilet 30-60 minutes after m				
5. 🗆			Are you trying to <b>drink fluids, 6-8</b> glasses per day, es fluids? <sup>1-3</sup> Are you trying to limit your intake of caffeine				
6. 🗆			Have you <b>slowly increased the fiber</b> in your diet to 2 if adequate fluid intake (1500ml/24 hrs) and physical a				
7. 🗆			Do you eat fruit that are laxatives? (pitted dates, pru				
8. 🗆			Are you <b>staying as active</b> as possible? (e.g. walking 15-20 minutes 1-2x/day; 30-60 minutes 3-5x/week) <sup>2,3</sup>				
9. 🗆			Do you have easy access to a <b>private toilet</b> or bedside commode? <sup>1-3</sup> If possible, it is best to avoid a bedpan. <sup>1</sup>				
10. 🗆			If you have a low neutrophil count are you <b>avoiding re</b> suppositories, enemas? <sup>1-3</sup>	If you have a low neutrophil count are you <b>avoiding rectal exams</b> , suppositories, enemas? <sup>1-3</sup>			
11. 🗆			Have you spoken with a clinician or pharmacist or diet constipation? <sup>1-3</sup>	itian about the			
12. 🗆			Would <b>more information</b> about your symptoms help y better? If yes, provide appropriate information or sugg				
5. Sun □			cument plan agreed upon with patient (che with self-care strategies and if appropriate, medication	ck all that apply)			
			self-care items #: ou that you can try what you agreed to do (0=not confide	ent, 10=very confident)?			
	Patient agr	ees to us	e medication to be consistent with prescribed regimen.	Specify:			
	Referral (se	ervice & d	ate):				
	Patient agr	ees to se	ek medical attention; specify time frame:				
	Advise to c	all back ir	n 12-24 hours if no improvement, symptom worsens, or	new symptoms occur			
Name			Signature	Date			

**References:** 1) ONS 2017; 2) CCO 2012; 3) BCCA 2014; 4) Puzanov 2017; 5) Brahmer 2018; 6) Hryniewicki 2018; 7) NCCN 2018; 8) BCCA 2017; 9) CCO 2018; 10) Watanabe 2011; 11) NCI-CTCAE 2017 (see pages 40-48 for full references)

### **Depression Practice Guide**

Depression: a range of feelings and emotions from normal sadness to chronic, depressed emotional affect, feelings of despair, irritable mood, hopelessness.<sup>1,2</sup>

#### 1. Assess severity of the depression (Supporting evidence: 8 guidelines)<sup>1-8</sup>

Are you currently receiving professional care for depression?<sup>4</sup> DYes DNo Specify:\_\_\_\_\_

5,		· · · <u>· · · · · · · · · · · · · · · · </u>			_
What number from 0 to 10 best describes how depressed you are feeling where 0="no depression" and 10="worst possible depression" <sup>2-6,9</sup>	1-3	4-6		7-10	
Have you felt depressed or had a loss of pleasure for 2 weeks or longer? <sup>1-5</sup>	No	Yes, off/on		Yes, constant	
Do you feel down or depressed most of the day? <sup>4</sup>	No	Yes, off/on		Yes, every day	
Have you experienced any of the following for $\ge 2$ weeks: $\Box$ feeling worthless, $\Box$ sleeping too little or too much, $\Box$ feeling guilty, $\Box$ weight gain or weight loss $\Box$ unable to think or concentrate? <sup>1-3,5</sup>	No	Yes, some		Yes, a lot	
Does feeling depressed affect your daily activities? <sup>1-6,10</sup>	No <sup>G1</sup>	Yes, some <sup>G2</sup>		Yes, a lot <sup>G≥3</sup>	
Have you felt tired or fatigued? <sup>1-3,5</sup> (ESAS-r fatigue rating)	No, 1-3	Yes, 4-6		Yes, 7-10	
Have you felt agitated (may include twitching or pacing), confused, or slowing down of your thoughts? <sup>1-3,5</sup>	No	Yes, some		Yes, often	
Do any of these apply to you? □ younger age (< 30), □ female, □ lack of social support, □ prior depression, □ financial problems, □ prior abuse, □ alcohol/ substance use/withdrawal, □ dependent children, □ chronic/ advanced disease, □ recently completed treatment? <sup>1-6</sup>	None	Yes, some		Yes, a lot	
Do have any concerns that are making you feel more depressed: <sup>1-6</sup> $\Box$ life events, $\Box$ new information about cancer/treatment, $\Box$ spiritual/ religious concerns?	No	Yes, some			
Do you have any other symptoms? <sup>1-5</sup> □ Fatigue, □ Pain, □ Sleep changes, □ Anxiety	None	Some		Yes, many	
<ul> <li>→Do you have (signs of hyperthyroidism):</li> <li>□ weight loss, □ heart pounding or racing,</li> <li>□ tremors, □ feeling overheated, □ diarrhea<sup>7,8</sup></li> </ul>	No			Yes	
Have you had recurring thoughts of dying, trying to kill yourself or harming yourself or others? <sup>1-6</sup>	No			Yes	
	1 Mi (Gre	2 Moder (Yellow		3 Severa (Red)	9
2. Triage patient for symptom management based on highest severity (Supporting evidence: 6 guidelines) <sup>1-6</sup>	□ Review s care □ Verify medications	<ul> <li>Review self- care</li> <li>Verify medications</li> <li>Advise to no if symptom worsens, new symptoms occu or no improvement in 2 days</li> </ul>	tify ur,	<ul> <li>If potential for harm, refer for further evaluation immediately</li> <li>If no, refer for non-urgent medic attention</li> <li>Review self-ca</li> <li>Verify medications</li> <li>Alert clinician i</li> </ul>	cal ire f
				on immunotherap	у

Legend: → Immune Checkpoint Inhibitor therapy; NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

# 3. Review medications patient is using for depression, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 5 guidelines)<sup>1-3,5,6</sup>

Current use	Examples of medications for depression*	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	SSRIs - fluoxetine (Prozac <sup>®</sup> ), sertraline (Zoloft <sup>®</sup> ), paroxetine (Paxil <sup>®</sup> ), citalopram (Celexa <sup>®</sup> ), fluvoxamine (Luvox <sup>®</sup> ), escitalopram (Lexapro <sup>®</sup> ) <sup>1-3,5,6</sup>		Effective
	Tricyclic antidepressants - amitriptyline (Elavil <sup>®</sup> ), imipramine (Tofranil <sup>®</sup> ), desipramine (Norpramin <sup>®</sup> ), nortriptyline (Pamelor <sup>®</sup> ), doxepin (Sinequan <sup>®</sup> ) <sup>1,2,5,6</sup>		Effective
	SNRIs - venlafaxine (Effexor XR <sup>®</sup> ), duloxetine (Cymbalta <sup>®</sup> ) <sup>1</sup>		Effective
	Psychostimulants - methylphenidate (Ritalin <sup>®</sup> ) <sup>1,2</sup>		Effective
	Other antidepressants - bupropion (Wellbutrin <sup>®</sup> ), trazodone (Mylan <sup>®</sup> ), mirtazapine (Remeron <sup>®</sup> ), Mianserina (Tolvon <sup>®</sup> ) <sup>1</sup>		Effective

\*Antidepressant medication is effective for major depression but use depends on side effect profiles of medications and the potential for interaction with other medications.<sup>1-3,5,6</sup>

#### 4. Review 3 or more self-care strategies (Supporting evidence: 6 guidelines)<sup>1-6</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1.			What is your <b>goal</b> for feeling less depressed?
2. 🗆			What helps when you feel depressed? Reinforce as appropriate. Specify:
3. 🗆			What are you doing for <b>physical activity</b> ? <sup>2-4,6</sup>
4. □			Do you feel you have <b>enough help at home</b> and with getting to appointments/treatments (transportation, financial assistance, medications)? <sup>2-4,6</sup>
5. □			Do you take part in any <b>support groups</b> and/or have <b>family/friends</b> you can rely on for support? <sup>1-6</sup>
6. 🗆			Have you tried <b>relaxation therapy</b> or guided imagery, <sup>1-3,5</sup> or <b>creative therapies</b> (e.g. art, dance, music)? <sup>2,3</sup>
7. 🗆			Have you tried a program such as <b>cognitive-behavioural therapy</b> , mindfulness- based stress reduction or received personal or couple counseling that provides more in-depth guidance on managing depression? <sup>1-6</sup>
8. 🗆			If your concerns are spiritual or religious in nature, have you tried spiritual counseling, meaning-focused meditation, prayer, worship, or other <b>spiritual activities</b> ? <sup>2</sup>
9. 🗆			Are you agreeable to a referral to a mental health professional for further help? <sup>1-6</sup>
10. 🗆			Would more <b>information about your symptoms, cancer or your treatment</b> help to ease your worries? If yes, provide relevant information or suggest resources. <sup>1-6</sup>

## 5. Summarize and document plan agreed upon with patient (check all that apply)

	No change, continue with self-care strategies and if appropriate, medication use					
	How confident are you that y	How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?				
	Patient agrees to use medication to be consistent with prescribed regimen					
	Specify:					
	Referral (service & date):					
	Patient agrees to seek medical attention; specify time frame:					
	Advise to call back in 1-2 days if no improvement, symptom worsens, or new symptoms occur					
Name						

**References:** 1) ONS 2019; 2) NCCN 2018; 3) Howell 2015; 4) CCO 2019; 5) Butow 2015; 6) Li 2016; 7) Puzanov 2017; 8) Hryniewicki 2018; 9) Watanabe 2011; 10) NIH-NCI CTCAE 2017 (see pages 40-48 for full references)

## **Diarrhea Practice Guide**

Diarrhea: An abnormal increase in stool liquidity and frequency over baseline which may be accompanied by abdominal cramping.<sup>1-5</sup>

#### **1. Assess severity of the diarrhea** (Supporting evidence: 15 guidelines)<sup>1-15</sup>

Have you been tested for c-difficile?<sup>1,2,4,7-12,14,15</sup> □Yes □No □Unsure Results\_\_\_\_\_

		0				
Tell me what number from 0 to 10 best describes your diarrhea (0="no diarrhea"; 10="worst possible diarrhea") <sup>16</sup>	1-3		4-6		7-10	
Are you worried about your diarrhea? <sup>2,3</sup>	No/Some		Yes, very			<u> </u>
How many extra bowel movements are you having per day above normal for you? <sup>1-3,5,11,14,17</sup>	< 4 <sup>G1</sup>		4-6 <sup>G2</sup>		≥ 7 <sup>≥G3</sup>	
Ostomy: increase in output above normal? <sup>2,3,5,11,17</sup> → Bowel movements/day above normal? <sup>6-10,12,15,17</sup> → Ostomy: increase in output above normal? <sup>8</sup> → Diarrhea overnight or new incontinence? <sup>6-8,10,15</sup>	Small No		Moderate < 4 <sup>G1</sup> Small		Large ≥ $4^{\geq G2}$ ≥ Moderate Yes	
How would you describe your stools (colour, hardness, odour, amount, oily, blood, mucus, straining)? <sup>1-3,5,11</sup>					Blood in stool	
→ Blood or mucus in stool? <sup>6-10,12,15</sup>	No				Yes	
Do you have a fever > 38° C? <sup>1-3,7-12,14,15</sup> □Unsure	No				Yes	
Do you have pain in your abdomen or rectum with or without cramping or bloating? <sup>1-3,11</sup>	No		Yes, some		Yes, a lot	
→ Pain in abdomen, cramping, bloating? <sup>6-10,12,13,15</sup>	No				Yes	
How much fluid are you drinking per day? <sup>2</sup>	6-8 glasses		1-5 glasses		Sips	
Are you feeling dehydrated, which can include feeling dizzy, a dry mouth, increased thirst, feeling faint, rapid heart rate, decreased amount of urine? <sup>1-3,6-8,10,11,14</sup>	No		Yes, some		Yes, a lot	
Does your diarrhea affect your daily activities? <sup>3,5,6,8,9,11,15</sup>	No		Yes, some		Yes, a lot	
Do you have any other symptoms? <sup>1-3,11</sup> □ Appetite Loss □ Fatigue □ Nausea/vomiting □ Mouth sores	No		Some		Yes, many	
→ New severe fatigue, headache, rash, cough, nausea, breathlessness, weight loss, vision changes, eye pain, muscle weakness, joint pains, or mood changes? <sup>8-10</sup>	No				Yes E	
Are you on medicines that increase risk of diarrhea (e.g. laxatives)? <sup>2,3,11,14</sup>	No		Yes			
Any recent travel or contact with others with diarrhea? <sup>2,4,11</sup>	No		Yes			
Do you have any rectal or ostomy skin breakdown? <sup>2,3,11</sup>	No		Yes			
	1 Mil (Gree		2 Moderate (Yellow)		3 Seve	
2. Triage patient for symptom management based on highest severity (Supporting evidence: 13 guidelines) <sup>1-</sup> <sup>3,5-12,14,15</sup>	age patient for symptom gement based on highest rity (Supporting evidence: 13 guidelines) <sup>1-</sup>		<ul> <li>Refer for medical attention immediately.</li> <li>Alert clinic if on immunothera</li> </ul>	ian		
	1		1			

Legend: → Immune Checkpoint Inhibitor therapy; NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

# 3. Review medications patient is using for diarrhea, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 14 guidelines)<sup>1-13,18</sup>

Current use	Examples of medications for diarrhea*	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	First line treatment: Loperamide (Imodium <sup>®</sup> ) <sup>1-5,11,14,18</sup>		Likely effective
	Octreotide (Sandostatin <sup>®</sup> ) for chemo-induced <sup>1-5,11,18</sup>		Likely effective
	Psyllium fibre for radiation-induced (Metamucil <sup>®</sup> ) <sup>1,4</sup>		Likely effective
	Atropine-diphenoxylate (Lomotil <sup>®</sup> ) <sup>2-4</sup>		Expert opinion
	Corticosteroid cream if rectal skin irritated <sup>3</sup>		Expert opinion
	→ Loperamide (Imodium <sup>®</sup> ) for moderate diarrhea <sup>6,7,9-13,15</sup>		Expert opinion
	→ Corticosteroids/prednisone <sup>6-13,15</sup> , Infliximab, <sup>6-10,12,13,15</sup> Vedolizumab <sup>8-10,12</sup> or Budesonide <sup>10,11</sup> for severe diarrhea		Expert opinion
	118		2

→ Immune Checkpoint Inhibitor. \*For radiation induced diarrhea, sucralfate<sup>1,18</sup> and oral antibiotics are generally not recommended.<sup>2</sup>

### 4. Review 3 or more self-care strategies (Supporting evidence: 11 guidelines)<sup>1-4,7-12,14</sup>

Patient already uses		Patient agreed to try	Self-care strategies
1.			What is your <b>goal</b> for managing diarrhea? <sup>3</sup>
2. 🗆			What helps when you have diarrhea? <sup>2,3</sup> Reinforce as appropriate. Specify:
3. 🗖			Are you trying to drink fluids, 6-8 glasses per day?
4. □			Are you trying to <b>replace electrolytes</b> (e.g. potassium and salt)? <sup>1-4,7,10,11,14</sup> Suggest: bananas, potatoes, sports drinks, oral rehydration (1/2 tsp salt, 6 tsp sugar, 4C water)
5. 🗆			Do you know what <b>kinds of foods</b> to <b>eat</b> ? <sup>1-3,7,8,14</sup> Suggest: applesauce, oatmeal, bananas, barley, cooked carrots, rice, white toast, plain pasta, well cooked eggs, skinned poultry, mashed potatoes, fruit without skin (high in soluble fiber, low in insoluble fiber)
6. 🗆			Do you know <b>what to avoid</b> ? <sup>1-4,7,8,10-12,14</sup> Suggest: greasy/fried and spicy foods, alcohol, <2-3 servings caffeine, excess fruit juice or sweetened fruit drinks, raw vegetables, whole grain bread, nuts, popcorn, skins, seeds, legumes, very hot or cold foods/fluids, sorbitol in sugar-free candy, lactose-containing products (milk, yoghurt, cheese).
7. 🗆			Are you trying to eat 5-6 small meals? <sup>1-3,11</sup>
8. 🗆			Have you spoken to a <b>dietitian</b> ? <sup>11,14</sup>
9. 🗆			Are you trying to keep <b>skin</b> around your <b>rectum</b> or <b>ostomy clean</b> to avoid skin breakdown (mild soap, sitz baths)? <sup>2,3</sup> Cleanse perianal skin with warm water (+/- mild soap) after each stool. <sup>2</sup> Moisture barrier cream if not on radiation therapy. <sup>2,3</sup> Hydrocolloid dressings may be used as a physical barrier to protect skin. <sup>3</sup>
10. 🗆			Have you been keeping track of the <b>number of stools</b> you are having and are you aware of other problems you should be watching for? <sup>2,11</sup> (fever, dizziness)
11. 🗆			Have you spoken with a clinician or pharmacist about <b>medications</b> you may be taking that <b>can cause or worsen your diarrhea</b> ? <sup>2,3,11,14</sup>
12. 🗆			Have you tried strategies to help with <b>coping</b> : carefully plan all outings, carry a change of clothes, know the location of restrooms, use absorbent undergarments. <sup>3</sup>
13. 🗆			Would <b>more information</b> about your symptoms help you to manage them better? If yes, provide appropriate information or suggest resources.
5. Sur	nmarize a	and doo	cument plan agreed upon with patient (check all that apply)

## 5. Summarize and document plan agreed upon with patient (check all that apply)

1		-				
Name		Signature	Date			
	Advise to notify in 12-24 hours if no improvement, symptom worsens, or new symptoms occur					
	Patient agrees to seek medical attention; specify time frame:					
	Referral (service & date):					
	Patient agrees to use medication to be consistent with prescribed regimen. Specify:					
	How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?					
	Patient agrees to try self-care items #:					
	i No change, continue with se	elf-care strategies and if appropriate, medication	use			

**References:** 1) ONS 2017; 2) BCCA 2014; 3) CCO 2012; 4) Schmidt-Hieber 2018; 5) Peterson 2015; 6) BCCA 2017; 7) CCO 2018; 8) Brahmer 2018; 9) NCCN 2018; 10) Haanen 2015; 12) Puzanov 2017; 13) ONS 2017; 14) Califano 2015; 15) Hryniewicki 2018; 16) Watanabe 2011; 17) NIH-NCI CTCAE 2017 18) Lalla 2014 (see pages 40-48 for full references)

## **Fatigue/Tiredness Practice Guide**

Fatigue: a subjective feeling of tiredness or exhaustion prompted by cancer or cancer treatment that is disproportionate to the level of recent exertion, is not relieved by rest and interferes with usual daily activities.<sup>1-6</sup>

## 1. Assess severity of the fatigue/tiredness (Supporting evidence: 14 guidelines)<sup>1-14</sup>

management based on highest severity (Supporting evidence: 4 guidelines) <sup>1,2,4,5</sup>			symptom worsen new symptoms occur, or no improvement in 1 days.		<ul> <li>If new, refer fo non-urgent medic attention.</li> <li>Alert clinician i on immunotherap</li> </ul>	r cal f
2. Triage patient for symptom	☐ Review se care	,	2 (Yellow) □ Review self-ca □ Advise to notify	re.	3 (Red) □ If stable, review self-care strategie	
ior pain, depression, nausea/vorniung, allergies)	Mil	d	Modera	te	Sever	e
Are you taking medicines that increase fatigue? (e.g., for pain, depression, nausea/vomiting, allergies) <sup>1-5</sup>	No		Yes			
Do you have conditions that cause fatigue (cardiac, lung, liver, kidney, endocrine) <sup>1-5</sup> or drink excess alcohol? <sup>1,2,4</sup>	No		Yes			
→ Do you have (signs of hemolytic uremic syndrome): <sup>7</sup> □ blood in urine/stool or nose/mouth, □ less urine, □ new/unexplained bruises, □ abdominal pain, □ pale skin, □ vomiting, □ confusion/seizures, □ swelling	No				Yes	
→ Do you have (signs of myositis): <sup>7</sup> □ limb weakness, □ difficulty standing up, lifting arms, moving around	No				Yes	
<ul> <li>→ Do you have (signs of hepatic toxicity):<sup>11,14</sup></li> <li>□ yellow skin/eyes, □ dark urine, □ fever,</li> <li>□ nausea, □ stomach pain</li> </ul>	No				Yes	
<ul> <li>→ Do you have (signs of cardiovascular toxicity):<sup>7,9</sup></li> <li>□ fast or skipped heartbeat, □ breathlessness</li> </ul>	No				Yes	
<ul> <li>→ Do you have (signs of pneumonitis):<sup>7,9,11</sup></li> <li>□ cough, □ wheezing, □ breathlessness, □ chest pain, □ fever</li> </ul>	No				Yes	
→ Do you have (signs of endocrine toxicity): <sup>3,7-13</sup> □ nausea, □ appetite loss, □ constipation, □ eyes sensitive to light, □ hair loss, □ dry skin, □ puffy face, □ confusion, □ headache	No				Yes	
Do you have any other symptoms? <sup>1-5</sup> □ Anxiety, □ Pain, □ Appetite loss, □ Depression, □ Sleep changes, □ Poor fluid intake	No		Yes, some		Yes, many	
Have you lost or gained weight in the last 4 weeks without trying? <sup>1,2,4,5</sup> Amount: □ Unsure	0-2.9%		3-9.9%		≥10%	
Do you know the results of your last hemoglobin (Hgb) blood test? <sup>1-5</sup> Date:	<lln- 10.0g/dL</lln- 		<10.0-8.0 g/dL		<8.0 g/dL	
Does your fatigue affect your daily activities?Do you have a fever > $38^{\circ}$ C? $\Box$ Unsure	NO		Yes, some <sup>G2</sup>		Yes, a lot <sup>G≥3</sup> Yes	
How would you describe the pattern of fatigue? <sup>1,2,4-6</sup>	On an off No <sup>G1</sup>		Constant <2 wks		Constant ≥2 wks	
Do you have shortness of breath at rest, sudden onset of severe fatigue, need to sit or rest too much, rapid heart rate, rapid blood loss, or pain in your chest? <sup>1,2</sup>	No				Yes	
possible tiredness" <sup>1-5,15</sup> Are you worried about your fatigue? <sup>1,3-6</sup>	No/Some		Yes, very			
What number from 0 to 10 best describes how tired you are feeling where $0 = \text{``no tiredness''}$ and $10 = \text{``worst}$	1-3		4-6		7-10	

Legend: → Immune Checkpoint Inhibitor therapy; NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify: **Additional comments:** 

#### 3. Review medications patient is using for fatigue, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 4 guidelines)<sup>1,3-5</sup>

Current	Examples of medications for fatigue*	Notes (e.g. dose, suggest to use as	Evidence
use		prescribed)	
	Ginseng (American or Asian) <sup>3,4</sup>		Likely effective
	Methylphenidate (Ritalin <sup>®</sup> ) <sup>1,4,5</sup>		Expert opinion
	Corticosteroids: dexamethasone (Decadron <sup>®</sup> ), prednisone <sup>1,3-5</sup>		Benefits balanced with harms

\*Use of pharmacological agents for cancer-related fatigue is experimental.<sup>2</sup> Methylphenidate may be considered with caution after ruling out other causes of fatigue.<sup>4,5</sup> Corticosteroids offer short-lived benefit; long-term use is associated with significant toxicities.<sup>3</sup>

#### 4. Review 3 or more self-care strategies (Supporting evidence: 7 guidelines)<sup>1-6,17</sup>

	<ul> <li>What is your goal for managing your fatigue?<sup>1-3,5</sup></li> <li>What helps when you feel fatigued/tired? Reinforce as appropriate.<sup>1,2</sup> Specify:</li> <li>Do you understand what cancer-related fatigue is? Provide education about how it differs from normal fatigue, that it is expected with cancer treatment.<sup>1-4,6</sup></li> <li>Do you have a diary to track your fatigue patterns to help with planning activities?<sup>2,4</sup></li> <li>Are you trying to save energy for things that are important to you?<sup>1-5</sup></li> <li>What are you doing for physical activity including yoga?<sup>1-5</sup> Set goals based on current health status. Suggest starting with light activity and gradually increase to 20 min of endurance activities (e.g. walking, jogging, swimming) and resistance activities (e.g. light weights). Use caution for patients with some conditions (e.g. bone metastases).</li> <li>Do you think you are eating/drinking enough to meet your body's energy needs? Staying hydrated and a balanced diet (e.g. vitamins, minerals) can help fatigue.<sup>1-5</sup></li> <li>Have you tried activities like reading, games, music, garden, experiences in nature?<sup>1,2,4,17</sup></li> </ul>
	<ul> <li>What helps when you feel fatigued/tired? Reinforce as appropriate.<sup>1,2</sup> Specify:</li> <li>Do you understand what cancer-related fatigue is? Provide education about how it differs from normal fatigue, that it is expected with cancer treatment.<sup>1-4,6</sup></li> <li>Do you have a diary to track your fatigue patterns to help with planning activities?<sup>2,4</sup></li> <li>Are you trying to save energy for things that are important to you?<sup>1-5</sup></li> <li>What are you doing for physical activity including yoga?<sup>1-5</sup> Set goals based on current health status. Suggest starting with light activity and gradually increase to 20 min of endurance activities (e.g. walking, jogging, swimming) and resistance activities (e.g. light weights). Use caution for patients with some conditions (e.g. bone metastases).</li> <li>Do you think you are eating/drinking enough to meet your body's energy needs? Staying hydrated and a balanced diet (e.g. vitamins, minerals) can help fatigue.<sup>1-5</sup></li> <li>Have you tried activities like reading, games, music, garden, experiences in nature?<sup>1,2,4,17</sup></li> </ul>
	<ul> <li>differs from normal fatigue, that it is expected with cancer treatment.<sup>1-4,6</sup></li> <li>Do you have a diary to track your fatigue patterns to help with planning activities?<sup>2,4</sup></li> <li>Are you trying to save energy for things that are important to you?<sup>1-5</sup></li> <li>What are you doing for physical activity including yoga?<sup>1-5</sup> Set goals based on current health status. Suggest starting with light activity and gradually increase to 20 min of endurance activities (e.g. walking, jogging, swimming) and resistance activities (e.g. light weights). Use caution for patients with some conditions (e.g. bone metastases).</li> <li>Do you think you are eating/drinking enough to meet your body's energy needs? Staying hydrated and a balanced diet (e.g. vitamins, minerals) can help fatigue.<sup>1-5</sup></li> <li>Have you tried activities like reading, games, music, garden, experiences in nature?<sup>1,2,4,17</sup></li> </ul>
	<ul> <li>Do you have a diary to track your fatigue patterns to help with planning activities?<sup>2,4</sup></li> <li>Are you trying to save energy for things that are important to you?<sup>1-5</sup></li> <li>What are you doing for physical activity including yoga?<sup>1-5</sup> Set goals based on current health status. Suggest starting with light activity and gradually increase to 20 min of endurance activities (e.g. walking, jogging, swimming) and resistance activities (e.g. light weights). Use caution for patients with some conditions (e.g. bone metastases).</li> <li>Do you think you are eating/drinking enough to meet your body's energy needs? Staying hydrated and a balanced diet (e.g. vitamins, minerals) can help fatigue.<sup>1-5</sup></li> <li>Have you tried activities like reading, games, music, garden, experiences in nature?<sup>1,2,4,17</sup></li> </ul>
	<ul> <li>Are you trying to save energy for things that are important to you?<sup>1-5</sup></li> <li>What are you doing for physical activity including yoga?<sup>1-5</sup> Set goals based on current health status. Suggest starting with light activity and gradually increase to 20 min of endurance activities (e.g. walking, jogging, swimming) and resistance activities (e.g. light weights). Use caution for patients with some conditions (e.g. bone metastases).</li> <li>Do you think you are eating/drinking enough to meet your body's energy needs? Staying hydrated and a balanced diet (e.g. vitamins, minerals) can help fatigue.<sup>1-5</sup></li> <li>Have you tried activities like reading, games, music, garden, experiences in nature?<sup>1,2,4,17</sup></li> </ul>
) D	<ul> <li>health status. Suggest starting with light activity and gradually increase to 20 min of endurance activities (e.g. walking, jogging, swimming) and resistance activities (e.g. light weights). Use caution for patients with some conditions (e.g. bone metastases).</li> <li>Do you think you are eating/drinking enough to meet your body's energy needs? Staying hydrated and a balanced diet (e.g. vitamins, minerals) can help fatigue.<sup>1-5</sup></li> <li>Have you tried activities like reading, games, music, garden, experiences in nature?<sup>1,2,4,17</sup></li> </ul>
] []	<ul> <li>Staying hydrated and a balanced diet (e.g. vitamins, minerals) can help fatigue.<sup>1-5</sup></li> <li>Have you tried <b>activities</b> like reading, games, music, garden, experiences in nature?<sup>1,2,4,17</sup></li> </ul>
	Have you tried <b>activities</b> like reading, games, music, garden, experiences in nature? <sup>1,2,4,17</sup>
1 🗖	
]   []	Do you take part in any support groups or have family/friends you can rely on? <sup>1-5</sup>
ם נ	Have you tried activities to make you more <b>relaxed</b> (e.g. relaxation therapy, deep breathing, guided imagery) <sup>1,4</sup> or <b>massage</b> with or without aromatherapy? <sup>3</sup>
	Have you done any of the following to <b>improve</b> the quality of your <b>sleep</b> ? <sup>1-4</sup> Ensure light exposure soon after waking; avoid long/late afternoon naps; limit time in bed to actual sleep; go to bed when sleepy; use bed for sleep and sexual activity only; have routine schedule for bedtime and getting up; avoid caffeine and stimulating activity in the evening; relax for 1 hour before going to bed; establish a bedtime routine.
ם נ	Have you tried a program such as <b>cognitive behavioural therapy</b> or mindfulness- based stress reduction to manage your fatigue? <sup>2-5</sup>
] 🗌	Have you tried home-based bright white <b>light therapy</b> ? <sup>4</sup>
ם נ	If you need a <b>tailored plan</b> , have you spoken or would you like to speak with a health care professional to help guide you in managing your fatigue? <sup>1-5</sup> (e.g. rehabilitation specialist)
ם נ	Would <b>more information</b> about your symptoms help you to manage them better? If yes, provide relevant information or suggest resources. <sup>1-6</sup>

	No change, continue with self-care strategies				
	Patient agrees to try self-care	items #:			
	How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?				
	Referral (service & date):				
	Patient agrees to seek medical attention; specify time frame:				
	Advise to call back in 1-2 days if no improvement, symptom worsens, or new symptoms occur				
Name		Signature	Date		

References: 2) Howell 2015; 3) ONS 2017; 4) NCCN 2018; 5) AHS 2017; 6) Bennett 2016; 7) Brahmer 2018; 8) NCCN 2018; 9) Puzanov 2017; 10) Haanen 2017; 11) CCO 2018; 12) Hryniewicki 2018; 13) BCCA 2017; 14) BCCA 2017; 15) Watanabe 2011; 16) NIH-NCI CTCAE 2017 17) Bradt 2016 (see pages 40-48 for full references).

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#### **Febrile Neutropenia Practice Guide**

Febrile neutropenia: An absolute neutrophil count (ANC) < 500 cells/mcl (equivalent to <  $0.5 \times 10^{9}$ /L) OR an ANC < 1000 cells/mcl (<  $1.0 \times 10^{9}$ /L) and a predicted decline to 500 cells/mcl or less over the next 48 hours AND a single oral temperature of ≥38.3° C (101 °F) or a temperature of ≥38.0° C (100.4 °F) for ≥1 hour.<sup>1-11</sup>

#### 1. Assess severity of the fever and neutropenia (Supporting evidence: 15 guidelines)<sup>1-15</sup>

If receiving chemotherapy or immunotherapy, what was the date of your last treatment?<sup>2,5-7,9,10,13,15</sup>

Have you been recently taking antibiotics?<sup>2,3,5-7,9,10</sup>  $\Box$  No  $\Box$  Yes <48 hours  $\Box$  Yes ≥48 hours

What is your temperature in the last 24 hours?<sup>1-15</sup> Current: \_\_\_\_ Previous temperatures: \_\_\_\_

Have you taken any acetaminophen (Tylenol<sup>®</sup>) or ibuprofen (Advil<sup>®</sup>),<sup>6,7,10</sup> if yes, how much and when?

Do you have an oral temperature of ≥38.0°C (100.4 °F)? <sup>1-15</sup>	No		Yes for <1 hour		Yes for ≥1 hour	
Last known neutrophil count <sup>1-16</sup> Date: □Unsure	>1000 cells/mcl				Fever plus ≤500 cells/mcl or 1000 cells/mcl with expected drop <sup>G3</sup>	
<ul> <li>Do you have any other symptoms?</li> <li>□ Bleeding, □ Breathlessness,</li> <li>□ Constipation, □ Diarrhea, □ Fatigue,</li> <li>□ Mouth sores, □ Mouth dryness,</li> <li>□ Nausea, □ Vomiting, □ Skin reaction to radiation</li> </ul>	None		Some		Yes, many	
Are you worried about your fever? <sup>7</sup>	No/Some		Yes, very			
	1 Mile (Gree		2 Modera (Yellor		3 Severe (Red)	
2. Triage patient for symptom management based on highest severity (Supporting evidence: 15 guidelines) <sup>1-15</sup>	□ Review secare □ Advise to notify if symptom worsens or r symptoms occur in 12-2 hours <sup>2,6,12</sup>	new	<ul> <li>☐ Review self-c</li> <li>☐ Advise to not symptom worse or new sympton occur in 12-24 hours<sup>2,6,12</sup></li> <li>☐ If ≥38.0° for &lt; hour, advise to notify if still ≥38. after 1 hour.</li> </ul>	ify if ns ns	□ Refer for medical attention immediately Febrile neutropenia <b>treatment with</b> <b>antibiotics</b> should be initiated <b>within 1 hou</b> of presentation. <sup>2-7,9,12</sup> Collect laboratory dat to locate potential site cause of infection prio to starting antibiotics. 5,7,9,12-14	e Ir <sup>14</sup> ta e or or

#### Legend: NCI-CTCAE G3=Grade 3

Note: For consistency across symptom practice guides a temperature of 38.0° C is used.

# 3. Review medications patient is using for preventing febrile neutropenia or decreasing fever, including prescribed, over the counter, and/or herbal

supplements (Supporting evidence: 9 guidelines)<sup>1-3,6,10,11,13-15</sup>

Current use		Notes (e.g. dose, suggest to use as prescribed)	Evidence
	G(M)-CSF for at-risk patients <sup>1-3,6,10,11,13,15</sup>		Effective
	Antibiotics to prevent infection for high-risk patients <sup>2,10,11,14,15</sup>		Effective
	Antifungals to prevent infection for at-risk patients <sup>2,10,11,14</sup>		Effective
	Antivirals for select at-risk patients <sup>1,2,11,14</sup>		Effective

\*Use of over the counter medications to lower fever in cancer patients (e.g., acetaminophen) is controversial and should not be used to mask a fever of unknown origin;<sup>7,10</sup> G-CSF is generally recommended for patients with >20% risk of developing febrile neutropenia;<sup>1,3,11,15</sup> Prophylactic antibiotic use should be limited to high risk patients with an expected duration of neutropenia for >7 days as it may promote antibiotic resistance.<sup>2,10,11,14,15</sup> Antifungal prophylaxis should be reserved for a targeted group of high-risk patients with an expected duration of neutropenia for >7 days.<sup>2,10,11,14</sup> Antiviral prophylaxis is recommended for select patients at risk for certain viral infections or reactivation of viral infection.<sup>1,2,11,14</sup>

## 4. Review 3 or more self-care strategies (Supporting evidence: 13 guidelines)<sup>1-3,5-14</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1. 🗆			If temperature not ≥38.0° C, are you <b>checking</b> your body <b>temperature</b> with a thermometer by mouth? <sup>3,8,10</sup> Avoid rectal temperature measurements. <sup>2,7</sup>
2. 🗆			Are you <b>washing your hands</b> frequently and/or using alcohol-based sanitizer? <sup>1,10,11,14</sup>
3. 🗖			Are you trying to <b>drink fluids</b> , 6-8 glasses per day to stay hydrated? <sup>1,3,5-7,9-11,14</sup>
4. 🗆			Are you <b>avoiding enemas, suppositories</b> , <b>tampons</b> , and <b>invasive</b> <b>procedures</b> ? <sup>1,2,5,7,10</sup> Constipation and straining during bowel movements can cause trauma to rectal tissue. <sup>10</sup>
5. 🗆			Are you trying to avoid crowds and people who might be sick? <sup>1,10</sup>
6. 🗆			Are you <b>eating</b> well <b>cooked foods</b> and/or <b>well cleaned uncooked</b> raw fruits and vegetables? <sup>1,10,11</sup>
7. 🗆			Are you <b>brushing your teeth with a soft toothbrush</b> at least twice a day? <sup>1,10</sup> Floss daily if it is your normal routine and tolerated.
8. 🗆			Are you taking <b>daily showers</b> or baths? <sup>1,10</sup>
9. 🗆			Are you <b>checking your mouth and your skin</b> for potential sites of infection (e.g. access devices, rectal area) and keeping these areas clean and dry? <sup>1-3,5,7,10,13</sup>
10. 🗆			Have you spoken to a clinician about getting an annual flu shot and other vaccines (with inactivated vaccine)? <sup>1,2,10,11,14</sup> All visitors and household members should <b>be up-to-date with vaccines</b> (e.g. influenza, measles, mumps, rubella, and varicella).
11. 🗆			Would <b>more information</b> about your symptoms help you to manage them better? If yes, provide appropriate information or suggest resources. <sup>2,3,7-10,12</sup>

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

	No change, continue with s	elf-care strategies				
Patient agrees to try self-care items #:						
	How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?					
	Patient agrees to seek medical attention; specify time frame:					
	Advise to call back in 12-24 hours if no improvement, symptom worsens, or new symptoms occur					
Name		Signature	Date			

**References:** 1) Freifeld 2011; 2) NCCN 2018; 3) Klastersky 2016; 4) Tam 2011; 5) AHS 2014; 6) CCMB 2017; 7) CCNS 2014; 8) Krzyzanowska 2016; 9) Taplitz 2018; 10) BCCA 2014; 11) ONS 2017; 12) NICE 2012; 13) NICaN 2015; 14) Flowers 2013; 15) Neumann 2013; 16) NIH-NCI CTCAE 2017 (see pages 40-48 for full references).

## Mouth Dryness/Xerostomia Practice Guide

Xerostomia: abnormal dryness in the oral cavity due to a reduction and/or thickening of saliva produced; the subjective experience of dry mouth secondary to salivary gland hypofunction; may be acute or chronic.<sup>1-3</sup>

#### **1. Assess severity of the dry mouth** (Supporting evidence: 5 guidelines)<sup>1-5</sup>

What number from 0 to 10 best describes your dry mouth where 0= "no dry mouth" and 10= "worst possible dry mouth"? <sup>1,2,6</sup>	1-3		4-6		7-10	
Are you worried about your dry mouth? <sup>1-3</sup>	No/Some		Yes, very			
Is your saliva thick or less saliva than normal? <sup>1,2,7</sup>	No/A bit <sup>G1</sup>		Somewhat G2		Yes, a lot <sup>G≥3</sup>	
Is your mouth painful? <sup>1,2</sup>	No/Mild 0-3		Moderate 4-6		Severe 7-10	
Do you see any redness, white patches, cracks, or blisters in your mouth? <sup>1-3</sup>	No				Yes	
Do you have a fever > $38^{\circ}C?^{1,2}$ $\Box$ Unsure	No				Yes	
Is your mouth bleeding? <sup>2</sup>	No		Yes, with eating or oral hygiene		Yes, spontaneously	
Are you able to eat? <sup>1-3,7</sup>	Yes <sup>G1</sup>		Yes, soft food <sup>G2</sup>		No <sup>G≥3</sup>	
How much fluid are you drinking per day? <sup>1,2,4</sup>	6-8 glasses		1-5 glasses		Sips/Unable to swallow	
Are you feeling dehydrated, which can include feeling dizzy, a dry mouth, increased thirst, feeling faint, rapid heart rate, decreased amount of urine? <sup>1,2,4</sup>	No		Yes, some		Yes, a lot	
<ul> <li>→ Do you have (signs of diabetic ketoacidosis):<sup>8</sup> □ increased thirst,</li> <li>□ frequent urination, □ fruity breath odour</li> <li>□ stomach pain, □ weakness, □ fast heart rate</li> <li>□ vomiting, □ confusion, □ dry skin?</li> </ul>	No				Yes	
→ Do you have (signs of uveitis): □ dry eyes, □ eye pain, □ eye redness, □ blurred/double vision? <sup>9,10</sup>	No				Yes	
Does your dry mouth affect your ability to speak? <sup>1-3</sup>	No		Yes			
Are you having taste changes? <sup>1-3</sup>	No		Yes			
Have you lost weight in the last 1-2 weeks without trying? <sup>1,2</sup> Amount:	0-2.9%		3-9.9%		≥10%	
Do you have trouble breathing? <sup>1,2</sup> If yes, see breathlessness guide	No				Yes	
Are you taking any medications that can cause dry mouth? <sup>1-3,5</sup> (e.g. anticholinergics, antiemetics)	No		Yes			
Does your dry mouth affect your daily activities? <sup>1,2</sup>	No		Yes, some		Yes, a lot	
Are you feeling worried? <sup>1,2</sup> If yes, see Anxiety guide.	No		Yes, some		Yes, often	
	1 Mile (Gree		2 Moderate (Yellow)		3 Sever (Red	
2. Triage patient for symptom	Review se	əlf-	Review self-care	•	Refer for	
management based on highest	care		Verify medication		medical attentio	n
	□ Verify		Advise to notify i		immediately	
<b>Severity</b> (Supporting evidence: 1 guidelines) <sup>1</sup>	medications		symptom worsens,		Alert clinician	
			new symptoms occ		on immunothera	ару
			or no improvement 12-24 hours.	in		

Legend: → Immune Checkpoint Inhibitor therapy; NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

# 3. Review medications patient is using for dry mouth, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 5 guidelines)<sup>1-5</sup>

Current	Examples of medications for dry mouth	Notes (e.g. dose, suggest to	Evidence
use		use as prescribed)	
	Pilocarpine (Salagen <sup>®</sup> ) saliva stimulant <sup>3</sup>		Expert opinion
	Anetholtrithion (Sialor <sup>®</sup> ) salivary stimulant <sup>1,5</sup>		Expert opinion
	Saliva substitutes (Biotene <sup>®</sup> , Moi-Stir <sup>®</sup> ) <sup>1-5</sup>		Expert opinion
	Oral medications for pain <sup>1,2</sup>		Expert opinion

## 4. Review 3 or more self-care strategies (Supporting evidence: 5 guidelines)<sup>1-5</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1.			What is your <b>goal</b> for managing your dry mouth <sup>1,2</sup>
2. □			What helps when you have a dry mouth? <sup>1,2</sup> Reinforce as appropriate. Specify:
3. 🗖			Are you trying to <b>drink 6-8 glasses</b> of clear fluids per day? <sup>1-5</sup>
4. □			Are you <b>avoiding foods and drinks that are highly acidic, caffeinated, sugary, salty, spicy</b> , or very <b>hot</b> (temperature)? <sup>1-3,5</sup>
5. 🗆			If you have difficulty swallowing, are you trying to <b>eat a soft diet</b> ? <sup>1,2</sup> Suggest: oatmeal, bananas, applesauce, cooked carrots, rice, pasta, eggs, mashed potatoes, cooked or canned fruit without skin, soft cheese, creamed soups, puddings/milkshakes. Add extra moisture to foods using sauce, dressing, gravy, broth, or butter/margarine.
6. 🗆			Are you keeping your <b>mouth cool and moist</b> with fresh, cold foods? Suggest sugar- free popsicles, frozen grapes, cold water, ice cubes, or lightly acidic fruit (e.g. cucumber, apples, tomato). <sup>1,2,4</sup>
7. 🗆			Are you trying to <b>brush your teeth</b> at least twice a day using a soft toothbrush and fluoride toothpaste? <sup>1-5</sup> Floss daily if it is your normal routine and tolerated.
8. 🗆			If you wear dentures, are you removing before brushing your teeth, cleaning them with toothpaste, and leaving them off for long periods of time (e.g. overnight)? <sup>1,2,4,5</sup>
9. 🗆			Are you trying to use a <b>bland rinse 4 times/day</b> ? <sup>1-5</sup> For 1 cup warm water, add table salt (2.5 ml (1/2 tsp.)), baking soda (1/2 tsp.) or both (1/4 tsp. each). Swish in your mouth for at least 30 seconds and spit out. Prepare daily.
10. 🗆			Are you <b>chewing on sugar-free gum</b> or sucking on hard candy to help create saliva? <sup>1-5</sup> Xylitol gum or lozenges can also be used, up to 6 grams a day. <sup>2</sup>
11. 🗆			Are you trying to <b>avoid tobacco and alcohol</b> , including alcohol-based mouthwashes? <sup>1,2,4,5</sup>
12. 🗆			Are you using <b>moisturizers</b> to protect your lips? <sup>1,2,4,5</sup>
13. 🗆			Are you using <b>saliva substitutes</b> (gel, mouthwash, spray)? <sup>1-5</sup> If so, how long have you been using them, and do they help? Discourage use of glycerin-based swab sticks.
14. 🛛			Are you using a <b>cool humidifier</b> or bedside vaporizer to help reduce the dryness? <sup>1</sup>
15. 🛛			Have you considered trying acupuncture therapy to help stimulate saliva production? <sup>1-3</sup>
16. 🛛			Would <b>more information</b> about your symptoms help you to manage them better? If yes, provide relevant information or suggest resources.

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

Name		Signature	Date		
	Advise to call back in 12-24 hours if no improvement, symptom worsens, or new symptoms occur				
	Patient agrees to seek medical attention; specify time frame:				
	Referral (service & date):				
	Patient agrees to use medication to be consistent with prescribed regimen. Specify:				
	Patient agrees to try self-care items #: How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?				
	No change, continue with self-care strategies and if appropriate, medication use				

References: 1) BCCA 2014; 2) CCO 2012; 3) AAOM 2016; 4) NICaN 2015; 5) Peterson 2015; 6) Watanabe 2011; 7) NIH-NCI 2017; 8) NCCN 2018; 9) Puzanov 2017; 10) Brahmer 2018 (see pages 40-48 for full references)

### **Mouth Sores/Stomatitis Practice Guide**

Mouth sores/Stomatitis/Oral Mucositis: An inflammatory and potentially ulcerative process of the mucous membranes, that can result in severe discomfort that can impair patients' ability to eat, swallow, and talk, and is accompanied by a risk for life-threatening bacteremia and sepsis.<sup>1-5</sup>

#### 1. Assess severity of the mouth sores (Supporting evidence: 6 guidelines)<sup>1-6</sup>

What number from 0 to 10 best describes your mouth sores where 0= "no mouth sores" and 10= "worst possible mouth sores"? <sup>2,3,7</sup>	1-3		4-6		7-10	
Are you worried about your mouth sores <sup>2,3</sup>	No/Some		Yes, very			
How many sores/ulcers/blisters do you have? <sup>1-6</sup>	0-4		>4		Coalescing/ Merging/Joining	
Do the sores in your mouth bleed? <sup>1-3,6</sup>	No		Yes, with eating or oral hygiene		Yes, spontaneously	
Are the sores painful? <sup>1-5,8</sup>	No/Mild <sup>G1</sup> 0-3		Moderate <sup>G2</sup> 4-6		Severe <sup>G≥3</sup> 7-10	
Do you see any redness or white patchy areas in your mouth? <sup>1-6</sup>	No		Yes, some		Yes, a lot	
Do you have a fever > $38^{\circ}$ C? <sup>1-3</sup> Unsure	No				Yes	
Do you have a dry mouth? <sup>2,3,5</sup>	No		Yes			
Are you able to eat? <sup>1-5</sup> If no, can you open and close your mouth? <sup>2</sup>	Yes		Yes, soft food		No	
Are you feeling dehydrated, which can include feeling dizzy, a dry mouth, increased thirst, feeling faint, rapid heart rate, decreased amount of urine, dark urine? <sup>1-3,5</sup>	No		Yes, some		Yes, a lot	
How much fluid are you drinking per day? <sup>1-3,5</sup>	6-8 glasses		1-5 glasses		Sips/Unable to swallow	
Have you lost weight in the last 1-2 weeks without trying? <sup>1-3</sup> Amount:	0-2.9%		3-9.9%		≥10%	
Are you having trouble breathing? <sup>2,3</sup>	No		Yes, some		Yes, a lot	
Does your mouth sore(s) affect your daily activities? <sup>2,3</sup>	No		Yes, some		Yes, a lot	
	1 Mi (Gre		2 Moderat (Yellow)	е	3 Sever (Red)	
2. Triage patient for symptom management based on highest severity (Supporting evidence: 6 guidelines) <sup>1-6</sup>	☐ Review self-care ☐ Verify medication	S	<ul> <li>Review self-c.</li> <li>Verify medications</li> <li>Advise to noti symptom worser new symptoms occur, or no improvement in 24 hours.</li> </ul>	fy if າຣ,	Refer for mediatention immediately.	ical

Legend: NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

## 3. Review medications patient is using for mouth sores, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 7 guidelines)<sup>1-6,9</sup>

Current use	Examples of medications for mouth sores	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	Benzydamine hydrogen chloride (Tantum <sup>®</sup> mouth rinse) <sup>1,3,5,6</sup>		Likely effective
	Oral medications <sup>2-5</sup> , morphine mouth wash, <sup>9</sup> topical anesthetics (lidocaine), <sup>2-4</sup> transdermal fentanyl <sup>4,9</sup> for pain		Expert opinion
	0.5% Doxepin mouth rinse for pain <sup>4,9</sup>		Expert opinion
	Mucosal coating agents for pain (Gelclair <sup>®</sup> ) <sup>2-6</sup>		Expert opinion
	Saliva substitutes (Biotene <sup>®</sup> , Moi-Stir <sup>®</sup> , Caphosol <sup>®</sup> ) <sup>2-6</sup>		Expert opinion
	Topical steroids for mouth sores from targeted therapies <sup>4,5</sup>		Expert opinion
	Nystatin for oral candida <sup>2,5,6</sup>		Expert opinion

\* Some benzydamine HCl formulations contain alcohol and can cause stinging.<sup>5</sup> Chlorhexidine mouth rinse and sucralfate are not recommended for treatment.<sup>1-6,9</sup> "Magic" Mouthwash (mixed medication mouthwash) is not recommended for practice.<sup>1</sup> Local anesthetics for short term pain relief can make it hard to swallow; if used patients should be advised about increased risk of choking when eating.<sup>1,3</sup>

#### 4. Review 3 or more self-care strategies (Supporting evidence: 7 guidelines)<sup>1-6,9</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1.			What is your <b>goal</b> for managing your mouth sores? <sup>2,3</sup>
2. 🗆			What helps when you have mouth sores? <sup>2,3</sup> Reinforce as appropriate. Specify:
3. 🗆			Are you trying to use a <b>bland rinse 4 times/day</b> (more often if mouth sores)? <sup>1-6,9</sup> For 1 cup warm water, add table salt (2.5 ml (1/2 tsp.)), baking soda (1/2 tsp.) or both (1/4 tsp. each). Swish in your mouth for at least 30 seconds and spit out. <sup>1,2,4</sup> Prepare daily.
4. 🗆			Are you trying to <b>brush your teeth</b> at least twice a day using a soft toothbrush (use soft foam toothette in salt/soda water if sores)? <sup>1-6,9</sup> Floss daily if it is your normal routine and tolerated.
5. 🗆			Do you <b>rinse your toothbrush</b> in hot water before using and allow to air dry? <sup>1-3</sup>
6. 🗆			If you wear dentures and mouth sensitive, do you use <b>dentures</b> only at <b>mealtimes</b> ? <sup>1-4,6</sup>
7. 🗆			Are you using <b>moisturizers</b> to protect your lips? <sup>1-6</sup>
8. 🗆			Are you sucking on lactobacillus lozenges <sup>1</sup> or zinc lozenges <sup>2,4</sup> to prevent mouth sores?
9. 🗖			Are you trying to avoid tobacco and alcohol, including alcohol-based mouthwashes? <sup>1-6</sup>
10. 🗖			Are you trying to <b>drink 6-8 glasses</b> of fluids per day? <sup>1-6</sup>
11. 🗆			Are you trying to <b>eat a soft diet</b> ? <sup>1-4,6</sup> Suggest: oatmeal, bananas, applesauce, cooked carrots, rice, pasta, eggs, mashed potatoes, cooked or canned fruit without skin, soft cheese, creamed soups, puddings/milkshakes
12. 🗆			If on <b>pain medicine</b> , have you tried taking it <b>before meals</b> for relief while eating? <sup>1-4</sup>
13. 🗆			Are you <b>avoiding foods/drinks that are acidic, salty, spicy</b> , or very hot? <sup>1-4,6</sup>
14. 🛛			If eating is difficult, have you <b>spoken with a dietitian</b> or tried meal supplements? <sup>1-3,5,6</sup>
15. 🗆			During chemotherapy, are you taking ice water, <b>ice chips</b> , ice lollipops for 30 min? <sup>1-4,6,9</sup>
16. 🗆			Would <b>more information</b> about your symptoms help you to manage them better? <sup>2,4,6</sup> If yes, provide appropriate information or suggest resources.

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

	No change, continue with self-care strategies and if appropriate, medication use					
	Patient agrees to try self-ca	re items #:				
	How confident are you that	How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?				
	Patient agrees to use medic	cation to be consistent with prescribed regime	n. Specify:			
	Referral (service & date):					
	Patient agrees to seek medical attention; specify time frame:					
	Advise to call back in 12-24 hours if no improvement, symptom worsens, or new symptoms occur					
Name		Signature	Date			

**References:** 1) ONS 2017; 2. CCO 2012; 3) BCCA 2014; 4) Peterson 2015; 5) NICaN 2015; 6) Califano 2015; 7) Watanabe 2011; 8) NIH-NCI CTCAE 2017; 9) Lalla 2014 (see pages 40-48 for full references)

## Nausea & Vomiting Practice Guide

Nausea: A subjective perception that emesis may occur. Feeling of queasiness.<sup>1</sup> Vomiting: A forceful expulsion of stomach contents through the mouth and may include retching/dry heaves (gastric and esophageal movement without vomiting).<sup>1</sup>

#### 1. Assess severity of nausea/vomiting (Supporting evidence: 10 guidelines)<sup>1-10</sup>

1-3 No/Some ≤1 <sup>G1</sup> Small No Yes 0-2.9% 6-8 glasses No No/Mild 0-3 No		4-6 Yes, very 2-5 <sup>G2</sup> Modest No 3-9.9% 1 to 5 glasses Yes, some Moderate		7-10 ≥6 <sup>G≥3</sup> Large Yes ≥10% Sips	
≦1 <sup>G1</sup> Small No Yes 0-2.9% 6-8 glasses No No/Mild 0-3		2-5 <sup>G2</sup> Modest No 3-9.9% 1 to 5 glasses Yes, some		Large Yes ≥10% Sips	
Small No Yes 0-2.9% 6-8 glasses No No/Mild 0-3		Modest No 3-9.9% 1 to 5 glasses Yes, some		Large Yes ≥10% Sips	
No Yes 0-2.9% 6-8 glasses No No/Mild 0-3		No 3-9.9% 1 to 5 glasses Yes, some		Yes ≥10% Sips	
Yes 0-2.9% 6-8 glasses No No/Mild 0-3		3-9.9% 1 to 5 glasses Yes, some		≥10% Sips	
0-2.9% 6-8 glasses No No/Mild 0-3		3-9.9% 1 to 5 glasses Yes, some		Sips	
6-8 glasses No No/Mild 0-3		1 to 5 glasses Yes, some		Sips	
No No/Mild 0-3		Yes, some		·	
No/Mild 0-3		-		Vac a lat	
0-3		Moderate		Yes, a lot	
No		4-6		Severe 7-10	
		Yes, some		Yes, a lot	
No		Yes			
No		Yes, some		Yes, many	
No				Yes	
No				Yes	
No				Yes	
No				Yes	
No				Yes	
No				Yes	
2. Triage patient for symptom management based on highest severity Supporting evidence: 3 guidelines) <sup>1-3</sup>		<ul><li>Verify</li><li>medications</li><li>Advise to notify</li></ul>	y if s,	immediately. ☐ Alert clinic if on	ian
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Legend: → Immune Checkpoint Inhibitor therapy; NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

#### 3. Review medications patient is using for nausea/vomiting, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 8 guidelines)<sup>1-5,13-15</sup>

Current use	Examples of medications for nausea/vomiting*	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	5-HT <sub>3</sub> : ondansetron (Zofran <sup>®</sup> ), granisetron (Kytril <sup>®</sup> ), dolasetron (Anszemet <sup>®</sup> ) <sup>1-5,13,14</sup>		Effective
	Olanzapine (Zyprexa <sup>®</sup> ) <sup>2,4,5,13,14</sup>		Effective
	Fosaprepitant (Emend <sup>®</sup> IV), aprepitant (Emend <sup>®</sup> ) <sup>1,4,5,13,14</sup>		Effective
	Triple drug: dexamethasone, 5 $HT_3$ (palonosetron), neurokinin 1 receptor antagonist (netupitant) for high emetic risk <sup>4,5,13,14</sup>		Effective
	Cannabis/Cannabinoids <sup>2,4,13,15</sup>		Effective
	Netupitant/palonosetron (NEPA) (Akynzeo <sup>®</sup> ) <sup>4,5,13,14</sup>		Effective
	Dexamethasone (Decadron <sup>®</sup> ) alone or in combination <sup>1-5,13,14</sup>		Likely effective
	Gabapentin (Neurontin <sup>®</sup> ) <sup>13</sup>		Likely effective
	Progestins <sup>13</sup>		Likely effective
	Lorazepam (Ativan <sup>®</sup> ) <sup>1-5,13,14</sup> , haloperidol (Haldol <sup>®</sup> ) <sup>1-4</sup>		Expert opinion
	Metoclopramide (Maxeran <sup>®</sup> ) <sup>1-5,14</sup> , prochlorperazine (Stemetil <sup>®</sup> ) <sup>1,14</sup>		Expert opinion
	Other: Cyclizine, <sup>3,5</sup> dimenhydrinate <sup>1,2</sup> , methotrimeprazine <sup>1</sup>		Expert opinion

\*Patients are at increased risk of opioid overdose and serious side effects when taking gabapentin with an opioid.<sup>16</sup> Rectal administration should be avoided if neutropenic.

#### 4. Review 3 or more self-care strategies (Supporting evidence: 6 guidelines)<sup>1-5,13</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1.			What is your <b>goal</b> for managing your nausea and vomiting? <sup>4,13</sup>
2. 🗆			What helps when you have nausea/vomiting? <sup>1,2</sup> Reinforce as appropriate. Specify:
3. 🗆			Are you trying to <b>drink 6-8</b> glasses clear fluids per day? <sup>1,2,4</sup>
4. □			Have you tried <b>relaxation techniques</b> (e.g. guided imagery, music therapy, progressive muscle relaxation, and/or hypnosis)? <sup>1,2,4,5,13</sup>
5. 🗆			Are you taking fast-acting <b>anti-emetics before meals</b> so they are effective during/after meals? <sup>1,2</sup>
6. 🗆			If vomiting, are you <b>limiting food and drink until vomiting stops</b> ? After 30-60 min without vomiting, sip clear fluids. When clear fluids stay down, add dry starchy foods (crackers, dry toast, dry cereal, pretzels). If starchy foods stay down, add protein rich foods (e.g. eggs, chicken). <sup>1,2</sup>
7. 🗆			If nausea are you trying to: Eat <b>5-6 small meals</b> ? <sup>1-4</sup> Eat <b>foods that reduce your nausea</b> and are your "comfort foods" cold or room temperature? <sup>1,2,4</sup> Avoid greasy/fried, highly salty, spicy, and foods with strong odors? Avoid tobacco and alcohol? <sup>1,4,5</sup>
8. 🛛			Are you sitting upright or reclining with head raised for 30-60 minutes after meals? <sup>1,2</sup>
9. 🗆			If vomiting, are you trying to use a <b>bland rinse 4 times/day</b> ? <sup>2</sup> For 1 cup warm water, add table salt (2.5 ml (1/2 tsp.)), baking soda (1/2 tsp.) or both (1/4 tsp. each). Swish in your mouth for at least 30 seconds and spit out. Prepare daily.
10. 🗆			Have you tried <b>acupuncture</b> or <b>acupressure</b> to help with your nausea/vomiting? <sup>1,2,4</sup>
11. 🗆			Have you spoken with a dietitian? <sup>1,2,4</sup>
12. 🗆			Would <b>more information</b> about your symptoms help you to manage them better? <sup>1-3</sup> If yes, provide appropriate information or suggest resources.

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

No change, continue with self-care strategies and if appropriate, medication use 

- Patient agrees to try self-care items #:
- How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?
- Patient agrees to use medication to be consistent with prescribed regimen. Specify:
- Referral (service & date):
- Patient agrees to seek medical attention; specify time frame:

Nam		Date
	Advise to call back in 12-24 hours if no improvement, symptom worsens, or new sym	ptoms occur

Name

References: 1) BCCA 2014; 2) CCO 2019; 3) NICaN 2015; 4) NCCN 2019; 5) Roila 2019; 6) Brahmer 2018; 7) NCCN 2018; 8) CCO 2018; 9) Puzanov 2017; 10) Haanen 2017; 11) Watanabe 2011; 12) NIH-NCI CTCAE 2017; 13) ONS 2017; 14) Hesketh 2017; 15) Smith 2015; 16) Health Canada 2019 (see pages 40-48 for full references)

## **Pain Practice Guide**

Pain: subjective sensory or emotional discomfort associated with actual or potential tissue damage or described in terms of such damage.<sup>1-5</sup> Types of pain are classified as nociceptive or neuropathic. Nociceptive pain arises from stimulation of pain receptors within the tissue, which has been damaged or involved in an inflammatory process;<sup>1,2,5,6</sup> divided into a) somatic pain in skin, muscle and bone described as aching, stabbing, throbbing, and/or pressure and; b) visceral pain in organs or viscera described as gnawing, cramping, aching, or sharp.<sup>1,2</sup> Neuropathic pain from nerve damage is described as burning, tingling, shooting, or pins/needles.

#### 1. Assess the pain and severity (Supporting evidence: 15 guidelines)<sup>1-15</sup>

Tell me about the pain (location, onset, radiating, what does it feel like, what makes it better or worse):<sup>1-9</sup>

Do you know what may be causing the pain (surgery, injury, illness, pre-existing pain/arthritis, spinal cord compression)?<sup>1,2,4-6,9</sup>

			-		
What number from 0 to 10 best describes your level of pain where 0="No pain" and 10="Worst possible pain" <sup>1,2,5-8,16</sup>	0 – 3		4 – 6	7 - 10	
Rating of worst pain and pain 2hr after medicine? <sup>1,2,6,7</sup>	0 - 3		4 - 6	7 - 10	
Are you able to easily distract yourself from the pain? <sup>6</sup>	Yes, often		Yes, sometimes	No, never	
Are you worried about your pain? <sup>1,2,5,6,8,9</sup>	No/Some		Yes, very		
Was the pain onset sudden? <sup>1-3,5-8</sup>	No		Yes	Yes	
Is the pain from a new location? <sup>1,2,5,6,8</sup> Describe.	No		Yes	Yes	
Do you have loss of bladder or bowel control, numbness					
in your fingers, toes or buttocks, feel unsteady on your	No			Yes	
feet, or difficulty walking? <sup>1</sup>					
Do you feel confused, very sleepy, hallucinate, or have	No			Yes	
muscle spasms? <sup>1,2,6</sup>			62		
Does your pain interfere with your daily activities? <sup>1,2,5-8,17</sup>	No <sup>G1</sup>		Yes, some <sup>G2</sup>	Yes, a lot <sup>G</sup> ≥3	
Does your pain interfere with your mood? <sup>1,2,3,0</sup>	No		Yes		
Are you able to get pain relief from your medicines? <sup>1,2,5,6</sup>	Yes, relief		Yes, some	No	
Do the pain medicines restrict your daily activities? <sup>1,2,6</sup>	No		Yes, some	Yes, a lot	
Do you have (risk factors for opioid misuse): <sup>2,5,6</sup>					
alcohol or drug misuse, □ psychiatric disorder, □ younger	No		Yes		
age,  legal problems,  past sexual abuse,  poor financial and/or accial support					
□ Nausea/ Vomiting, □ Depression, □ Fatigue, □ Sleep	No		Yes, some	Yes, many	
changes,   Itchiness,  Peripheral neuropathy			103, 30110	res, many	
→ Do you have (signs of musculoskeletal toxicities): <sup>10-14</sup>					
□ joint pain/swelling, □ stiffness after inactivity,	No			Yes	
☐ muscle weakness, ☐ movement/heat improves pain					
→ Do you have (signs of hepatic toxicity): <sup>10,11,13</sup>					
□ right side abdominal pain □fatigue, □ yellow	No			Yes	
skin/eyes, □ dark urine, □ fever, □ nausea					
➔ Do you have (signs of endocrine toxicity): <sup>10,11,13,14</sup>					
🛛 abdominal pain, 🗆 nausea, 🗇 fatigue, 🗆 appetite	No			Yes	
loss, $\Box$ constipation, $\Box$ eyes sensitive to light, $\Box$ hair				100	
loss,  dry skin,  puffy face,  confusion					
→ Do you have (signs of ocular toxicity): <sup>10-12</sup> □ pain					
with eye movement, $\Box$ vision changes, $\Box$ eyes	No			Yes	
sensitive to light,   equiv eq					
	1 Mild		2 Moderate	3 Seve	re
	(Green)			(Red)	
2. Triage patient for symptom	□ Review self-		Review self-care.	□ Refer for med	ical
management based on highest			Review medications	attention	
	□ Review medications		Advise to notify if mptom worsens, new	mmediately ⊐ Alert clinician	if
<b>Severity</b> (Supporting evidence: 4 guidelines) <sup>1,2,5,6</sup>			nptoms occur, or no	on immunothera	
			provement in 1-2		- J
		da			
		0.			

Legend: → Immune Checkpoint Inhibitor therapy; NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

#### Additional comments:

## 3. Review medications patient is using for pain, including prescribed, over the counter, and/or berbal supplements (Supporting ovidence: 14 guidelines)<sup>1-14</sup>

Current	ter, and/or herbal supplements (Supporting evid Examples of medications for pain*	Notes (e.g. dose, suggest	Evidence
use		to use as prescribed)	
	1 Non-opioid: <sup>1-3,6,8-14</sup> acetaminophen (Tylenol <sup>®</sup> ), NSAIDs, COX-2 inhibitors, nefopam (Acupan <sup>®</sup> )		Likely effective
	2 Weak opioid: <sup>2,3,6,8,9</sup> codeine, tramadol, tapentadol		Effective
	3 Strong opioid: <sup>1,2,6,8,9</sup> morphine, oxycodone, fentanyl, hydromorphone		Effective
	Breakthrough pain: <sup>1,2,5-8</sup> extra dose of immediate-release oral opioids or transmucosal fentanyl		Effective
	Chronic pain: <sup>2,9</sup> Transdermal buprenorphine, transdermal fentanyl, systemic anesthetics (e.g. mexiletine)		Effective
	Chronic pain: <sup>2,9</sup> Cannabis/Cannabinoids		Likely effective
	Refractory pain: <sup>4,8</sup> Ketamine		Benefits balanced with harm
	Neuropathic pain: <sup>1-3,6,8,9</sup> Antidepressant or anticonvulsant		Likely effective
	→ Prednisone for immunotherapy-related pain <sup>10-15</sup>		Expert opinion
	Constipation prophylaxis: <sup>1,2,6,8</sup> stimulant (sennosides or bisocodyl) plus osmotic laxative (lactulose or PEG)		Likely effective/ expert opinion

\*Use NSAIDS with caution due to risk of renal, GI, or cardiac toxicities, thrombocytopenia, or bleeding disorder.<sup>2,6</sup> Avoid use of long-acting opioids during severe acute pain.<sup>1,2,6,8</sup> Use opioids with caution in patients with kidney or liver dysfunction.<sup>1,2,6,8</sup> Avoid tricyclic antidepressants in the elderly.<sup>6</sup>

## 4. Review 3 or more self-care strategies (Supporting evidence: 9 guidelines)<sup>1-3,5-9,18</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1.			What is your <b>goal</b> for pain relief (e.g., target on scale of 0 to 10)? <sup>1,2,6,7</sup>
2. 🗆			Do you have family or a friend <b>helping you manage</b> your pain? <sup>1,2,6</sup>
3. 🗆			Do you understand the plan for <b>taking routine and breakthrough medicines</b> for pain? If no, educate about pain and pain management. <sup>1,2,5,6,8,9</sup>
4. □			Do you have any <b>concerns about taking pain medicines</b> ? If yes, explore and educate. <sup>1-3,5</sup>
5. 🗆			Are you tracking <b>your pain</b> level when taking medicine and 1-2 hr. after? <sup>1,5</sup>
6. 🗖			What helps when you have pain? Reinforce as appropriate. <sup>1,2,6,8</sup>
7. 🗆			Have you tried <b>massage</b> (+/- aromatherapy), <b>physio</b> , <b>acupuncture</b> , heat/cold, or transcutaneous electrical nerve stimulation? <sup>1,2,6</sup>
8. 🗆			Are you doing any <b>light physical activity</b> (walk, swim, cycle, stretch)? <sup>1,2,6</sup>
9. 🗆			Are you using <b>activities to help you cope</b> with pain (e.g. listening to music, breathing exercises, activities for distraction, relaxation, mindfulness-based stress reduction, guided imagery, hypnosis)? <sup>1-3,6,18</sup>
10. 🗆			If taking opioids, are you using medicines to prevent constipation? <sup>1,2,6,8</sup>
11. 🛛			If you have other symptoms, are they under control? <sup>2</sup>

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

	No change, continue with self-care strategies and if appropriate, medication use								
	Patient agrees to use medication to be consistent with prescribed regimen								
	Patient agrees to try self-care items #:								
	How confident are you that you	can try what you agreed to do (0=not, 10=very)?							
	Referral (service & date):								
	Patient agrees to seek medical	attention; specify time frame:							
	Advise to call back in 1-2 days i	f no improvement, symptom worsens, or new sympt	oms occur						
Name		Signature	Date						
	References: 1) BCCA 2014; 2) NCCN 2019; 3) ONS Acute Pain 2019; 4) ONS Refractory/Intractable Pain 2019; 5) Daeninck 2016;								
6) CC	) CCO 2018: 7) ONS Breakthrough Pain 2019: 8) Yamaguchi 2013: 9) ONS Chronic Pain 2019:10) Brahmer 2018: 11) NCCN								

6) CCO 2018; 7) ONS Breakthrough Pain 2019; 3) ONS Acute Pain 2019; 4) ONS Refractory/Intractable Pain 2019; 5) Daeninck 2016; 6) CCO 2018; 7) ONS Breakthrough Pain 2019; 8) Yamaguchi 2013; 9) ONS Chronic Pain 2019;10) Brahmer 2018; 11) NCCN 2018; 12) Puzanov 2017; 13) CCO 2018; 14) Haanen 2017; 15) Hryniewicki 2018; 16) Watanabe 2011; 17) NIH-NCI CTCAE 2017; 18) Bradt 2016 (see pages 40-48 for full references)

### **Peripheral Neuropathy Practice Guide**

Neuropathy: Numbness, tingling, burning, pins and needles, tremor, balance disturbances, pain in hands, feet, legs or arms. The end result of peripheral, motor, sensory, and autonomic neuron damage caused by neurotoxic chemotherapy agents that inactivate the components required to maintain the metabolic needs of the axon.<sup>1-4</sup> Other causes of peripheral neuropathy include surgical trauma, treatment with immune checkpoint inhibitors, and radiation involving the spine.<sup>1,3</sup>

#### 1. Assess severity of the neuropathy (Supporting evidence: 10 guidelines)<sup>1-10</sup>

If receiving chemotherapy, what was the date of your last treatment?

Tell me about the neuropathy (location, onset, radiating, what does it feel like, what makes it better or worse):<sup>1,3</sup>

			if symptom worsens, new symptoms occu or no improvem	immunotherapy		
2. Triage patient for symptom management based on highest severity (Supporting evidence: 8 guidelines) <sup>1,3,5-10</sup>	<ul> <li>Review</li> <li>self-care</li> <li>Verify</li> <li>medications</li> </ul>		<ul> <li>Review self- care</li> <li>Verify medications</li> <li>Advise to not</li> </ul>	ify	<ul> <li>Refer for medical attention immediately</li> <li>Alert clinician if on</li> </ul>	
	1 Mil (Gree		2 Modera (Yellow)		3 Seve (Red)	re
→ Do you have: □ Difficulty walking, □ Vision changes, □ Breathlessness, □ Swallowing or speaking problems, □ Nausea, □ Sweating changes? <sup>5-10</sup>	No				Yes	
holding coffee cup)? <sup>1,12</sup> → Neuropathy interferes with daily activities <sup>5-10,12</sup>	No <sup>G1</sup>				Yes <sup>G≥2</sup>	
Does your neuropathy/numbness/tingling affect your daily activities? (e.g. buttoning clothing, writing,	No <sup>G1</sup>		Yes, some <sup>G2</sup>		Yes, a lot <sup>G⊵3</sup>	
Constipation or urinary problems <sup>6</sup>	No				Yes	
Do you have difficulty emptying your bladder of urine? <sup>1</sup>	No/Mild		Yes, some		Yes, a lot	
Are you constipated? <sup>1</sup>	No/Mild		Yes, some		Yes, a lot	
Have you noticed problems with your balance or how you walk or climb stairs? <sup>1,2,5</sup> If yes, how much?	No/Mild		Yes, some		Yes, a lot	
→ Rapid onset of weakness in arms or legs <sup>5-7,9</sup>	No				Yes	
<ul> <li>→ Pain in lower back or thighs<sup>6,9</sup></li> <li>Do you have new weakness in your arms or legs?<sup>1,2</sup></li> </ul>	0 No		1-3 Yes, some		4-10 Yes, a lot	
Do you have pain in your (neuropathy location)? <sup>1-4</sup>	No/Mild 0-3 No		Moderate 4-6 Mild		Severe 7-10 > Moderate	
Are you worried about your neuropathy? <sup>6,9</sup>	No/Some		Yes, very			
neuropathy where 0="No neuropathy" and 10="Worst possible neuropathy" <sup>1,3,11</sup>	1-3		4-6		7-10	

Legend: → Immune Checkpoint Inhibitor therapy; NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

## 3. Review medications patient is using for neuropathy, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 11 guidelines)<sup>1-10,13</sup>

Current use	Examples of medications for neuropathy*	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	Duloxetine <sup>2-4,6,8,9,13</sup>		Likely effective
	Gabapentin (Neurontin <sup>®</sup> ) and opioid combination <sup>2,3</sup>		Likely effective
	Corticosteroids - prednisone/methylprednisolone <sup>1,3,5-10</sup>		Expert opinion
	Anti-convulsants gabapentin, pregabalin (Lyrica <sup>®</sup> ) <sup>1,3,4,6,8,9,13</sup>		Expert opinion
	Tricyclic anti-depressants: amitriptyline (Elavil <sup>®</sup> ), nortriptyline (Pamelor <sup>®</sup> ), duloxetine (Cymbalta <sup>®</sup> ), venlafaxine (Effexor <sup>®</sup> ), bupropion (Wellbutrin <sup>®</sup> , Zyban <sup>®</sup> ) <sup>1,3,4,13</sup>		Expert opinion
	Opioids – fentanyl, morphine (Statex <sup>®</sup> ), hydromorphone (Dilaudid <sup>®</sup> ), codeine, oxycodone (OxyContin <sup>®</sup> ), tapentadol (Nucynta <sup>®</sup> ), methadone (Dolophine <sup>®</sup> ) <sup>1,3</sup>		Expert Opinion
	Topical – lidocaine patch 5% <sup>1,3</sup>		Expert Opinion

\*Opioids combined with anticonvulsants or anti-depressants increase CNS adverse events requiring careful titration. Avoid tricyclic antidepressants in the elderly.<sup>4</sup> Carnitine/L-carnitine and human leukemia inhibitory factor are not recommended for practice.<sup>2,13</sup>

#### 4. Review 3 or more self-care strategies (Supporting evidence: 3 guidelines)<sup>1-3</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1.			What is your <b>goal</b> in managing the neuropathy? <sup>1,3</sup>
2. 🗆			What helps with managing your neuropathy? <sup>1</sup> Reinforce as appropriate.
3. 🗖			Do you look at your hands and feet every day for sores/blisters that you may not feel? <sup>1</sup>
4. 🗆			Neuropathy in feet: Do you have footwear that fits you properly? <sup>1,2</sup>
5. 🗆			Neuropathy in hands: Do you wear gloves when cooking, using oven, or doing dishes? <sup>1,2</sup>
6. 🗆			In your home: Are the walkways clear of clutter? <sup>1</sup> Do you have a <b>skid-free shower</b> or using bath mats in your tub? <sup>1,2</sup> Have you <b>removed throw rugs</b> that may be a tripping hazard? <sup>1,2</sup>
7. 🗆			When <b>walking on uneven ground</b> , do you try to <b>look at the ground</b> to help make up for the loss of sensation in your legs or feet? <sup>1</sup>
8. 🗆			If any neuropathy, to <b>avoid burns</b> : Have you <b>lowered the temperature</b> of your hot water heater? <sup>1,2</sup> Do you use a thermometer to ensure shower or tub water is <120°F/49°C? <sup>1,2</sup>
9. 🗆			Are you <b>avoiding</b> exposing your fingers and toes to <b>very cold temperatures</b> ? <sup>1</sup>
10. 🗆			Do you try to <b>dangle your legs before you stand up</b> to avoid feeling dizzy? <sup>1</sup>
11. 🗆			For <b>constipatio</b> n, do you try eat a <b>high-fiber diet</b> and drink adequate <b>fluids</b> ? <sup>1,3</sup>
12. 🗆			For urinary issues do you try to empty bladder at same time every day, bladder re-training exercises, and drink adequate fluids? <sup>1</sup>
13. 🛛			Have you tried <b>acupuncture</b> , massage, yoga, relaxation therapy, or guided imagery? <sup>1,3</sup>
14. 🗆			Have you spoken with a <b>physiotherapist</b> about: A walker, cane, or splint to help with balance and improve walking, physical training plan or transcutaneous electrical nerve stimulation? <sup>1-3</sup>
15. 🗆			Have you spoken with an <b>occupational therapist</b> about using loafer-style shoes or Velcro shoe laces, adaptive equipment (e.g. larger handles on eating utensils)? <sup>1</sup>
16. 🗆			Have you spoken with a clinician or pharmacist or dietitian about the peripheral neuropathy? <sup>1,3</sup>
17. 🗆			Would <b>more information</b> about your symptoms help you to manage them better? <sup>1</sup> If yes, provide appropriate information or suggest resources.

Name	e Signature Date							
	Advise to call back in 1-2 days if no improvement, symptom worsens, or new symptoms occur							
	Patient agrees to seek medical attention; specify time frame:							
	Referral (service & date):							
	Patient agrees to use medication to be consistent with prescribed regimen. Specify:							
	Patient agrees to try self-care items #: How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?							
	No change, continue with self-care strategies and if appropriate, medication use							

References: 1) BCCA 2014; 2) ONS 2019; 3) NCCN 2019; 4) CCO 2018; 5) BCCA 2017; 6) Brahmer 2018; 7) CCO 2018; 8) Haanen 2017; 9) NCCN 2018; 10) Puzanov 2017; 11) Watanabe 2011; 12) NIH-NCI CTCAE 2017; 13) Hershman 2014. (see pages 40-48 for full references).

## **Skin Rash Practice Guide**

Skin rash/alteration: A change in the colour, texture or integrity of the skin.<sup>1-11</sup>

This practice guide is intended for any rash except for skin changes from radiation reaction. If the rash is in the radiation therapy area, refer to the Skin Reaction to Radiation practice guide.

#### 1. Assess severity of the skin rash (Supporting evidence: 15 guidelines)<sup>1-15</sup>

Tell me about the skin rash (e.g. location, onset, what does it look like):<sup>1</sup>

What number from 0 to 10 best describes your skin rash where 0="No skin rash" and 10="Worst possible skin rash" <sup>1,16</sup>	1-3		4-6	7-10	
Are you worried about your skin rash? <sup>1,15</sup>	No/Some		Yes, very		
Is the skin rash on one small part of your body (localized) or does it cover other areas (generalized)? <sup>1,3,6,7,12,17</sup>	<10% BSA <sup>G1</sup>		10-30% BSA <sup>G2</sup>	>30% BSA <sup>≥3</sup>	
→ Is the skin rash localized or generalized <sup>2,4,5,8,9,11,13,14</sup>			<10% BSA <sup>G1</sup>	>10% BSA <sup>G≥2</sup>	
Do you have any open wounds or blisters? <sup>1-8,11,12</sup>	No			Yes	
Is the rash moist or weeping? <sup>1,12</sup>	No/Dry			Yes	
Do you have pain or feel burning at the skin rash area? <sup>1-3,6,7,11,13,15</sup>	No/Mild 0-3		Moderate 4-6	Severe 7-10	
Is the rash itchy? <sup>1-8,10-14</sup>	No		Yes		
Does the affected area feel tight or swollen? <sup>1,2,4,5,11-13</sup>	No		Yes		
Have you experienced a rash like this before? <sup>3,9</sup>	No/controlled with treatment			Yes, did not respond to treatment	
Does your skin rash affect your daily activities? <sup>1-13,15</sup>	No		Yes, some	Yes, a lot	
	1 Mild (Greer	ı)	2 Modera (Yellow	3 Sever (Red	-
2. Triage patient for symptom management based on highest severity (Supporting evidence: 14 guidelines) <sup>1-14</sup>	<ul> <li>Review self- care.</li> <li>Verify medications</li> </ul>		<ul> <li>Review self- care.</li> <li>Verify medications</li> <li>Advise to noti if symptom worsens, new symptoms occur or no improveme in 12-24 hours.</li> </ul>	<ul> <li>Refer for medical attention immediately.</li> <li>Alert clinician on immunotherapy</li> </ul>	n if

Legend: → Immune Checkpoint Inhibitor therapy; BSA=Body surface area; NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

# 3. Review medications patient is using for skin rash, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 16 guidelines)<sup>1-15,18</sup>

Current use	Examples of medications for skin rash	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	Topical corticosteroids (hydrocortisone, betamethasone, clobetasol propionate) <sup>1-15</sup>		Expert opinion
	Antihistamines or antipruritics (hydroxyzine diphenhydramine, cetirizine, loratidine) <sup>2-11,13-15,18</sup>		Expert opinion
	Oral corticosteroids (prednisone, methylprednisolone) <sup>2-9,11-15,18</sup>		Expert opinion
	Antibiotics for infection, <sup>1,3,4,7,10,12,15</sup> or prophylaxis <sup>3,6,14,18</sup>		Likely effective
	Prophylaxis: Vitamin K cream <sup>3,6,15</sup>		Expert opinion

\* Low-dose corticosteroid cream should be used sparingly.<sup>2,3,10</sup>

### 4. Review 3 or more self-care strategies (Supporting evidence: 12 guidelines)<sup>1,3-11,14,15</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies
1.			What is your <b>goal</b> for managing your skin rash? <sup>1</sup>
2. 🗆			What helps when you have a skin rash? <sup>1</sup> Reinforce as appropriate.
3. 🗆			Are you <b>avoiding sun</b> and protecting your skin with sunscreen and clothes? <sup>1,3-</sup>
4. 🗆			Are you <b>avoiding skin irritants</b> (e.g. alcohol or perfume based creams, clothes washed in scented laundry soap)? <sup>1,3,5-7,9,11,15</sup>
5. 🗆			Are you using <b>moisturizing cream</b> on your skin (e.g. urea-based) daily? <sup>1,3-</sup>
6. 🗆			If itchy, are you using oatmeal baths? <sup>4,15</sup>
7. 🗆			Are you trying to take <b>warm showers</b> using mild <b>non-scented soap</b> ? Avoid hot water and bathing too long. <sup>1,3,6,7,10,14</sup>
8. 🗆			Are you trying to use a <b>cool compress</b> for itchy skin? <sup>4,7,15</sup>
9. 🗆			Would <b>more information</b> about your symptoms help you to manage them better? If yes, provide appropriate information or suggest resources.

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

 

 □
 No change, continue with self-care strategies and if appropriate, medication use

 □
 Patient agrees to try self-care items #: How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?

 □
 Patient agrees to use medication to be consistent with prescribed regimen Specify:

 □
 Patient agrees to seek medical attention; specify time frame:

 □
 Advise to call back in 12-24 hours if no improvement, symptom worsens, or new symptoms occur<sup>1</sup>

 Name
 Signature

References: 1) BCCA 2016; 2) NCCN 2018; 3) Pinto 2016; 4) CCO 2018; 5) Haanen 2017; 6) Gravalos 2019; 7) Chu 2017; 8) Hryniewicki 2018; 9) Brahmer 2018; 10) Califano 2015; 11) Belum 2016; 12) NICaN 2015; 13) Puzanov 2017; 14) BCCA 2017; 15) Brown 2016; 16) Watanabe 2011; 17) NIH-NCI CTCAE 2017; 18) ONS 2017 (see pages 40-48 for full references).

### **Skin Reaction to Radiation Practice Guide**

Skin reaction/alteration: A change in the colour, texture or integrity of the skin.<sup>1,2</sup>

## **1. Assess severity of the skin reaction to radiation** (Supporting evidence: 4 guidelines)<sup>1-4</sup>

Site of skin reaction(s)<sup>3</sup> \_\_\_\_\_ Size of skin reaction(s)<sup>3</sup>

What number from 0 to 10 best describes your skin reaction where 0="No skin reaction" and 10="Worst possible skin reaction" <sup>2,3,5</sup>	1-3		4-6		7-10	
Are you worried about your skin reaction? <sup>2</sup>	No/Some		Yes, very			
Is your skin red? <sup>2-4</sup>	None		Faint/dull		Tender/bright, necrotic	
Is your skin peeling/flaking? <sup>2-4,6</sup>	No/Dry <sup>G1</sup>		Patchy, moist <sup>G2</sup>		Generalized, moist <sup>G3</sup>	
Do you have any swelling around the skin reaction area? <sup>2-4</sup>	No		Yes, some		Yes, pitting edema	
Do you have pain at the skin reaction area? <sup>2-4</sup>	No/Mild 0-3		Moderate 4-6		Severe 7-10	
Do you feel itchy at the skin reaction area? <sup>1-4,6</sup>	No/Mild <sup>G1</sup>		Yes, often <sup>G2</sup>		Yes, constant <sup>G3</sup>	
Do you have any open, draining wounds? <sup>2-4</sup>	No				Yes	
Is there any odour from the skin reaction area? <sup>2,3</sup>	No				Yes, strong/foul	
Do you have any bleeding? <sup>2,3</sup>	No				Yes, from minor trauma	
Do you have a fever > 38° C? <sup>2-4</sup> □Unsure	No				Yes	
Have you started a new medication? <sup>2,3</sup>	No		Yes			
Does your skin reaction affect your daily activities? <sup>2,3</sup>	No		Yes, some		Yes, a lot	
	1 Mi (Gree		2 Moderat (Yellow)	e	3 Severe (Red)	9
2. Triage patient for symptom management based on highest severity (Supporting evidence: 2 guidelines) <sup>3,4</sup>	<ul> <li>Review s care.</li> <li>Verify medications</li> </ul>	_	<ul> <li>Review self- care.</li> <li>Verify medications</li> <li>Advise to noti if symptom worsens, new symptoms occur or no improveme in 12-24 hours.</li> </ul>	,	□ Refer for media attention immediately.	cal

Legend: NCI-CTCAE G1=Grade 1, G2=Grade 2, ≥G3=Grade 3 or higher

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

#### **Additional Comments:**

\_\_\_\_\_

## 3. Review medications patient is using for skin reaction, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 3 guidelines)<sup>2-4</sup>

Current use	Examples of medications for skin reaction to radiation therapy*	Notes (e.g. dose, suggest to use as prescribed)	Evidence
		as prescribed)	
	Prevention: Calendula ointment <sup>2</sup>		Likely effective
	Pruritus: Low-dose corticosteroid cream <sup>2-4</sup>		Likely effective
	Infection: Silver Sulfadiazine (Flamazine) <sup>2,3</sup>		Likely effective
	Open areas: Hydrocolloid & hydrogel Dressings <sup>3,4</sup>		Expert opinion
	Moist desquamation: Silicone Dressings <sup>3</sup>		Expert opinion
	Infection: Topical antibiotics <sup>2</sup>		Expert opinion

\*Insufficient evidence to support or refute other topical agents for prevention of skin reaction (i.e., sucralfate cream, ascorbic acid, chamomile cream, almond ointment, polymer adhesive skin sealant). Low-dose corticosteroid cream should be used sparingly.<sup>2-4,7</sup> Silver sulfadiazine should not be used if allergy to sulfa, history of severe renal or hepatic disease or during pregnancy.<sup>3</sup> Hydrocolloid & hydrogel dressings are not advised for infected wounds and wounds with heavy exudate,<sup>3</sup> or applied directly prior to treatment.<sup>4</sup> Emerging evidence for proteolytic enzymes for treatment of skin reaction from radiation.<sup>1</sup> Trolamine (Biafine<sup>®</sup>) and aloe vera are not recommended for radiation skin reaction.<sup>2</sup>

#### 4. Review 3 or more self-care strategies (Supporting evidence: 4 guidelines)<sup>1-4</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies		
1.			What is your <b>goal</b> for managing your skin reaction? <sup>3</sup>		
2. 🗆			What helps when you have a skin reaction? <sup>3</sup> Reinforce as appropriate.		
3. 🗆			Are you trying to take <b>lukewarm/tepid showers</b> or <b>baths</b> using mild non-perfumed soap, and patting dry (no rubbing)? <sup>1-4,7</sup>		
4. □			Are you trying to use <b>non-scented</b> , lanolin-free, water-based <b>creams</b> on intact skin? <sup>3,4</sup>		
5. 🗆			Are you wearing loose clothes? <sup>2,3</sup>		
6. 🗆			Are you <b>avoiding using petroleum jelly</b> , alcohol, and perfumed products? <sup>3,4</sup>		
7. 🗆			Are you using <b>non-metallic deodorant</b> ? <sup>1-3</sup>		
8. 🗆			Are you trying to use an <b>electric razor</b> instead of a wet razor for shaving? Stop <b>shaving</b> if area becomes irritated. <sup>2-4</sup>		
9. 🗆			Are you <b>avoiding waxing</b> or other hair removal creams? <sup>3</sup>		
10. 🗆			Are you <b>avoiding</b> skin <b>creams</b> or gels in the <b>treatment area before treatment</b> ? <sup>2,4</sup>		
11. 🛛			Are you <b>avoiding wet swim wear</b> in the treatment area? <sup>2,3</sup>		
12. 🗆			Are you <b>avoiding temperature extremes</b> (e.g. ice pack or heating pad) to the reaction area? Are you trying to <b>protect</b> the treatment area from the <b>sun and the cold</b> ? <sup>2-4</sup>		
13. 🗆			If the reaction area is itchy, are you trying to use warm or room temperature <b>normal saline compresses up to 4 times a day</b> ? <sup>3</sup>		
14. 🗆			Are you <b>avoiding trauma to the treatment area</b> by not using tape or Band-aids, not rubbing or scratching your skin, and opting to wear loose fitting clothing? <sup>2-4</sup>		
15. 🗆			Would <b>more information</b> about your symptoms help you to manage them better? If yes, provide appropriate information or suggest resources.		

#### 5. Summarize and document plan agreed upon with patient (check all that apply)

Name		Signature	Date
	Advise to call back in 12-24 hours if no improvement, symptom worsens, or new symptoms occur		
	Patient agrees to seek medical attention; specify time frame:		
	Patient agrees to use medic	ation to be consistent with prescribed regimen. S	pecify:
	Patient agrees to try self-care items #: How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?		
	No change, continue with se	elf-care strategies and if appropriate, medication	JSE

References: 1) Chan 2014; 2) ONS 2017; 3) BCCA 2017; 4) Pinto 2016; 5) NICaN 2015; 6) Watanabe 2011; 7) NIH-NCI CTCAE 2017 (see pages 40-48 for full references).

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## **Sleep Changes Practice Guide**

Sleep changes: actual or perceived changes in night sleep resulting in daytime impairment.<sup>1-3</sup>

## **1. Assess severity of the sleep changes** (Supporting evidence: 3 guidelines)<sup>1-3</sup>

What number from 0 to 10 best describes how much your sleep changes affect your daytime activities at home and work where 0="No problems" and 10="Worst possible problems" <sup>1-3</sup>	1-3		4-6		7-10	
Are you worried about your sleep changes? <sup>1-3</sup>	No/Some		Yes, very			
Do you have difficulty falling asleep? <sup>1-3</sup>	<3 nights/week		3+ nights/week		Takes ≥30 min every night	
Do you have difficulty staying asleep? <sup>1-3</sup>	<3 nights/week		3+ nights/week		Takes ≥30 min every night to go to sleep again	
Do you have early morning waking when not desired? <sup>1-3</sup>	<3 nights/week		3+ nights/week			
How long have these sleep changes been present? <sup>1-3</sup> Describe the sleep pattern change. <sup>1-3</sup>	Less than 1 month		More than 1 month			
Did the onset of this problem occur with another issue? <sup>1-3</sup> Describe.	No		Yes			
Are you taking any medicines that affect sleep (e.g. opiates, steroids, sedatives, etc.) <sup>1,3</sup>	No		Yes			
Do you have other sleep disorders (e.g., loud snoring, choking/gasping, sleep apnea, restless movement, restless legs)? <sup>1-3</sup>	No				Yes	
Do you have other symptoms: <sup>1-3</sup> □ fatigue, □ pain, □ nausea, □ anxiety, □ depression, □ hot flashes.	None		Some		Yes, many	
	Mild (Gree	en)	2 Modera (Yellow)	te	3 Severe (Red)	<u>.</u>
2. Triage patient for symptom management based on highest severity (Supporting evidence: 3 guideline) <sup>1-3</sup>	□ Review se care. □ Verify medications	elf-	<ul> <li>Review self- care.</li> <li>Verify medications</li> <li>Advise to not if symptom worsens, new symptoms occu or no improvem in 2-3 days.</li> </ul>	r,	<ul> <li>□ Review self-ca (If ≥30 minutes set 4.16).</li> <li>□ Verify medicat use, if appropriate</li> <li>□ For other sleep disorders, refer to sleep disorder cli</li> </ul>	ee ion e. p o

If patient has other symptoms, did you refer to the relevant practice guide(s)? Please specify:

#### **Additional Comments:**

## 3. Review medications patient is using for sleep changes, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 2 guidelines)<sup>1,3</sup>

Current use	Examples of Medications for sleep changes*	Notes (e.g. dose, suggest to use as prescribed)	Evidence
	Benzodiazepines - lorazepam (Ativan <sup>®</sup> ), diazepam, (Valium <sup>®</sup> ), alprazolam (Xanax <sup>®</sup> ) <sup>1,3</sup>		Expert opinion
	Non-benzodiazepine Hypnotics - Zolpidem (Ambien <sup>®</sup> ) <sup>1,3</sup>		Expert opinion
	Tricyclic Antidepressants - Amitriptyline (Elavil <sup>®</sup> ) <sup>3</sup>		Expert opinion
	Neuroleptics - Chlorpromazine (Thorazine <sup>®</sup> , Ormazine <sup>®</sup> ) <sup>3</sup>		Expert opinion
	Herbal supplements (Melatonin, Kava, Valerian) <sup>3</sup>		Expert opinion
	Melatonin receptor agonists - Ramelteon (Rozerem <sup>®</sup> ) <sup>3</sup>		Expert opinion
	Antipsychotics - Quetiapine (Seroquel <sup>®</sup> ) <sup>3</sup>		Expert opinion

\*Medications for sleep changes should be short term (7-10 days) and depends on side effect profiles of the medicine and the potential for interaction with other current medications; need to balance benefits with harms.<sup>1,3</sup> Tricyclic antidepressants should be avoided in the elderly.<sup>3</sup> Antipsychotics are a last option.<sup>3</sup>

#### 4. Review 3 or more self-care strategies (Supporting evidence: 3 guidelines)<sup>1-3</sup>

Patient already uses	Strategy advised/ education provided	Patient agreed to try	Self-care strategies		
1.			What is your <b>goal</b> for sleeping (is it realistic e.g. 6 -10 hours sleep/night)? <sup>1,3</sup>		
2. 🗆			What helps when you have problems sleeping? <sup>1,3</sup> Reinforce as appropriate.		
3. 🗆			Have you kept a <b>sleep diary</b> ? <sup>1-3</sup>		
4. □			Do you try to go to sleep and <b>wake at the same time</b> each day? <sup>1-3</sup>		
5. 🗆			Do you get <b>exposed to light</b> soon after waking? <sup>1,2</sup>		
6. 🗆			Do you try to <b>clear your head early evening</b> (problem solve, write down plan)? <sup>1,2</sup>		
7. 🗆			Do you have a <b>90-minute buffer zone</b> before bedtime (e.g., read, watch TV, crossword puzzle, relax, listen to music, yoga, deep breathing, meditation, guided imagery)? <sup>1-3</sup>		
8. 🗆			Do you <b>go to bed when you are sleepy</b> ? <sup>1-3</sup> If you <b>can't fall asleep</b> within 20-30 minutes, do you <b>get out of bed</b> and return when sleepy? <sup>1-3</sup>		
9. 🗆			Do you limit the use of the <b>bedroom for sleep and/or sex</b> ? <sup>1-3</sup>		
10. 🗆			Do you <b>restrict napping</b> in the daytime? <sup>1-3</sup> If needed, limit to one nap (20-30 minutes) and spend at least four hours awake before bedtime. <sup>2</sup>		
11. 🗆			Do you have a <b>comfortable sleep environment</b> ? Suggest removing bedroom clock and avoid computer screens. If noisy or too bright, use <b>ear plugs or eye masks</b> . <sup>1-3</sup>		
12. 🛛			Do you understand the effect of some medications on sleep? Provide education. <sup>1,3</sup>		
13. 🛛			If you have <b>other symptoms</b> , are they under control? <sup>3</sup>		
14. 🗆			Are you <b>exercising</b> regularly? <sup>1-3</sup>		
15. 🗆			Do you know <b>what to avoid</b> ? Suggest: limiting caffeine after noon, limit smoking or alcohol, spicy or heavy meals, excessive fluids, intense activities close to bedtime. <sup>1-3</sup>		
16. 🗆			Have you tried a program like <b>cognitive-behavioural therapy</b> or received personal counseling that provides more in-depth guidance on managing sleep changes? <sup>1-3</sup>		
17. 🗆			Would <b>more information</b> about your symptoms help you to manage them better? If yes, provide appropriate information or suggest resources.		

## 5. Summarize and document plan agreed upon with patient (check all that apply)

Name		Signature	Date
	Advise to call back in 2-3 days if no improvement, symptom worsens, or new symptoms occur		
	Patient agrees to seek medical attention; specify time frame:		
	Referral (service & date):		
	Patient agrees to use medic	ation to be consistent with prescribed regimen. Spe	cify:
		you can try what you agreed to do (0=not confident,	10=very confident)?
_	Patient agrees to try self-care items #:		
	No change, continue with se	If-care strategies and if appropriate, medication use	9

References: 1) Howell 2012; 2) ONS 2017; 3. BCCA 2014; 4) Watanabe 2011 (see pages 40-48 for full references).

## **Full list of references**

#### Anxiety

- 1. Howell D, Keshavarz H, Esplen MJ, et al. *A Pan Canadian Practice Guideline: Screening, Assessment and Care of Psychosocial Distress (Depression, Anxiety) in Adults with Cancer.* Toronto: Canadian Partnership Against Cancer (Cancer Journey Advisory Group) and the Canadian Association of Psychosocial Oncology;2015.
- 2. Oncology Nursing Society. ONS Symptom Interventions: Anxiety. 2017.
- 3. National Comprehensive Cancer Network. Distress Management (Version 2.2018). 2018.
- 4. Butow P, Price MA, Shaw JM, et al. Clinical pathway for the screening, assessment and management of anxiety and depression in adult cancer patients: Australian guidelines. *Psychooncology.* 2015;24(9):987-1001.
- 5. Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- 6. Hryniewicki AT, Wang C, Shatsky RA, Coyne CJ. Management of Immune Checkpoint Inhibitor Toxicities: A Review and Clinical Guideline for Emergency Physicians. *J Emerg Med.* 2018;55(4):489-502.
- 7. BC Cancer Agency. Immune-mediated adverse reaction management guide: Endocrine. 2017.
- Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. J Clin Oncol. 2018;36(17):1714-1768.
- 9. Cancer Care Ontario. Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline. 2018.
- 10. Haanen J, Carbonnel F, Robert C, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2017;28(suppl\_4):iv119-iv142.
- 11. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage.* 2011;41(2):456-468.
- 12. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events* (*CTCAE*) v5.0. 2017.
- 13. Bradt J, Dileo C, Magill L, Teague A. Music interventions for improving psychological and physical outcomes in cancer patients. *Cochrane Database Syst Rev.* 2016(8):CD006911.

#### **Appetite Loss**

- 1. Oncology Nursing Society. ONS Symptom Interventions: Anorexia. 2017.
- 2. Cancer Care Ontario. Symptom Management Guide-to-Practice: Loss of Appetite. Toronto, Ontario 2012.
- 3. BC Cancer Agency. Symptom Management Guidelines: ANOREXIA and CACHEXIA. 2014.
- 4. Arends J, Bachmann P, Baracos V, et al. ESPEN guidelines on nutrition in cancer patients. *Clin Nutr.* 2017;36(1):11-48.
- 5. Cancer Care Ontario. Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline. 2018.
- 6. Haanen J, Carbonnel F, Robert C, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2017;28(suppl\_4):iv119-iv142.
- 7. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.
- 8. Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- 9. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage*. 2011;41(2):456-468.
- 10. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events* (*CTCAE*) v5.0. 2017.

#### Bleeding

- 1. Oncology Nursing Society. ONS Symptom Interventions: Prevention of Bleeding. 2019.
- 2. Cancer Care Nova Scotia. Guidelines for the Management of Oncologic Emergencies in Adult Patients. 2014.
- 3. Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. *J Clin Oncol.* 2018;36(17):1714-1768.

- 4. Cancer Care Ontario. Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline. 2018.
- 5. Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- 6. Hryniewicki AT, Wang C, Shatsky RA, Coyne CJ. Management of Immune Checkpoint Inhibitor Toxicities: A Review and Clinical Guideline for Emergency Physicians. *J Emerg Med.* 2018;55(4):489-502.
- 7. Haanen J, Carbonnel F, Robert C, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2017;28(suppl\_4):iv119-iv142.
- 8. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.
- 9. BC Cancer Agency. Immune-mediated adverse reaction management guide: Enterocolitis. 2017.
- 10. Estcourt L, Stanworth S, Doree C, et al. Prophylactic platelet transfusion for prevention of bleeding in patients with haematological disorders after chemotherapy and stem cell transplantation. *Cochrane Database Syst Rev.* 2012(5):CD004269.

#### Breathlessness/Dyspnea

- 1. Oncology Nursing Society. ONS Symptom Interventions: Dyspnea. 2017.
- 2. Cancer Care Ontario. Symptom Management Guide-to-Practice: Dyspnea. Toronto, Ontario, Canada2010.
- 3. BC Cancer Agency. Dyspnea. 2014.
- 4. BC Guidelines. *Chronic heart failure Diagnosis and management.* Retrieved from <u>http://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/chronicheartfailure\_full.pdf2015</u>.
- 5. SIGN. *Management of chronic heart failure*. Retrieved from <u>http://www.sign.ac.uk/pdf/SIGN147.pdf2016</u>.
- 6. American College of Cardiology Foundation & American Heart Association. 2013 ACCF/AHA guideline for the management of heart failure. *Journal of the American College of Cardiology*. 2013;26(16):e147 e239.
- 7. European Society of Cardiology. 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC)Developed with the special contribution of the Heart Failure Association (HFA) of the ESC. *Eur Heart J.* 2016;37(27):2129-2200.
- 8. Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. *J Clin Oncol.* 2018;36(17):1714-1768.
- 9. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.
- 10. Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- 11. Haanen J, Carbonnel F, Robert C, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2017;28(suppl\_4):iv119-iv142.
- 12. Hryniewicki AT, Wang C, Shatsky RA, Coyne CJ. Management of Immune Checkpoint Inhibitor Toxicities: A Review and Clinical Guideline for Emergency Physicians. *J Emerg Med.* 2018;55(4):489-502.
- 13. Cancer Care Ontario. Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline. 2018.
- 14. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage*. 2011;41(2):456-468.
- 15. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events* (*CTCAE*) v5.0. 2017.
- 16. National Heart Foundation. *Guidelines for the prevention, detection and management of chronic heart failure in Australia.* Retrieved from <a href="https://www.heartfoundation.org.au/images/uploads/publications/Chronic Heart Failure Guidelines 2011.p">https://www.heartfoundation.org.au/images/uploads/publications/Chronic Heart Failure Guidelines 2011.p</a> df2011.
- 17. Canadian Cardiovascular Society. The 2012 Canadian Cardiovascular Society heart failure management guidelines update: focus on acute and chronic heart failure. *Can J Cardiol.* 2013;29(2):168-181.
- 18. American College of Cardiology, American Heart Association, Heart Failure Society of America. 2016 ACC/AHA/HFSA Focused Update on New Pharmacological Therapy for Heart Failure: An Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America. *Circulation*. 2016;134(13):e282-293.

#### Constipation

- 1. Oncology Nursing Society. ONS Symptom Interventions: Constipation. 2017.
- 2. Cancer Care Ontario. Symptom Management Guide-to-Practice: Bowel Care. 2012.
- 3. BC Cancer Agency. Symptom Management Guidelines: Constipation. 2014.
- Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. J Clin Oncol. 2018;36(17):1714-1768.
- 6. Hryniewicki AT, Wang C, Shatsky RA, Coyne CJ. Management of Immune Checkpoint Inhibitor Toxicities: A Review and Clinical Guideline for Emergency Physicians. *J Emerg Med.* 2018;55(4):489-502.
- 7. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.
- 8. BC Cancer Agency. Immune-mediated adverse reaction management guide: Endocrine. 2017.
- 9. Cancer Care Ontario. Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline. 2018.
- 10. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events* (CTCAE) v5.0. 2017.

#### Depression

- 1. Oncology Nursing Society. ONS Symptom Interventions: Depression. 2019.
- 2. National Comprehensive Cancer Network. Distress Management (Version 2.2018). 2018.
- 3. Howell D, Keshavarz H, Esplen MJ, et al. *A Pan Canadian Practice Guideline: Screening, Assessment and Care of Psychosocial Distress (Depression, Anxiety) in Adults with Cancer.* Toronto: Canadian Partnership Against Cancer (Cancer Journey Advisory Group) and the Canadian Association of Psychosocial Oncology;2015.
- 4. Cancer Care Ontario. Symptom Management Algorithm: Depression in adults with cancer. 2019.
- 5. Butow P, Price MA, Shaw JM, et al. Clinical pathway for the screening, assessment and management of anxiety and depression in adult cancer patients: Australian guidelines. *Psychooncology*. 2015;24(9):987-1001.
- 6. Li M, Kennedy EB, Byrne N, et al. Management of Depression in Patients With Cancer: A Clinical Practice Guideline. *J Oncol Pract.* 2016;12(8):747-756.
- Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- 8. Hryniewicki AT, Wang C, Shatsky RA, Coyne CJ. Management of Immune Checkpoint Inhibitor Toxicities: A Review and Clinical Guideline for Emergency Physicians. *J Emerg Med.* 2018;55(4):489-502.
- 9. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage*. 2011;41(2):456-468.
- 10. 10. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events* (CTCAE) v5.0. 2017.

#### Diarrhea

- 1. Oncology Nursing Society. ONS Symptom Interventions: Diarrhea. 2017.
- 2. BC Cancer Agency. Symptom Management Guidelines: Cancer-Related Diarrhea. 2014.
- 3. Cancer Care Ontario. Symptom Management Guide-to-Practice: Bowel Care. 2012.
- Schmidt-Hieber M, Bierwirth J, Buchheidt D, et al. Diagnosis and management of gastrointestinal complications in adult cancer patients: 2017 updated evidence-based guidelines of the Infectious Diseases Working Party (AGIHO) of the German Society of Hematology and Medical Oncology (DGHO). Ann Hematol. 2018;97(1):31-49.
- 5. Peterson DE, Boers-Doets CB, Bensadoun RJ, Herrstedt J, Committee EG. Management of oral and gastrointestinal mucosal injury: ESMO Clinical Practice Guidelines for diagnosis, treatment, and follow-up. *Ann Oncol.* 2015;26 Suppl 5:v139-151.
- 6. BC Cancer Agency. Immune-mediated adverse reaction management guide: Enterocolitis. 2017.
- 7. Cancer Care Ontario. *Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline*. 2018.

- Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. J Clin Oncol. 2018;36(17):1714-1768.
- 9. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.
- Haanen J, Carbonnel F, Robert C, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2017;28(suppl\_4):iv119-iv142.
- 11. Northern Ireland Cancer Network. NICaN acute oncology clinical guidelines. 2015.
- Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- 13. Oncology Nursing Society. ONS Symptom Interventions: Immunotherapy-Induced Diarrhea. 2017.
- 14. Califano R, Tariq N, Compton S, et al. Expert Consensus on the Management of Adverse Events from EGFR Tyrosine Kinase Inhibitors in the UK. *Drugs.* 2015;75(12):1335-1348.
- Hryniewicki AT, Wang C, Shatsky RA, Coyne CJ. Management of Immune Checkpoint Inhibitor Toxicities: A Review and Clinical Guideline for Emergency Physicians. J Emerg Med. 2018;55(4):489-502.
- 16. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage*. 2011;41(2):456-468.
- 17. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events (CTCAE) v5.0.* 2017.
- 18. Lalla RV, Bowen J, Barasch A, et al. MASCC/ISOO clinical practice guidelines for the management of mucositis secondary to cancer therapy. *Cancer.* 2014;120(10):1453-1461.

#### Fatigue/Tiredness

- 1. BC Cancer Agency. Symptom Management Guidelines: CANCER RELATED FATIGUE AND ANEMIA. 2014.
- 2. Howell D, Keshavarz H, Broadfield L, et al. *Pan Canadian Practice Guideline for Screening, Assessment, and Management of Cancer Related Fatigue in Adults Version 2-2015.* Toronto: Canadian Partnership Against Cancer (Cancer Journey Advisory Group) and the Canadian Association of Psychosocial Oncology; 2015.
- 3. Oncology Nursing Society. ONS Symptom Interventions: Fatigue. 2017.
- 4. National Comprehensive Cancer Network. Cancer-Related Fatigue (Version 2.2018). 2018.
- 5. Alberta Health Services. Cancer-Related Fatigue. 2017.
- 6. Bennett S, Pigott A, Beller EM, Haines T, Meredith P, Delaney C. Educational interventions for the management of cancer-related fatigue in adults. *Cochrane Database Syst Rev.* 2016;11:CD008144.
- Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. J Clin Oncol. 2018;36(17):1714-1768.
- 8. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.
- 9. Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- 10. Haanen J, Carbonnel F, Robert C, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2017;28(suppl\_4):iv119-iv142.
- 11. Cancer Care Ontario. Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline. 2018.
- 12. Hryniewicki AT, Wang C, Shatsky RA, Coyne CJ. Management of Immune Checkpoint Inhibitor Toxicities: A Review and Clinical Guideline for Emergency Physicians. *J Emerg Med.* 2018;55(4):489-502.
- 13. BC Cancer Agency. Immune-mediated adverse reaction management guide: Endocrine. 2017.
- 14. BC Cancer Agency. Immune-mediated adverse reaction management guide: Liver. 2017.
- 15. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage*. 2011;41(2):456-468.

- 16. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events* (CTCAE) v5.0. 2017.
- 17. Bradt J, Dileo C, Magill L, Teague A. Music interventions for improving psychological and physical outcomes in cancer patients. *Cochrane Database Syst Rev.* 2016(8):CD006911.

#### Febrile Neutropenia

- 1. Freifeld AG, Bow EJ, Sepkowitz KA, et al. Clinical practice guideline for the use of antimicrobial agents in neutropenic patients with cancer: 2010 update by the infectious diseases society of america. *Clin Infect Dis.* 2011;52(4):e56-93.
- 2. National Comprehensive Cancer Network. *Prevention and Treatment of Cancer-Related Infections Version 1.* 2018.
- 3. Klastersky J, de Naurois J, Rolston K, et al. Management of febrile neutropaenia: ESMO Clinical Practice Guidelines. *Ann Oncol.* 2016;27(suppl 5):v111-v118.
- 4. Tam CS, O'Reilly M, Andresen D, et al. Use of empiric antimicrobial therapy in neutropenic fever. Australian Consensus Guidelines 2011 Steering Committee. *Intern Med J.* 2011;41(1b):90-101.
- 5. Alberta Health Services. Management of Febrile Neutropenia in Adult Cancer Patients. 2014.
- 6. Cancer Care Manitoba (CCMB). *Neutropenia Protocol Identification and Management of Neutropenic Fever Syndromes.* 2017.
- 7. Cancer Care Nova Scotia. Guidelines for the Management of Oncologic Emergencies in Adult Patients. 2014.
- 8. Krzyzanowska MK, Walker-Dilks C, Atzema C, et al. Approach to fever assessment in ambulatory cancer patients receiving chemotherapy: a clinical practice guideline. *Curr Oncol.* 2016;23(4):280-285.
- 9. Taplitz RA, Kennedy EB, Bow EJ, et al. Outpatient Management of Fever and Neutropenia in Adults Treated for Malignancy: American Society of Clinical Oncology and Infectious Diseases Society of America Clinical Practice Guideline Update. *J Clin Oncol.* 2018;36(14):1443-1453.
- 10. BC Cancer Agency. Fever and Neutropenia. 2014.
- 11. Oncology Nursing Society. ONS Symptom Interventions: Prevention of Infection. 2017.
- 12. National Institute for Health and Clinical Excellence (NICE). *Neutropenic sepsis: prevention and management of neutropenic sepsis in cancer patients.* 2012.
- 13. Northern Ireland Cancer Network. NICaN acute oncology clinical guidelines. 2015.
- 14. Flowers CR, Seidenfeld J, Bow EJ, et al. Antimicrobial prophylaxis and outpatient management of fever and neutropenia in adults treated for malignancy: American Society of Clinical Oncology clinical practice guideline. *J Clin Oncol.* 2013;31(6):794-810.
- 15. Neumann S, Krause SW, Maschmeyer G, et al. Primary prophylaxis of bacterial infections and Pneumocystis jirovecii pneumonia in patients with hematological malignancies and solid tumors : guidelines of the Infectious Diseases Working Party (AGIHO) of the German Society of Hematology and Oncology (DGHO). *Ann Hematol.* 2013;92(4):433-442.
- 16. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events (CTCAE) v5.0.* 2017.

#### Mouth Dryness/Xerostomia

- 1. BC Cancer Agency. Xerostomia. 2014.
- 2. Cancer Care Ontario. Symptom Management Guide-to-Practice: Oral Care. 2012.
- 3. American Academy of Oral Medicine. AAOM Clinical Practice Statement: Subject: Clinical management of cancer therapy-induced salivary gland hypofunction and xerostomia. *Oral Surg Oral Med Oral Pathol Oral Radiol.* 2016;122(3):310-312.
- 4. Northern Ireland Cancer Network. NICaN acute oncology clinical guidelines. 2015.
- 5. Peterson DE, Boers-Doets CB, Bensadoun RJ, Herrstedt J, ESMO Guidelines Committee. Management of oral and gastrointestinal mucosal injury: ESMO Clinical Practice Guidelines for diagnosis, treatment, and follow-up. *Ann Oncol.* 2015;26 Suppl 5:v139-151.
- 6. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage*. 2011;41(2):456-468.
- 7. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events* (*CTCAE*) v5.0. 2017.
- 8. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.

- Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. J Immunother Cancer. 2017;5(1):95.
- Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. J Clin Oncol. 2018;36(17):1714-1768.

#### Mouth Sores/Stomatitis

- 1. Oncology Nursing Society. ONS Symptom Interventions: Mucositis. 2017.
- 2. Cancer Care Ontario. Symptom Management Guide-to-Practice: Oral Care. 2012.
- 3. BC Cancer Agency. Oral Mucositis. 2014.
- Peterson DE, Boers-Doets CB, Bensadoun RJ, Herrstedt J, ESMO Guidelines Committee. Management of oral and gastrointestinal mucosal injury: ESMO Clinical Practice Guidelines for diagnosis, treatment, and follow-up. *Ann Oncol.* 2015;26 Suppl 5:v139-151.
- 5. Northern Ireland Cancer Network. NICaN acute oncology clinical guidelines. 2015.
- 6. Califano R, Tariq N, Compton S, et al. Expert Consensus on the Management of Adverse Events from EGFR Tyrosine Kinase Inhibitors in the UK. *Drugs.* 2015;75(12):1335-1348.
- 7. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage*. 2011;41(2):456-468.
- 8. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events (CTCAE) v5.0.* 2017.
- 9. Lalla RV, Bowen J, Barasch A, et al. MASCC/ISOO clinical practice guidelines for the management of mucositis secondary to cancer therapy. *Cancer.* 2014;120(10):1453-1461.

#### Nausea & Vomiting

- 1. BC Cancer Agency. Symptom Management Guidelines: Nausea and Vomiting. 2014.
- 2. Cancer Care Ontario. Symptom Management Algorithm: Nausea and Vomiting in Adults with Cancer. 2019.
- 3. Northern Ireland Cancer Network. NICaN acute oncology clinical guidelines. 2015.
- 4. National Comprehensive Cancer Network. Antiemesis Version1.2019. 2019.
- 5. Roila F, Molassiotis A, Herrstedt J, et al. MASCC/ESMO Antiemetic Guideline 2016 With Updates in 2019. *Ann Oncol.* 2019;27(suppl 5):v119-v133.
- 6. Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. *J Clin Oncol.* 2018;36(17):1714-1768.
- 7. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.
- 8. Cancer Care Ontario. *Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline.* 2018.
- 9. Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- 10. Haanen J, Carbonnel F, Robert C, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2017;28(suppl\_4):iv119-iv142.
- 11. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage*. 2011;41(2):456-468.
- 12. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events* (*CTCAE*) v5.0. 2017.
- 13. Oncology Nursing Society. ONS Symptom Interventions: Chemotherapy-Induced Nausea and Vomiting— Adult. 2017.
- 14. Hesketh PJ, Bohlke K, Kris MG. Antiemetics: American Society of Clinical Oncology Clinical Practice Guideline Update Summary. *J Oncol Pract.* 2017;13(12):825-830.
- 15. Smith LA, Azariah F, Lavender VT, Stoner NS, Bettiol S. Cannabinoids for nausea and vomiting in adults with cancer receiving chemotherapy. *Cochrane Database Syst Rev.* 2015(11):CD009464.
- 16. Health Canada. Health Canada advises Canadians to exercise caution when taking gabapentin or pregabalin with opioids. 2019; <u>https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2019/71003a-eng.php</u>.

#### Pain

- 1. BC Cancer Agency. Symptom Management Guidelines: Pain. 2014.
- 2. National Comprehensive Cancer Network. Adult Cancer Pain. 2019.
- Oncology Nursing Society. ONS Symptom Interventions: Acute Pain. 2019. See also: Sundaramurthi et al. 2017. Cancer-Related Acute Pain: A Systematic Review of Evidence-Based Interventions for Putting Evidence Into Practice. Clin J Oncol Nurs. 2017 Jun 1;21(3 Suppl):13-30. doi: 10.1188/17.CJON.S3.13-30.
- 4. Oncology Nursing Society. ONS Symptom Interventions: Refractory/Intractable Pain. 2019. See also Brant et al. 2017. Chronic and Refractory Pain: A Systematic Review of Pharmacologic Management in Oncology. Clin J Oncol Nurs. 2017;21(3 Suppl):31-53. Accessed 3 Suppl, 21.
- 5. Daeninck P, Gagnon B, Gallagher R, et al. Canadian recommendations for the management of breakthrough cancer pain. *Curr Oncol.* 2016;23(2):96-108.
- 6. Cancer Care Ontario. Symptom Management Algorithm: Pain in Adults with Cancer 2018.
- 7. Oncology Nursing Society. ONS Symptom Interventions: Breakthrough Pain. 2019. See also: Brant et al. 2017. Breakthrough Cancer Pain: A Systematic Review of Pharmacologic Management. Clin J Oncol Nurs. 2017;21(3 Suppl):71-80.
- 8. Yamaguchi T, Shima Y, Morita T, Hosoya M, Matoba M, Japanese Society of Palliative M. Clinical guideline for pharmacological management of cancer pain: the Japanese Society of Palliative Medicine recommendations. *Jpn J Clin Oncol.* 2013;43(9):896-909.
- 9. Oncology Nursing Society. ONS Symptom Interventions: Chronic Pain. 2019. See also: Eaton et al. 2017. Nonpharmacologic Pain Interventions: A Review of Evidence-Based Practices for Reducing Chronic Cancer Pain. Clin J Oncol Nurs. 2017;21(3 Suppl):54-70.
- 10. Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. *J Clin Oncol.* 2018;36(17):1714-1768.
- 11. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.
- 12. Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- 13. Cancer Care Ontario. Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline. 2018.
- 14. Haanen J, Carbonnel F, Robert C, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2017;28(suppl\_4):iv119-iv142.
- 15. Hryniewicki AT, Wang C, Shatsky RA, Coyne CJ. Management of Immune Checkpoint Inhibitor Toxicities: A Review and Clinical Guideline for Emergency Physicians. *J Emerg Med.* 2018;55(4):489-502.
- 16. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage.* 2011;41(2):456-468.
- 17. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events (CTCAE) v5.0.* 2017.
- 18. Bradt J, Dileo C, Magill L, Teague A. Music interventions for improving psychological and physical outcomes in cancer patients. *Cochrane Database Syst Rev.* 2016(8):CD006911.

#### **Peripheral Neuropathy**

- 1. BC Cancer Agency. Chemotherapy-Induced Peripheral Neuropathy. 2014.
- 2. Oncology Nursing Society. ONS Symptom Interventions: Peripheral neuropathy. 2019.
- 3. National Comprehensive Cancer Network. Adult Cancer Pain. 2019.
- 4. Cancer Care Ontario. Symptom Management Algorithm: Pain in Adults with Cancer 2018.
- 5. BC Cancer Agency. Immune-mediated adverse reaction management guide: Neurologic. 2017.
- Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. J Clin Oncol. 2018;36(17):1714-1768.
- 7. Cancer Care Ontario. *Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline*. 2018.

- 8. Haanen J, Carbonnel F, Robert C, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2017;28(suppl\_4):iv119-iv142.
- 9. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.
- 10. Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. *J Immunother Cancer*. 2017;5(1):95.
- 11. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage.* 2011;41(2):456-468.
- 12. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events* (*CTCAE*) v5.0. 2017.
- 13. Hershman DL, Lacchetti C, Dworkin RH, et al. Prevention and management of chemotherapy-induced peripheral neuropathy in survivors of adult cancers: American Society of Clinical Oncology clinical practice guideline. *J Clin Oncol.* 2014;32(18):1941-1967.

#### Skin Rash

- 1. BC Cancer Agency. Acneiform Rash. 2016.
- 2. National Comprehensive Cancer Network. *Management immunotherapy-related toxicities: Immune Checkpoint Inhibitor-Related Toxicities (Version 1.2018).* 2018.
- 3. Pinto C, Barone CA, Girolomoni G, et al. Management of Skin Reactions During Cetuximab Treatment in Association With Chemotherapy or Radiotherapy: Update of the Italian Expert Recommendations. *Am J Clin Oncol.* 2016;39(4):407-415.
- 4. Cancer Care Ontario. *Immune Checkpoint Inhibitor Toxicity Management: Clinical Practice Guideline*. 2018.
- Haanen J, Carbonnel F, Robert C, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2017;28(suppl\_4):iv119-iv142.
- 6. Gravalos C, Sanmartin O, Gurpide A, et al. Clinical management of cutaneous adverse events in patients on targeted anticancer therapies and immunotherapies: a national consensus statement by the Spanish Academy of Dermatology and Venereology and the Spanish Society of Medical Oncology. *Clin Transl Oncol.* 2019;21(5):556-571.
- 7. Chu CY, Chen KY, Wen-Cheng Chang J, Wei YF, Lee CH, Wang WM. Taiwanese Dermatological Association consensus for the prevention and management of epidermal growth factor receptor tyrosine kinase inhibitor-related skin toxicities. *J Formos Med Assoc.* 2017;116(6):413-423.
- 8. Hryniewicki AT, Wang C, Shatsky RA, Coyne CJ. Management of Immune Checkpoint Inhibitor Toxicities: A Review and Clinical Guideline for Emergency Physicians. *J Emerg Med.* 2018;55(4):489-502.
- 9. Brahmer JR, Lacchetti C, Schneider BJ, et al. Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline. *J Clin Oncol.* 2018;36(17):1714-1768.
- 10. Califano R, Tariq N, Compton S, et al. Expert Consensus on the Management of Adverse Events from EGFR Tyrosine Kinase Inhibitors in the UK. *Drugs.* 2015;75(12):1335-1348.
- 11. Belum VR, Benhuri B, Postow MA, et al. Characterisation and management of dermatologic adverse events to agents targeting the PD-1 receptor. *Eur J Cancer.* 2016;60:12-25.
- 12. Northern Ireland Cancer Network. NICaN acute oncology clinical guidelines. 2015.
- Puzanov I, Diab A, Abdallah K, et al. Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group. J Immunother Cancer. 2017;5(1):95.
- 14. BC Cancer Agency. Immune-mediated adverse reaction management guide: Skin. 2017.
- 15. Brown J, Su Y, Nelleson D, Shankar P, Mayo C. Management of epidermal growth factor receptor inhibitor-associated rash: a systematic review. *J Community Support Oncol.* 2016;14(1):21-28.
- 16. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage*. 2011;41(2):456-468.
- 17. National Institutes of Health: National Cancer Institute. *Common terminology criteria for adverse events (CTCAE) v5.0.* 2017.
- 18. Oncology Nursing Society. ONS Symptom Interventions: Skin Reactions. 2017.

#### Skin Reaction to Radiation

- 1. Chan RJ, Webster J, Chung B, Marquart L, Ahmed M, Garantziotis S. Prevention and treatment of acute radiation-induced skin reactions: a systematic review and meta-analysis of randomized controlled trials. *BMC Cancer.* 2014;14:53.
- 2. Oncology Nursing Society. ONS Symptom Interventions: Radiodermatitis. 2017
- 3. BC Cancer Agency. Symptom Management Guidelines: Radiation Dermatitis. 2017.
- 4. Northern Ireland Cancer Network. NICaN acute oncology clinical guidelines. 2015.
- 5. Watanabe SM, Nekolaichuk C, Beaumont C, Johnson L, Myers J, Strasser F. A multicenter study comparing two numerical versions of the Edmonton Symptom Assessment System in palliative care patients. *J Pain Symptom Manage*. 2011;41(2):456-468.
- 6. National Institutes of Health, National Cancer Institute. *Common Terminology Criteria for Adverse Events* (*CTCAE*) Version 5.0. 2017.
- 7. Pinto C, Barone CA, Girolomoni G, et al. Management of Skin Reactions During Cetuximab Treatment in Association With Chemotherapy or Radiotherapy: Update of the Italian Expert Recommendations. *Am J Clin Oncol.* 2016;39(4):407-415.

#### Sleep Changes

- 1. Howell D, Oliver TK, Keller-Olaman S, et al. *A Pan-Canadian Practice Guideline: Prevention, Screening, Assessment and Treatment of Sleep Disturbances in Adults with Cancer.* Toronto: Canadian Partnership Against Cancer (Cancer Journey Action Group) and the Canadian Association of Psychosocial Oncology; 2012.
- 2. Oncology Nursing Society. ONS Symptom Interventions: Sleep-wake disturbances. 2019.
- 3. BC Cancer Agency. Symptom Management Guidelines: Sleep-Wake Disturbances. 2014.