PROFESSIONAL GUIDE. . . at a Glance

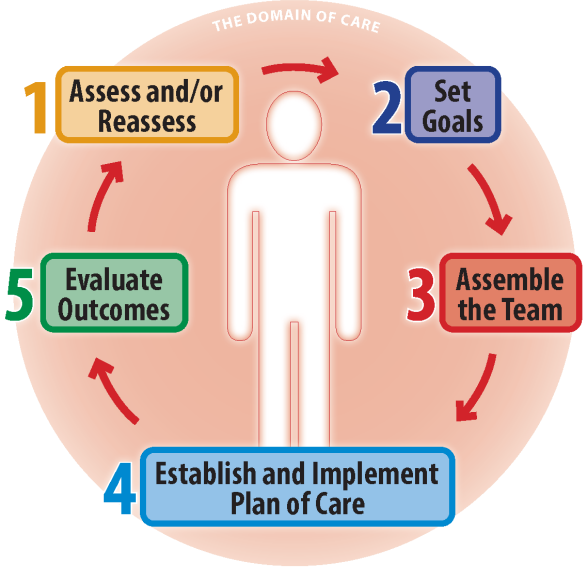
Malignant Wounds

A guide for home care in Alberta with a focus on Indigenous health.

This Professional Guide is focused on the assessment and management of malignant wounds to support patients living with malignant wounds in a community setting. It addresses psychosocial and lifestyle issues and identifies relevant resources available for health-care providers and patients and their families.

This guide is based on a commitment to provide support to patients through their entire community to help them adapt to and self-manage their condition in the face of social, physical and emotional challenges. It is a model based on the premise that cultural sensitivity in care delivery and self-management is an essential element of high-quality health care, as the beliefs, values, traditions, and biases on the part of health systems, care providers, patients, families and communities can all influence care.

Figure 1: The Wound Prevention and Management Cycle[1]



This document uses the Wounds Canada Wound Prevention and Management Cycle (WPMC)[1] (Figure 1) as the basis for clinical decision making. For clinicians, this document is meant as a cue for treatment; it provides non-inclusive examples listed below each recommendation. For policy makers, it highlights (in bold italics) actions and policies that support best practice.

For more information on content or tools related to a particular recommendation, click on the links provided.

Introduction

Malignant wounds most often occur in the last six to 12 months of life and occur at a rate of 5–10% in patients with metastatic disease.[2,3] The Canadian Virtual Hospice[2] outlines the underlying causes such as cancers occurring in the lymphatic system, anal-rectal and gastrointestinal tract, breast, head and neck, and primary cancers that have spread or metastasized from another site in the body.[2]

Malignant Wound: A malignant cutaneous (skin) wound is an open, non-healing, rapidly growing and changing cancerous lesion or wound of the skin that can occur on any part of the body.[2]

Malignant Fungating Wound: A malignant fungating wound is fungating tumour cells or ulcerating cancer as a result of cancerous cells infiltrating the skin, leading to blocked vascularity and lymph flow that result in tissue death (necrosis).[2,3]

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A malignant wound can be challenging for the affected patient and their family. A malignant wound requires a comprehensive assessment with a focus on the patient's quality of life: psychosocial and emotional issues, spiritual care, and management of symptoms such as pain, bleeding risk, itchiness (pruritis), edema, risk of infection, odour and drainage containment.[2,4] This includes knowing the appropriate dressing to use throughout care and to minimize any trauma with wound care delivery.[3] The patient and family/care partners should be actively involved in wound care activities as well and may need information, training and reinforcement on management of the wound care issue.[2] Refer to Foundations of Best Practice for Skin and Wound Management: Best Practice Recommendations for the Prevention and Management of Wounds for more on wounds.

Step 1: Assess and/or Reassess

A holistic assessment of the patient's general health, mental health, wound and periwound skin must occur to determine the extrinsic and intrinsic factors that may contribute to the malignant wound (these may be known), risks for complications and to identify mental health and wellness supports needed.

1.1 Select and use validated patient assessment tools.

Complete a systematic, comprehensive patient assessment to identify factors that will support management of the malignant wound in the home environment. Complete a wound and periwound assessment using a validated wound assessment tool and include health history, co-morbidities, allergies and sensitivities, medications and personal/cultural preferences for care. As well, determine from the patient, family and health information provided if the wound is curable or if palliative care is required. Assess for fear, embarrassment and feeling overwhelmed by the diagnosis and implications to the patient's life.

A comprehensive wound assessment includes the wound properties: severity, dimensions, tissue type, exposed structures, temperature, odour, exudate/drainage (colour, consistency, amount), edges, risk of bleeding/hemorrhage, edema and the presence of any wound closure materials (e.g., sutures, glue, flaps). Periwound assessment includes assessment of tissue extending up to 4 cm from the wound edge and qualities such as the presence of dryness, discoloration, excoriation, irritation, drainage, itch/pruritus, edema, scabbing, rash.

The Assessment section of Foundations of Best Practice for Skin and Wound Management: Best Practice Recommendations for the Prevention and Management of Wounds lists validated tools available to clinicians for each of the subsections below.

Alberta Health Services recommends use of tools such as:

- The Edmonton Classification System for Cancer Pain
- Checklist for Nonverbal Pain Indicators (CNPI)
- FACES Pain Scale
- PAIN-AD (Advanced Dementia)
- The Brief Pain Inventory (BPI)
- Critical Care Observation Tool (CCOT)
- Face, Legs, Activity, Cry, Consolability – Revised (FLACC-R for Pediatrics)

Use validated tools to screen for mental health and wellness issues such as depression and anxiety, fear, grief and loss. Alberta Health Services has several helpful resources:

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- The role of depression screening and resources
- The role of screening for anxiety, grief and loss
- The use of the Support Needs Approach for Patients (SNAP) tool
- The FICA Spiritual Assessment Tool (Faith or belief, Importance, Community, and how to Address the issue and be of support)

1.2 Identify risk and causative factors that may impact skin integrity and wound healing.

1.2.1 Patient: Physical, emotional and lifestyle

Physical

Assessment includes identifying any issues related to the wound and periwound area and associated complications. Assessment must include risk factors and address:

- Health history and current health status, including cancer type(s) and metastases and past and current treatments, including surgery, chemotherapy, radiotherapy
- Long-term and critical disease and conditions (e.g., cardiovascular disease, diabetes mellitus and obesity can affect wound healing)
- Current wound care plan, including cleanser, securement devices and dressings for pain, odour, drainage, itchiness, bleeding and risk of hemorrhage
- Current periwound care plan, including skin protectants, barriers, prescribed ointments or creams
- Medication(s) use (over-the-counter and prescribed) including:
  - Steroids, chemotherapy (oral, intravenous, topical) and hormone therapies
  - Pain management
  - Traditional medicines, ointments, creams, products used orally and on skin
- Nutritional: intake of solids and fluids, dental status, gum health, swallowing issues
- Skin status relating to skin tears, pressure injuries or moisture-associated skin damage due to incontinence (urine, fecal or both), drainage from wound/periwound, diaphoresis (sweating) or drooling
- Mobility status, including safety and risk of falls

Emotional, lifestyle

- Personal/cultural variables (individuals' privacy, trust, preferences)
- Changes to and impact on activities of daily living (ADLs), including discrimination, marginalization and lifestyle changes
- Psychological issues, including grief and loss, fear, depression and guilt, denial, cognitive changes, visibility of dressings, body image changes, alterations to sexual expression[4]
- Spiritual care, community support/connections, personal habits, lifestyle choices and any other factors that may affect the patient's abilities or willingness to engage in care
- Patient and/or family understanding of the wound issue(s) and the impact of the disease on mental wellness, home, family, employment and lifestyle (e.g., income for family)
- Clothing worn (wound dressings may impact ability to dress as preferred)
- Personal care regimen, including patient preference to shower to remove dressings or drainage/exudates from the tumour and surrounding skin

1.2.2 Environmental: Socio-economic, care setting and potential for self-management

Assess the patient and family plan for access to wound care supplies to provide care to malignant wounds. Ensure the wound plan aligns with care preferences. Assess for socio-economic determinants that may

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influence the patient's ability to obtain supplies to manage the wound and associated complications in the home settings. Be sure to include:

- Environmental odour control strategies being used
- Availability and use of toileting equipment (grab bars, transfer devices, commodes, bedpans) or other assistive devices
- Access to and ability to use technology for web-based appointments, communication and learning

1.2.3 Systems: Health-care support and communication

Assess access to funding, availability of services, supplies and equipment, diagnostic services, wound care, service delivery personnel and co-ordination of care.

The Alberta Health Services outlines the role of virtual health to support communication and appointments. Virtual Health. Information for Patients and Families lists programs and services such as Cancer Care Alberta and Palliative and End of Life Care.

1.3 Complete a focused wound assessment.

Complete a baseline wound and periwound skin assessment to identify and document the properties of the malignant wound. Include wound depth, width, length and rate of change in tumor bulk or growth; tissue types, including slough, necrotic tissue, bleeding; presence of malodour and edema and signs and symptoms of infection.[1-4] As well, assess the periwound skin for irritation, infection, drainage, odour and edema.[3]

The Malignant Wound Assessment Tool – Clinical MWAT-C assists clinicians in their discussions with patients about their wound(s).[5-7]

The Toronto Symptom Assessment System for Wounds (TSAS-W)[8] is a clinical symptom assessment and research tool focused on the care of a patient receiving palliative care.

Attention to drainage/exudate, infection prevention and control, malodour, itchiness (pruritus) and bleeding and hemorrhage are key parameters to consider[9] (see Table 1 on page 7).

A Nurse's Handbook from Alberta Health Services[10] details malignant wound assessment on pages 85–87 and provides information about the complication of hemorrhage, including causes and interventions, on pages 94–96.

It is important to note that certain specifics are unique to this wound type and require ongoing monitoring. These include:

- Drainage and exudates: Drainage from a malignant wound can be low or moderate but is generally high or copious.[11,12] Drainage in contact with the periwound skin may lead to maceration of the skin or moisture-associated skin damage and increased pain[13] Refer to Foundations of Best Practice for Skin and Wound Management: Best Practice Recommendations for the Prevention and Management of Moisture-associated Skin Damage for information on how to treat the skin and prevent further skin breakdown.
- Infection: As malignant wounds are open on the skin they pose a high risk of superficial infection, especially with anaerobic and fungal species.[10, 11] Deeper tissues may also be infected, resulting in pain, increased drainage and odour. The goal is to prevent and manage infection, not necessarily cure the

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infection.[3] The International Wound Infection Institute[14] lists a number of tools available to assess the risk of wound infection (Table 2 on page 7) and to assess the presence of a wound infection (Table 3 on page 11).

- Malodour: An odour emanating from a wound can be distressing for the patient and family. It is often associated with tissue breakdown, necrosis, infection and the resulting increased drainage and growth of bacteria, particularly anaerobic and certain gram-negative (e.g., *Pseudomonas*) organisms.[3,11,15]
- Itchiness (pruritus): Common and distressing for the patient and challenging to treat. May be due to histamine, serotonin, cytokines and opioids[18] or excessive washing and bathing, which should also be assessed. A Nurse's Handbook from Alberta Health Services discusses pruritis assessment[10] on page 84.
- Bleeding/risk of hemorrhage: A malignant wound may be friable and bleed easily with any movement, cleansing, or dressing application. Bleeding may be present as oozing (due to microvascular fragmentation). Hemorrhage is rare and is the result of invasion of deeper vascular structures.[9,11] More information on the complications of hemorrhage, causes and interventions is available A Nurse's Handbook[10] on pages 94–96.

Step 2: Set Goals

Goals of care related to the management of malignant wounds need to revolve around the patient. Achieving goals will depend on the interplay of the patient's health status and lifestyle, the availability of resources and the knowledge and ability of the patient and care partners to provide optimal interventions. If these factors are not taken into consideration the goals of care may be unrealistic and unrealizable.

A key element of the goal setting is to remind the patient and family that promoting psychosocial quality of life and managing symptoms are a priority for themselves and the care team. Based on risk factors identified during the assessments, goals related to drainage, infection, malodour, pruritus, bleeding, edema, pain and psychosocial and lifestyle issues need to be set in collaboration with the patient, family and/or care partners.

2.1 Set goals for management of wound and periwound management.

In a home visit, consistently assess the wound and periwound skin as well as the capability of the patient and family to manage wound-related issues. Effective goal setting will address each of these elements, as identified during the assessment step.

2.1.1 Identify goals based on prevention of wound infection or reinfection.

Goals need to be set with the patient to address any underlying medical conditions or other factors that may affect wound management. Potential goals for wound management might include:

- Referral to a qualified specialist for debridement to remove necrotic tissue to decrease odour and superficial infection.
- Wound dressing selection modified to address wound change (for example increased drainage/exudates, odour, bleeding, size of tumour).
- Training of patient and/or care partner on how to conduct safe dressing changes to limit trauma and risk of bleeding.

2.1.2 Identify quality-of-life and symptom-control goals.

Establishing effective wound management in the home environment is essential for addressing risks to both general health and the wound. Goals might include:

- Adjust medication with primary care provider and pharmacist to address pain.

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- Implement strategies to reduce itchiness.
- Establish and maintain odour reduction activities.
- Establish a schedule for disposal of used wound dressing supplies.
- Connect patient to cancer support group online or in their community (if available).

2.1.3 Identify environmental safety goals.

Identify goals that establish and maintain a safe environment for the patient, family and visitors. Goals might include:

- A system is implemented to ensure clean water is available for drinking and hand hygiene.
- A schedule is established for clothing and bedding changes.

Step 3: Assemble the Team

An integrated team is necessary for case management to implement, adjust and sustain a plan to meet the patient-specific goals. The team should include the relevant health-care professionals and other service providers as required as well as the patient, family and their support system.

3.1 Identify appropriate health-care professionals and service providers.

Promote management of symptoms associated with the wound and periwound area. This requires a diverse team from the patients' cancer care team, home and community care, and spiritual and psychosocial supports who engage in a collaborative and integrated approach with appropriate knowledge. The team may include the patient and family, personal care workers, pharmacists, nurses, family physicians, oncology and radiological personnel, cancer care specialists, dietitians, wound care professionals, physiotherapists and procurement/supply personnel, among others.

3.2 Enlist the patient and their family and care partners as part of the team.

When possible, patients and their families/care partners can work with health-care providers to promote wound and associated symptom management. Pay attention to fatigue and be prepared to adjust the care plan to meet the patient's changing health status. Support the patient and family in web-based health appointments and address travel, costs and availability of support personnel. Provide relevant education, information and other resources as necessary.

3.3 Ensure organizational and system support.

Supporting an individual successfully requires proactive, risk-based interventions at a variety levels: individual, organizational and cultural. To secure successful outcomes:

- ***Decision makers must establish, train and support an integrated team composed of interested, skilled and knowledgeable persons to address and monitor quality improvements in the management of malignant wounds.***
- ***Frontline clinicians must communicate with decision makers through appropriate channels about the needs and concerns of their patients, as well as about workplace issues that may impact their ability to deliver best-practice-based care.***

Step 4: Establish and Implement a Plan of Care

An effective care plan for malignant wound management requires the patient to be the centre of care. Family members may engage and assist in care. Health-care providers need to constantly review the patient's needs and adjust the care plan, especially as the patient's health status may change rapidly.

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Education, training and visual reminders may be necessary to ensure the patient's care plan is implemented according to the patient's abilities and personal and cultural preferences, along with family support. It is critical to provide a culturally sensitive environment for all aspects of education and care.

4.1 Identify and implement a personalized, evidence-informed plan to correct the causes or co-factors that affect skin integrity and infection prevention and control, including patient needs (physical, emotional and social), the wound and environmental/system challenges.

The plan of care must be patient-driven, based on assessment and risk, and supported by available resources and policy. The assessment and goals set will have identified the elements of the plan of care. Table 1 summarizes some of the strategies to use when implementing a plan.

Table 1: Wound Care Strategies

Element	Strategies
Psychosocial and lifestyle	• Reassure the patient and family. • Discuss the wound care plan and engage the patient and family as able. • Determine the best strategies to support the patient to limit distress, fear and pain as well as anxiety, depression and social isolation. • Provide education to the patient and family, being sensitive to their perception of the wound status and plan of care. Use face-to-face and web-based education to support their learning. My Malignant Wound is an example of a patient-teaching resource. • Support the patient to manage medications and activities related to mental health and wellness. • Support the patient with their medications, particularly those related to management of symptoms of a malignant wound. • Help the patient maintain healthy nutrition with the guidance from the registered dietitian on the team.
Pain management	• Use topical agents or dressings to alleviate pain (e.g., ibuprofen foam)[1,16,17,18] around-the-clock, including for breakthrough management. • Consult with the primary care provider to assess the type of pain: neuropathic vs nociceptive pain. Foundations of Best Practice for Skin and Wound Management: Best Practice Recommendations for the Prevention and Management of Wounds discusses pain on pages 16–17 and 38–39. • Consult the primary care provider on the team for topical anesthetics.[16,17] • Consult the primary care provider for oral and sublingual medications to support pain management.[16,17]

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Element	Strategies
Drainage/exudate	**Wound:** • Use absorbent dressings, such as non-adherent or silicone-contact, atraumatic layers with foam or alginates, [10,16,17,19] to wick away and absorb low to copious drainage and prevent pooling. The Wound Dressing Formulary and Wound Dressing Selection Guide Product Pickers provide information on which dressings are most appropriate. • Use secondary dressings such as flexible netting, tubing, rolled gauze, mesh panties and garments to hold dressings in place while minimizing use of adhesives and tapes. If tape must be used, first apply hydrocolloid to the skin, then apply tape.[9,16] • Ostomy pouching products may be beneficial for managing drainage. Consult an ostomy or wound care professional.[19] **Periwound:** • Use barrier products such as sprays, gels,[16,17] petrolatum (white petrolatum, soft paraffin, mineral oil)[18] or hydrocolloids around wound area to protect the skin.[9,16,17] Consult the wound care professional and primary care provider for options. **Clothing and Bedding:** • Wash clothing and bedding regularly to remove exudates.
Infection prevention and control (local and systemic)	• Use topical antibacterial dressings. The Wound Dressing Formulary and Wound Dressing Selection Guide Product Pickers provide information on which dressings are most appropriate. • Use topical medications (e.g., metronidazole gel/cream, sterile medical honey or silver sulfadiazine).[9,16,17] Do not use oral medications on a wound.[19] • Consider the use of systematic treatments (e.g., oral and intravenous antibiotics) in consultation with the primary care provider. • Consider the use of activated charcoal dressings. The Wound Dressing Formulary and Wound Dressing Selection Guide Product Pickers provide information on which dressings are most appropriate.

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Element	Strategies
Malodour/odour	**Wound:** • Use gentle saline irrigation or showering to cleanse the wound and gently remove debris, thereby reducing odour.[1,16,18] • Debride necrotic tissue using an appropriate method such as gentle irrigation, autolytic debridement or local debridement of dead tissue. See Professional Guide . . . at a Glance: Conservative Sharp Wound Debridement and the Foundations of Best Practice for Skin and Wound Management: Best Practice Recommendations for the Prevention and Management of Wounds for more on debridement options and cautions.[1] • Consider the use of activated charcoal dressings. The Wound Dressing Formulary and Wound Dressing Selection Guide Product Pickers provide information on which dressings are most appropriate. • Consider the use of topical antimicrobial cleansers/products to reduce odour (e.g., hypochlorous acid, chlorhexidine-based mouthwash).[16] **Environment:** • Use odour absorbers such as kitty litter, charcoal briquettes, activated charcoal[9,16] or coffee grounds.[19] They may be placed on a cookie tray under the bed. • Employ personally and culturally appropriate preferences to reduce odour, including essential oils or other aromatherapy products.[16] Some substances such as vinegar and certain scents/substances may not be tolerated by the patient. • Increase room ventilation (e.g., open windows, door and use a fan).[16,19] • Assess for role of menthol to nostrils.[16]
Itchiness (pruritus)	• Prevent exudate from touching the periwound skin by using barrier products.[15] • Consult with the primary care provider regarding the use of topical corticosteroids with compounding products with pain and itch reliever (e.g., menthol and camphor). • Use antipruritic creams and lotions; caution to not over-hydrate wound and periwound skin. • Consider storing topical creams and lotions in the fridge as the cold application can relieve itch. • Reduce excessive skin washing. Do not scrub. Hydrate skin. See Professional Guide . . . at a Glance: Skin Health and Hygiene. • Antihistamines are not effective;[16] consider antidepressants, serotonin re-uptake inhibitors and gabapentin)[17] in consultation with the primary care provider. • Consult for use of TENS (transcutaneous electrical nerve stimulation).[16] • A Nurse's Handbook[10] outlines pruritus treatment on pages 83–84.

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Element	Strategies
Bleeding and risk of hemorrhage	• Prevention is key. Plan dressing changes with this in mind. • Gently remove and soak off dressings with saline cleansers. • Use non-adherent, non-stick silicone-based dressings against the wound to reduce trauma and bleeding. • Use barriers and protectants such as sprays, gels.[16,17] • Use alginate dressings with hemostatic properties.[9,16] • If bleeding occurs, apply direct pressure for 1–15 minutes.[16] Ensure you have a care plan established in case the bleeding does not stop. • The BC Cancer Agency states that, "On rare occasions, the tumour/wound will erode a major vessel resulting in a fatal bleed. These can be very distressing situations and being prepared ahead of time can be helpful (i.e., using dark coloured sheets, having dark towels available, preparing family and friends ahead of possibility."[16] A Nurse's Handbook[10] provides information on the complication of hemorrhage, causes and interventions on pages 94–96.

4.2 Engage the team to ensure consistent implementation of the plan of care.

It is important to ensure all team members understand the complexity of managing the physical, psychosocial and lifestyle challenges of malignant wounds. To optimize outcomes, the patient, family and care team members need to be in regular communication, sharing information and updating the care plan as needed. To ensure the patient and family participate in a meaningful way, provide education on the topic as needed. Approaches may include:

- Teach using credible information, e.g., My Alberta Health: Skin Lesions: Care Instructions.
- Promote infection prevention. Resources include the Government of Alberta: Infection Prevention and Control and IPAC Canada: Information About Hand Hygiene
- Ensure procurement of adequate general supplies to maintain prevention goals.
- Ensure procurement of wound supplies that support prevention and control of infection.

Step 5: Evaluate the Outcomes

Evaluation of the plan of care should be routine and ongoing to identify whether the plan is effective in meeting the goals. If, after the cycle has been completed, goals of care have not been fully met, reassessment (Step 1) must take place, followed by the rest of the Wound Prevention and Management Cycle steps. ***The plan of care needs to be revisited at transfer between care settings and at discharge to ensure that self-management strategies are in place to support the patient to sustain the outcomes achieved after discharge.***

5.1 Determine if the outcomes have met the goals of care.

Outcomes need to reflect goals of care, and sustainability needs to reflect continuity of care; both need to be included in the plan of care and supported by policy. As an individual's health status changes, reviewing the goals is an opportunity in which the health-care team can intervene and potentially develop a new approach to promote infection control and management of an issue. When any component of the care plan is not effective, it is necessary to reassess, re-evaluate and establish new goals.

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5.2 Reassess patient, wound, environment and system if goals are partially met or unmet.

When goals of care are partially met or unmet, go back to Step 1 of the Wound Prevention and Management Cycle. Reassessment needs to consider gaps in care or the patient's ability to adapt to their condition and engage in self-management. Inclusion of the team members is important in reassessment and exploration of modifiable factors, patient involvement and the patient's and family's ability to support the care plan. Timely referrals may be necessary if complications develop.

5.3 Ensure sustainability to support prevention and reduce risk of recurrence.

Sustainability may depend on access to appropriate equipment and services and collaboration among the person with or at risk for complications, their care partners, service providers and the interprofessional team of health-care professionals. By identifying and managing the appropriate causes of complications, such as infection or increased pain, patient barriers to self-management and quality of life issues can be addressed. Establish and sustain goal-fulfilling activities throughout the management process and modify as needed.

Additional Resources

The following resources provide additional information about prevention and support for malignant wounds.

Skin Health and Screening Tools

Embed skin assessment and screening for risk in your practice. With the patient and family determine the most appropriate teaching and education tools to utilize. Several examples are provided below:

- Alberta Government: What is melanoma?
- Alberta Health Services: Wellness articles. This is a series of wellness topics to keep Albertans healthy. For example: May 2022 – Watch for Skin Cancer; July 2021 – Stay Safe in the Sun this Summer
- Cancer Care Ontario: Recommended resources for First Nations, Inuit, Métis and Urban Indigenous Peoples. Resources for cancer screening.
- Wound Types Poster

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