

BRIEF COMMUNICATION

The pan-Canadian Oncology Symptom Triage and Remote Support (COSTaRS)—Practice guides for symptom management in adults with cancer

by Dawn Stacey and Meg Carley, for the pan-Canadian Oncology Symptom Triage and Remote Support Group

The COSTaRS practice guides were developed to improve the quality and consistency of cancer symptom management by nurses. There are 15 practice guides for the common symptoms adults experience when receiving chemotherapy and radiation therapy. Each practice guide presents the best available evidence using a format that is sensitive to how nurses think and what nurses do (Stacey et al., 2013).

The practice guides were developed using evidence from clinical practice guidelines and written using plain language to facilitate nurses' ability to communicate with patients. The steps in the practice guides are: a) assess symptom severity; b) triage the patient based on the highest level of severity; c) review medications being used; d) review self-care strategies to manage the symptom; and e) summarize the plan, agreed upon with the patient. Findings can be documented directly on the practice guide or the practice guide can be referenced when documenting on usual forms or narrative notes. Although COSTaRS practice guides were initially developed for oncology nurses to provide support by telephone, they are also relevant when nurses are providing face-to-face symptom management for adults with cancer.

In 2016, 13 COSTaRS practice guides were updated with new evidence from clinical practice guidelines and systematic reviews and two new practice guides were created for pain and sleep

problems. The purpose of this article is to summarize the changes made to the 13 revised COSTaRS practice guides based on new clinical practice guidelines and systematic reviews published since the last update, three years ago.

We conducted a systematic search of the literature from October 2012 to August 2015 to identify clinical practice guidelines and systematic reviews that were focused on one or more of the symptoms included in the COSTaRS practice guides. We searched electronic databases (e.g., Medline, Embase, CINAHL, PsycINFO, and the Cochrane Database of Systematic Reviews), reference lists of relevant guidelines, and the websites of organizations known to produce clinical practice guidelines (e.g., Oncology Nursing Society, Cancer Care Ontario, BC Cancer Agency) (Stacey et al., 2013). The citations identified were screened by two oncology nurses (DS, KN) and relevant clinical practice guidelines/systematic reviews had data extracted using a standardized form based on categories from the practice guides (e.g., definition, assessment, triage, medications, self-care). The updated COSTaRS practice guides were circulated to the pan-Canadian COSTaRS Group to validate the changes.

Of the 237 citations, we identified 31 new clinical practice guidelines/systematic reviews that were focused on the 13 COSTaRS practice guides (see Table 1). A median of three citations informed

the update of the COSTaRS symptom practice guides, ranging from one (e.g., appetite loss, breathlessness, constipation) to four (e.g., diarrhea, febrile neutropenia, nausea and vomiting) clinical practice guidelines/systematic reviews per symptom guide.

There were five overarching changes made consistently across all of the practice guides. First, mild symptom severity was changed to a rating of 1 to 3 given that the previous use of 0 would have indicated no symptom present. For medication review, doses for over-the-counter medications were removed given that some may be prescribed differently for specific oncology-related symptoms. Given the confusion with previously reporting type of evidence (e.g., single RCT), this update reports on how well the medications are expected to work (e.g., effective, likely effective or expert opinion). In self-care strategies, we added the question "what is your goal for this symptom?" so nurses can ensure that the patient has realistic goals and to aim symptom management to achieve the patient's goal. The fifth overarching change was to remove AGREE II rigour scores from the reference list; these scores are inconsistently reported and nurses were unclear on what this score meant.

The changes for specific practice guides are provided in Table 1 with reference to the new or updated clinical practice guidelines/systematic reviews. Most of the changes were minor changes to symptom assessment and self-care strategies. Anxiety and depression practice guides had the most changes to the practice guides. The practice guides on mouth sores and skin reactions from radiation therapy had the most new self-care strategies added.

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Table 1: Summary of the changes to COSTaRS Practice Guides for the 2016 update		
Changes in	Changes Overall	Status
Pain	New practice guide added for pain in response to requests for this guideline	NEW
Sleep problems	New practice guide added for sleep problems given a new pan-Canadian clinical practice guideline	NEW
Assess Severity	Changed: Mild symptom severity based on ESAS rating of 1-3	+
Review medications	Changed evidence rating from “type of evidence (e.g., single RCT, consensus)” to “evidence” to indicate how well the medications work (e.g. effective, likely effective, or expert opinion).	+
	Removed: doses for over the counter medication because some may be prescribed differently	+
Self-management	Added: What is your goal for this symptom? to ensure that management is focused on patients’ goals.	NEW
References	Removed: AGREE rigour scores from clinical practice guidelines given inconsistent reporting and based on feedback from nurses.	+
Section of guide	Changes for ANXIETY	Status
Assess severity	Removed: “have you felt this anxious for 2 weeks or longer?” because this applied to depression and not anxiety	+
	Removed: “are you re-living or facing events in ways that make you feel more anxious (e.g. dreams, flashbacks)? No evidence to support it	+
	Added: risk factors: female, dependent children, recently completed treatment	NEW
	Added: symptom-related risk factor: Sleep problems	NEW
	Moved: “Have you had recurring thoughts of dying, trying to kill yourself or harming yourself or others?” from Triage section to assess severity	+
Triage patient	Changed: “If yes” to “If potential for harm”	+
Review medications	Added: “use of medications should be based on severity of anxiety and potential for interaction with other medications	NEW
Review self-care strategies	Removed: “Do you feel you have enough help at home and with getting to appointments/treatments?” No evidence to support including it	+
	Added: “Have you shared your concerns and worries with your health provider?”	NEW
	Added: “What are you doing for physical activity including yoga?”	NEW
	Added: “listening to music” to strategy related to relaxation therapy, breathing techniques, and guided imagery	NEW
	Added: “with or without aromatherapy” to strategy on massage therapy	NEW
	Added: “mindfulness-based stress reduction” and “problem solving” to strategy relating to cognitive-behavioural therapy and counselling	NEW
New/updated References	<ul style="list-style-type: none"> • Howell, D., 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 Action Group) and the Canadian Association of Psychosocial Oncology, July 2015. • Oncology Nursing Society (ONS). Putting Evidence into practice (PEP): Anxiety. 2015. www.ons.org/practice-resources/pep/anxiety 	
Section of guide	Changes for APPETITE LOSS	Status
Assess severity	Changed: “Have you lost weight in the last 1-2 weeks without trying?” to “4 weeks” and amounts changed from No/Yes to 0-2.5%, 3-9.9%, and >10% for Mild, Moderate, and Severe, respectively	+
Review medications	Added: “Cannabis/Cannabinoids are not recommended”	NEW
New/updated References	Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Anorexia. 2015. www.ons.org/practice-resources/pep/anorexia	

Section of guide	Changes for BLEEDING	Status
Assess severity	Added: "Are you taking any medicines that increase the risk of bleeding? (e.g., acetylsalicylic acid (Aspirin), warfarin (Coumadin), heparin, dalteparin (Fragmin), tinzaparin (Innohep), enoxaparin (Lovenox), apixaban (Eliquis)"	NEW
	Added: "If warfarin, do you know your last INR blood count"	NEW
Review medications	Changed: "Review medications patient is using that may affect bleeding" to "Review medications/ treatment patient is using for bleeding"	+
	Added: "Platelet transfusion for thrombocytopenia" and "Mesna oral or IV to prevent cystitis with bleeding" as treatments for bleeding	NEW
New/updated References	<ul style="list-style-type: none"> Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Prevention of bleeding. 2015: www.ons.org/practice-resources/pep/prevention-bleeding Estcourt L, 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 	
Section of guide	Changes for BREATHLESSNESS/ DYSPNEA	Status
Review medications	Added: "Palliative oxygen is not recommended"	NEW
	Removed: "Bronchodilators- salbutamol (Ventolin®)"	+
Review self-care strategies	Added: "If you have difficulty eating, are you taking nutrition supplements"	NEW
• References	• Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Dyspnea. 2014. www.ons.org/practice-resources/pep/dyspnea	
Section of guide	Changes for CONSTIPATION	Status
Review medications	Removed: 1st, 2nd, and 3rd line prioritization of medications because this varies across clinical practice guidelines	+
	Changed: evidence for Oral sennosides from Expert Opinion to Likely Effective	+
	Added: "Methylnaltrexone injection for opioid as cause"	NEW
	Removed: "magnesium hydroxide (Milk of Magnesia)"	+
	Added: "Fentanyl and oxycodone+naloxone have less constipation"	NEW
• References	• Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Constipation. 2015. www.ons.org/practice-resources/pep/constipation	
Section of guide	Changes for DEPRESSION	Status
Assess severity	Removed: "How worried are you about feeling depressed?" and "Patient rating of worry about depression"	+
	Added: "unable to think or concentrate"	NEW
	Added: risk factors: female, financial problems, dependent children, recently completed treatment	NEW
	Added: symptom-related risk factors: fatigue, Pain, Sleep problems, other	NEW
	Moved: "Have you had recurring thoughts of dying, trying to kill yourself or harming yourself or others?" from Triage section to assess severity	+
Triage patient	Changed: "If yes" to "If potential for harm"	+
Review medications	Added: "Antidepressant medication is effective for major depression but use depends on side effect profiles..."	NEW

Review self-care strategies	Added: “What are you doing for physical activity?”	NEW
	Added: “mindfulness-based stress reduction” and “couple counselling” to item relating to counselling	NEW
References	<ul style="list-style-type: none"> • Howell, D., 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 Action Group) and the Canadian Association of Psychosocial Oncology, July 2015. • Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Depression. 2015. www.ons.org/practice-resources/pep/depression 	
Section of guide	Changes for DIARRHEA	Status
Assess severity	Added: “Are you taking any medicines that increase the risk of diarrhea? (e.g., oral sennosides, Docusate sodium)”	NEW
Review medications	Added: to Psyllium fibre “for radiation-induced diarrhea”	+
	Added: “Sucralfate is not recommended for radiation-induced diarrhea”	NEW
Review self-care strategies	Added: “very hot or very cold” and “sorbitol in sugar-free candy” to the list of suggested things to avoid	NEW
	Added: “Were you taking probiotics with lactobacillus to prevent diarrhea?”	NEW
References	<ul style="list-style-type: none"> • Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Diarrhea. 2015. www.ons.org/practice-resources/pep/diarrhea • Schwartz, L., et al. Professional Practice Nursing Standards - Symptom Management Guidelines: Cancer-Related Diarrhea. BC Cancer Agency; 2014. • Lalla, R.V., et al. MASCC/ISOO clinical practice guidelines for the management of mucositis secondary to cancer therapy. <i>Cancer</i> 2014 May 15;120(10):1453-61. • Vehreschild, M.J., et al. Diagnosis and management of gastrointestinal complications in adult cancer patients: evidence-based guidelines of the Infectious Diseases Working Party (AGIHO) of the German Society of Hematology and Oncology (DGHO). <i>Ann Oncol</i> 2013 May;24(5):1189-202. 	
Section of guide	Changes for FATIGUE	Status
Assess severity	Added: “Do you have any treatment side effects such as low red blood cells, infection, fever?”	NEW
	Added: “Do you have any other symptoms? Anxiety, appetite loss, poor intake of fluids, feeling depressed, pain, sleep problems”	NEW
	Added: “Do you drink alcohol?”	NEW
	Added: “Do you have other health conditions that cause fatigue (cardiac, breathing, liver changes, kidney)?”	NEW
	Added: “Are you taking any medicines that increase fatigue? (e.g., medicine for pain, depression, nausea/vomiting, allergies)”	NEW
Review medications	Added: Ginseng	NEW
Review self-care strategies	Removed: “Are you monitoring your fatigue levels?”	+
	Moved: “yoga” to item on physical activity and removed yoga from item on being more relaxed.	+
References	<ul style="list-style-type: none"> • Howell, D., 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, April 2015. • Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Fatigue. 2015. www.ons.org/practice-resources/pep/fatigue 	
Section of guide	Changes for Febrile Neutropenia	Status

Assess severity	Added: "An oral" to temperature assessment	NEW
Triage patient	Added: "Advise to call back if symptom worsens or new symptoms occur in 12 -24 hours" under Mild	NEW
	Changed: recommendation that antibiotics should be initiated within 1 hour of presentation instead of 2 hours	+
Review medications	Added: "G(M)-CSF"	NEW
	Added: "Antibiotics to prevent infection"	NEW
References	<ul style="list-style-type: none"> • National Comprehensive Cancer Network. Clinical practice guidelines in oncology: Prevention and treatment of cancer-related infections. 2015 • Flowers, C.R., et al. (2013). Antimicrobial prophylaxis and outpatient management of fever and neutropenia in adults treated for malignancy: American Society of Clinical Oncology clinical practice guideline. <i>J Clin Oncol</i>, 31(6), 794-810. • Alberta Health Services. Management of Febrile Neutropenia in Adult Cancer Patients. Alberta, Canada; 2014. • Neumann S., et al. Primary prophylaxis of bacterial infections and <i>Pneumocystis jirovecii</i> pneumonia in patients with hematological malignancies and solid tumors: Guidelines of the Infectious Diseases Working Party of the German Society of Hematology and Oncology (DGHO). <i>Ann Hematol</i> 2013; 92(4):433-42. 	
Section of guide	Changes for MOUTH SORES/STOMATITIS	Status
Review medications	Added: "0.5% Doxepin mouth rinse"	NEW
	Added: "Chlorhexidine mouth rinse and sulcrate are not recommended for treatment"	NEW
Review self-care strategies	Added: "or more often if mouth sores" to the statement "Are you trying to rinse your mouth 4 times a day with a bland rinse"	+
	Added: "use soft foam toothette in salt/soda water if sores" to item pertaining to brushing teeth	NEW
	Added: "lactobacillus lozenges or zinc lozenges to prevent mouth sores?"	NEW
	Added: "for dry mouth?" to item pertaining to xylitol lozenges/gum	NEW
	Added: "During chemotherapy, are you taking ice water, ice chips or ice lollipops for 30 minutes?"	NEW
	Added: "For mouth sores, have you considered referral for low level laser therapy?"	NEW
References	<ul style="list-style-type: none"> • Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Mucositis. 2015. www.ons.org/practice-resources/pep/mucositis • Lalla, R.V., et al. MASCC/ISOO clinical practice guidelines for the management of mucositis secondary to cancer therapy. <i>Cancer</i> 2014 May 15;120(10):1453-61. • Clarkson, J.E., et al. Interventions for treating oral mucositis for patients with cancer receiving treatment. <i>Cochrane Database Syst Rev</i> 2010;(8):CD001973. 	
Section of guide	Changes for Nausea & Vomiting	Status
Assess severity	Added: "Do you have any other symptoms?" with response choices of Constipation and Pain	NEW
Review medications	Added: "Triple drug: dexamethasone, 5 HT3 (palonosetron), neurokinin 1 receptor antagonist (Akynzeo)"	NEW
	Added: "Cannabis (Nabilone, medical marijuana)"	NEW
	Added: "Gabapentin"	NEW
	Added: "Metopimazine is not recommended for practice"	NEW
Review self-care strategies	Added "and/or hypnosis" to section pertaining to relaxation	NEW
References	<ul style="list-style-type: none"> • National Comprehensive Cancer Network. Clinical practice guidelines in oncology: antiemesis. Version 2. 2015. • Gralla, R.J., et al. MASCC/ESMO Antiemetic Guideline. 2013. • Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Chemotherapy-induced nausea and vomiting. 2015. www.ons.org/practice-resources/pep/chemotherapy-induced-nausea-and-vomiting • Hesketh, P.J., et al. Antiemetics: American Society of Clinical Oncology Focused Guideline Update. <i>J Clin Oncol</i> 2015 Nov 2. 	

Section of guide	Changes for PERIPHERAL NEUROPATHY	Status
Triage / Document plan	Changed: time for call back from 12-24 hours to 1-2 days if no improvement	+
Review medications	Removed: “NSAID-, diclofenac” from topical medications list	+
	Added: “Carnitine/L-carnitine and human leukemia inhibitory factor are not recommended for practice”	NEW
References	<ul style="list-style-type: none"> • Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Peripheral neuropathy. 2015. www.ons.org/practice-resources/pep/peripheral-neuropathy • National Comprehensive Cancer Network. NCCN Clinical practice guidelines in oncology: Adult cancer pain. Version 2. 2015. • Hershman, D.L., et al. Prevention and management of chemotherapy-induced peripheral neuropathy in survivors of adult cancers: American Society of Clinical Oncology clinical practice guideline. <i>J Clin Oncol</i> 2014 Jun 20;32(18):1941-67. 	
Section of guide	Changes for SKIN REACTION TO RADIATION THERAPY	Status
Title	Changed: title from “Skin Reaction” to “Skin Reaction to Radiation...”	+
Assess severity	Moved: “necrotic” to “Tender/bright” severe assessment option	+
Review medications	Added: “Prevention:” for Calendula ointment	NEW
	Added: “Mild-moderate:” for Low-dose corticosteroid cream	NEW
	Added: “Mild-moderate: Lanolin free hydrophilic cream (i.e.: glaxal base or Lubriderm)”	NEW
	Added: “Open areas: Silver Sulfadiazine (Flamazine)”	NEW
	Added: “Dressing changes for open areas”	NEW
	Removed: Hyaluronic acid cream	+
	Added: “Emerging evidence for proteolytic enzymes for treatment of skin reaction from radiation”	NEW
	Added: “Biafine® and aloe vera are not recommended”	NEW
Review self-care strategies	Added: “non-perfumed” to item pertaining to mild soap	+
	Added: “Are you wearing loose clothes?”	NEW
	Added: “petroleum jelly” and “alcohol” to avoid perfumed products	+
	Added: “non-metallic” to item pertaining to deodorant use	+
	Added: “Are you avoiding wet swim wear in the treatment area?”	NEW
	Removed “Are you trying to avoid chlorinated pools and Jacuzzis?”	+
	Added: “Are you trying to use normal saline compresses up to 4 times a day?”	NEW
References	<ul style="list-style-type: none"> • BC Cancer Agency. Care of Radiation Skin Reactions. Canada; 2013. • Oncology Nursing Society (ONS). Putting evidence into practice (PEP): Radiodermatitis. 2015. www.ons.org/practice-resources/pep/radiodermatitis • Chan, R.J., et al. Prevention and treatment of acute radiation-induced skin reactions: a systematic review and meta-analysis of randomized controlled trials. <i>BMC Cancer</i> 2014;14:53. 	

For medications, there were some new medications added (e.g., ginseng for fatigue, G-CSF for febrile neutropenia, cannabis/medical marijuana for nausea/vomiting), some now have stronger evidence to support their use (e.g., oral sennosides for constipation has evidence that it is likely effective rather than only expert opinion), and some were removed (e.g., hyaluronic acid cream for skin reaction from radiation therapy). If there were recommendations against using specific medications, these were added as footnotes in the review medication section. For example, cannabis/cannabinoids are not recommended for appetite loss.

In summary, these evidence-informed practice guides are user-friendly

tools for nurses to use when providing cancer symptom management. These protocols are available in English or French at: www.cano-acio.ca/triage-remote-protocols and an online training tutorial is available at www.ktcanada.ohri.ca/costars. For more information about the COSTaRS project and for resources for implementing in clinical practice go to www.ktcanada.ohri.ca/research.

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