



NURSES SPECIALIZED IN  
WOUND, OSTOMY AND CONTINEN  
CANADA  
INFIRMIÈRES SPÉCIALISÉES EN  
PLAIES, STOMIES ET CONTINENCE  
CANADA

In partnership with



Canadian Palliative Care  
Nursing Association  
Association Canadienne des  
Soins Infirmiers Palliatifs

# CANADIAN BEST PRACTICE RECOMMENDATIONS FOR THE TOPICAL MANAGEMENT OF MALIGNANT CUTANEOUS WOUNDS

APRIL 2024

# NOTES

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## CONFLICTS OF INTEREST

No conflicts of interest were noted.

# INTRODUCTION

Malignant cutaneous wounds pose unique challenges in patient care, requiring specialized attention to alleviate local symptoms and enhance the overall quality of life. As the prevalence of these wounds continues to rise with improving cancer survival rates, it becomes imperative to establish comprehensive best practice recommendations for their topical management. This project aimed to synthesize current evidence, expert insights, and patient-centred perspectives to provide a robust framework for health care professionals (HCPs) caring for individuals with malignant cutaneous wounds.

The definition of a malignant cutaneous wound utilized by the task force for the scope of this project was *a wound which occurs secondary to cancer cells infiltrating the cutaneous tissue and causing its destruction*. They may be chronic and painful in nature, although some may resolve. They can occur from a primary skin tumour, from the local spread of soft tissue tumours, or the metastatic spread of primary tumours such as head and neck, breast, lung, and genital malignancies via the lymphatic or blood vessels. Malignant cutaneous wounds occur when a tumour invades surrounding skin and blood vessels, causing tissue degradation and death. There can be increased exudate, pain, risk of bleeding, and a proliferation of both anaerobic and aerobic bacteria leading to odour.

In the literature, malignant wounds can also be referred to as<sup>1-4</sup>:

- malignant fungating wounds: present with nodular, fungal-like growth that protrudes above the skin surface; and
- malignant ulcerating wounds: present with deep erosions or craters.

The prevalence of malignant cutaneous wounds remains uncertain, with estimates ranging from 5% to 15% among cancer patients.<sup>5,6</sup> These wounds manifest in diverse body locations, with the head and neck being common sites for both genders. Notably, in women, metastasis to the breast represents the most frequent occurrence.<sup>7</sup> Managing malignant cutaneous wounds topically primarily revolves around alleviating associated symptoms and the resulting distress for the affected individuals. Although life expectancy data is limited, it is noteworthy that half of individuals may die within 6 months of diagnosis of a malignant cutaneous wound.<sup>7</sup>

The following best practice recommendations fill a recognized gap in standardizing the care provided to persons with malignant cutaneous wounds, emphasizing the substantial role of their support persons. The twenty-three presented recommendations serve as a guide for nurses, the interprofessional team, and the health system to enhance the overall quality of care. The task force from across Canada endeavoured to best represent the available evidence, acknowledging its often-limited strength. Many recommendations, along with their supporting rationales, rely on the expert opinion of the task force and should be interpreted accordingly.

In addition, these recommendations explore the health and well-being of the support person(s) and the professional health care team. The psychosocial impact on those closest to the person, resulting from caring for individuals with malignant cutaneous wounds, is a critical consideration. We acknowledge that having a support person is a privilege and not every person living with a malignant cutaneous wound will have access to this support. The care of a malignant cutaneous wound demands a comprehensive approach that acknowledges and addresses the complex interplay of various factors, including health equity, socioeconomic status, and diversity. Recognizing the impact of cultural humility and the need to deliver care that respects individual beliefs and practices is crucial in providing effective and equitable care. Moreover, racial disparities and racism in health care necessitate a concerted effort from the broader health care community to acknowledge and confront these systemic issues to ensure that all individuals receive the highest quality of care regardless of their background.<sup>8</sup>

The document explores the topical management and therefore, discussion of the potential benefits of oncology treatments i.e., radiation or chemo as well as symptoms such as agitation, anxiety, depression, and shortness of breath are outside the scope of these recommendations and are not covered. The interprofessional or palliative care team needs to be involved for patient-centred symptom management. Furthermore, the topical recommendations for pain and pruritus are not prescriptive or all encompassing, rather a reflection of symptom management modalities noted from the literature review. The availability of medications will vary based on care setting, local policy/procedures, and province/territory. The last section of this document describes where the supporting clinical evidence needs to be improved.

We have sought to harmonize on specific terms throughout these best practice recommendations:

- person refers to patient, client, or individual;
- support person refers to caregiver, family, or significant other;
- health care team member refers to allied health care professional or clinician;
- interprofessional refers to multidisciplinary or interdisciplinary;
- malignant cutaneous wound refers to a fungating or ulcerating malignant wound; and
- cultural humility replaces previous terms cultural competency and cultural safety.

*Note.* The symbol † has been chosen to represent the expert opinion of the task force.



# METHODOLOGY

The task force undertook the formulation of best practice recommendations on malignant cutaneous wounds. The task force comprised members of NSWOCC and Canadian Palliative Care Nursing Association (CPCNA). NSWOCC would like to gratefully acknowledge their partnership with the CPCNA in the development of this best practice recommendation document.

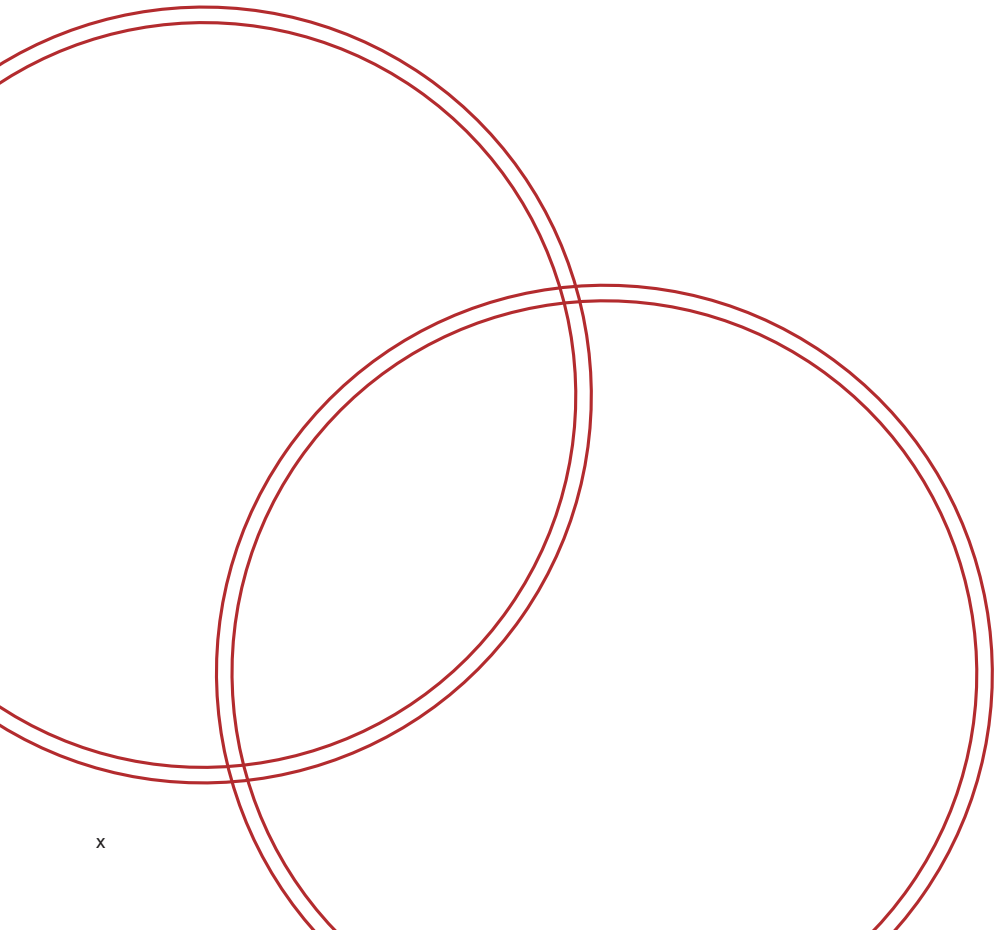
Search terms with inclusion and exclusion criteria were agreed with the task force. A literature review was conducted in February 2023 through Queen's University. The search strategy employed focused on keywords related to *cutaneous wounds, fungating wounds, malignant wounds, bleeding, odour, pain, pruritus*, and suitable search combinations. The task force considered various PICO-style questions [PICO: population, intervention, comparison, outcome] to frame the context for the literature searches to help the research team.

All papers in English were considered within the last 10 years. Additional articles were identified in support of the French speaking population of Canada. Databases searched encompassed organization websites and libraries: CINAHL; Cochrane Database for Systematic Reviews; EMBASE; Google Scholar; Medline; NSWOCC; Nursing and Allied Health Source on ProQuest; Ordre des infirmiers et infirmières du Québec; PsycInfo; and PubMed; Registered Nurses' Association of Ontario; Wound, Ostomy, Continence Nurses Society library.

The task force members screened titles/abstracts of 587 search results. Full text articles for 113 articles were retrieved and reviewed by two independent task force members using a scoping review methodology. Best practice recommendations were drafted. After the proposed statements were reviewed, a Delphi methodology was implemented to achieve consensus. First, members were encouraged to propose additional statements. Then, individual statements were introduced by the moderator for discussion and voting. After discussion, members voted to accept the statement as written. The agreement was set at 80%. All statements exceeded 80% consensus in two rounds. The task force members engaged in multiple rounds of debate following the first Delphi round. The original twenty-nine statements were reduced to twenty-three and professionally edited before the second round. All statements exceeded 80% consensus after two rounds. The final Delphi round was conducted in September 2023, with consensus reached at 93% or greater on twenty-three statements. The task force members reviewed drafts of the manuscript. Much of the evidence is older than 10 years with newer articles often citing studies before 2014. The original primary article has been referenced in the document.

An interprofessional mix of peer reviewers provided input into the best practice recommendations. A total of forty peer reviewers provided valuable input into the document. This was collected via Survey Monkey in January/February 2024. Overall, 92% of the reviewers stated that they would recommend these best practice recommendations to colleagues and administrators to support malignant

cutaneous wound practices in Canada. Refinements were made to the document, and the overall results and insights were discussed with the task force members. Specifically, it was highlighted that we should use the term cultural humility. Consequently, we altered the wording of recommendation 7 and subjected it to another Delphi consensus vote in March 2024. Finally, the completed best practice recommendation document was approved by the NSWOCC Board before publication.



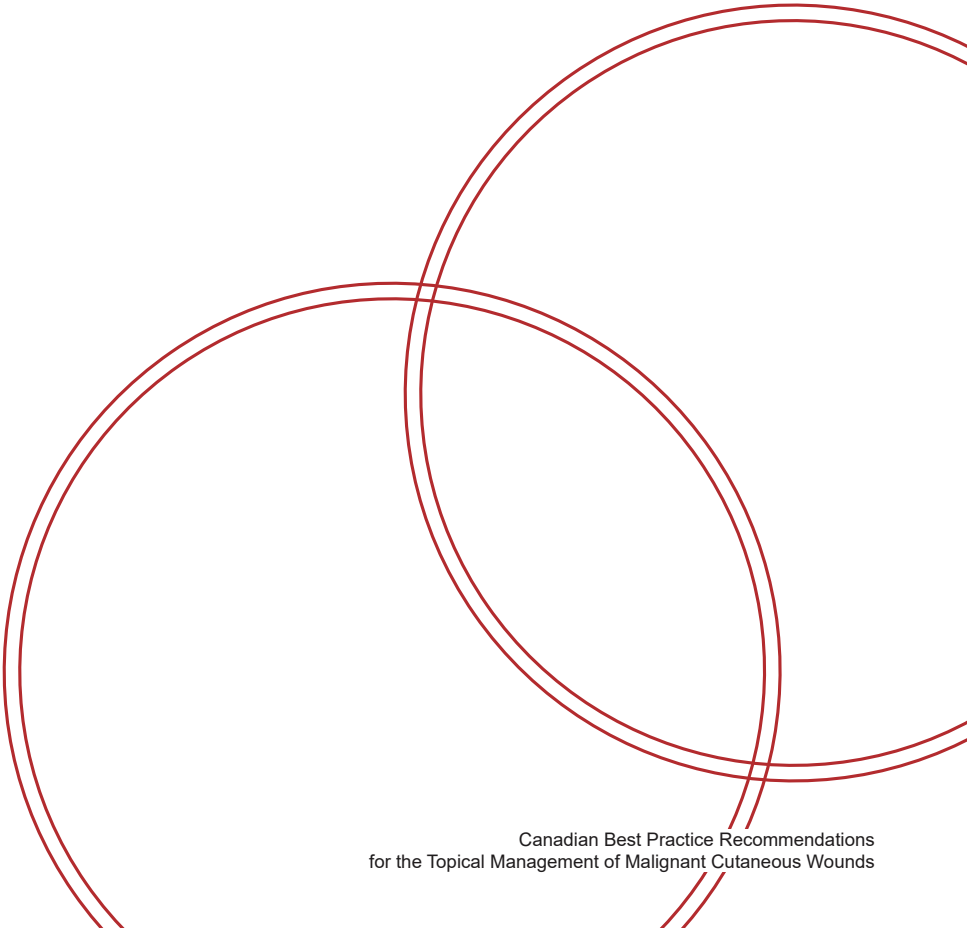
**Table 1 Malignant Cutaneous Wounds Best Practice Recommendations**

	<b>Recommendations</b>	<b>References</b>	<b>LOE</b>
<b>Assessment</b>			
1	Confirm the malignant cutaneous wound etiology through the person's clinical records before establishing wound care goals and developing a topical wound care treatment plan. Consider potential/suspected malignant cutaneous wound etiology with nonhealing wounds.	6,9	IV-V
2	Conduct a thorough wound assessment, using a validated tool, where available, that covers aspects such as location, wound area, depth/height, tissue type, itching, proximity to vital structures, periwound, exudate, odour, infection, and pain.	10-12	IV-V
3	Perform a holistic assessment, including medical and surgical history, medications, and previous wound treatment plan. Utilize a validated tool to conduct a quality of life assessment with the individual with a malignant cutaneous wound.	10	IV
<b>Goals of Care / Care Planning</b>			
4	Assess the person experiencing a malignant cutaneous wound and their support person(s)'s understanding of wound etiology, expectations for wound healing, and ability to manage the wound. Ensure the personal preferences of the person experiencing a malignant cutaneous wound are considered.	13-16	III-IV
5	Involve the person with a malignant cutaneous wound and their support person(s) in setting evidence-based goals for safe topical wound care. Address concerns, preferences, and symptom management in the goals, and adopt a holistic approach to care with a focus on quality of life.	2,15-22	Ia-V
<b>Health System Approach</b>			
6	Assemble an interprofessional team, including an NSWOC or wound care expert, to collaboratively provide holistic care for persons with malignant cutaneous wounds, addressing physical and psychosocial needs as well as appropriate interventions.	17,23-28	IV-V
7	Practice cultural humility when providing care for the person with the malignant cutaneous wound and their support persons—that respects their values and beliefs and is free of racism and discrimination—with the intention of building trust and supporting culturally safe care.	7,19,24,29-31	Ia-V
8	Health care organizations should offer nurses and other health care providers caring for persons with malignant cutaneous wounds mental health support to effectively manage their emotional well-being.	7,22,23	III-V

	<b>Recommendations</b>	<b>References</b>	<b>LOE</b>
<b>Education</b>			
9	Provide ongoing information and guidance to the person with a malignant cutaneous wound and their support person(s).	1,7,13-16,19,20,23,24,26,32-34	Ia-V
10	Promote education for nurses and health care professionals to ensure that they can provide effective and appropriate wound care for the person with malignant cutaneous wounds.	2,5,14-16,19,20,24,35	Ia-V
11	Introduce and provide education on the role of a palliative approach to care, and make a referral when appropriate.	23,25,28,36,37	V
12	Educate the person with the malignant cutaneous wound and their support person(s) when to seek medical attention in the home and community care setting, depending on the goals of care.	13,19,20,23,24,35	Ia-V
<b>Pain and Symptom Management</b>			
13	Create a plan for effective pain management, utilizing both pharmaceutical and nonpharmaceutical approaches.	2,7,16,19,23,28,38-48	Ia-V
14	Create a plan for effective pruritus management, utilizing both pharmaceutical and nonpharmaceutical approaches.	2,7,23,28,37,49,50	Ia-V
<b>Topical Management</b>			
15	Evaluate the risk of bleeding in the person with a malignant cutaneous wound, and offer education and support to them, their support person(s), and the health care team on preparing for and handling potentially catastrophic bleeding in such wounds.	2,13,16,17,23,28,51	Ia-V
16	Select the most appropriate topical dressing to prevent or manage minor bleeding based on the wound assessment, symptom management, and goals of care.	7,13,16,23,25,40,51-53	IV-V
17	Develop a list of appropriate interventions for managing active and catastrophic bleeding.	7,27,40,51	IV-V
18	Manage wound odour using wound cleansers, topical antibiotics, topical antimicrobial agents, or other products.	14,16,23,28,54-57	Ia-V
19	Consider removing loose devitalized tissue that may contribute to bioburden and odour by using debridement within your scope of practice, within your setting, in accordance with risk factors, and with informed consent.	16,20,36,40	IIb-V
20	Protect periwound skin from irritant or excessive exudate by using an appropriate skin barrier and absorbent wicking products.	16,27,28,58	Ia-V
21	Select dressings that absorb exudate and minimize discomfort, noting that alternative products (e.g., an ostomy pouching system) may be beneficial.	16,20,23,25,35,40,53,58-60	Ia-V

Recommendations	References	LOE
<b>Evaluation and Research</b>		
22 Continuously assess outcomes, including the management of odour, moisture, risk of bleeding, and comfort as well as the psychosocial aspects, and make necessary adjustments to the person's plan of care.	1,23,54,61	Ia-V
23 Encourage additional research and publication into the topical and psychosocial management of persons with malignant cutaneous wounds, fostering the provision of person-centred care grounded in the best available evidence.	1,7,15,19,62	Ia-V

*Note.* NSWOC = Nurse Specialized in Wound, Ostomy, and Continence. The level of interpretation of evidence is described in Appendix 1.<sup>63</sup>



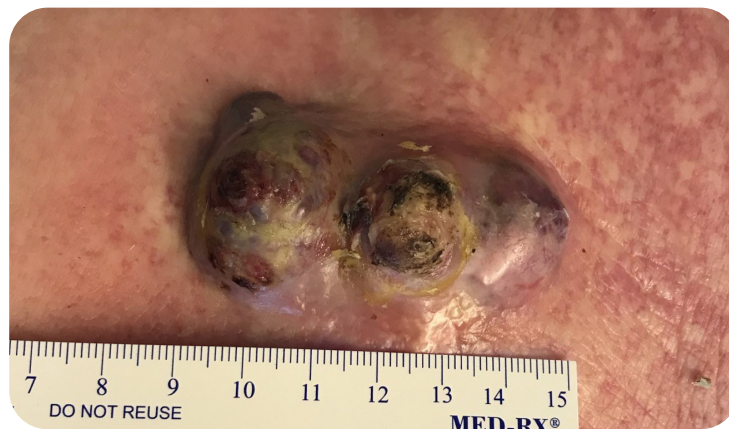
# ASSESSMENT

Malignant cutaneous wounds develop in many ways: as a lesion, nodule, or ulcer, because of primary skin cancers (e.g., melanoma, basal cell, or squamous cell); as an eruption through the skin, as a result of an underlying cancerous tumour or as a result of distant metastatic spread of cancer through the skin layers.<sup>9</sup> Affected persons can present with an array of distressing wound and symptom management issues. Other than primary skin cancers, malignancies of the breast are the most likely to lead to malignant cutaneous wounds. Head and neck cancers are also prone to developing malignant cutaneous wounds. Such wounds are a poor prognostic sign, and many tumours may be unresectable given extensive disease. The development of these wounds occurs in a chaotic and unpredictable manner, resulting in unique wounds, often necrotic, and either externalized, excavated, or fistulized.<sup>13</sup>

**Recommendation 1—Confirm the malignant cutaneous wound etiology through the person’s clinical records before establishing wound care goals and developing a topical wound care treatment plan. Consider potential/suspected malignant cutaneous wound etiology with nonhealing wounds.**

A malignant wound may be a person’s first sign of cancer. The nurse practitioner or physician’s differential diagnosis should be based on the patient’s history of cancer and assessment of the wound. Malignant wounds can present as nonhealing wounds with an irregular border, proliferative nodular shape (fungating), friable, malodourous, excessive exudate, local lymphedema, and mass effect. Figure 1 shows melanoma of the left thigh.

**Figure 1** *Melanoma of the Left Thigh*



Note. © NSWOCC, 2024.

Diagnostic tests for a thorough assessment include X-ray, ultrasound, and CT/MRI. A tissue biopsy may be required when the primary malignancy site has not been confirmed. When a biopsy and confirmation of malignancy is not feasible, it is imperative to proceed cautiously with a treatment plan that account for the suspicion of malignancy. In such cases, clinical judgment with a high index of suspicion is paramount.<sup>†</sup>

Confirmation of malignant wound etiology is paramount, as knowing a wound's origin helps the health care team to tailor their interventions and focus on realistic symptomatic management. Knowing the etiology will help guide the interprofessional team in selecting appropriate assessment tools and topical/systemic interventions. This approach improves care and prevents treatment delays of the underlying disease for the person living with a malignant wound.

**Recommendation 2—Conduct a thorough wound assessment, using a validated tool, where available, that covers aspects such as location, wound area, depth/height, tissue type, itching, proximity to vital structures, periwound, exudate, odour, infection, and pain.**

Malignant cutaneous wounds may be easily recognizable by their crater or cauliflower appearance.<sup>33</sup> Although the underlying etiology may vary, these wounds have the potential to have a devastating impact on the person and their support person(s). Managing the accompanying symptoms presents a challenge.<sup>64</sup> Malignant cutaneous wounds have different characteristics and growth patterns compared to nonmalignant wounds. These wounds can lead to complications such as infection, fistulas, blood and lymphatic vessel compression and blockage, hemorrhage, and airway obstruction.<sup>11</sup> Figure 2 shows metastatic squamous cell carcinoma spread with axilla spread.

**Figure 2** *Squamous Cell Carcinoma*



Note. © NSWOC, 2024.

Malignant cutaneous wounds also have a significant impact on quality of life for the person.<sup>19,65,66</sup> Wound assessment tools developed for benign wounds can fail to capture the complex physical presentations of malignant cutaneous wounds and do not assess the psychosocial impact of these wounds.<sup>11</sup> Refer to Table 2 for symptoms to observe during the assessment.

**Table 2 Assessment of Malignant Wounds**

Assessment	Recommended interventions
<p><b>Wound location</b></p> <ul style="list-style-type: none"> <li>• Is mobility impaired?</li> <li>• Is the lesion easily covered from public view?</li> <li>• Located near wrinkled or flat skin?</li> </ul>	<ul style="list-style-type: none"> <li>• Consider occupational therapy referral to facilitate activities of daily living</li> <li>• Impacts dressing selection</li> <li>• Impacts dressing fixation               <ul style="list-style-type: none"> <li>◦ thinner adhesives such as gentle tapes, silicone tape, or transparent films may conform and adhere better to wrinkled skin than other thicker adhesives materials</li> </ul> </li> </ul>
<p><b>Wound characteristics</b></p> <ul style="list-style-type: none"> <li>• Size: length, width, depth/height, undermining, deep structure exposure</li> <li>• Fungating or ulcerative</li> <li>• Percentage of viable vs. necrotic tissue</li> <li>• Tissue friability and bleeding</li> <li>• Presence of fistula</li> <li>• Exudate amount</li> <li>• Wound colonized or clinically infected</li> </ul>	<ul style="list-style-type: none"> <li>• Impacts dressing selection; provides info re: deterioration or response to palliative treatment</li> <li>• Impacts dressing selection and fixation</li> <li>• Need for cleansing/debridement</li> <li>• Need for nonadherent dressings and other measures to control bleeding</li> <li>• Possible need for pouching</li> <li>• Impacts dressing selection</li> <li>• Need for local vs. systemic care</li> </ul>
<p><b>Surrounding skin</b></p> <ul style="list-style-type: none"> <li>• Erythematous</li> <li>• Fragile or denuded</li> <li>• Nodular</li> <li>• Macerated</li> <li>• Radiation-related skin damage</li> </ul>	<ul style="list-style-type: none"> <li>• Infection or tumour extension</li> <li>• Impacts dressing type and fixation               <ul style="list-style-type: none"> <li>◦ avoid daily removal of adhesive tape from fragile skin</li> <li>◦ utilize alternative fixation</li> <li>◦ apply flexible ostomy barriers to surrounding skin in contact with tape</li> <li>◦ change ostomy barrier every 5–7 days</li> <li>◦ use netting, brassiere, tube tops, snug tank tops, panties, briefs</li> </ul> </li> <li>• Tumour extension/metastasis</li> <li>• Need for improved exudate management; may need liquid skin sealant applied to surrounding skin to protect it</li> <li>• Need for topical care of skin; impacts dressing fixation (same as fragile skin)</li> </ul>
<p><b>Symptoms</b></p> <ul style="list-style-type: none"> <li>• Deep pain: aching, stabbing, continuous</li> <li>• Superficial pain: burning, stinging, may be only associated with dressing changes</li> <li>• Presence of odour</li> <li>• Pruritus</li> </ul>	<ul style="list-style-type: none"> <li>• Need to adjust systemic analgesia</li> <li>• Need for topical analgesia</li> <li>• Need for odour-reducing strategies</li> <li>• Related to dressings? If not, may need systemic antipruritic medications</li> </ul>



Assessment	Recommended interventions
<p><b>Potential for serious complications</b></p> <ul style="list-style-type: none"> <li>• Lesion is near major blood vessels: potential for hemorrhage</li> <li>• Lesion is near major blood vessels: potential for vessel compression/obstruction</li> <li>• Lesion is near the airway: potential for obstruction</li> </ul>	<ul style="list-style-type: none"> <li>• Need for education of patient/family re: palliative management of severe bleeding. <ul style="list-style-type: none"> <li>◦ [contact care team]</li> <li>◦ cover area with dark towels, apply local pressure if indicated</li> <li>◦ elevate area of bleeding, if possible</li> <li>◦ keep patient comfortable, administer rapid-acting sedative, speak in calm tone</li> </ul> </li> <li>• Need for education of patient/family re: palliative management of severe swelling and pain <ul style="list-style-type: none"> <li>◦ use compression stockings or wraps if it will increase patient comfort.</li> </ul> </li> <li>• Need for education of patient/family re: palliative management of airway obstruction <ul style="list-style-type: none"> <li>◦ [contact care team]</li> <li>◦ administer opioids and sedatives as indicated</li> <li>◦ raise head of bed</li> <li>◦ sit with patient; speak in comforting tones</li> </ul> </li> </ul>

Note. Adapted from Seaman,<sup>33</sup> with permission of Elsevier.

Tools designed and validated for assessing malignant wounds, such as the Malignant Wound Assessment Tool–Clinical (MWAT-C), allow for a valid assessment of the physical characteristics as well as the functional and psychosocial impact of the wound.<sup>10,11</sup> The MWAT-C version April 5, 2024, shown in Appendix 2 is by Valerie N. Schulz licensed under the Creative Commons Attribution 4.0 International License. In addition, The Toronto Symptom Assessment System for Wounds (TSAS-W), included in Appendix 3, is presented as a tool that has the potential to enable and facilitate the measurement of pain and polysymptom distress associated with all types of wounds. The availability of these tools, instruments, or questionnaires may promote improvements in clinical assessment and result in improved outcomes.<sup>10</sup>

The original thesis-based Schulz-Malignant Wound Assessment Tools with clinical and research versions focused on a palliative assessment to capture the patient’s and

clinician’s perspectives of living with a malignant wound, with domains related to patient identification, symptoms, and patient functional, social, and emotional concerns, clinical features of the malignant wound and wound classification (Schulz, 2001, cited in Schulz<sup>11</sup>). These single centre validated tools underwent a second validation study internationally, using a Delphi approach,<sup>11</sup> to develop more concise and valid assessment and documentation MWAT tools for clinical and research purposes with funding provided by the Canadian Institutes of Health Research [New Emerging Team Grant PET69772]. The evidence-based MWAT-C developed was not meant to comprehensively assess each wound-related issue, rather it was designed to support the clinical encounter and promote a more in-depth assessment when necessary. The updated MWAT-C version April 5, 2024, includes a note to follow the current privacy, confidentiality, and consent personal health information legislation when using the tool. Features related to *itching, infection, and*

*proximity to vital structures* were added to increase consistency with these *Canadian best practice recommendations for the topical management of malignant cutaneous wounds*, 2024.

**Recommendation 3—Perform a holistic assessment, including medical and surgical history, medications, and previous wound treatment plan. Utilize a validated tool to conduct a quality of life assessment with the individual with a malignant cutaneous wound.**

A holistic assessment, including medical and surgical history, medications, and previous wound treatment plans, is essential to assess the person’s status regarding cancer staging and treatments, comorbidities, and management.

Several factors can influence care, including medication related to comorbidities, such as corticosteroids, anticoagulants, and antiplatelets.<sup>6,16</sup> HCPs should account for current and previous treatments such as chemotherapy, radiotherapy, and surgeries as they affect tissue quality and can cause significant side effects such as fibrosis, ulcers, edema, and inflammation.<sup>6,35</sup> It is also important to consider the effectiveness of previous care plans to maximize care<sup>35</sup> and avoid repetitive errors. Hydration, nutrition, and immune status are other elements to consider.<sup>16</sup> Persons with a malignant cutaneous wound and their support person(s) can provide valuable information about previous wound care, including their preferences.<sup>†</sup>

The goal of care will generally align with the person’s choices, often with a palliative focus. Therefore, quality of life emerges as the most critical assessment element for managing malignant wound care. Members of the interprofessional team can support person-centred holistic assessment. The person and their support person(s) may experience significant distress and social

isolation due to often intrusive symptoms and time-consuming required care.<sup>6</sup> It is crucial to validate the understanding of pathologies, strengths, social and family challenges, fears, concerns, and perceptions while including the spiritual and values aspects.<sup>67</sup> The MWAT-C includes a questionnaire focused on the impact of these symptoms on their quality of life.<sup>11</sup> A validated assessment tool guides HCPs in evaluating the quality of life with relevant questions respecting the person. The Edmonton Symptom Assessment System Revised (ESAS-r), included in Appendix 4, is a validated tool used to measure ten quality of life elements on a numerical scale from 0 to 10.<sup>12</sup> Maladaptive responses may manifest as distress, denial or dissociation, anxiety, depressive states, or personality disorders.<sup>6</sup>

**CLINICAL PEARLS**

- Confirmation of malignant wound etiology is paramount to tailor interventions and symptomatic management. A tissue biopsy may be required.
- Nonspecific wound assessment tools may fail to capture the complex physical presentations of malignant cutaneous wounds and do not assess the psychosocial impact of these wounds.<sup>11</sup>
- Quality of life emerges as the most critical assessment element for managing malignant wound care.
- Monitoring malignant cutaneous wounds with photography is especially valuable, if the person agrees.<sup>2</sup> Photographs allow for a better understanding of the development and progression of the wounds over time. The practice of photographing wounds should be standardized and supervised by health care organizations in accordance with local policies, ethical principles, and confidentiality.
- PALCARE is an acronym tailored for palliative care with a systematic assessment approach. P = prognosis, A = advance care planning, L = living situation, C = comprehensive history, A = assessment, R = recommendation, and E = education.<sup>2</sup>

## GOALS OF CARE / CARE PLANNING

Assembling an interprofessional team can promote the likelihood of enhanced outcomes for the person's journey with a malignant cutaneous wound. The team should consist of professionals from different areas within health care, remembering that the central member of the team is the individual. Support person(s) should also be prominent in the circle of care due to their continual assistance and encouragement. Sometimes, they may also speak for the person if they cannot directly communicate their needs and wishes. Developing and communicating a treatment plan to the interprofessional team will help support continuity of care among professionals and establish expectations. When setting treatment goals with the person, the team must consider the disease state and the personal objectives, concerns, and preferences. In most circumstances, the wound care goals must shift from wound healing to supporting and enhancing quality of life for the person and their support person(s). Wound care goals may not include healing but may focus on symptom management, such as atraumatic wound care, pain control, odour control, and exudate management. Figure 3 shows recurrent squamous cell carcinoma with metastatic lymph node spread to left neck and behind the ear. The person with a malignant wound and their interprofessional team should develop realistic and evidence-based wound care goals to support their needs and align with best practice and evidence-informed practice.

**Figure 3** *Recurrent Metastatic Neck Lymph Node*



Note. © NSWOCC, 2024.

**Recommendation 4—Assess the person experiencing a malignant cutaneous wound and their support person(s)'s understanding of wound etiology, expectations for wound healing, and ability to manage the wound. Ensure the personal preferences of the person experiencing a malignant cutaneous wound are considered.**

The interprofessional team should have candid yet supportive discussions with the person and their support person(s) in the care planning phase to assess their level of understanding of their wound etiology and factors that will affect or limit wound healing. Unlike other wound etiologies, malignant wounds typically do not heal and will be designated a nonhealable status upon assessment by the team. With this, the primary goal will change from healing the wound to focusing on symptom management.<sup>15</sup> The person's response to treatment of the disease will influence outcomes more than the quality of wound care provided. All interprofessional team members must consistently communicate the same wound care goals with the person and their support person(s).<sup>13</sup>

Support persons and their wider family members are vital to assist and encourage the person with the care of their malignant cutaneous wounds. As management of an unhealing or palliative wound may be an emotional and arduous journey, appropriate physical and emotional support should be provided to the person and their caregivers. Ensuring the support person(s) are comfortable and capable of providing supportive care, including wound care, will optimize the care the person receives.<sup>16</sup> Caring daily for a person with a malignant cutaneous wound can leave the support person(s) with a feeling of burden and isolation.<sup>14</sup> Where the support person feels comfortable and agrees to participate in wound care, HCPs should support the person and those individuals within their support circle

to mitigate any likelihood of burnout. It should be acknowledged that the person with the malignant cutaneous wound may not want others providing care.

Various forms of assistance for the support person(s) could include psychological assessments and emotional support, given their heightened risk of experiencing social isolation and increased emotional distress. Providing education on symptom management, such as addressing bleeding and odour control, can also be valuable. The support person should be encouraged to join a support group to get assistance, which may distribute the burden to reduce the risk of burning out. The group dynamic allows participants to support each other with empathy and care. HCPs are pivotal in leading groups, offering initial resources, and providing ongoing support when concerns arise.<sup>14</sup>

**Recommendation 5—Involve the person with a malignant cutaneous wound and their support person(s) in setting evidence-based goals for safe topical wound care. Address concerns, preferences, and symptom management in the goals, and adopt a holistic approach to care with a focus on quality of life.**

A comprehensive approach is essential when planning wound care and setting goals for management—persons with a malignant cutaneous wound often present with multiple concerns and issues that require attention. Failing to address or overlook their concerns would be a significant disservice to the person. A comprehensive assessment covers more than wound care. Including psychological, personal history, physical, and quality of life assessments is essential. To effectively address person-centred concerns, persons living with a malignant cutaneous wound must receive education and be engaged by the health care team empathetically.<sup>16</sup> Therapeutic relationships are vital to people with malignant cutaneous wounds.<sup>19</sup> A holistic approach helps

and supports this therapeutic relationship. The person may experience a change in perception from their past body image to their current one. The HCP needs to understand these change processes to adequately support the person through these changes.<sup>22</sup>

Topical wound management, unfortunately, rarely leads to wound healing with malignant cutaneous wounds. Available literature describing persons living with an unhealing malignant cutaneous wounds confirms that malodour, pain, bleeding, and exudate are associated with significant stress, anxiety, depression and impact on identity, self-esteem, and quality of life.<sup>20</sup> Care for malignant cutaneous wounds should focus on treating and attempting to alleviate the most distressing symptom that the person perceives as the issue or that the support person(s) perceives, as sometimes the person is unable or unwilling to express a concern.<sup>15</sup> Health care team members need to understand how the person experiences grief, how they view their body, and fear avoidance. Recognition of the impact of these three perspectives as care priorities enhances the ability to tailor the care plan to the individual needs of the person.<sup>21</sup>

Identifying ways to simplify and enhance wound care is crucial and can improve the person's quality of life.<sup>15</sup> Dressing change planning should consider the person's daily routines (e.g., bathing). In the case of severe pain, it may be necessary to decrease the frequency of dressing changes.<sup>2</sup> Teaching support person(s) wound care techniques should be identified as a goal to support them in caring for their loved one.<sup>15</sup>

It is essential to adjust and revise the care plan as the person's condition changes and their wound changes or progresses. The health care team should continually evaluate if the care plan addresses the person's self-determination and their support person(s) and adjust as necessary to meet their evolving care requirements.<sup>17</sup>

## CLINICAL PEARLS

- The person with the malignant wound is the central member of the team surrounded by a team of professionals from different areas within health care.
- Support person(s) should also be prominent in the circle of care due to their continual assistance and encouragement.
- Malignant wounds may be designated nonhealing status upon assessment from the team.
- Three perspectives that enhance the ability to tailor the care plan to the person's needs; 1) how the person experiences grief, 2) how they view their body, and 3) fear avoidance.<sup>21</sup>
- Wound care goals must shift to supporting and enhancing quality of life and symptom management for the person and their support person(s).
- It is essential to adjust and revise the care plan as the person's condition evolves.

# HEALTH SYSTEM APPROACH

In the realm of modern health care, the topical treatment of malignant cutaneous wounds presents a multifaceted challenge that necessitates a comprehensive and integrated approach. Malignant wounds demand specialized attention to ensure optimal local wound care, pain management, and the preservation of a person's quality of life. Addressing these intricate needs requires a synergy of expertise, resources, and collaboration beyond traditional wound care's boundaries. This section delves into the dynamic health systems approach to the topical management of malignant cutaneous wounds, highlighting the role of wound care experts, interprofessional teams, pharmacists, community support networks, and the promotion of mobility, accessibility, and financial coverage. Figure 4 illustrates an interprofessional approach is needed to avoid misdiagnoses.

**Figure 4** *Squamous Cell Carcinoma to the Foot*



*Note.* Squamous cell carcinoma to the foot that was initially misdiagnosed as Charcot foot with gangrene. © NSWOCC, 2024.

**Recommendation 6—Assemble an interprofessional team, including an NSWOC or wound care expert, to collaboratively provide holistic care for persons with malignant cutaneous wounds, addressing physical and psychosocial needs as well as appropriate interventions.**

According to Meaume et al.,<sup>27</sup> a comprehensive [interprofessional] approach is essential for implementing palliative care. This approach involves collaboration among wound healing expert nurses, cancer-specialized physicians, pain specialists, and surgeons, and palliative care specialists (physicians and nurse practitioners). Such interdisciplinarity ensures that the complex needs of persons in palliative care, particularly those with oncological wounds, are adequately addressed, emphasizing a holistic and comprehensive approach.

According to Cornish,<sup>23</sup> malignant cutaneous wounds often present with typical physical symptoms such as malodour, bleeding, pain, excessive exudate, and pruritus. In addition to these physical symptoms, there are psychosocial effects that can lead to social isolation and feelings of depression. These symptoms have a significant impact not only on the person living with the malignant cutaneous wound and their support person(s) but also on HCPs both during the care period and afterward. Effectively managing these symptoms necessitates an interprofessional approach aimed at ensuring the best possible outcomes for both the person and support person(s). Decisions regarding referrals to licensed clinical social workers or psychologists for counselling or to psychiatrists for evaluation and pharmacological recommendations should be made collaboratively, involving both the person and support person(s).

Additionally, it is essential to assess the financial stability of persons, as many may be unable to work due to the limitations of their

illness. Social workers can investigate issues related to housing and food insecurity. The Centre for Effective Practice provide a useful poverty tool.<sup>68</sup> Home care programs may help cover the costs of care and medications used for palliative symptom management.

Although research in this area is limited, complementary alternative medicine shows promise as an integral part of the comprehensive care provided to persons with malignant cutaneous wounds. The experience of suffering and the realization of a limited prognosis often lead persons to contemplate their mortality, reevaluate their existential beliefs, and seek spiritual connection. The expanding size of an existing malignant cutaneous wound, the emergence of new lesions, or the onset of new symptoms can trigger a loss of hope. Notably, individuals, even those previously not identified as spiritual or religious, frequently draw on faith as a source of support.<sup>28</sup> Furthermore, complementary alternative medicine facilitates a platform for persons and support person(s) to express their needs. This may allow referral to specialized professionals who can address these specific needs.<sup>24</sup>

For those individuals within hospice care, the palliative care team employs a systematic approach to address psychosocial concerns, involving timely screening, assessment, interventions, and appropriate referrals. This enables the implementation of timely interventions and referrals, with the authors suggesting screening upon entry into the hospice program, followed by regular screenings every 2 to 4 weeks and during interactions with the palliative care team.<sup>28</sup>

**Pharmacists as an integral collaborator:** Pharmacists emerge as indispensable partners in this multifaceted approach. Their expertise in medications, and potential interactions with ongoing treatments are crucial for optimizing health outcomes. Collaborative efforts with pharmacists as part of the interprofessional team ensure

that the chosen wound care interventions are compatible with an individual's ongoing therapies, reducing the risk of adverse effects and promoting the best possible healing process under the circumstances.<sup>†</sup>

**Linking to community support and accessibility:** Beyond the clinical setting, the holistic approach extends to community support networks. Individuals grappling with malignant cutaneous wounds require emotional, psychological, and social support to navigate the challenges they face. Connecting persons with support groups, counselling services, and educational resources enhances their resilience and empowers them to participate actively in their health care journey.<sup>†</sup> There is a need for more local community supports to develop.

**Promoting mobility and activities of daily living:** Maintaining mobility and the ability to perform activities of daily living contribute significantly to an individual's overall well-being. A health systems approach involves physiotherapists and occupational therapists who work closely with wound care experts to design tailored mobility routines that encourage movement without compromising the goals of wound care. This collaborative effort aims to restore a sense of normalcy to individuals' lives while ensuring wound care remains a top priority.<sup>†</sup>

**Access to wound care supplies and financial coverage:** Equitable access to wound care supplies and financial coverage is an integral aspect of the health systems approach. Concerns about the affordability of essential wound care products should not burden individuals and support person(s). Collaboration with insurance providers, health care administrators, and social workers ensures the best efforts to have access to needed supplies without hindrance, allowing them to focus on their recovery without added financial stress.<sup>†</sup>

## CONTINUITY OF CARE

A recurring theme in the qualitative literature underscores the essential need for specialized assistance. In a study conducted by Lo and colleagues,<sup>26</sup> persons suffering from malignant cutaneous wounds and their support person(s) expressed the expectation of having access to wound care specialists right from the onset of their illness. Regrettably, this access to specialized care was consistently lacking across different health care settings, leaving persons to devise strategies with minimal or no expert guidance. This predicament resulted in feelings of anxiety, diminished confidence, and social isolation.<sup>26,28</sup>

Persons, their support person(s), and health care team members can face frustration when topical wound care treatment modalities are repeatedly adjusted based on different teams' preferences, harming the wound and the person's experience. Moreover, tending to malignant cutaneous wounds involves more than just technical skills and products; it is also about nurturing a human relationship between the health care provider and person, a connection that can sometimes extend over time.<sup>17</sup> Therefore, it is beneficial to involve a wound care expert, such as an NSWOC, to assist in developing a topical wound care treatment strategy to meet the goals of care while also achieving efficiency and providing quality care to the persons and their support person(s). The involvement of a wound care expert or NSWOC as a collaborating team member should be considered mandatory in all health care settings.<sup>†</sup>

Palliative wound care has been defined (in a new scoping review by the European Association for Palliative Care taskforce) as "person and family centred, holistic and interdisciplinary care of wounds that may heal, or not, or may be too onerous to treat; including but not limited to symptom control and management, for individuals who are often vulnerable and have impaired quality of life."<sup>69</sup> As a person's care moves to a palliative focus, Graves and Sun<sup>25</sup> assert that palliative



nurses in all settings should possess the fundamental knowledge needed to manage palliative wounds. They should seek consultation with NSWOCs, certified experts in wound care. In their study, Lo and colleagues<sup>26</sup> advocate for hospice programs to either employ or consult with NSWOCs, ideally also holding certifications in both hospice and palliative care.<sup>26,28</sup> The CPCNA advocates for the CNA Certification Exam for Hospice Palliative Care Nursing. These dual CNA recognized certifications (NSWOC and Hospice Palliative Care) ensures a high level of expertise in catering to individuals with advanced illnesses who require palliative wound, ostomy, and continence services, enabling nursing professionals to operate within the full scope of their licensure in the palliative care environment. The facets of this specialized role are outlined in Table 3.

**Table 3** *Role of the Nurse in Hospice and Palliative Care*

<p><b>Educator:</b></p> <ul style="list-style-type: none"> <li>• patient and caregiver education</li> <li>• staff education</li> <li>• professional education and the local, national, and international level</li> </ul> <p><b>Consultant:</b></p> <ul style="list-style-type: none"> <li>• specialist-level wound, ostomy, and continence intra-agency consultation</li> <li>• specialist-level consultation to outside or referring agencies</li> <li>• chair of the hospice and palliative wound, ostomy, and continence nurse committee</li> </ul> <p><b>Researcher:</b></p> <ul style="list-style-type: none"> <li>• conducts or participates in research: <ul style="list-style-type: none"> <li>◦ palliative and end-of-life care.</li> <li>◦ quality of life: symptom management initiatives.</li> </ul> </li> <li>• promotes evidence-based nursing.</li> </ul> <p><b>Administrator:</b></p> <ul style="list-style-type: none"> <li>• wound, ostomy, and continence supply management</li> <li>• cost analysis and containment;</li> <li>• formulary development</li> <li>• product evaluation.</li> <li>• continuous quality improvement: <ul style="list-style-type: none"> <li>◦ patient satisfaction;</li> <li>◦ pressure injury prevalence and incidence; and</li> <li>◦ wound registry for malignant cutaneous wound prevalence.</li> </ul> </li> <li>• policy, procedure, and protocol development.</li> </ul> <p><i>Note.</i> Adapted from Tilley et al.,<sup>28</sup> with permission from Elsevier.</p>
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**Recommendation 7– Practice cultural humility when providing care for the person with the malignant cutaneous wound and their support persons—that respects their values and beliefs and is free of racism and discrimination—with the intention of building trust and supporting culturally safe care.**

Achieving culturally safe outcomes requires the health care team to be able to practice cultural humility, self-reflection and embrace continuous learning. It is based on respectful engagement that recognizes and strives to address the power imbalances in the health care system. This type of practice is influenced by the culture and values of the health care environment. It results in an environment free of racism and discrimination, where people feel safe.<sup>70</sup>

**Cultural safety** is an outcome based on respectful engagement that recognizes and strives to address power imbalances inherent in the health care system. It results in an environment free of racism and discrimination, where people feel safe when receiving health care.

**Cultural humility** is a process of self-reflection to understand personal and systemic biases and to develop and maintain respectful processes and relationships based on mutual trust. Cultural humility involves humbly acknowledging oneself as a learner when it comes to understanding another's experience.<sup>71</sup>

Culturally competent and safe wound care for a person with a malignant cutaneous wound provides respect, honesty, and integrity by utilizing empathy, collaboration, and innovation in wound care.<sup>29,†</sup>

Cultural competency is the ability to reflect on personal cultural values and their impact on how one provides care. It includes each HCP's ability to assess and respect the values, attitudes, and beliefs of other cultures and appropriately incorporate a person's health-related beliefs and cultural values in planning, implementing, and evaluating the plan of care.<sup>29</sup>

Cultural safety is about the experience of the person receiving care as defined and experienced by those who receive the service. Cultural safety aims for all people to feel respected and safe when interacting with health care providers.<sup>30,31</sup>

Guiding persons with malignant cutaneous wounds and their support person(s) to draw strength from their identity, culture, and community, supports culturally safe wound care.<sup>31</sup> Collaboration with the person with the malignant cutaneous wound and the support person(s) allows agreement on wound care for symptom management.

A HCP may question if a specific treatment suggested by the person with the wound or the support person is safe. The suggested treatment may be unfamiliar to the HCP or perceived to cause harm or inconvenience. Valid, interesting questions arise when practising cultural safety and humility:

- “What if the wound management is not evidence-based?”
- “What if the treatment is, in fact, harmful but is still in their cultural belief? Do we still support this as HCPs?”

Culturally safe care may include alternative person and caregiver approaches. The goal of malignant cutaneous wound care is often to improve quality of life through symptom management rather than wound healing.<sup>†</sup>

## TRADITIONAL MEDICINE

There is little evidence-based research on the traditional medicines used in many cultures; thus, the use of a traditional treatment is approached individually. Let the person explain how they perceive the alternative or complementary treatment works. Let them explain how they learned about the treatment, what the expectations are for the treatment, where they would obtain the treatment if there are costs attached and if there are contraindications to the treatment. Ensure the person understands the health care team's perspective on the healability of the wound, the medical goals of care, and the principles applied to the wound's management. For example, “the skin around the wound needs to be dry before the outer dressing is applied, so the dressing adheres well and to prevent skin breakdown.”<sup>†</sup> Consider agreeing to use the suggested traditional treatment and monitor how the wound responds. The person and support person(s) may choose to apply the treatment themselves. Continue to monitor the effect of the treatment with the person and support persons. Help them observe the wound when deciding whether to continue the traditional treatment or make modifications for better results. Remember that if the health care provider dismisses a traditional

treatment, the person or support person may still use the treatment but not disclose its use. The request to use traditional treatments contains a measure of trust in the formal HCP that needs to be respected to foster cooperation and honesty. Using a traditional treatment as a complementary therapy may provide great comfort and greater respect, participation, and acceptance. Document the request to use a traditional treatment and the use of the traditional treatment. Depending on the care setting and the expertise in wound care, the involvement of other HCPs may be necessary in the decision to use a traditional treatment.<sup>†</sup>

The standards of practice documents of the provincial and territorial nursing regulatory bodies across Canada support culturally safe care. Many health care authorities and institutions also have statements supporting culturally safe care principles. The nurse can facilitate the inclusion of traditional treatments and cultural practices in malignant cutaneous wound care.<sup>30,31</sup>

Research shows that individuals find comfort, hope and strength in spiritual beliefs. At times, there may be discordance between their hope and the appearance of their wound and prognosis.<sup>19</sup>

Above all, health care team members must remember and respect the individuality and personhood of those under their care. Recognizing someone as a holistically intricate person and not just a wound may require little effort. However, it can yield substantial rewards for the person, their support person(s) and the health care team members.<sup>7,†</sup>

### **Recommendation 8—Health care organizations should offer nurses and other health care providers caring for persons with malignant cutaneous wounds mental health support to effectively manage their emotional well-being.**

The impact of caring for persons with malodorous cutaneous wounds can be distressing for nurses and other interprofessional team members, as highlighted by Young.<sup>22</sup> It is essential to recognize and address the needs of HCPs in this context. Nurses and other interprofessional team members must receive comprehensive education and preparation to manage these challenging wounds' practical and emotional aspects effectively. Recognizing and addressing the needs of HCPs in this context is crucial to ensure high-quality care and the well-being of everyone involved, especially in shared spaces.

Cornish<sup>23</sup> reports that palliative and supportive wound care for individuals with malignant cutaneous wounds aims to address the needs of not only the persons but also the support person(s) due to the significant distress and challenges posed by these wounds. This distress also affects HCPs as there is a lack of optimal methods for managing such wounds. Additionally, Alexander<sup>7</sup> asserts that the challenges related to psychosocial issues extend beyond the person and support person(s). The authors have highlighted that HCPs are also emotionally impacted but have a tendency to avoid addressing these matters due to a lack of knowledge on how to handle them.<sup>7</sup>

Cornish<sup>23</sup> and Graves and Sun<sup>25</sup> confirm that care settings differ in expertise and availability of an interprofessional team to support the person, support person(s) and health care team members. Nurses in a palliative care setting should possess advanced knowledge and experience managing these wounds and have immediate access to a skilled and experienced interprofessional team. However, such experience and knowledge

may be limited in some community settings, leaving nurses to care for those with limited support. Dressing changes can be time-consuming, requiring nurses to allocate sufficient time for redressing the wound and engaging in conversations with the person to address psychosocial concerns and assess the need for referrals to specialized practitioners. This challenge can be particularly pronounced in community settings where nurses handle many cases requiring their expertise within a restricted time frame.<sup>23</sup>

Managing malignant cutaneous wounds can pose physical and emotional difficulties for nurses (Wilkes et al., 2001, cited in Cornish<sup>23</sup>). The knowledge that these wounds will not heal can be distressing for health care team members, especially if it is their first encounter with such a wound. A lack of experience, training, and resources, evoke feelings of inadequacy, frustration, and distress among HCPs (O'Regan, 2007, cited in Cornish<sup>23</sup>). The physical symptoms of the wound can be very emotionally distressing for nurses. Therefore, nurses must have the appropriate resources to provide the best care possible. They require access to appropriate and effective dressings, as well as support through education and the ability to consult experienced NSWOCs or wound care experts for assistance. Palliative care resource persons should be accessible

for advice and support when needed. Regular debriefing sessions and ongoing peer support are essential.

### **CLINICAL PEARLS**

- The care of malignant cutaneous wounds is intricate, demanding a systematic and all-encompassing approach, given the challenges individuals face. In this context, the interprofessional nature of the team holds significant importance, serving as a fundamental tool aligned with the principles of palliative care.<sup>24</sup>
- Members of the interprofessional team should include the NSWOC, pharmacist, social worker, occupational therapist, physiotherapist, and community support networks.
- Managing malignant cutaneous wounds has a significant impact on the person, their support person(s), and HCPs during the care period and afterwards.
- Cultural humility respects a person's values and beliefs—free of racism and discrimination—in the planning and provision of care.
- HCPs have a role in advocating for system change for those with malignancy.<sup>72</sup>

# EDUCATION

Education in managing a malignant cutaneous wound always involves collaboration with the individual and their wider care team, including family, caregivers, HCPs, and community. Holistic and culturally safe wound management must reflect the person's culture, beliefs, preferences, and goals of care.

However, there is a paucity of evidence-based literature focused on education in the care of malignant cutaneous wounds. Wound management education is typically described based on experiences.

Wound care education for skilled HCPs and support person(s) concerning the care of a specific malignant wound is often best achieved by demonstration while sharing information and experiences about the most effective practices. Some of these explanations may include regularly used products and treatments as well as outside-the-box therapies appropriate for the person living with the malignant cutaneous wound to promote quality of life during palliative care.<sup>†</sup>

The principles of adult education can be applied to care for malignant cutaneous wounds. This education should reflect that adults learn best when instruction is relevant and meaningful to them and they are ready and motivated to learn.<sup>32</sup>

Acknowledging that there are varying levels of comfort with HCPs is important. Cancer and the care of malignant cutaneous wounds can be a fearful topic for most people, including members of the health care team. Assumptions of what people know or want to know can often be clarified by simply asking.

Education of the person with the wound and their support person(s) should include:

- evidence based and expert wound care principles;
- when to seek medical care;
- management of urgent symptoms such as hemorrhage or increased pain;
- the purpose of hospice facilities and home care programs; and
- the services available in the community, such as hospice and home care.

## **Recommendation 9—Provide ongoing information and guidance to the person with a malignant cutaneous wound and their support person(s).**

During dressing changes, the person with the malignant cutaneous wound faces their wound, which is an external reflection of their illness.<sup>13</sup> A malignant wound acts as a constant visible reminder of a person's advanced, incurable disease and impending mortality.<sup>7,34</sup>

Managing malignant cutaneous wounds demands significant time from all parties involved. Persons with a wound often structure their lives around dressing

changes and nurse visits. It is essential to select dressings that effectively manage the wound for an extended period. Frequent dressing changes can diminish a person's independence and may contribute to feelings of guilt and shame.<sup>1</sup> Effectively addressing the physical symptoms of the wound will benefit the person's overall well-being and quality of life.<sup>23</sup> The literature emphasizes the significant impact of psychosocial concerns on individuals with malignant cutaneous wounds. Common reactions are anguish, anxiety, denial, or aggressiveness. Factors including individual personality, the wound's location and visibility, and its effect on daily life influence the psychosocial impact of a malignant cutaneous wound.<sup>13</sup>

Research reveals that embarrassment about the appearance or location of a wound often deters people from seeking timely professional medical assistance. A person may openly discuss their cancer diagnosis but conceal a malignant cutaneous wound due to its perceived repulsive appearance. Concealment can significantly affect self-esteem, leading to emotional distress, isolation, and depression. Managing wound care with assistance may be easier for a person compared to dealing with the psychological aspects associated with their condition.<sup>7</sup> As a result, medical consultation can occur at an advanced stage, necessitating palliative care as the primary treatment option.<sup>7,26</sup>

Encourage the person's involvement and comfort with wound care through simple actions such as demonstrating a caring attitude, active listening, providing information about hygiene, or modifying the wound care protocol.<sup>13</sup> People's capability to recall information is diminished during times of increased stress. Repetition, information booklets, printed handouts, or videos allow people to review the information on their own terms when ready.<sup>19</sup>

Some members in the circle of care may want to assist in managing these wounds.

In contrast, others may be unable to do so, making it essential to establish open relationships among all parties to understand the needs of both the person and their support persons.<sup>19</sup> Familiarity and trust provide a base from which the HCP or another support person can introduce discussions about the psychosocial burdens associated with the malignant cutaneous wound, the disease, and the prognosis. The presence of a wound and advanced cancer often leads to shifts in the person-caregiver relationship, necessitating support for significant others in providing care for their loved ones. The importance of appropriate, transparent, and timely information for both the person and their support person(s) cannot be overstated.<sup>14,23</sup>

As the wound changes and is reassessed and the plan of care shifts, continued education and collaboration are required. Communication with the person and their support person(s) is fundamental, especially in the home setting.<sup>24</sup> Ongoing guidance to the person with the malignant cutaneous wound and their support person(s) encourages self-care, empowerment and partnership, informed decision making, increased control, and less anxiety and stress.<sup>19</sup>

**Recommendation 10—Promote education for nurses and health care professionals to ensure that they can provide effective and appropriate wound care for the person with malignant cutaneous wounds.**

Research on controlling the symptoms of malignant cutaneous wounds is scarce. The lack of consensus to guide HCPs contributes to a deficiency in their knowledge and skills for managing malignant cutaneous wounds.<sup>15</sup> Therefore, the person with a malignant wound and their support persons may seek methods for managing troublesome symptoms as well as selecting appropriate dressings.<sup>5</sup> The lack of research-based literature also affects the development of evidence-based best practice guidelines for malignant cutaneous wounds.

HCPs should provide evidence-based care and resources for topical wound care management. This will include dressings or product selection according to the plan of care and assisting with the sourcing and procurement of supplies for symptom management.<sup>14</sup> HCPs are primarily responsible for a standard of wound care which includes educational support for all persons with a malignant cutaneous wound. This is crucial because support person(s) may need to intervene and provide wound care when professionals are unable to attend visits.

Education for nurses and other HCPs is essential to ensure quality care is provided to people with malignant cutaneous wounds. Nurses and other HCPs should be supported to pursue evidence based and best practice education to care for malignant cutaneous wounds.<sup>19,35</sup> It is necessary for those caring for someone with a malignant cutaneous wound to feel confident in their understanding of these wounds and have the necessary skills to provide appropriate wound care.<sup>19</sup>

To deliver high-quality care nurses must be allocated enough time for focused education, to care for the person with the wound, to acknowledge the concerns of the person and the caregivers, and to allow therapeutic relationships to develop. Sufficient time and resources are required to allow the approach to care to be culturally competent, adaptable, and creative.<sup>19</sup>

A detailed, step-by-step care plan for nurses is a fundamental tool to provide informal education, direction, and continuity of care. The care plan is updated to reflect ongoing reassessment findings and changes.<sup>15</sup> Changes to the wound care plan may require additional education for the health care team and support person(s). Critical thinking is required to take appropriate actions, anticipate situations within the different phases of the disease, and recognize the situation's complexity.<sup>24</sup>

All HCPs need to recognize that cancer cells within malignant cutaneous wounds will not respond like normal healthy cells to typical wound treatments.<sup>14,20</sup> Often, these wounds will not heal. Wound care will become part of the routine. Therefore, finding methods to simplify wound care more effectively can help improve the person's quality of life.<sup>15</sup> Nurses need to learn when to make a referral to members of the interprofessional team who can effectively address concerns, such as referral to an NSWOC.

The mnemonics PEBO and HOPES are recommended to learn the symptoms and help structure wound management. PEBO are Pain, Exudate, Bleeding, and Odour.<sup>20</sup> HOPES are Hemorrhage, Odour, Pain, Exudate, and Superficial infection.<sup>16</sup> Either or both memory aids can be used in formal education for HCPs. HOPES is defined further in Appendix 5.

Other sections of this document provide information on the management of specific symptoms. Health care organizational procedures may offer information on commonly accepted practices. Caring for malignant cutaneous wounds is part of the art and the science of a palliative approach to care. This document supports the importance of ongoing education for nurses and HCPs, guided by research and innovative wound management therapies to care for the person with a malignant cutaneous wound.

**Recommendation 11—Introduce and provide education on the role of a palliative approach to care and make a referral when appropriate.**

HCPs should know the palliative care resources in their community and beyond. This may include hospice facility, home care, health centres, hospitals, outpatient clinics, private agencies, and online resources.<sup>23,28</sup> During discussions with the person and their

support person(s), consider the sensitive nature and varied meanings of the term *palliative care* when providing information.<sup>25,37</sup> Look for teachable moments to discuss care options tailored to the person and the community in which the person lives. Ensure the purpose and goals of the specialized care are explained to the person and their support person(s). Help the person consider the options most appropriate for their situation by allowing time for discussion and questions when providing information.<sup>25,28,36,37</sup> Provide contact information for palliative care resources and services in the community and help facilitate contact requests as required.

**Recommendation 12—Educate the person with the malignant cutaneous wound and their support person(s) when to seek medical attention in the home and community care setting, depending on the goals of care.**

Assess the understanding of the person and their support person(s) of when to seek appropriate medical attention.<sup>24</sup> The person should report to their HCP new symptoms associated with the wounds, such as odour, pain, bleeding, increased exudate or leakage of the dressing, increased discomfort, or other dressing.<sup>19,20</sup> Encourage the person and support person(s) to call if they need assistance in decision making about management as symptoms change.<sup>19,35</sup> Provide the person and support person(s) with the phone numbers, contact information and hours of availability for the appropriate resources in the community setting.<sup>24</sup> The person with the malignant cutaneous wound and their support person(s) need to know

that they may need to seek more urgent medical attention for acute pain, increasing pain, and hemorrhage based on their goals of care.<sup>13,23</sup> Be aware that during moments of intense crisis, the person with the malignant cutaneous wound and their support person(s) may suddenly adjust their goals of care and choose an acute care or hospice facility setting versus managing in the home or community. Provide support and education in advance that if such a crisis occurs, it is acceptable for their goals of care to change or shift.<sup>†</sup>

**CLINICAL PEARLS**

- Provide holistic wound care teaching reflecting the person's goals. Teach wound care that empowers the person to best manage the wound.
- As wounds evolve, care plans will be modified as necessary based on the reevaluation of wounds.
- Detailed wound care plans provide informal education and continuity of care.
- Look for teachable moments. Handouts, booklets, or electronic resources can be reviewed at times best for the person.



# PAIN AND SYMPTOM MANAGEMENT

Several core themes arise in the literature regarding pain management for malignant cutaneous wounds. Issues that can affect pain management include preprocedural medication, identification of infection, pruritus, allodynia, and type of wound care products. Pharmaceuticals and complementary therapies can help malignant wound pain and associated symptom management. Figure 5 demonstrates the essential need to include pain and symptom management when planning care.

**Figure 5** *Expanding Breast Cancer Tumour*



*Note.* An expanding cutaneous malignant tumor in an elderly patient with breast cancer who was not suitable candidate for surgical intervention, treated with palliative radiation to slow down tumor growth and bleeding. © NSWOCC, 2024.

## **Recommendation 13—Create a plan for effective pain management, utilizing both pharmaceutical and nonpharmaceutical approaches.**

Individuals report that pain is one of the most significant factors impacting the quality of life when living with a malignant cutaneous wound.<sup>16</sup> This reinforces the importance for health care team members to assess and treat pain when present. To do so use of a validated pain assessment tool is paramount. Almost half of cancer patients believe their pain is managed inadequately, highlighting the importance of pain management as a fundamental human right.<sup>39</sup> Pain assessment using a validated assessment must be ongoing both during dressing changes and between the interventions.<sup>44</sup> An Italian team led by Janowska<sup>20</sup> supports the Toronto Symptom Assessment System (TSAS-W) for rating the person's and HCP's experience with the wound.<sup>10</sup> Refer to Appendix 3.

Identifying the type of pain experienced by a person helps to inform the route needed to manage it.

**Neuropathic pain**—pain caused by nerve damage described as burning, tingling, numbness, pins and needles, shooting, and radiating. There may be a sensation to nonnormal painful stimuli (allodynia) and a reduced or increased response to pain.<sup>2,73</sup> Treatment options for neuropathic pain include pregabalin, gabapentin, amitriptyline, and duloxetine. Systemic lidocaine and ketamine have been increasingly used in a palliative care context for neuropathic pain.<sup>2,74</sup>

**Nociceptive pain**—pain caused when nerves respond to noxious stimuli, resulting in damage caused by inflammation, chemical, or physical events. A person often describes these as throbbing, aching, pressure, or overall discomfort.<sup>2,73</sup> Treatments to consider include opioids, acetaminophen, and nonsteroidal anti-inflammatories.<sup>23</sup> Consider using the World Health Organization pain ladder when treating pain, as suggested by Alexander.<sup>7</sup>

**Whole or total pain**—comprises social, physical, spiritual, and psychological components. It acknowledges how pain affects quality of life.<sup>44,75</sup> The following is a lay Canadian example to explain total pain to a person: two teams play in the hockey finals; hockey is a rough game, so both teams have injuries. The team that wins the championship does not *feel* that pain the same way the team that loses would.

Pain can also be a mix of all of these. For mixed neuropathic/nociceptive pain, methadone is often used as an adjuvant for complex pain, for those where pain is no longer responding to the current opioids or to achieve pain relief the titration of the opioid would be too high of a dose.<sup>76,77</sup> For more complex pain, a referral to the palliative care team could be considered.<sup>61</sup> It is important to build trust and rapport between the person and the health care team to improve identification and assessment of total pain. Table 4 describes common causes of wound pain noted by Tilley et al.<sup>28</sup>

**Table 4 Etiology of Pain**

Etiology	Description
Pathologic	<ul style="list-style-type: none"> <li>▪ direct tumour compression of an organ;</li> <li>▪ dermal erosion and exposure of nerve endings;</li> <li>▪ damage of nerves related to direct tumour invasion or compression; and</li> <li>▪ edema secondary to impaired lymphatic or draining, or wound infection.</li> </ul>
Iatrogenic	<ul style="list-style-type: none"> <li>▪ manipulation of dressings;</li> <li>▪ inappropriate dressing selection;</li> <li>▪ adhesives;</li> <li>▪ wound cleansing or irritation; and</li> <li>▪ debridement.</li> </ul>

Note. Reproduced from Tilley et al.,<sup>28</sup> with permission from Elsevier.

## PREPROCEDURAL MEDICATION

Malignant cutaneous wounds are painful<sup>2,39,43,45,47,48</sup> and often require preprocedural medications; however, there is a lack of evidence-based published resources to help guide nurses regarding managing pain during dressing changes.<sup>2,45,48</sup> When the pain is poorly managed, dressing changes can cause anticipatory pain and anxiety, causing increased pain during future dressing change procedures.<sup>2,43</sup> The current literature recommends pre-medicating for optimal peak drug levels during the most painful period of the dressing change.<sup>2,43,48</sup>

Preprocedural medications will vary based on clinical setting. For example, intravenous opioids may be used in the inpatient setting for premedication; and topical analgesics and anesthetics in other care settings.<sup>2,43,45,47,48</sup> It would be reasonable to use the same opioid the person is currently using for breakthrough pain control for premedication. The doses used for premedication for dressing change may be higher than typical breakthrough doses.

Topical analgesics, as discussed by Rupert and Fehl<sup>45</sup> and White and Kondasinghe,<sup>48</sup> include compounding morphine 10 mg with 8 g<sup>45</sup> or 10 g<sup>48</sup> of hydrogel. However, both sets of authors caution that the supporting clinical evidence needs to be improved, and no direction as to timing before the dressing change is provided. Miyazaki et al.<sup>42</sup> state that topical analgesics can help decrease the side effects of oral opioids because the dose of oral opioids may be less. Lidocaine and ketamine tend to be used in clinical practice when the pain is not responsive to other meds.<sup>78,79</sup>

In the inpatient setting, ketamine can be given as subcutaneous or intravenous injection by experienced palliative care physicians and then switched to an oral liquid. The oral liquid can be dispensed in the outpatient setting as well. In particular, topical ketamine is not commercially available in Canada and requires specialty compounding or hospital pharmacies to make.<sup>74</sup>

Contrary to topical analgesics, topical anesthetics have more direction regarding when to apply before dressing changes. Medication is applied when old dressing is gently removed, and prior to wound and periwound cleansing and topical wound care. Peng et al.<sup>43</sup> recommend 5% topical lidocaine to be applied 10 minutes before the dressing change. Rupert and Fehl<sup>45</sup> recommend applying 2% lidocaine gel 3 to 5 minutes before the wound care. Furka et al.<sup>2</sup> recommend applying a compound of lidocaine and prilocaine 20 minutes before the dressing change. In Canada, lidocaine is commonly available in gel (0.5%, 2%, 4%), cream or ointment (4%, 5%), or a mix with prilocaine (emla cream or patch, 2.5% of each) or tetracaine (7% of each).<sup>80</sup> It is also available in topical solutions or sprays in various strengths.

In addition to preprocedural medication with topical anesthetics, premedication with fast-acting opioids on top of regular use of opioids or analgesics used to manage chronic pain has been recommended in the literature, though no consensus on when to use which medication is made.<sup>2,47,48</sup> Tsihlakidou et al.<sup>47</sup> also stated that cannabis may have a role to play in premedication prior to dressing changes but stated that this was yet to be studied. Furka et al.<sup>2</sup> further state that if premedication with topical analgesics or anesthetics or the use of fast-acting opioids via various routes is not adequate, then one should consider interventional therapies such as conscious sedation or intrathecal injections. Pain can also be caused by infection and treatment with antibiotics and antimicrobial dressings as part of the pain strategy may be necessary.<sup>45</sup> Consider complementary therapies as part of the premedication pain strategy.<sup>2,43</sup>

## NONPHARMACOLOGICAL MANAGEMENT OF PAIN

Malignant wounds can be a source of stress and anxiety for persons, which can further exacerbate pain symptoms. An interprofessional approach, including specialized teams with wound, palliative care,

mental health nurses, physiotherapists, social workers, registered massage therapists, and oncologists, can help persons and their support person(s) deal with the stress and pain associated with malignant wounds in ways beyond the use of medications.<sup>40</sup> Involving palliative care services in the management of pain has been proven to address the concerns reported by individuals by providing treatment beyond the physical management of pain. These include concerns related to symptoms, quality of life, depression, coping, and a better understanding of the disease.<sup>39</sup> In addition, social supports and relationships have shown benefits in coping with pain symptoms in persons with malignant wounds. Managing persons with pain involves providing relational support, in addition to alleviating physical pain, to help the person use practical resources to cope with the painful situation.<sup>38</sup>

### COMPLEMENTARY THERAPIES

Complementary therapies can be beneficial, sparing individuals the use of analgesics and thus limiting their side effects. Therapies which distract, reduce anxiety or the sensation of pain may augment pain management. Complementary therapies can help reduce anticipation of anxiety and pain, promote relaxation, and inhibit central pain processes and include the following:

- acupuncture;
- aromatherapy;
- comfortable positioning and repositioning;
- conversation/distraction;
- hypnosis;
- massage;
- music;
- psychological support;
- relaxation;
- transcutaneous electric nerve stimulation (TENS)<sup>41</sup>; and
- visualization.<sup>40</sup>

Point of care team members must provide person-centred care, keeping open communication for effective use of complementary therapies during dressing

changes. Relaxation may be advantageous to some persons, while distraction techniques, such as music therapy or conversation, may reduce anxiety and pain in others.<sup>19</sup>

### DRESSING CONSIDERATIONS

There are many factors to consider when selecting dressings to manage pain in malignant cutaneous wounds, including location, exudate, type of wound (fungating vs. ulcerative), level of activity, current pain management regime, and care goals. This section will discuss options such as wound cleansing, periwound considerations, dressing selection, local anesthetics, and topical opioids for pain management.

Gentle removal of any dressing is vital. Consider nonadherent dressings such as silicone mesh, gels, and pastes, as they can effectively reduce pain and bleeding, especially in dry, shallow wounds.<sup>44</sup> Exposing the wound bed to the air can also cause pain; covering the area with semi-occlusive dressings can assist with reducing pain between changes.<sup>44</sup>

Harsh cleansing techniques, frequent dressing changes, traumatic dressing removal, infection, and medical adhesive-related skin injury (MARS) increase the risk of irritation and pain.<sup>28</sup> Gentle cleansing is essential, although it is not always effective in removing exudate saturated with deleterious material triggering pain. Saline, noncytotoxic antiseptic solutions, or surfactants are recommended for cleansing.<sup>20</sup> Mechanical debridement by irrigation or enzymatic debridement with collagenase may help remove necrotic tissue and exudate, as well as decrease the intensity required to thoroughly cleanse the wound.<sup>16</sup>

Protection of the sensitive periwound tissue and gentle removal of topical dressings are crucial components of pain management. Cancer, which has progressed into the periwound skin, may be mistaken for granulation tissue. It is important to differentiate the tissue type and treat

periwound pain.<sup>46</sup> Fromantin and colleagues<sup>40</sup> suggest protecting the periwound skin by using absorbent dressings to control exudate, applying hydrocolloids and other barriers such as paste or films, and securing dressings with mesh or gauze to reduce the risk of MARSI.

The topical application of medication has been beneficial in reducing and controlling pain, although further research is required. Cornish<sup>23</sup> suggests medications such as a hydrogel, foam dressing containing ibuprofen, and lidocaine patches. Local anesthetics have also been effective when combined with gentle, pain-reducing dressing techniques and selection.<sup>40</sup> Anesthetic and hemostatic effects are produced by xylocaine naphazoline, while lidocaine mixed with a hydrogel has also been effective in pain reduction.<sup>40</sup> Miyazaki et al.<sup>42</sup> suggest morphine gel to treat pain in persons with certain cancers, especially those experiencing body surface pain. They suggest that the relief provided by topical morphine gel could decrease the required use of systemic medications, alleviating unwanted side effects of systemic opioid therapy.<sup>42</sup>

Ensure dressings are soft and comfortable and provide full coverage to maximize comfort.<sup>23</sup> Local or systemic antibiotic therapy has been proven to help decrease pain by reducing sensitivity to peripheral nerves if infection occurs.<sup>16</sup> Avoid tight-fitting compression or pressure dressings.<sup>40</sup> Secondary dressings are recommended for wounds with high exudate, with outer dressings that can be changed frequently and a primary dressing which will protect the wound and stay intact during changes when the secondary dressing is saturated.<sup>40</sup>

Negative pressure wound therapy (NPWT) in malignant cutaneous wounds requires further research. Reducing dressing frequency and effective exudate management would help alleviate pain for those with malignant cutaneous wounds. There is limited research on the indications of when to use NPWT in the palliative care context.

There is stronger evidence for managing pain in malignant cutaneous wounds, which include:

- a. Pharmaceutical interventions:
  - medications for neuropathic pain e.g., pregabalin, gabapentin, methadone (when an opioid is preexisting or considered for use as well), amitriptyline, duloxetine, ketamine and lidocaine in more complex cases;
  - acetaminophen; and
  - nonsteroidal anti-inflammatories.
- b. Nonpharmaceutical interventions:
  - refer to a palliative care team to assist with complex pain control; and
  - consider the use of anxiety reducing modalities prior to the procedure.

**Recommendation 14—Create a plan for effective pruritus management, utilizing both pharmaceutical and nonpharmaceutical approaches.**

Pruritus is recognized as a particularly distressing and common symptom impacting those with malignant cutaneous wounds.<sup>37</sup> The literature is sparse and refers to people with chronic wounds. Pruritus or itching is attributed to skin stretching, irritating nerve endings.<sup>23,50</sup> The nonhealing nature of malignant cutaneous wounds could explain the significant differences in the incidence compared to nonmalignant wounds. Pruritus surrounding wounds has mixed results and is widely considered to be unresponsive to antihistamines.<sup>2,49,50,81</sup>

Careful assessment may support the development of care plans to reduce the associated pruritus and pain. Specifically, seek to understand which factors provoke or relieve it. Creating a care plan for managing pruritus improves comfort by mitigating those factors which provoke discomfort. Figure 6 shows a person reporting pruritus following a mastectomy and radiation.

**Figure 6** Pruritus Experienced From Breast Cancer



Note. © NSWOC, 2024.

Heavily exudating malignant cutaneous wounds may cause overhydration of the skin, exacerbating complications of moisture-associated skin damage (MASD), including pruritus.<sup>28</sup> Consequently, appropriate absorbent dressings, wound cleansing, and periwound skin protection are warranted, albeit there have yet to be known comparative studies in individuals with malignant cutaneous wounds.<sup>28</sup>

There are no definitive recommendations for managing pruritus in malignant cutaneous wounds, yet interventions worthy of exploration include<sup>2,7,37,49,50</sup>:

a. Pharmaceutical interventions:

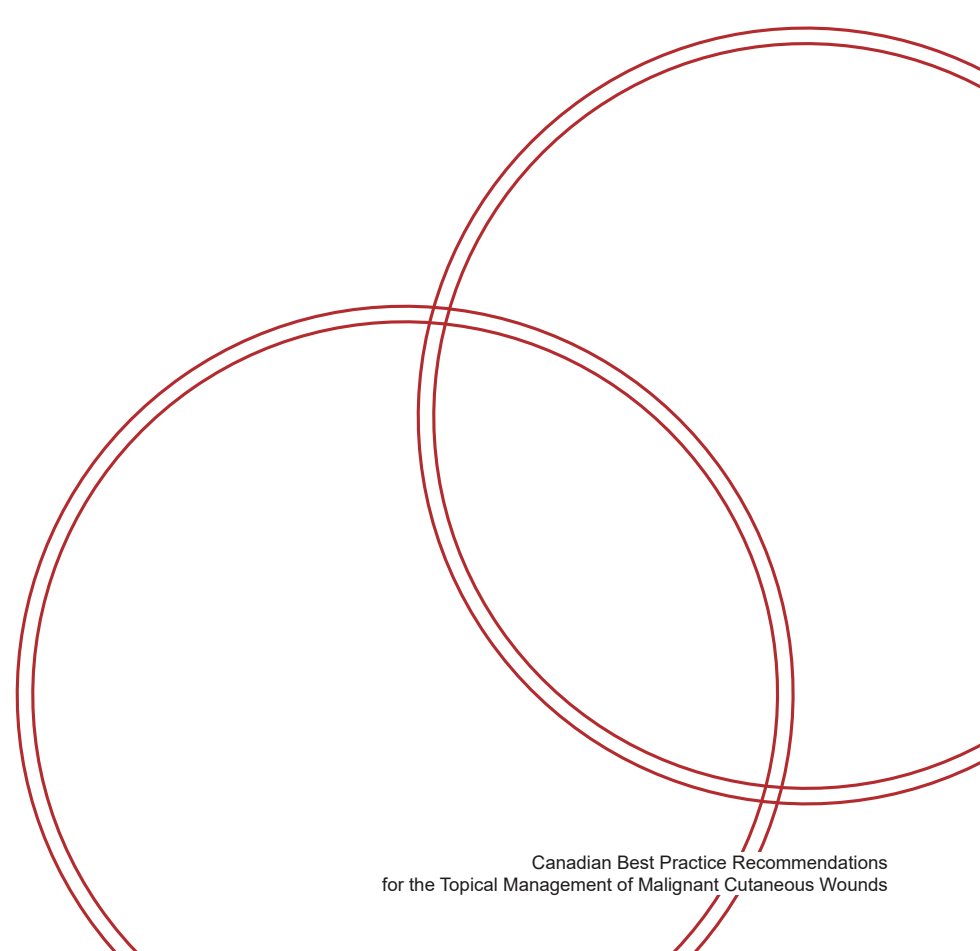
- nonsteroidal anti-inflammatory drugs;
- selective serotonin reuptake inhibitor;
- tricyclic antidepressant; or

- gabapentin, pregabalin.<sup>82</sup>
- b. Nonpharmaceutical interventions:
  - hydrogel sheets to keep skin hydrated;
  - garments and bed linens known to benefit individuals with eczema; or
  - TENS machines stimulate nerves that carry nonpainful messages to the brain.

**CLINICAL PEARLS**

- Pain needs to be assessed frequently, during and between dressing changes:
  - type of pain needs to be determined in order to treat appropriately;
  - interprofessional team contributes to better pain management strategies;
  - involvement of the palliative care team earlier in the disease trajectory improves outcomes;

- timing medication with understanding of peak effect of medication improves pain control for dressing changes;
  - creating an effective pain management plan decreases anticipatory pain and anxiety;
  - take into consideration how cleansing, premedication, and comfort techniques during the dressing changes contribute to the person's experience;
  - assessment of both periwound and wound tissue are needed to determine cause of pain and will contribute to better pain management; and
  - consider developing a complementary comfort measure care plan with the person to reduce anxiety and pain during procedures.
- While there is strong evidence for pharmaceutical and nonpharmaceutical pain management, evidence for managing pruritus requires further research.



# TOPICAL MANAGEMENT – BLEEDING

Bleeding from a malignant cutaneous wound can be a source of anxiety for a person and their support person(s). It can be a traumatic experience, especially in the case of hemorrhage, which is why it is pertinent to anticipate bleeding as much as possible by identifying high-risk situations.<sup>2,51</sup>

Finding the ideal dressing and hemostatic solution is a challenge that must take into account the characteristics of malignant cutaneous wounds, associated risk factors, the person, and the care setting.<sup>51</sup>

Goals of care discussions surrounding bleeding are an integral part of advanced care planning for the person with a malignant cutaneous wound, as interventions may range from simple or noninvasive (i.e., gentle dressing removal and cleansing, modification of topical therapies) to aggressive and invasive (i.e., vascular interventions for hemorrhage, blood products, radiation).<sup>28</sup> Figure 7 illustrates the bleeding risk from recurrent squamous cell carcinoma (tongue primary origin).

**Figure 7** *Recurrent Squamous Cell Cancer*



*Note.* 57-year-old male with recurrent squamous cell cancer (tongue primary origin).  
© NSWOC, 2024.



**Recommendation 15—Evaluate the risk of bleeding in the person with a malignant cutaneous wound, and offer education and support to them, their support person(s), and the health care team on preparing for and handling potentially catastrophic bleeding in such wounds.**

Bleeding from a malignant cutaneous wound can often be unpredictable. Therefore, it is imperative to anticipate the risk of bleeding in a malignant cutaneous wound and evaluate the possible reasons for bleeding. The most frequent reasons for bleeding in a malignant cutaneous wound are direct vessel invasion, presence of friable tissue or bioburden in wound bed, paraneoplastic or chemotherapy-induced thrombocytopenia, aplastic condition due to bone marrow infiltration or irradiation, coagulopathy associated with malignancy of the liver, disseminated intravascular coagulation, suboptimal anticoagulation therapy, or a combination of multiple factors.<sup>2,28,51</sup>

Bleeding may range from superficial ruptures of the microvasculature to erosions of large vessels. The tissue within a malignant cutaneous wound is often friable. It bleeds easily because of local vascular endothelial growth factor stimulation, resulting in excess formation of abundant but fragile blood vessels. Reduced fibroblast activity and ongoing thrombosis of larger vessels in malignant cutaneous wounds compromise the strength and formation of the collagen matrix, rendering tissue less resilient to trauma.<sup>16,28</sup>

**EDUCATION / CREATING A PLAN**

Bleeding from a wound, even if it is not fatal, can be distressing to the person with a malignant cutaneous wound, support person(s) and members of the health care team. Support should be available for all these individuals before, during and after the incident.<sup>23</sup> Access to interprofessional team members with specific training in malignant and hemorrhagic care can make it easier to manage bleeding situations. It

can also provide reassurance for the person with a malignant cutaneous wound, support person(s) and members of the health care team to be able to call on resource persons to assist. Many hemostatic management options are available, and planning what to do with consideration of what is available within the current care setting will also help control this type of event more easily.<sup>51</sup>

HCPs must consider and plan for the possibility of a substantial hemorrhage. In that case, it is essential to understand the wishes of the person and support person(s) and then develop a plan on how to manage based on the goals of care and according to the limits, means and supplies available.<sup>17</sup> An advance care plan should be in place to ensure that every potential event is covered and that the person/support persons caring for the individual have the education and necessary supplies available to provide the correct treatment.<sup>7,23</sup>

Sympathetic conversations with the person and support person(s) should occur in advance to describe what may happen. Those responsible for the person's care should be assured that they are adequately positioned to effectively administer the appropriate treatment to manage the situation.<sup>23</sup>

**Recommendation 16— Select the most appropriate topical dressing to prevent or manage minor bleeding based on the wound assessment, symptom management, and goals of care.**

Minor bleeding often occurs at the time of dressing change, making it essential to provide nontraumatic, gentle care during dressing removal, wound cleansing, dressing selection and application.<sup>16,51</sup>

Warmed normal saline can help manage bleeding when cleansing the wound.<sup>7,25,51</sup> Cleansing, irrigation, and rinsing can be used instead of wiping and rubbing to prevent bleeding. An 18–20-gauge angiocath on

a 30–60 ml syringe to create a pressure of 8–15 psi can be used to gently irrigate and effectively cleanse the wound without rubbing.<sup>7</sup> Wound irrigation devices that deliver similar irrigation can also be used. If able, the person with a malignant cutaneous wound can be encouraged to rinse the wound under water in the shower before the new dressing application.<sup>51</sup>

To prevent trauma to fragile tissue with dressing removal, it is worthwhile to first soak any adherent dressings with normal saline before slowly removing.<sup>7,51</sup> As an alternative option, use an adhesive remover or dressings may be slowly removed while in the shower to reduce trauma. To prevent dressings from adhering to the wound bed, use an interface/contact layer before applying desired dressing.<sup>27,40,51</sup>

Alginates are another preferred dressing to prevent trauma with dressing removal, especially for moderate to highly exudating wounds. This is because as they absorb exudate, they form a gel which make the removal easier and gentler.<sup>23,40,51</sup> Additionally, alginate dressings can help control minor, superficial bleeding in a wound. Alginate dressings that contain calcium have hemostatic properties. These alginates release large amounts of calcium when in contact with moisture (exudate), which in turn enhances the normal clotting

process.<sup>23,40,52</sup> Alginates should not be used with low exudating wounds to prevent product adherence to wound base and possible trauma with removal. Caution should be used when considering alginate dressings to prevent or control bleeding, as they may cause further trauma by sticking to the wound bed or not be able to release calcium to clot bleeding if there is not enough exudate from the wound. It is also unclear if alginates alone can control more aggressive bleeding than minor, superficial bleeds.<sup>52</sup>

Other familiar techniques that may help with minor bleeding in a malignant cutaneous wound include the use of ice packs,<sup>7</sup> reducing the frequency of dressing changes to limit trauma and applying local pressure at the bleeding point.<sup>51</sup>

**Recommendation 17–Develop a list of appropriate interventions for managing active and catastrophic bleeding.**

Heavier bleeding events require more urgent and aggressive measures.<sup>7</sup> Some interventions might be based on the availability of resources, clinical setting, and the provider’s knowledge, skills, and clinical experience. Table 5 lists topical interventions that can be used to manage active bleeding.

**Table 5 Topical Interventions to Manage Active Bleeding**

Intervention	Rationale
Haemostatic dressings	<ul style="list-style-type: none"><li>• can be used as an emergency measure to promote clotting<sup>7</sup>;</li><li>• can be left on the wound and covered with a secondary dressing once the bleeding is under control;</li><li>• examples include surgical sponges, oxidised cellulose dressings, or collagen dressings<sup>7</sup>; and</li><li>• surgical sponges are a natural gelatine that can absorb blood. The sponge can remain in place and be naturally absorbed or be removed with the next dressing change as it forms a gelatinous structure.<sup>7</sup></li></ul>
Oxymetazoline nasal spray	<ul style="list-style-type: none"><li>• an over-the-counter vasoconstrictor typically used for epistaxis<sup>25,52</sup>; and</li><li>• when sprayed directly onto the wound bed, helps to control mild to moderate bleeding via its alpha-adrenergic effects and with no reported systemic side effects.<sup>25,52</sup></li></ul>
Epinephrine (adrenaline)	<ul style="list-style-type: none"><li>• vasoconstrictor that can be applied topically to control bleeding<sup>7,23,25,35,40</sup>;</li><li>• suggested application is a moistened pad with dilution of adrenaline 1:1000 or 1mg/1ml in saline to point of bleeding<sup>7,23,25,40</sup>;</li><li>• can be sprayed onto the wound base for several minutes<sup>25</sup>; and</li><li>• may cause tissue ischemia and necrosis.<sup>7,23</sup></li></ul>
Tranexamic acid	<ul style="list-style-type: none"><li>• several routes of delivery, can be applied topically by crushing tablets and mixing with saline to make a paste that is applied to the wound for 10–15 minutes then removed<sup>23</sup>;</li><li>• caution is needed if crushing medication in the community setting. If the area is not well ventilated when crushing the tablets, there is a risk of inhalation and lung irritation. The risk of inhalation is low in hospital as medications are usually prepacked and the drugs are crushed within the little packet first, then opened and carefully poured; and</li><li>• injectable forms are sterile and easier to manipulate, and recommended to be first-line treatment for this reason. However, not available in all patient care settings.<sup>83</sup></li></ul>
Silver nitrate	<ul style="list-style-type: none"><li>• silver nitrate is a readily available and inexpensive way to cauterize points of bleeding<sup>7,25,84</sup>; and</li><li>• can come in sticks or 10% solution<sup>25,85</sup>;</li><li>• may experience burning sensation when applied; and</li><li>• specialized competency.</li></ul>

## CATASTROPHIC BLEEDING

A catastrophic bleed can be distressing for the person, support person(s) and health care team. There is a risk of providers being ill-equipped to deal with such an emergency even when risk has been identified, as there is often little warning of the actual event. As discussed previously, for a person with a malignant cutaneous wound at risk for bleeding, a strategic plan should be developed in collaboration with the person or substitute decision maker for appropriate interventions when such an event is considered to be a possibility. Careful assessment of the person's circumstances, goals of care, and care setting should be considered when creating a plan.<sup>7</sup>

Particularly for persons who are not in a hospital setting, such as at home or hospice facility, having a prepared emergency kit close by can help ease anxiety for the person and support person(s).<sup>7</sup> Such kits are suggested to include red or dark towels and prefilled syringes with crisis doses of midazolam for sedation.<sup>7,50</sup> These interventions will not resolve catastrophic bleeding. If active medical intervention aligns with the person's predetermined goals of care for active medical management, access to emergency services and transportation should be accessible, as well as ongoing communication with appropriate health care team members to facilitate necessary interventions in case of emergency rapidly.<sup>7</sup>

## CLINICAL PEARLS

- Assess for risk of bleeding by reviewing the person's medical history, including relevant diseases/diagnosis and previous and current treatments (medication, therapies).
- If available, review the most recent blood work.
- Establish goals of care and what the person's wishes are and clearly document. Routinely reevaluate goals of care as needed.
- Assess the wound bed for friable tissue.
- If a person has identified risk factors for bleeding, develop a plan with the interprofessional team to manage bleeding with available hemostatic solutions.<sup>51</sup>
- Educate the person with a malignant cutaneous wound, support person(s) and health care team on when to seek medical attention.
- Moisten adherent dressings prior to removal followed by gentle cleansing of the wound bed with irrigation or rinsing with devices such as a handheld shower.<sup>51</sup>
- Use a nonadherent interface such as a contact layer or alginate to prevent the dressing from adhering to the wound.<sup>51</sup>
- Use dressings with hemostatic properties in wounds that have minor bleeding.<sup>51</sup>
- Select a dressing to promote moist wound environment to prevent dressing from drying and adhering to wound bed.

# TOPICAL MANAGEMENT – MALODOUR

Malodour is a common symptom of malignant wounds that is often described as one of the most distressing symptoms for the person and their support person(s).<sup>57</sup> Living with a malignant cutaneous wound can be a visible and constant reminder of incurable malignancy.<sup>86</sup> It can cause nausea, loss of appetite, social isolation and depression that can affect the person's quality of life spiritually and emotionally.<sup>23,87</sup>

The main characteristic of malodour is the result of anaerobic and aerobic bacterial proliferation and the production of noxious agents residing in necrotic tissue.<sup>88</sup> Mainly, anaerobic bacteria emit putrescine and cadaverine, causing foul odours. Malodour occurs when tissue is deprived of oxygen and becomes necrotic, leading to bacterial growth.<sup>61</sup> Other potential causes of malodour may be increased purulent drainage caused by an overgrowth of bacterial burden, such as anaerobic and gram-negative organisms.<sup>88</sup> Malodours may be pervasive, permeating the clothes of the person with a malignant cutaneous wound, support person(s), and staff alike; linens; furniture; and even escaping into hallways, defying the boundaries of a room. Like all other symptoms, accurately diagnosing the cause of malodour is vital to ensure that the correct choice of treatment is made.<sup>23</sup> Figure 8 shows malodorous fungating wound.

**Figure 8** *Fungating Wound Using Antimicrobial Dressing to Manage Malodour*



*Note.* Cervical cancer using antimicrobial dressing to manage malodour. © NSWOC, 2024.

## PSYCHOLOGICAL EFFECT AND MALODOUR MANAGEMENT

Malodour is likely to have a significant effect on relationships. Isolation is common, and the person is likely to be sensitive to the reaction of others to their wound and wound care needs. The effect of malodorous and fungating wounds on body image has been well documented in women with breast or gynecological wounds.<sup>54</sup> Body image may be as crucial for men, but this is an under-researched area.

NSWOCs members of the health care team providing care for individuals, those who are performing the dressing changes, may

need to address their fears, difficulties, and reactions to the appearance and odours of fungating lesions, as a person will be sensitive to the verbal and nonverbal reactions of the HCPs who are involved in these intimate dressing changes.<sup>61</sup> Understanding the person's transitional journey from normal to altered body image better equips health care team members to support a person with a malignant cutaneous wound. Using the malodour assessment guide, Table 6, can help health care team members identify strategies to support individuals negatively affected by odour. In addition, it can be a valuable tool for monitoring changes in wound status.

**Table 6** *Malodour Assessment Guide*

Odour Type	Description
Strong	Odour evident on entering room when dressing is intact
Moderate	Odour evident on entering room, when dressing is removed
Slight	Odour evident when dressing is removed
No odour	No odour evident when dressing is removed

*Note.* Reproduced from Leadbeater,<sup>61</sup> with permission from Mark Allen Healthcare Ltd.

### **Recommendation 18—Manage wound odour using wound cleansers, topical antibiotics, topical antimicrobial agents, or other products.**

#### **WOUND AND PERIWOUND CLEANSING**

Unpleasant odour and foul-smelling discharge occur when tissue is deprived of oxygen and becomes necrotic, leading to bacterial growth. Cleansing the wound with warmed saline can reduce odour. Alternatively, if the person is capable, they can shower. Be mindful that malignant tissue can be delicate due to the presence of highly friable tumour buds. It is, therefore, necessary to determine treatment based on wound status and the person's wishes.<sup>23,40</sup>

Independent bathing, showering, or gentle cleansing will not only provide effective skin and wound care but will also improve quality

of life by reducing pain and decreasing the incidence of bleeding.<sup>23</sup> Alternatively, Beers<sup>52</sup> recommends using dilute sodium hypochlorite (NaClO) or hypochlorous acid solution as a form of mild debriding to remove slough and manage odour. If the above options are unavailable, soaking using normal saline or other nontoxic agents for 5-10 minutes is recommended for cleansing.

#### **TOPICAL ANTIMICROBIAL**

Dressings containing silver, iodine, honey, and polyhexamethyl biguanide (PHMB) work by reducing bacterial and fungal load.<sup>23</sup> Antimicrobial effects of dressings in the presence of infection can be beneficial in reducing odour. Silver dressings are effective in reducing malignant cutaneous wound malodour.<sup>23,52,89</sup> Although effective, silver dressings are not to be used during radiation treatment. Medical grade honey

has been shown to have anti-inflammatory and antimicrobial properties and can help to control malodour. Cadexomer iodine has a microscopic structure that allows it to absorb six times its weight in fluid, and thus, it is used as a drying antiseptic for wounds with heavy exudate. Its absorptive and antibacterial properties make it another good choice to reduce wound odour.<sup>52</sup> PHMB is an antiseptic agent that has been shown to be as effective as metronidazole in managing odour.<sup>90</sup> PHMB is a cost-effective choice that may be used when antibiotics are unavailable.<sup>90</sup> Both honey-coated and silver-coated dressings improved the quality of life for most persons with a malignant cutaneous wound based on measured wound malodour.<sup>91</sup>

### **ODOUR MANAGEMENT—TOPICAL ANTIBIOTICS**

Antibiotics are commonly prescribed as an effective treatment of malignant wounds in the absence of infectious signs for the sole purpose of odour control. Metronidazole is known to act against anaerobes, which are known to exacerbate inflammation and infection.<sup>16</sup> Metronidazole is available in gel, cream, or liquid form (available as a manufacturer prepared intravenous solution) and can be applied to the tumour directly or used as a soak using a gauze compress.<sup>16,24</sup> Although primarily indicated for rosacea, metronidazole gel (0.75%) is also effective against anaerobes and regularly used for topical odour management.<sup>92</sup>

*Note*, manufacturer prepared intravenous metronidazole is used as a topical irrigation or compress for malodourous malignant cutaneous wounds; and is not administered systemically for the sole purpose of topical wound odour management.

Although the literature does report metronidazole use in a powder form from crushed tablets, caution is needed due to the risk of inhalation lung irritation. If the area is not well ventilated when crushing the tablets, there is a risk of inhalation and lung irritation. In the hospital setting, the risk of inhalation is low as medications are usually prepacked

and the drugs are crushed within the little packet first, then opened and carefully poured. Extreme care must be exercised to avoid inhalation of the crushed metronidazole by wearing gloves, masks, and handwashing. Although available in some care settings, the use of metronidazole powder (i.e., from crushing tablets and other compounded powder forms) is not recommended.<sup>†</sup>

The most common treatment pattern is the once-daily application of metronidazole under a nonadherent dressing such as absorbent foam for a 14-day total course.<sup>36,52</sup>

Metronidazole applied topically as an anti-infective agent can reduce or eliminate odour; however, its use on heavily exuding wounds can render it ineffective. Therefore, choosing the appropriate dressing is crucial in managing malodours in malignant cutaneous wounds.<sup>61</sup>

Other broader-spectrum antibiotics may be prescribed, but to limit the risk of resistance and side effects, it seems more reasonable to reserve them to treat the infection.<sup>40</sup>

### **ODOUR MANAGEMENT—DRESSINGS**

Exuding wounds demonstrates the benefit of a two-layer dressing system, with the primary contact layer drawing exudates from the wound into a secondary absorbent layer.<sup>61</sup>

Charcoal dressings effectively trap and adsorb odour particles, acting as a filter. Apply charcoal dressings as soon as a slight odour is expressed by the person and support person(s). Charcoal dressings can become saturated if odours are too strong. Charcoal dressings are placed above the primary dressing to absorb the offensive volatile compounds. They can be applied in successive layers, increasing the surface area of absorption and, therefore, the effectiveness on a highly malodorous wound.<sup>1,40,52</sup>

## OTHER STRATEGIES

Topical antimicrobial therapy and absorbent dressings, combined with cleansing/ interventions to diminish malodour, have been the mainstay of malignant cutaneous wound odour and exudate treatment. Other strategies include using curcumin, sugar paste, honey, and buttermilk on the wound in conjunction with absorbent dressings, increasing the frequency of dressing changes, promptly bagging and removing used dressings from the living space and keeping windows open to provide adequate ventilation.<sup>60,93</sup> Aromatherapy, atomizers, cat litter, charcoal or bowls of shaving foam can help control odours.<sup>23,36,94,95</sup> An additional option for

managing malodour can include the use of an ostomy pouching system or wound manager pouching system. With low to large exudating wounds, the use of a pouching system can effectively contain the malodour.

Malodour assessment is subjective, and if a person is exposed to an odour over a prolonged period, their sensory cells can become insensitive, preventing them from perceiving the scent. Validated tools are available to assess odour objectively.<sup>88</sup> The RACE Strategy is a comprehensive, validated tool effective for addressing the cause of odour, as shown in Table 7.

**Table 7 Comprehensive Wound Malodour Management: The RACE Strategy**

<b>Removal of necrotic tissue</b>	Cleanse and irrigate the wound with normal saline; and Dressings to promote autolytic debridement.
<b>Antibacterials, absorption</b>	Metronidazole gel, cream, or crushed tablets [ <i>see note</i> ]; Silver sulfadiazine; iodine-containing preparations; over-the-counter preparations containing bacitracin, neomycin, and polymyxin B; honey; yogurt; buttermilk; and Absorbent dressing with or without activated charcoal or sodium chloride.
<b>Concealers</b>	Scented candles, fragrant flowers and plants, air-freshener sprays, coffee beans, vanilla beans, cider vinegar, peppermint oil, oil of wintergreen; and Adsorbents (charcoal, baking soda, cat litter).
<b>Education and support</b>	Commit to controlling malodour as much as possible; Follow up regularly to check on new and existing concerns; Address pain, bleeding, and sleep disturbances; Provide audience-appropriate educational materials; Anticipate and address questions and concerns about wound care; and Avoid expressing distress at odours in front of or within hearing distance of patients and families.

*Note.* Crushed metronidazole may not be available depending on province/territory and local health care organization policy and procedures. Reprinted with permission from Samala and Davis.<sup>36</sup> Copyright © 2024 Cleveland Clinic Foundation. All rights reserved.



**Recommendation 19—Consider removing loose devitalized tissue that may contribute to bioburden and odour by using debridement within your scope of practice, within your setting, in accordance with risk factors, and with informed consent.**

### **ROLE FOR DEBRIDEMENT**

Managing malignant tumours with aggressive debridement is not recommended due to the risk of pain and bleeding. Using a palliative care approach to care, suitable debridement methods may be considered to improve quality of life where the removal of nonviable tissue may help reduce odour.<sup>16,96</sup> Using conservative sharp debridement cautiously is an effective way to control odour by removing nonviable tissue (devitalized collagen fibres), which in turn will slow down bacterial growth and odour.<sup>16</sup> For a palliative approach to care, the goal of debridement is not to achieve healing but a way to improve quality of life and decrease the risk of infection.<sup>16</sup>

Debriding by way of autolysis is preferred, and depending on the person's prognosis, it may be pertinent to leave hard, dry necrotic tissue intact and simply protect the area.<sup>23</sup>

### **CLINICAL PEARLS**

- Malodour is a common symptom of malignant wounds that is often described as one of the most distressing symptoms which can lead to social isolation and depression for the person and their support person(s).<sup>57</sup>
- The RACE Strategy is a comprehensive, validated tool effective for managing the cause of odour.
- Wound/periwound cleaning, topical antimicrobials, topical antibiotics, and odour management dressings can help mitigate or conceal malodour.
- NSWOCC acknowledges that all forms of debridement, including autolytic debridement, have a high level of clinical risk, resulting in poor clinical outcomes. Specialized knowledge, skills, and critical thinking abilities are foundational for developing the competency required to initiate and perform safe and effective debridement.

# TOPICAL MANAGEMENT – MOISTURE

There is often an increase in the vascularity and permeability of blood vessels in malignant wounds, which can result in a high volume of exudate, adversely affecting a person's quality of life.<sup>97</sup> Appropriate wound care management must be in place to help the person regain functional ability and optimal quality of life.<sup>59</sup>

**Recommendation 20–Protect periwound skin from irritant or excessive exudate by using an appropriate skin barrier and absorbent wicking products.**

## PERIWOUND SKIN PROTECTION RECOMMENDATIONS

The most appropriate skin protectant choice is made based on the location of MASD, allergies, and caregiver support. Use a film-forming liquid acrylate that does not interfere with dressing adherence or pouching appliances. Liquid polymer acrylate for upper body, head, and facial wounds is appropriate because there is less mess, compared to others, and no interference with the adhesion of dressings.<sup>28</sup> Figure 9 shows dressings used to manage exudate.

**Figure 9** *Basal Cell Carcinoma on the Back*



*Note.* Basal cell carcinoma on the back managed using calcium alginate and foam dressing to manage sanguineous exudate. © NSWOCC, 2024.

Contact irritant or allergic dermatitis (local erythema, edema, and blistering on the wound margins) may require patch testing to determine allergen. Minimize trauma from adhesive dressing removal by using a sealant, barrier, or protectant. Examples are wipes, sprays, gels, and liquid roll-ons, summarized in Table 8.<sup>16</sup>

**Table 8 Strategies to Protect Periwound Skin**

Type	Description	Application	Comments
Silicone	Polymers that include silicone together with carbon, hydrogen, and oxygen	Apply to periwound skin	Allergy is rare; certain types of silicone product are tacky, facilitating dressing adherence to the skin without any adhesive
Zinc oxide / petrolatum	Inorganic compounds that are insoluble in water	Apply a generous quantity to skin	May interfere with activity of ionic silver
Acrylates	Film-forming liquid skin preparation to form a protective interface on skin attachment sites	Spray or wipe on skin sparingly	Allergy is uncommon; facilitates visualization of periwound skin
Hydrocolloid or adhesive film dressing	A hydrocolloid wafer consists of a backing with carboxymethylcellulose as the filler, water absorptive components such as gelatin and pectin (commercial gelatin desserts), and an adhesive	Window frame the wound margin to prevent recurrent stripping of skin	Allergies have been reported from some colophony-related adhesives associated with some hydrocolloid dressings

*Note.* Zinc oxide may interfere with visualization of wound bed. Reproduced from Woo and Sibbald<sup>16</sup> with permission. © K. Woo.

## PERIWOUND PROTECTION

Use silicone tape to secure dressings to prevent MARSIs.<sup>35</sup> Tubular bandages can help to secure dressings under clothing while preventing skin trauma.<sup>35</sup>

A crusting technique at each dressing change may be necessary:

- cleanse the periwound skin using liquid medical cleanser (pH 4.5-5.7) or normal saline;
- remove any tape residue with sting-free adhesive remover;
- apply ostomy powder; and
- cover with a sting-free barrier film.<sup>58</sup>

**Recommendation 21—Select dressings that absorb exudate and minimize discomfort, noting that alternative products (e.g., an ostomy pouching system) may be beneficial.**

## WOUND CARE PRODUCTS

Excess moisture is detrimental in malignant, nonhealable wounds. Dressings suitable for lightly exuding wounds may no longer be appropriate for highly exuding wounds, for example, hydrogels or occlusive hydrocolloid dressings.<sup>16,25</sup>

Many absorptive wound products can absorb excess exudate, including alginates, hydrofibres, foam dressings and highly absorbent products that wick moisture away.<sup>16</sup> A combination of nonadherent, conformable, absorbent dressings such as alginates or hydrofibres against the wound bed with highly

absorbent secondary cover dressings such as polyurethane foam dressings with silicone borders or absorbent vertical wicking pad dressings may be required.<sup>16,20,25,40</sup>

Due to the presence of anaerobic and aerobic bacteria in these types of wounds, antimicrobial products may be required to reduce odour and prevent periwound maceration and degradation of the skin from excessive wound exudate.<sup>20,60</sup> Antimicrobial dressings containing silver, honey, or PHMB may be needed in combination with absorbent cover dressings.<sup>53,58</sup>

Consider the person's goals and level of pain when planning dressing changes. Initially, a person with a malignant cutaneous wound may want daily dressing changes and the ability to shower to feel clean.<sup>40</sup> However, with disease progression and increased pain levels, it may be necessary to decrease the number of dressing changes per week by incorporating the use of more absorbent wound care product options.<sup>40</sup>

For fresh skin lesions (ulcerated nodules) with moderate exudate, use interface dressings or thin hydrocellular foam dressings with silicone to prevent crust formation or to hydrate.<sup>27</sup> Lesions with excessive exudate may require hydrofibre or alginate dressings, which can be applied in multiple layers to increase absorption.<sup>27</sup>

## **POUCHING SYSTEMS**

Consider using ostomy, fistula, or wound pouching systems for copious amounts of exudate if the malignant wound is not too large and the periwound skin is intact enough to withstand adhesive surfaces.<sup>23,40</sup> Use skin barrier wipes around the wound to prevent maceration and skin trauma with pouching systems.<sup>40</sup> An NSWOC has the knowledge, skills, and judgment to support pouching management.

## **CLINICAL PEARLS**

- Protect the periwound by choosing a product based on the location of MASD, allergies, and caregiver support.
- Select appropriate dressings that reflect the level of wound exudate.
- The goal of managing exudate should be to enhance a person's well-being while also ensuring the efficient use of nursing time. The most appropriate dressing choice is made in accordance with the symptoms of the wound.
- Disposable hospital briefs with the crotch removed can be useful in securing dressings without the need for tape.

# EVALUATION AND RESEARCH

Management of malignant cutaneous wounds is not a one-time process. Persons and their support person(s) will require ongoing emotional support and education. As described in earlier sections the evidence in aspects of managing malignant cutaneous wounds is limited. Additional research is warranted to provide improved guidance to HCPs and stronger evidence. Noting that healing is not a realistic goal enhancing quality of life through effective symptom and pain management is imperative.

The current literature reveals a notable gap when it comes to addressing health equality, diverse socioeconomic factors, and the delivery of care with cultural humility. While some advancements in topical wound care management have been made, there remains a lack of understanding and tailored approaches to care to effectively address the diverse needs of persons living with a malignant cutaneous wound. This gap underscores the importance of each health care profession's education regarding the health impact of racism, and the need to develop future research for more inclusive and equitable care models.

**Recommendation 22–Continuously assess outcomes, including the management of odour, moisture, risk of bleeding, and comfort as well as the psychosocial aspects, and make necessary adjustments to the person's plan of care.**

The primary goal of topical wound management is to alleviate various physical symptoms, including excessive exudate, malodour, pain, and the potential for hemorrhage. Assess the effectiveness of interventions by using a validated objective tool such as the Edmonton Symptom Assessment System Revised (ESAS-r), Malignant Wound Assessment Tool–Clinical (MWAT-C), or the Toronto Symptom Assessment System for Wounds (TSAS-W) may be employed to measure specific wound symptoms or the person's overall quality of life (de Haes, 1996, noted in Adderley & Holt<sup>1</sup>).<sup>10-12,98</sup> These tools were described in the Wound Assessment and Confirming Wound Etiology section and are shown in Appendices 2, 3, and 4.

The effective care of a person with malignant cutaneous wounds necessitates the ability to comprehensively evaluate and treat the wound using the most suitable dressings based on the specific traits of the wound. Continuous assessment and cooperation with interprofessional teams are crucial elements in this process.<sup>61</sup>

**Recommendation 23—Encourage additional research and publication into the topical and psychosocial management of persons with malignant cutaneous wounds, fostering the provision of person-centred care grounded in the best available evidence.**

Many of the clinical studies reviewed for the development of this project highlighted study diversity as a limitation due to varied target audiences and intervention methods, hampering result comparison. A considerable number of articles reported low scientific evidence based on international criteria, poor reporting of exclusion criteria, baseline comparability, the lack of an intention-to-treat analysis, use of small sample sizes, lack of control groups, blinding, and randomization. Limited research output in this area is evident from the scarcity of randomized controlled trials (RCTs).<sup>1,7,62</sup>

Conducting RCTs for malignant cutaneous wounds can be challenging. While some outcomes may be suitable for RCTs, measuring specific relevant outcomes could be complex. Less rigorous study designs, like multiple case studies, may provide the highest available evidence for these cases. Ethical concerns arise from enrolling people near end-of-life stages, making RCTs difficult. Trials in this context should be well-designed, considerate of the burden on an individual, and capable of offering reliable insights. For instance, RCTs assessing pain or malodour might require shorter follow-ups and smaller samples due to anticipated large effect sizes. Depriving this population of valuable clinical information from high-quality RCTs seems ethically questionable, given the necessity for effective interventions.<sup>1</sup>

Future research endeavours to manage malignant cutaneous wounds should focus on addressing the identified limitations and gaps in the existing literature. First and foremost, there is a pressing need for well-designed, multicentre RCTs to evaluate

the efficacy of various wound management interventions. These studies should aim to assess the impact of different wound cleansing techniques, wound dressings, and topical agents on wound healing rates, pain reduction, and odour control.

Alexander<sup>7</sup> reports that in addition to clinical trials, qualitative research exploring the lived experiences of persons with malignant cutaneous wounds can provide valuable insights into the psychosocial impact of these wounds on individuals and significant others. Understanding a person's perspectives, preferences, and challenges in wound management will be instrumental in developing person-centred care approaches.<sup>7,99</sup>

Luo et al.<sup>15</sup> recognize that most malignant cutaneous wounds are chronic and incurable, and they stress the need for patient awareness of lifelong wound presence and the need to incorporate wound care into daily routines. Thus, enhancing the topical wound care management simplicity and effectiveness becomes crucial for improving a person's quality of life.

According to Gibson and Green,<sup>19</sup> it is evident that the spiritual implications of malignant cutaneous wounds vary significantly among persons; for some, coping with the wound's anguish may challenge their spirituality, while others may find solace in hope for diverse reasons. Moreover, what brings peace to one person may be distressing to another.

Historically, wound care trials have predominantly centred around wound healing as the primary outcome, which does not apply to individuals with malignant cutaneous wounds. With a palliative approach to care as the primary focus of treatment for malignant cutaneous wounds, future research should prioritize improving the person's quality of life. Clinically, a strong correlation exists between effectively alleviating distressing symptoms and enhancing the overall quality of life.

However, in the research context, quality of life holds a distinct and specific meaning, requiring measurement through designated tools.<sup>1</sup>

Given these considerations, evaluating quality of life as a primary outcome or ensuring adequate statistical power to assess it as a secondary outcome becomes especially critical for this specific population. By placing a primary focus on quality of life in future research, advancements can be made in understanding and addressing the unique needs and challenges faced by persons with malignant cutaneous wounds, ultimately aiming to improve their well-being and overall quality of life.<sup>1</sup>

Channelling financial resources and dedicating efforts to gain a deeper understanding of malignant cutaneous wounds can catalyze the development of targeted interventions to curtail their occurrence. Establishing a structured reporting mechanism is imperative to uncover the actual extent and prevalence of malignant cutaneous wounds. This reporting process serves the dual purpose of providing official statistics and illuminating trends, including the anatomical and geographical factors contributing to the proliferation of these wounds. Such insights enable the efficient allocation of resources to address this issue.

Given the paramount importance of evidence-based nursing in contemporary health care systems, it is remarkable that nurses often find themselves delivering care without formal guidance. Consequently, the data collected from the reporting process, coupled with financial investments, would furnish a rationale for further research to formulate comprehensive recommendations. The ultimate goal is to establish local, national, and international evidence-based guidelines to

serve as the foundation for nursing practice.<sup>19</sup>

To proactively reduce the development of malignant cutaneous wounds, organizations must prioritize raising awareness of the signs and symptoms of cancer. Additionally, the frequency of screening programs should be enhanced to minimize the occurrence of these wounds. Establishing a formal reporting process and providing guiding principles are essential to anchor best practices in the field. Furthermore, investments in research focused on the prevention and management of malignant cutaneous wounds can significantly decrease the incidence of such wounds, alleviating the distressing experiences of persons and ultimately improving their quality of life.<sup>19</sup>

### **CLINICAL PEARLS**

- The development of ongoing future consensus guidelines for managing malignant cutaneous wounds, incorporating the expertise of interprofessional teams, will aid HCPs in making informed and standardized treatment decisions.
- Collaborative efforts among wound care specialists, oncologists, palliative care providers, and psychologists can establish comprehensive and integrated care plans.
- The evaluation and direction of future research for managing malignant cutaneous wounds should aim to promote evidence based and person-centred care. By addressing the challenges and limitations in current practices and advocating for robust research initiatives, we strive to improve the management of malignant cutaneous wounds, alleviate a person's suffering, and enhance overall outcomes for persons facing these complex and devastating wounds.

# APPENDIX 1

## INTERPRETATION OF EVIDENCE OF RECOMMENDATIONS

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Revised 2017.<sup>63</sup>

Ia	Evidence obtained from meta-analysis or systematic review of RCT and/or synthesis of multiple studies primarily of <i>quantitative</i> research.
Ib	Evidence obtained from at least one randomized controlled trial.
IIa	Evidence obtained from at least one well-designed controlled study without randomization.
IIb	Evidence obtained from at least one other type of well-designed quasi-experimental study without randomization.
III	Synthesis of multiple studies primarily by <i>qualitative</i> research.
IV	Evidence obtained from well-designed non-experimental observational studies, such as analytical studies, or descriptive studies and/or qualitative studies.
V	Evidence obtained from expert opinion or committee reports, and/or clinical experiences of respected authorities.



# APPENDIX 2

## MALIGNANT WOUND ASSESSMENT TOOL – CLINICAL

### MALIGNANT WOUND ASSESSMENT TOOL – CLINICAL (MWAT-C)

**Instructions for completion:** The purpose of this tool is to guide the discussion between patient and clinician regarding the patient's concerns about living with a malignant wound. This tool is not a comprehensive symptom assessment; rather, it is intended to help the clinician ascertain patient needs. The tool should be used in conjunction with other performance assessments (e.g., Palliative Performance Scale) to develop an appropriate wound management plan. **Part A – Demographic information:** this section should be completed by the clinician. Information may be obtained from the chart or the patient. **Part B – Symptom assessment:** Patient Report information is obtained by interviewing the patient. Record the patient's response, not your interpretation of the response. The Clinical Assessment column is for completion by the clinician. Boxes with no instruction may still be used to record any relevant observations. **Part C – Wound assessment:** unless otherwise specified, this section is to be completed by the clinician. *Note.* Follow current privacy, confidentiality, and consent legislation and protect personal health information (PHI), i.e., Personal Health Information Protection Act.

#### A. Demographic Information

Insert your site's patient addressograph here:

- A1. Today's date: \_\_\_\_\_
- A2. Cancer diagnosis: \_\_\_\_\_
- A3. Date of cancer diagnosis: \_\_\_\_\_
- A4. When was the wound first noted? \_\_\_\_\_
- A5. Has this wound been treated with chemotherapy, radiation, surgery? List with dates. \_\_\_\_\_  
 \_\_\_\_\_
- A6. Recent Wound Management (within the past month): \_\_\_\_\_  
 \_\_\_\_\_
- A7. Attach a copy of the list of patient medications, allergies, and sensitivities.

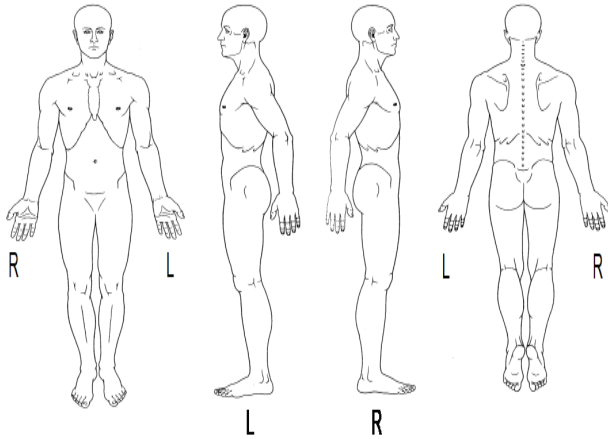
#### B. Symptom Assessment

Symptom	Patient Report	Clinical Assessment
<b>B1. Pain / Itching</b>	<p>On a scale from 0 to 10, with 0 being 'no pain' and 10 being 'pain as bad as you can imagine', how would you rate your pain:</p> <p>a. in the wound, at its worst, in the past 24 hours? _____</p> <p>b. around the wound, at its worst, in the past 24 hours? _____</p> <p>c. during dressing changes, at its worst? _____</p> <p>d. between dressing changes, at its worst? _____</p> <p>What helps to relieve your pain?</p> <ul style="list-style-type: none"> <li>• What makes your pain worse?</li> </ul> <p>Is itching present (Describe.)</p> <ul style="list-style-type: none"> <li>• What helps to relieve your itching?</li> <li>• What makes your itching worse?</li> </ul>	
<b>B2. Odour</b> <small><sup>1</sup>Odour scale adapted from Baker PG &amp; Haig G. The Practitioner 1981; 225:569-573.</small>	Do you notice any odour from the wound? (Describe.)	<p><input type="checkbox"/> Strong odour evident upon entering room (6-10 feet away from patient); dressing is intact</p> <p><input type="checkbox"/> Moderate odour evident upon entering room (6-10 feet) and dressing is removed.</p> <p><input type="checkbox"/> Slight odour evident at close proximity when dressing is removed.</p> <p><input type="checkbox"/> No odour evident even when at patient's bedside with dressing removed.</p> <p>Clinician's description:</p> <p>_____</p>

Symptom	Patient Report	Clinical Assessment
<b>B3. Exudate</b>	Do you have any drainage from the wound? Do dressings prevent leakage? Number of dressing changes per day: _____  Comment:	Amount: <input type="checkbox"/> dry <input type="checkbox"/> minimal <input type="checkbox"/> moderate <input type="checkbox"/> heavy  Characteristics (check all that apply): <input type="checkbox"/> serous <input type="checkbox"/> serosanguinous <input type="checkbox"/> purulent <input type="checkbox"/> not applicable (no exudate) <input type="checkbox"/> other (specify): _____
<b>B4. Bleeding</b>	Do you have any bleeding from the wound? <input type="checkbox"/> none <input type="checkbox"/> occasional <input type="checkbox"/> constant  When does the wound bleed? (check all that apply) <input type="checkbox"/> dressing change <input type="checkbox"/> spontaneous <input type="checkbox"/> other Comment:	Amount: <input type="checkbox"/> minimal <input type="checkbox"/> moderate <input type="checkbox"/> heavy  Comment:
<b>B5. Edema</b>	Do you have any swelling in the area of the wound? Comment:   Do you have swelling anywhere else? Comment:	Location (check all that apply): <input type="checkbox"/> in wound <input type="checkbox"/> around wound <input type="checkbox"/> head <input type="checkbox"/> neck <input type="checkbox"/> arm (specify L, R, or both): _____ <input type="checkbox"/> leg (specify L, R, or both): _____ <input type="checkbox"/> other (specify): _____  Is lymphedema present? (Comment.)
<b>B6. Other Symptoms / Concerns</b>	Do you have any other symptoms or concerns?	Other concerns? (i.e., infection, proximity to vital structures etc.)
<b>B7. Function</b>	Does the wound affect your physical movement in your daily living? Comment:	Does the patient have difficulty moving as a result of the wound?
<b>B8. Social</b>	Does the wound affect your participation in social activities? Comment:	
<b>B9. Support</b>	Describe your support from your health care team, family, and friends.	
<b>B10. Emotional</b>	How does the wound make you feel? Comment:	
<b>B11. Patient's Overall Concern</b>	What bothers you the <b>most</b> about living with the wound?	

## C. Wound Assessment

C1. Wound location: (shade in the entire malignant wound area and add comments such as proximity to vital structures and periwound skin area etc.)



Draw the wound, or, attach a photo, protecting PHI, to show the wound pattern (i.e., shape, measurements), and wound characteristics (i.e., bleeding, exudates, proximity to vital structures, periwound skin etc.).

C3. Wound bed: % red \_\_\_\_ % pink \_\_\_\_ % yellow \_\_\_\_ % grey \_\_\_\_ % black \_\_\_\_  
 % other (specify) \_\_\_\_\_

C4. Measurement:

- Surface area\*: L \_\_\_\_ x W \_\_\_\_ = \_\_\_\_ cm<sup>2</sup>
- Depth (deepest aspect) \_\_\_\_ cm
- Height (highest aspect) \_\_\_\_ cm

\*Calculated as length (L) x width (W), where L is the longest measure of the wound and W is the widest measure perpendicular to L.

C5. Change in wound size:  larger since last recorded  smaller since last recorded  no change since last recorded  
 this is the first recorded measurement

C6. According to the patient, over the past month, has the wound become:  larger  smaller  no change

C7. Periwound condition (check all that apply):  intact  red  dry  wet  blistered  ulcerated  
 other (specify): \_\_\_\_\_

C8. Wound Classification:

<b>Please classify the wound.</b> <b>(check all that apply)</b> <b>Describe the wound:</b>	<input type="checkbox"/> Fungating (ulcerating and proliferative growth)
	<input type="checkbox"/> Ulcerating: wound creating an ulcer bed
	<input type="checkbox"/> Fistula
	<input type="checkbox"/> Zosteriform lesions (small, isolated tumors, clustering of small clear vesicles)
	<input type="checkbox"/> Subcutaneous spread (flat, spreading wound, may not have open areas); if yes, what type of subcutaneous spread is present? ___ Carcinoma erysipeloides (erythema, appearance of cellulitis) ___ Carcinoma en cuirasse (dry, flat indurated skin) ___ Elephantiasis skin changes (thick, raised indurated skin) ___ Sclerous skin changes (scleroderma tightness in appearance)
	<input type="checkbox"/> Other: _____

**Summary of Assessment:**

**Issues (problem list):**

**Management Plan:**

*Note.* MWAT-C version April 5, 2024, is reproduced with the participation of Valerie N. Schulz, MD, and is licensed under the Creative Commons Attribution 4.0 CC-BY (Schulz et al.<sup>11</sup>). This publication reports the evidence for the validity of the original MWAT-C. The funding was provided by the Canadian Institutes of Health Research (CIHR) New Emerging Team Grant PET69772.

# APPENDIX 3

## TORONTO SYMPTOM ASSESSMENT SYSTEM (TSAS-W)

### Toronto Symptom Assessment System for Wounds (TSAS-W)

Patient's Name: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_  
dd mm yyyy

Study ID: \_\_\_\_\_ Wound ID: \_\_\_\_\_ Wound assessment number: \_\_\_\_\_

**Wound Location:**  
 1  Face/Head/Neck      5  Upper Extremity      9  Sacrum/Coccyx  
 2  Chest/Breast      6  Lower Extremity      10  Foot (excluding heel)  
 3  Abdomen/Flank      7  Pelvis/Hips      11  Heel  
 4  Upper/Lower Back      8  Perineum/Genitalia

Side: 1  Left 2  Right 3  Center Describe location further if needed: \_\_\_\_\_

**Wound Class:** 1  Malignant      4  Diabetic Foot ulcer      7  Iatrogenic  
 2  Pressure Ulcer      5  Venous ulcer      8  Infection/Inflammatory  
 3  Traumatic      6  Arterial ulcer      9  Ostomy  
 Stage: \_\_\_\_\_ Size: \_\_\_\_\_ (cm<sup>2</sup>)      10  Other

*\*Please circle the number that best describes your wound-related symptoms over the past 24 hours:*

No Pain <b>with</b> dressings and/or debridement	0 1 2 3 4 5 6 7 8 9 10	Most severe Pain <b>with</b> dressings and/or debridement
No Pain <b>between</b> dressings and/or debridement	0 1 2 3 4 5 6 7 8 9 10	Most severe Pain <b>between</b> dressings and/or debridement
No Drainage or Exudation	0 1 2 3 4 5 6 7 8 9 10	Most severe and/or continuous Drainage or Exudation
No Odor	0 1 2 3 4 5 6 7 8 9 10	Most severe Odor
No Itching	0 1 2 3 4 5 6 7 8 9 10	Most severe Itching
No Bleeding	0 1 2 3 4 5 6 7 8 9 10	Most severe and/or continuous Bleeding
No Cosmetic or Aesthetic concern and/or distress	0 1 2 3 4 5 6 7 8 9 10	Most severe Cosmetic or Aesthetic concern and/or distress
No Swelling or Edema <b>around</b> wound	0 1 2 3 4 5 6 7 8 9 10	Most severe Swelling or Edema <b>around</b> wound
No Bulk or Mass effect from <b>wound</b>	0 1 2 3 4 5 6 7 8 9 10	Most severe Bulk or Mass effect from <b>wound</b>
No Bulk or Mass effect from <b>dressings</b>	0 1 2 3 4 5 6 7 8 9 10	Most severe Bulk or Mass effect from <b>dressings</b>

Completed by: 1  Patient      2  Patient assisted by caregiver      3  Caregiver

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# APPENDIX 4

## EDMONTON SYMPTOM ASSESSMENT SYSTEM

Affix patient label within this box

### Edmonton Symptom Assessment System Revised (ESAS-r)

Please circle the number that best describes how you feel NOW:

No Pain	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Pain
No Tiredness <i>(Tiredness = lack of energy)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Tiredness
No Drowsiness <i>(Drowsiness = feeling sleepy)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Drowsiness
No Nausea	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Nausea
No Lack of Appetite	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Lack of Appetite
No Shortness of Breath	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Shortness of Breath
No Depression <i>(Depression = feeling sad)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Depression
No Anxiety <i>(Anxiety = feeling nervous)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Anxiety
Best Wellbeing <i>(Wellbeing = how you feel overall)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Wellbeing
No _____ Other Problem <i>(For example constipation)</i>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible _____

Patient Name \_\_\_\_\_

Date *(yyyy-Mon-dd)*

Time *(hh:mm)*

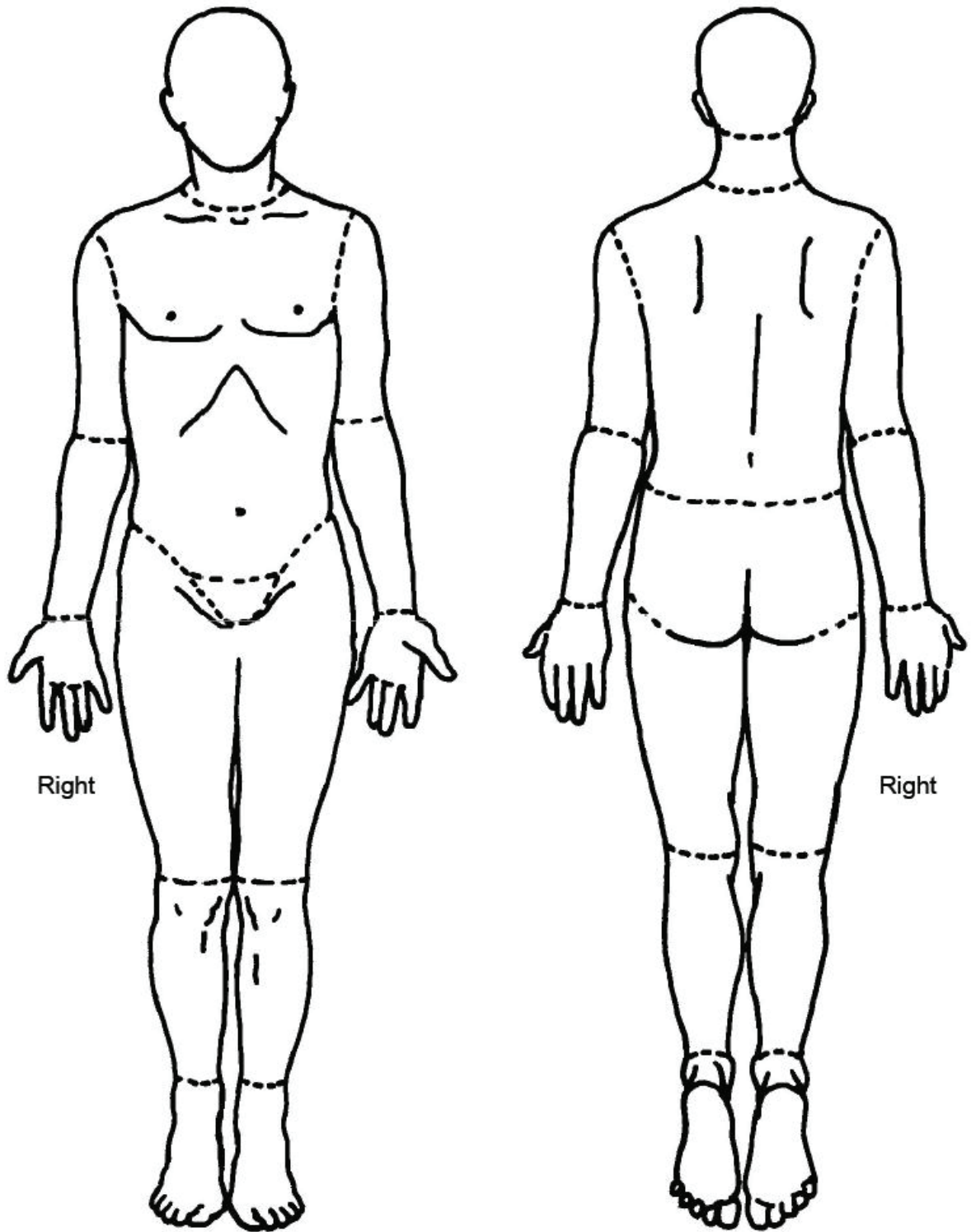
Completed by *(Check one)*

- Patient
- Family Caregiver
- Health Care Professional Caregiver
- Caregiver-assisted

**Body Diagram on Reverse**

Side A

Please mark on these pictures where it is that you hurt:



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# APPENDIX 5

## HOPES MNEMONIC

To effectively manage the intricacies of malignant and palliative wounds to achieve the best possible patient outcomes: a systematic, comprehensive, and methodical approach is essential.

The management of local wound care needs to be adapted to address several key concerns which can be remembered using the mnemonic HOPES.<sup>16</sup> Local wound care must be modified to address several concerns, including those demonstrated in the mnemonic HOPES<sup>16</sup>:

**H (hemorrhage)**—consider dressings with calcium alginates for minor bleeding;

**O (odour)**—apply topical metronidazole or activated charcoal dressings;

**P (pain)**—select dressings with atraumatic and nonadherent interfaces, such as silicone;

**E (exudate)**—moisture is contraindicated in nonhealable wounds; consider foams, alginates, and hydrofibres, along with superabsorbent products based on diaper technology; and

**S (superficial bacterial burden)**—use topical antimicrobial agents for superficial wound infection and systemic antimicrobial therapies for deep- and surrounding-wound infection.



# ABBREVIATIONS

**CPCNA**—Canadian Palliative Care Nursing Association

**HCP**—Health care professional

**LOE**—Level of evidence

**MARSI**—Medical adhesive-related skin injury

**MASD**—Moisture association skin dermatitis

**NPWT**—Negative pressure wound therapy

**NSWOC**—Nurse Specialized in Wound, Ostomy, and Continence

**NSWOCC**—Nurses Specialized in Wound, Ostomy and Continence Canada

**PHMB**—Polyhexamethyl biguanide

**RCT**—Randomized controlled trial

**RNAO**—Registered Nurses' Association of Ontario

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Canadian Palliative Care Nursing Association (CPCNA) represents nurses from across Canada who integrate or specialize in providing palliative care for people with serious illness and for their families.

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