



# Malignant Fungating Wounds

## Clinical Practice Guideline

### EVIDENCE INFORMED PRACTICE TOOLS

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## Purpose and Intent

A potential risk for patients with advanced cancer is the development of malignant fungating wounds (MFWs). MFWs rarely heal, often present when the patient is in the palliative phase of their cancer disease process, and can be more devastating than living with a diagnosis of cancer.<sup>1, 77</sup> Palliative patients with MFWs can suffer from extreme physical, emotional, spiritual, and psychological distress.<sup>2, 71, 73-89</sup>

The focus of care for all wound care treatment decisions must be on maintaining independence and preserving quality of life by meticulous attention to symptom control as defined by the patient and family.<sup>2, 3, 82</sup> The average life expectancy for patients with MFWs is approximately 6-12 months.<sup>71, 88</sup>

## Practice Outcomes

This guideline provides recommendations for the assessment and management of MFWs and it will not address other wounds caused by malignant processes such as: fistulas, pressure injuries, cellulitis, lymphedema, chronic scars and radiation induced wounds.

This guideline is developed for professional care providers working in various settings in the Winnipeg Regional Health Authority (WRHA) and any other clinical practice setting in which a clinician may see the guidelines as applicable.

It is intended as a guide and clinicians should realize that MFWs may be very complex and that the consultation with an advanced wound care clinician is encouraged for support and problem solving as intended by the WRHA Wound Policy.

<https://policies.wrha.mb.ca/policy/415/regional/3084/110-000-320.pdf>

## Definition of Terms

The British Columbia Cancer Agency defines a MFW as “a cancerous lesion involving the skin, which is open and may be draining”. The lesion may be a result of a primary cancer, or a metastasis to the skin from a local tumour in a distant site. It may take the form of a cavity, an open area on the surface of the skin, skin nodules, or a nodular growth extending from the surface of the skin.”<sup>15</sup>

Terms used interchangeably in the literature to describe MFWs include; fungating, malignant cutaneous, fungating tumour cells, ulcerating cancerous, palliative fungating, and tumour necrosis.<sup>5, 16</sup>

## Etiology

A MFW results from a cancerous mass that invades the epithelium and surrounding lymphatic and blood vessels.<sup>4,84</sup> Malignant lesions occur in approximately 5 % of patients with cancer and 10 % of patients with metastatic disease.<sup>5, 9 74, 79, 81, 88</sup>

With the aging population and the rising incidence of cancer this number will likely increase.<sup>6, 7</sup>

MFWs may arise from any type of malignant tumor but the common primary sites are: breast, head and neck, kidney, lung, ovary, colon, penis, skin, bladder, sarcomas, leukemia and lymphoma.<sup>69</sup> MFWs tend to develop in people over the age of 60,<sup>86</sup> with advanced cancer in the last 6 months of life<sup>4</sup> and are indicative of an incurable disease process with a grave prognosis.<sup>1, 2, 8-12, 32</sup>

MFWs often become infected, can emit an offensive odor, produce copious amounts of exudates that can contribute to functional decline, tend to bleed easily, cause psychosocial distress and are a constant reminder to the patient and family of the progressive cancer.<sup>13, 55</sup> A palliative care focus with continuous assessment and management of symptoms is the mainstay of treatment for MFWs.<sup>13, 14, 82, 83</sup> MFWs often do not achieve wound closure and/or complete healing. MFWs have received limited clinical and research attention, so treatment and management options are varied and inconsistent.

## Standards of Care

This document is separated into six sections with recommendations for standards of care.

Section 1: Levels of Evidence

Section 2: Assessment

Section 3: Management of odor, bleeding, exudate, pain, & psychosocial issues

Section 4: Patient Education

Section 5: Caring for the Patient with MFWs

Section 6: Documentation

## Section 1: Levels of Evidence

There is limited evidence in the literature on the assessment and management of MFWs and systematic reviews and randomized clinical trials are scarce leading to an absence of evidenced-based care in this area. Many of the recommendations in this guideline are based on local expert opinion, personal experience of practitioners and/or case study presentations.

The Strength of Evidence scale used in the Registered Nurses of Ontario (RNAO)'s Best Practice Guidelines will be used to rate the level of recommendations in this document.

**Table 1:** Strength of Evidence Scale

Level	Source of Evidence
Ia	Evidence obtained from meta-analysis or systematic review of randomized controlled trials, and /or synthesis of multiple studies primarily of quantitative research.
Ila	Evidence obtained from at least one well-designed, controlled study without randomization
IV	Evidence obtained from well designed, non-experimental observational studies such as analytical studies or descriptive studies, and /or qualitative studies

Adapted from the Scottish Intercollegiate Guidelines Network [SIGN] (2011), and Pati (2011).<sup>90-91</sup>

## Section 2: Assessment

### 2.1 Use validated wound assessment tool(s)

#### **Level of Evidence: IIa**

During the initial assessment, it is imperative to determine the wound's effect on a patient's activities of daily living and self-image.<sup>17</sup> The impact of a MFW on a patient's physical and psychological well-being and quality of life can be significant.

Use validated and reliable wound assessment tool(s) to assess MFWs:

- Organizational tools that incorporate standardized assessment such as MEASURE/TIME/DIME can be used to ensure a consistent approach to assessment
- The Toronto Symptom Assessment System for Wounds (TSAS-W) is a clinical and research patient rated wound assessment tool that details symptoms and symptom related distress in advanced and non-healing wounds.<sup>29</sup> (Appendix D).
- Assessing MFW Exudates (Appendix F)
- Assessing MFW Odor (Appendix E)
- Wound Photography. Refer to EIPT Skin & Wound Photographic Recordings: <https://professionals.wrha.mb.ca/old/extranet/eipt/files/EIPT-042.pdf>

### 2.2 Utilize performance status tools

#### **Level of Evidence: IIa**

Functional decline significantly impacts a person's activities of daily living. Acknowledging and monitoring the current performance status of a patient living not only with a cancer diagnosis

but also with a MFW can help to prepare the patient and family when patients are functionally transitioning from aggressive MFW care to a comfort care focus.<sup>76</sup>

- The Palliative Performance Scale (PPS) is a reliable and valid assessment tool that reflects the changing functional status of palliative care.<sup>31</sup> When a person reaches a low palliative performance score i.e. <30% wound care management changes to a comfort care focus unless the patient and/or family dictate otherwise. (Appendix G)

## Section 3: Management

The management of a MFW is complex and must involve an interdisciplinary team approach as well as responsive interventions as the cancer progresses and/or the wound evolves.<sup>82</sup> Maintaining patient comfort and improving quality of life is always the primary goal.<sup>1, 9, 29, 32, 33</sup>

Some of the dressings used to manage MFWs are expensive and may not be readily accessible but can be accessed through “special order status” when needed. Wound dressing availability should be discussed amongst the interdisciplinary team and wound care specialist to assess benefits versus waste before placing a special order.

There are five main symptoms associated with MFWs that require management:<sup>9, 29, 75, 80, 82, 85</sup>

1. Odor and infection
2. Bleeding
3. Exudate (high risk for dehydration)
4. Pain
5. Psychosocial, spiritual and emotional issues

Refer to:

Malignant Wound Practice Pearls (Appendix A)

Malignant Wound Care Nursing Tip Sheet (Appendix B)

Malignant Fungating Wounds (MFW): Care Plan (Appendix C)

### 3.1: Management of Odor and Infection

Unpleasant odor and foul smelling discharge occurs when tissue is deprived of oxygen and nutrients and subsequently becomes necrotic leading to bacterial growth especially anaerobic and certain Gram-Negative (e.g. pseudomonas) organisms.<sup>16, 34-36, 61, 63</sup> Several theories exist about why MFWs produce an odor:<sup>11</sup>

- The breakdown of proteins in the necrotic tissue by anaerobic bacteria produces a chemical compound and fatty acids which emit an extremely foul smelling odor<sup>37</sup>

- Aerobic bacteria (isolated in these wounds) have odor characteristics of their own which tend to be less strong<sup>37</sup>
- Presence of clinical infection<sup>38</sup>
- Presence of necrosis and/or slough tissue<sup>16</sup>

Uncontrolled MFW odor can have a devastating effect on patient's quality of life leading to physical, psychological and emotional distress and social withdrawal.<sup>11</sup> Strong, foul wound odor can affect a patient's nutritional status, leading to: involuntary gagging, nausea and vomiting, decreased sense of taste, and decreased appetite.<sup>39, 40</sup>

### 3.1.1 Cleanse the wound

#### **Level of Evidence: IIa**

Cleansing of the wound can reduce odor by removing superficial necrotic debris and decreasing bacterial count. The following cleansing techniques are recommended:

- If the lesion is not friable and the patient is ambulatory, showering will provide local cleansing<sup>41</sup>
- Instruct the patient to allow the water to hit the skin above the wound and allowed to run over<sup>9, 40</sup>
- If the wound is not amendable to showering or is friable, gently irrigate the wound with warmed normal saline for 10-15 minutes at site<sup>3, 18, 22</sup>

### 3.1.2 Use of Dakin's solution and hydrogen peroxide for cleansing

#### **Level of Evidence: IV**

The use of Dakin's solution remains controversial and studies have not been completed on the use of Dakin's solution for reducing odor of MFWs.<sup>11</sup> Use of Dakin's solution is not recommended by WRHA MFW care experts or the WRHA Regional Wound Care Committee.

### 3.1.3 Wound debridement

#### **Level of Evidence: IV**

Debridement is the removal necrotic tissue and foreign material from a wound.<sup>42, 43</sup> The following should be taken into consideration for MFWs:

- Refer to an Advanced Wound Care Clinician when considering debridement.
- The potential for healing must be determined prior to debridement.<sup>16</sup>
- Debridement may be a crucial step to remove necrotic tissues, which can service as a growth media for bacteria. Aggressive debridement is not recommended for MFWs because of the potential for causing pain, profuse bleeding and creating a larger portal for bacterial invasion.<sup>35,44</sup>

- Debridement is contraindicated for individuals receiving anticoagulant therapy, patients receiving chemotherapy/biotherapy and/or radiation.

### 3.1.4 Signs and symptoms of infection

#### **Level of Evidence: Ia**

As most MFWs are chronic in nature, assessment for signs and symptoms of infection must be ongoing: <sup>20, 41</sup> Due to compromised immune function in palliative patients, bacteria can cause local tissue damage in the superficial wound compartment.<sup>16</sup> The following clinical signs when present determine whether a wound infection is superficial or deep: <sup>22, 35</sup>

**Table 2:** NERDS & STONEES: Mnemonics for assessment of infection

<b>NERDS (Superficial Infection)</b>	<b>STONEES (Deep Infection)</b>
<b>N Non healing</b> <b>E Exudate Increasing</b> <b>R Red and Bleeding surface tissue</b> <b>D Debris (slough or eschar)</b> <b>S Smell or odour from wound</b>	<b>S Size is bigger</b> <b>T Temperature is increased (of wound and surrounding tissue)</b> <b>O Os-probes to bone or bone visible</b> <b>N New areas of breakdown</b> <b>E Exudate increasing</b> <b>E Erythema/Edema</b> <b>S Smell</b>
<b>If 3 or more are present, indicative of superficial infection</b>	<b>If 3 or more are present, indicative of deep infection</b>

**NOTE:** It is rare that Cadexomer Iodine (Iodosorb™) will be effective in managing the odor caused by a MFW.

### 3.1.5 Wound cultures

#### **Level of Evidence: IV**

Routine swabbing of MFWs is of little value. It is not required in palliative stage unless quality of life and comfort will be enhanced and is restricted to cases of infection requiring antibiotic intervention or where resistant organisms require special infection control measurements (e.g. MRSA). <sup>79, 81</sup>

### 3.1.6 Use of topical Metronidazole (Flagyl®),

#### **Level of Evidence: IV**

- Evidence does support use of topical metronidazole (Flagyl®) for the reduction of odor in the presence of anaerobic and aerobic organisms<sup>45-49,78</sup>
- Topical metronidazole (Flagyl®) may reduce side effects induced by systemic metronidazole (Flagyl®).<sup>41</sup>

- Consult with pharmacy about the application of metronidazole (Flagyl<sup>®</sup>) and its compatibility with other drugs.
- Use of metronidazole (Flagyl<sup>®</sup>) for MFWs requires a physician's order.
- In the Winnipeg Region physician's orders for the use of metronidazole (Flagyl<sup>®</sup>) will vary as there is limited data supporting the use and access to metronidazole (Flagyl<sup>®</sup>) formulations (gel, cream, powder or intravenous solution for irrigation) as it is dependent on the program setting (i.e. inpatient versus outpatient care settings).
- Tumors originating from the gastrointestinal system or bladder do not respond well to topical metronidazole (Flagyl<sup>®</sup>).<sup>50</sup>
- Use of metronidazole (Flagyl<sup>®</sup>) is debatable in heavily exudating wounds as it may become ineffective when diluted by excessive wound drainage.<sup>51</sup>
- The literature does not specify how much or often metronidazole (Flagyl<sup>®</sup>) gel, cream, powder or fluid is needed to reduce bacterial load or decrease the odor. It is recommended that a common sense approach be used; large wounds will require that the product covers the surface of the wound, and be applied repeatedly according to the odor problem.
- If odor continues to occur with the course of treatment (i.e. one week) consult a wound care specialist.

**Caution:** Metronidazole (Flagyl<sup>®</sup>) powder poses an occupational health risk (mutagenicity) to health care workers because of the possibility of powder aerosolization when applying it to the MFW. Also Metronidazole (Flagyl<sup>®</sup>) can be an irritant to the skin or eyes and is toxic to the mucous membranes if inhaled. Therefore an N95 Respirator mask is required. As per Workplace and Safety and Health Act and Regulations, fit testing is required for all staff required to wear an N95 respirator.

Fit testing can be arranged by contacting Occupational and Environmental Health and Safety (OESH) at (204) 926-1018. A seal check is also required each time an N95 respirator is donned. Seal check is taught as part of the fit test.

**Please note** policy on Safe Handling of Hazardous Medications (Cytotoxic and Non-Cytotoxic) <http://home.wrha.mb.ca/corp/policy/files/110.160.010.pdf>

In addition, when pure Metronidazole (Flagyl<sup>®</sup>) is used in a puffer apparatus and applied to the MFW, drug considerations can well exceed that used in metrogel or Metronidazole (Flagyl<sup>®</sup>) intravenous solutions.

### 3.1.7 Use of oral Metronidazole (Flagyl<sup>®</sup>)

#### **Level of Evidence: IV**

Some patients with odorous MFWs may derive the greatest benefit if metronidazole (Flagyl<sup>®</sup>) is administered orally:<sup>16</sup>

- Oral metronidazole (Flagyl<sup>®</sup>) may be suitable for use in patients with wounds with excess exudate as topical may be `washed off` wound surfaces.

- Literature reports that therapeutic drug levels cannot be obtained because of lack of blood supply to the necrotic tissue.<sup>16</sup>
- Side effects may include: nausea, vomiting and peripheral neuropathy<sup>14</sup>
- Little or no evidence exists to suggest appropriate doses.

### 3.1.8 Specialty dressings including silver based dressings to manage complex MFWs

#### **Level of Evidence: IV**

Dressing selection is always based on wound assessment, goals/context of the situation for malignant wounds and is dependent on the amount of exudate, size the wound and patient preference. Consult an advanced wound care clinician for consideration of silver based or other specialized dressings to assist in making the appropriate choice.

Silver based dressings include two types:

1. Silver releasing: Antimicrobial action which releases nano-crystalline silver into the wound
2. Absorptive dressings for control of exudate and entrapment of odor. Silver is not released into the wound but its presence in the dressing has antimicrobial action.

Refer to EIPT for Silver Based Dressings:

<https://professionals.wrha.mb.ca/old/extranet/eipt/files/EIPT-013-016.pdf>

### 3.1.9 Decrease odor in the environment

#### **Level of Evidence: IV**

Environmental odor control includes:

- Room scents (peppermint oil, vanilla, coffee)<sup>23,63,69</sup>
- External odor absorbers (tray of clay kitty litter or activated charcoal under bed)<sup>23,63,69</sup>
- Room ventilation<sup>23</sup>

### 3.1.10 Use of alternative therapies of reduce odor

- Honey: Evidence is scarce to support the use of honey in MFWs and the WRHA Regional Wound Care Committee does not recommend its use for controlling odor.<sup>70,79</sup>
- Topical natural live yogurt or buttermilk: It is speculated that yogurt lowers the pH of the wound environment and thus prevents the growth of bacteria, however, there are limited studies to show live yogurt and/or buttermilk is effective in MFW odor and so the WRHA Regional Wound Care Committee does not recommend its use.

- Larval (Maggot) Therapy: No studies done in this patient population therefore the WRHA Regional Wound Care Committee is not recommending its use at this time.
- Green Tea: Although there is paucity of evidence to support the use of green tea there has been reported use in third world countries as being effective in reducing the unpleasant odor and improving quality of life in patients with MFWs. The WRHA Regional Wound Care Committee does not recommend the use of this therapy.<sup>72</sup>

## 3.2: Management of Bleeding

A MFW may bleed easily due to:

- Fragile vasculature and/or erosion of capillaries by the tumor.<sup>1</sup>
- Coagulation issues related to a patient's disease process or treatments that contribute to their risk of bleeding.<sup>16</sup>
- Minor trauma from removal of wound dressing adhering to wound surface.<sup>16</sup>
- Tumor eroding into a major blood vessel.<sup>16</sup>

### 3.2.1 Reducing incidence of bleeding

**Level of Evidence: IV**

The following methods reduce the incidence of bleeding:<sup>38, 41, 52</sup>

- Mild cleansing of the wound
- Gentle application and removal of the dressing
- Using non-adherent contact layer dressing
- Maintaining a moist wound bed
- Avoiding unnecessary dressing changes and debridement

If a dressing adheres to the wound bed on attempted removal, it should be soaked with warmed normal saline to decrease trauma.<sup>3, 5, 9, 38</sup>

### 3.2.2 Controlling bleeding

**Level of Evidence: IV**

#### Mild to Moderate Bleeding

- Application of direct pressure for 10 -15 minutes with calcium alginate dressing.<sup>5</sup>
- Application of ice packs to the wound.<sup>5, 11</sup>
- Application of silver nitrate sticks, on small localized areas of bleeding.<sup>11</sup>
- Minimize wound manipulation with dressing changes, only change dressing if blood saturates the dressing.<sup>9, 10, 19, 73</sup>

- For uncontrolled bleeding a short course of radiation treatment could be considered <sup>11</sup> consult the patient’s own Cancer Care physician or CancerCare Radiation Oncologist, send consult to CCMB referral Office Fax 204-786-0621 or phone 204 -787-2176 if questions). See link for downloadable referral forms:  
[https://www.cancercare.mb.ca/export/sites/default/For-Health-Professionals/.galleries/files/referral-guidelines-for-physicians-files/CCMB\\_Referral\\_Office-Referral\\_Information\\_Sheet\\_Sep15.pdf](https://www.cancercare.mb.ca/export/sites/default/For-Health-Professionals/.galleries/files/referral-guidelines-for-physicians-files/CCMB_Referral_Office-Referral_Information_Sheet_Sep15.pdf)
- If hemorrhage can be anticipated, consider a referral to Vascular Services. <sup>3</sup>
- Moderate bleeding may also be appropriate for some of the above interventions, given the context of the situation.

### Persistent Bleeding

Persistent bleeding of MFWs in the palliative patient population can be anxiety-provoking for everyone and can be difficult to manage in all settings and especially when the goals of care are comfort and maintaining quality of life.<sup>73</sup> In order to decrease wound bleeding the following agents are recommended:

**Table 3:** Topical Hemostatic Agents<sup>16</sup>

CATEGORY	EXAMPLE(S)	COMMENTS
<b>Natural hemostats</b>	Calcium Alginates Collagen Oxidized cellulose	<ul style="list-style-type: none"> <li>• Controls minor bleeding</li> <li>• Available as a dressing material</li> <li>• Bioabsorbable</li> </ul>
<b>Coagulants</b>	Gelatin Sponge	<ul style="list-style-type: none"> <li>• Increased cost</li> <li>• Risk of embolization</li> </ul>
<b>Sclerosing agents</b>	Silver nitrate Trichloroacetic acid	<ul style="list-style-type: none"> <li>• May cause stinging and burning upon application</li> </ul>
<b>Fibrinolytic antagonist</b>	Tranexamic acid	<ul style="list-style-type: none"> <li>• Oral agent</li> </ul>
<b>Astringents</b>	Sucralfate	<ul style="list-style-type: none"> <li>• May leave residue on wound</li> </ul>
<b>Other agents</b>	Aminocaproic acid	<ul style="list-style-type: none"> <li>• Some retail pharmacies will compound into powder form (need Physician’s order). The WRHA hospital pharmacies do not compound this product.</li> </ul>
<b>Medical Management</b>	Anemia	<ul style="list-style-type: none"> <li>• Check hemoglobin (if anemic a blood transfusion may be indicated) Consult physician<sup>54</sup></li> </ul>

Adapted with permission: K.Y. Woo (2010)

## Severe Life-threatening Bleeding at End of Life

- Use dark (not red) towels to absorb blood to minimize distress to patient and family
- Develop a crisis management plan tailored to the individual's situation; consultation to the WRHA Palliative Care Program may be appropriate (204-247-2400).

### **Warning:**

Topical adrenaline (epinephrine 1:1000) has been discussed in the literature.<sup>55</sup> it is not recommended for use by the WRHA Regional Wound Care Committee because it is a local vasoconstriction and has the potential to cause ischemic necrosis.<sup>55, 56</sup>

## 3.3: Management of Exudate

- Exudate is the result of the increased capillary permeability within the wound, caused by the disorganized tumor vasculature.<sup>55</sup>
- Too much exudate can cause maceration of the skin, along with the challenge of containing the fluid.<sup>11</sup>
- The skin surrounding the MFW may be fragile secondary to previous radiation, and/or chemotherapy, inflammation due to tumor extension, repeated use of adhesive dressings, or maceration<sup>4, 5, 21</sup>
- Patients may feel embarrassed and/or fearful of leakage.<sup>41</sup>
- Some patients may develop contact irritants and allergic dermatitis to corrosive heavy wound exudates and dressings.<sup>16</sup>

### 3.3.1 Protect peri-wound skin

#### **Level of Evidence: IIa**

- A number of skin barriers, skin sealants and skin protectants are useful on the peri-wound skin.<sup>21</sup> Refer to WRHA advanced wound care formulary:  
<http://home.wrha.mb.ca/prog/clinicalinitiatives/files/AdvancedWoundCareProductFormulary2016.pdf>
- The use of an alcohol-free skin barrier film or protectant is recommended.
- Netting, gauze and non-adherent dressings should be considered.
- Consider use of hydrocolloid strips to “window frame” the wound margin to prevent recurrent stripping of skin. Watch that the exudate does not seep under the hydrocolloid and become trapped as this can lead to erythema and skin damage.
- Consult an advanced wound care clinician for alternatives (e.g. silicone tape or superabsorbent dressings).<sup>87</sup>

### 3.3.2 Dressing changes

#### **Level of Evidence: IV**

The optimum frequency of dressing changes will depend on the amount of exudate and functional/performance status of the patient, as well as, the patient's preference:

- Patients who wish to change their own dressings and who are capable of doing this safely should be supported to do so.
- If exudate soaks through the dressing, use one of the higher absorbency dressings or consider use of secondary dressing (superabsorbent pad).

### 3.3.3. Use of stoma appliance

#### **Level of Evidence: IV**

Consider consulting an Enterostomal Therapist if exudate levels are high and the use of a stoma appliance is being considered.

### 3.3.4 Consult Registered Dietitian

#### **Level of Evidence: IV**

- Consider consulting Registered Dietitian/Clinical Nutritional Services if patient has high levels of continuous exudate fluid loss and signs and symptoms of dehydration or nutritional compromise.
- A significant amount of protein and fluid/electrolytes can be lost in highly exuding wounds leading to the patient becoming dehydrated.

## 3.4: Management of Pain

Several types of wound pain are associated with an MFW: deep, neuropathic, emotional, and pain related to procedures is common.<sup>5</sup> Accept that for some patients the lightest touch or simply air moving across the wound can be intensely painful.<sup>53</sup>

Several local wound factors can lead to wound pain, these include: ischemia, infection, excessive dryness or excessive exudates, edema, dermatological problems and maceration of the surrounding skin.<sup>57</sup> The amount of pain depends on the location of the wound, the depth of tissue invasion and damage, involvement of nerves, the presence of tissue with exposed nerve endings and the person's previous experience with pain and analgesia.<sup>57, 77</sup>

Causes of pain in MFWs include:

- Pressure from tumor on nerves and blood vessels
- Exposure and drying of the dermis<sup>58</sup>
- Dressing changes including aggressive wound cleansing

- Use of adhesive dressings
- Failure to add a non-adherent contact layer on skin

A comprehensive approach to pain control is beyond the scope of this document. Refer to the WRHA Pain Assessment & Management Clinical Practice Guideline (2012).<sup>25, 26</sup>

<https://professionals.wrha.mb.ca/old/extranet/eipt/files/EIPT-017-001.pdf>

### 3.4.1 Pain reducing interventions

**Level of Evidence: IIa**

- Avoid unnecessary manipulation of the wound, if patients are nearing the end of life (weeks, hours, days) only change dressings when they are saturated and a discomfort to the patient, otherwise continue to reinforce the original dressing with abdominal pads and/or gauze
- Consider the temperature of a product or solution before it is applied to the wound.
- Avoid excessive pressure from a dressing, bandage or tape<sup>58</sup>
- Assess comfort of intervention and/or dressing/bandages applied after the procedure
- More advanced non-pharmacological techniques that require specialist training or skilled personnel, such as the use of therapeutic touch can be considered
- Consult a palliative care physician to assist with wound pain management.<sup>59</sup>

### 3.4.2 Topical opioids and topical local anesthetics

**Level of Evidence: IV**

- The use of topical opioids is controversial and there is limited evidence to support their use<sup>34, 50, 60</sup> Topical opioids and topical local anesthetics should only be used upon consultation with a physician.
- Lack of pharmacokinetic data for use of topical opioids precludes the routine clinical use of these compounds at this time. In Winnipeg consult a palliative care physician is consulted for the use of topical opioids, anticonvulsants and/or local anesthetics.

## 3.5: Management of Psychosocial Issues

For a significant majority of patients with cancer the presence of malodorous, exudating, or bleeding MFWs can be a constant reminder that their disease is both progressive and incurable.<sup>55</sup> This impact also is inclusive of the experience of caregivers, both lay and professional.<sup>28, 75</sup> It is important to recognize that a team approach can best support the patient and caregivers both with actual wound care but with the holistic approach utilized.

For patients a number of psychosocial issues can develop and lead to a patient's lack of self-respect, self-esteem, and cause social isolation because of<sup>3</sup>:

- Changes with body image
- Embarrassment

- Depression
- Fear, anxiety
- Sexual problems
- Shame, denial and guilt
- Communication difficulties which can impact on family relationships and lack of social support or accessing resources
- Restrictions on social activities due to dressings and odor

Although the literature identifies the devastating psychosocial issues associated with MFWs, it does not provide reliable researched strategies to meet the needs of patients and their families and therefore it is important to think of the patient and their family as the unit of care.<sup>61</sup>

### 3.5.1 Psychosocial life events

**Level of Evidence: IV**

Consideration of psychosocial life events is needed in the management of MFWs. Remember to use an open, nonjudgmental attitude with supportive and therapeutic communication to assist patients with the persistent emotional and social strain because they are the ones who are coping with the MFW on a daily basis.<sup>62-64</sup> Consider and promote the use of patient coping mechanisms and support systems available (family/friends, faith, mental health clinicians and associations).

## Section 4: Patient Education

### 4.1 Involve the patient and family in all decisions regarding MFW care.

**Level of Evidence: IV**

Patients and families should be involved at the beginning of the planning process and be central in decision making about care specifically:<sup>27, 28</sup>

- Dressing selections (most people who develop malignant wounds are living in their homes and the economic burden of dressings can be a main focus of care)
- Risks and benefits of treatment and comfort interventions (complexity of dressing procedures, turning of patients with wound pain, etc.)

## Section 5: Caring for the Patient with MFWs

It is common for nurses to feel frustrated because of the clinical challenges these wounds present. Nurses may also experience emotional distress by witnessing the patient/family suffering. It is important that nurses acknowledge and reflect on the emotional distress they are feeling.<sup>66, 83</sup>

## 5.1 Assess caregiver burden and support patient care

### **Level of Evidence: IV**

In order for nurses to assess caregiver burden and support patient care there are four concepts that nurses need to reflect upon: <sup>66</sup>

- Taking responsibility
  - Nurses often feel responsible that the MFW is not healing – most MFWs cannot be healed but suffering can be lessened.
- Showing respect for the whole person
  - It is important to see the whole person and not only the wound- therefore be mindful of not transferring the patients suffering into the wound.
- Being confident in order to offer confidence
  - When a mutual trust is felt between the nurse and the patient/family a level of shared confidence is present.
- Seeing time and place as important
  - Malignant wounds are complex, time consuming and multidimensional (i.e. physical, emotional, psychosocial) – Nurses need to consult and collaborate with the interdisciplinary team.

## 5.2 Consult an Advanced Wound Care Clinician

### **Level of Evidence: IIa**

Consulting an advanced wound care clinician at the point of development of a MFW will enhance a patient's ability to live positively with their wound.<sup>10, 67</sup>

## Section 6: Documentation

Assessment and management of these wounds can be complex, disappointing and devastating to patients, families and professional care teams. Documentation remains critical for successful management of MFWs and should be accurate and concise and done on a continual basis.

### 6.1 Document all aspects of care accurately and concisely.

#### **Level of Evidence: IIa**

Documentation is crucial and must be accurate and concise to include the following:

- Wound presentation
- All interventions and plan of care
- Patient and family instructions
- Evaluation of interventions
- Rationale for any changes in the plan of care <sup>9, 68</sup>
- Emotional impact on patient and family
- Patient's psychosocial stage

- Potential complications of the wound that need to be assessed, such as appearance of necrotic tissue.

## Conclusion

Care of MFWs may be part of end-of-life care and palliative treatment so a comfort care focus is usually the plan of care for the patient and family. Dignity should be maintained by compassionate and competent nurses working collaboratively with the interdisciplinary team.

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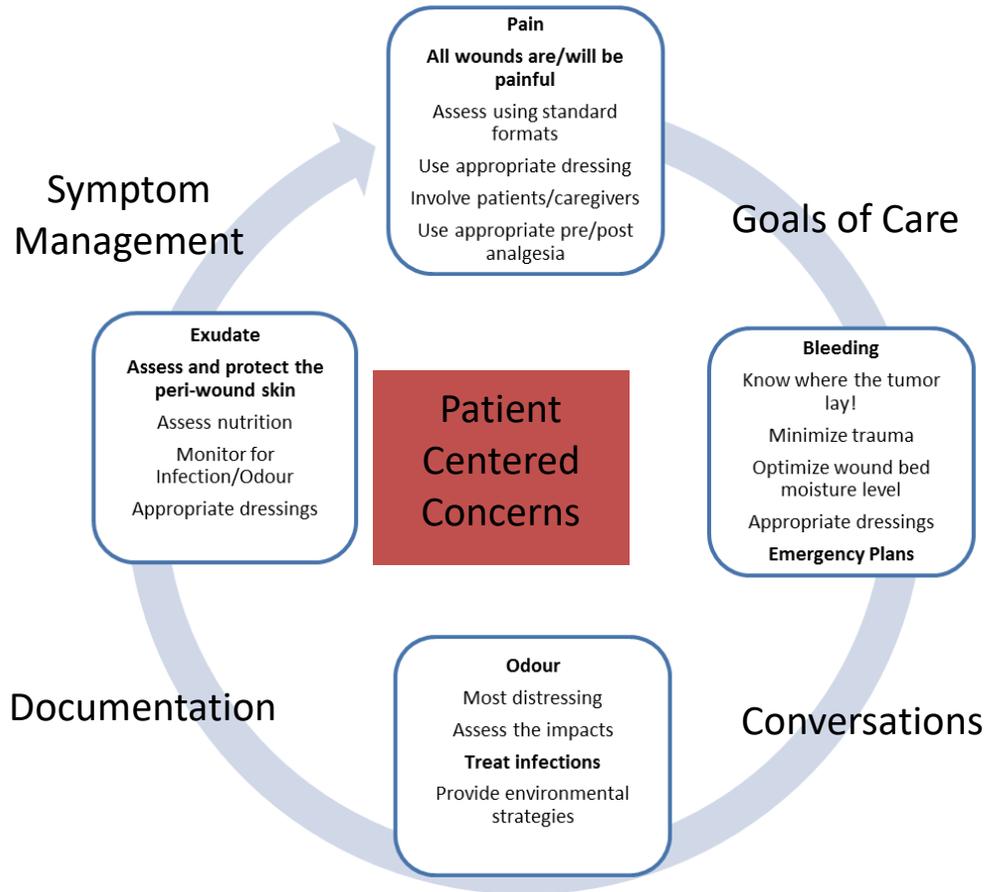
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### **Authors 2021 update**

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# Appendix A

## Malignant Wound Management Pearls



## Appendix B

### Malignant Wound Care Nursing Tip Sheet

T. Wells RN MN CNS

#### Conversations

While this is difficult people want to know what is going to happen next. **Talking** about the malignant wound, the outcomes and the plan **can increase the trust in the caregiver relationship**. Additionally, conversations between team members are important to support one another and avoid unnecessary changes to care.

As soon as able start having conversations about:

- **Goals of care**; focusing on minimizing the wound care burden and symptom burden for the patient;
- The impact of symptoms;
- Potential symptom development (e.g. bleeding, odour);
- Urgent complications and the management plan (e.g. bleeding).

#### Documentation

Clear **documentation enables consistency** about wound care for the patient and their care providers this can decrease stress about anticipated changes.

Documentation should include the following:

- wound assessment using a consistent and evidenced based format;
- symptom developments and outcomes of management plans;
- the conversations with the patient about the goals of wound care;
- the education you have provided;
- other team members consulted (i.e., psychosocial, OT, CNS)
- A clear plan for all aspects of the wound.

#### Odour

It is one of the **most distressing** symptoms for patients and caregivers and can lead to social isolation and negative psychosocial impacts

Assess the impact of the odour on the patient (smell, taste, gagging)	Use strong breath mints or gum prior to providing care
Treat with either topical antifungals or a combination of both topical and oral antibiotics and anti-fungals	Double bag and dispose remove wound care products asap

Open a window when appropriate	Provide distraction
Clay cat litter can help absorb odour in moister environments	Bowl of vinegar placed near the patient

### Exudate

This is a result of disorganized vascular growth that increased capillary permeability. Heavily exudating wounds make **breakdown or irritation** of the peri-wound **skin** more likely.

Assess (e.g., maceration redness, dermatitis) and protect the peri-wound skin (e.g. skin preps, barrier creams and window frame protective dressing)	Choose the most appropriate dressing. (e.g., ABD pad vs. foam)
Assess nutrition and plan for support of same (e.g. Dietitian, labs, protein, fluids)	Monitor for the development of odour

### Bleeding

Malignant wounds may bleed because of coagulation problems with the patient, the disorganized and friable vasculature or when the tumour invades major blood vessels.

Minimize trauma with dressing removal and cleansing	Use contact layers when appropriate and change when appropriate
Maintain a moist but not wet wound bed	For heavier bleeding consider the use of calcium alginates that provide hemostatic properties and absorption
Oral or topical fibrinolytics can also be used in discussion with a physician (e.g. Transexamic acid, Aminocaproic acid)	If a tumour is over a large blood vessel be prepared and prepare the family
Use dark towels such as black, dark navy to hide large bleeding episodes	Practice/review emergency/crisis management plans

### Pain

Assume that all wound are painful or have discomfort associated with them at some point in time of care.

Assess the nature, character and temporal pattern of pain routinely in a consistent manner	Use room temperature or warmer solutions
Avoid unnecessary dressing changes	Use appropriate dressing and contact layers when able

Have the patient participate in care where appropriate	Consider the use of prn medication to be given prior to wound care
Consider other methods of pain management (e.g., distraction, psychosocial support)	

**Resources:**

WRHA Malignant Fungating Wounds Clinical Practice Guideline:

<https://professionals.wrha.mb.ca/old/extranet/eipt/files/EIPT-013-007.pdf>

Canadian Virtual Hospice: [www.virtualhospice.ca](http://www.virtualhospice.ca)

## Appendix C

### Malignant Fungating Wounds (MFW): Care Plan

Kari Mann RN, MN, BSc, IIWCC

**Etiology:** MFWs result from a cancerous mass that invades the epithelium and surrounding lymphatic and blood vessels. MFWs often become infected, can emit an offensive odor, produce copious amounts of exudate that can contribute to functional decline, tend to bleed easily and cause psychosocial distress.

**Goal of Care:** MFWs rarely heal. The focus is on maintaining independence & preserving quality of life through meticulous symptom management in the following areas: Odour, infection, bleeding, exudate & pain.

#### Care Plan-

1. Consult an advanced wound care clinician upon recognition of a MFW.
2. Management of Odour & Infection- odour and foul smelling discharge occurs when tissue is deprived of oxygen and nutrients and subsequently becomes necrotic. The necrosis leads to bacterial growth, especially anaerobic, and certain Gram-Negative organisms.
  - i. Cleanse gently with normal saline or sterile water
  - ii. Consult advanced wound care clinician if considering debridement
  - iii. Consider NERDS & STONEES criteria to determine if a wound infection is present and if it is superficial or deep
  - iv. Consult advanced wound care clinician to determine if topical Metronidazole will be beneficial for the reduction of odour in the presence of anaerobic and aerobic organisms.
3. Management of Bleeding- A MFW may bleed easily. This due to fragile vasculature and/or erosion of capillaries by the tumor, coagulation issues related to a patient's disease process or treatments or the tumor eroding into a major blood vessel.
  - i. Reduce incidence of bleeding by- cleansing gently, using a non-adherent contact layer, maintaining a moist wound bed and avoiding unnecessary dressing changes and debridement
  - ii. Control bleeding-
    1. Mild to moderate bleeding consider the following; apply direct pressure for 10-15min with calcium alginate. Apply ice pack to wound, apply

silver nitrate sticks to small areas of bleeding. For uncontrolled bleeding a short course of radiation may be considered

2. Persistent Bleeding- consider topical hemostatic agents i.e. alginate physician may consider sclerosing agents or fibrinolytic antagonist (refer to table 3 in CPG),
  
4. Management of Exudate- Exudate is the result of the increased capillary permeability within the wound, caused by the disorganized tumor vasculature. Too much exudate can cause maceration of the skin, along with the challenge of containing the fluid. The skin surrounding the MFW may be fragile secondary to maceration or previous radiation, and/or chemotherapy, has inflammation due to tumor extension or repeated use of adhesive dressings.
  - i. Increase the frequency dressing changes
  - ii. Consider higher absorbency or superabsorbent pad as secondary dressing, consult advanced wound care clinician.
  - iii. Protect peri-wound skin with skin prep or barrier spray.
  - iv. Consider application of stoma appliance
  
5. Management of Pain- Several local wound factors can lead to wound pain, these include: ischemia, infection, excessive dryness or excessive exudates, edema, dermatological problems and maceration of the surrounding skin. The amount of pain depends on the location of the wound, the depth of tissue invasion and damage, involvement of nerves, the presence of tissue with exposed nerve endings and the person's previous experience with pain and analgesia.
  - i. Consult the Palliative Care team to assist with wound pain management.
  - ii. Avoid unnecessary manipulation of the wound and excessive pressure from a dressing or tape

For more details, refer to the WRHA Malignant Fungating Wounds Clinical Practice Guideline:  
<https://professionals.wrha.mb.ca/old/extranet/eipt/files/EIPT-013-007.pdf>

## Appendix D

### 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 E

### Assessment Guide for Malodor

#### Assessment Guide for Malodor<sup>23</sup>

<b>STRONG</b>	Odor is evident on entering the room (2-3 meters from the patient) when the dressing is intact
<b>MODERATE</b>	Odor is evident on entering the room (2-3 meters from the patient) when the dressing is removed
<b>SLIGHT</b>	Odor is evident at close proximity to the patient when the dressing is removed
<b>NO ODOR</b>	No odor is evident, event at the patient's bedside, when the dressing is removed.

## Appendix F

### Exudate Measurement

#### Exudate Measurement<sup>24</sup>

<b>NONE</b>	No exudate
<b>SMALL</b>	Exudate fully controlled – nonabsorptive dressing- wear time up to 7 days
<b>MODERATE</b>	Exudate controlled-absorptive dressing- wear time 2-3 days
<b>LARGE</b>	Exudate uncontrolled- absorptive dressing required-may be saturated in < 1 day.

## Appendix G



### **Palliative Performance Scale (PPSv2)** *version 2*

PPS Level	Ambulation	Activity & Evidence of Disease	Self-Care	Intake	Conscious Level
100%	Full	Normal activity & work No evidence of disease	Full	Normal	Full
90%	Full	Normal activity & work Some evidence of disease	Full	Normal	Full
80%	Full	Normal activity <i>with</i> Effort Some evidence of disease	Full	Normal or reduced	Full
70%	Reduced	Unable Normal Job/Work Significant disease	Full	Normal or reduced	Full
60%	Reduced	Unable hobby/house work Significant disease	Occasional assistance necessary	Normal or reduced	Full or Confusion
50%	Mainly Sit/Lie	Unable to do any work Extensive disease	Considerable assistance required	Normal or reduced	Full or Confusion
40%	Mainly in Bed	Unable to do most activity Extensive disease	Mainly assistance	Normal or reduced	Full or Drowsy +/- Confusion
30%	Totally Bed Bound	Unable to do any activity Extensive disease	Total Care	Normal or reduced	Full or Drowsy +/- Confusion
20%	Totally Bed Bound	Unable to do any activity Extensive disease	Total Care	Minimal to sips	Full or Drowsy +/- Confusion
10%	Totally Bed Bound	Unable to do any activity Extensive disease	Total Care	Mouth care only	Drowsy or Coma +/- Confusion
0%	Death	-	-	-	-