

Caring for patients with malignant and end-of-life wounds

KEY WORDS

- ▶ End of life
- ▶ Malignant wounds
- ▶ Marjolin's ulcer
- ▶ Skin failure

Malignant wounds may be due to a primary cancer of the skin, metastases from a cancer elsewhere in the body or erosion of the skin from an underlying malignancy; chronic wounds also have the ability to develop malignant cells within the wound bed. Malignant wounds frequently have a low potential for healing and are associated with the accompanying symptoms of malodour, pain and elevated exudate levels — even death. The burden of suffering with and caring for an individual with a wound at the end of life is unrelenting, with the impact of the situation staying with carers for many years. Palliative wound care is often without the aim of complete healing; it is symptomatic care — not disease-focused — with the aim to improve quality of life. The individual and their carers require psychological, spiritual and emotional support along with the physical care delivery, and clinicians may have to utilise a slightly unorthodox approach to managing patients with these challenging wounds.

Malignant wounds, which were previously referred to as fungating lesions due to their appearance, can be due to a variety of aetiologies from primary cancers of the skin to an erosion from a subcutaneous cancer (Alexander, 2010). Although the underlying aetiology may vary, malignant wounds have the potential to produce a devastating impact on the individual and their carers, which is accompanied by challenging symptoms such as leakage, pain and malodour. Having a malignant wound has been described as an intense, distressing and unforgettable experience (Alexander, 2010). Malignant wounds can generate excessive suffering for the patient and their caregivers (Maida et al, 2016). This is reflected in the adverse effect malignant wounds have on an individual's quality of life (Tilley et al, 2016).

Malignant wounds are predominantly badged as cancer related, however, people at the end of their life may present with wounds that are non-cancer in origin. Therefore, it is necessary to explore the myriad of wounds along with their symptoms and management approaches at the end of life. Sibbald (2009) defines end of life as a phase of life when a person is living with an illness that

will often deteriorate and eventually cause death. The physiological changes to the skin at life's end include reduced soft tissue perfusion, decreased tolerance to trauma and impaired removal of metabolic wastes, which results in compromised skin (Sibbald, 2009). This degeneration of the skin is recognised as skin failure (Sibbald, 2009).

Malignant wounds rarely heal and, therefore, the mainstay of treatment is symptom alleviation within a palliative care model. The aim of malignant wound management is to reduce the devastating impact the wound has on the individual and their caring team, whilst acknowledging the potential for new wounds to develop as the carcinoma escalates or pressure ulcers develop as the skin fails.

CANCER-RELATED MALIGNANT WOUNDS

Cancer-related malignant wounds are a result of the cancer cells in the skin and the surrounding environment that increase in number and eventually invade tissues and cause cell death (Maida et al, 2016). Primary skin cancers include basal cell carcinomas (rodent ulcers) that are normally locally contained and respond well

TRUDIE YOUNG
 Director of Education and
 Training, Welsh Wound
 Innovation Centre, Ynysmaerdy,
 Rhondda Cynon Taff, Wales

to removal via surgery or cryotherapy, and squamous cell carcinomas that are more likely to produce systemic metastases (Morison et al, 2004). Malignant melanoma is the most rapidly spread of the primary skin cancers with metastases' likely in bone, brain and skin. Less common primary skin cancers include Kaposi's sarcoma and cutaneous T-cell lymphoma (Mycosis fungoides) (Maida et al, 2016).

Cancer from underlying structures that invades the skin often arises from a primary cancer of the head and neck or breast. Two additional problems may be fistulae development, if the cancer is in the gastrointestinal or genitourinary systems, and lymphoedema, if the lymphatic channels are involved (Maida et al, 2016).

PRESSURE ULCERATION AT THE END-OF-LIFE

Pressure ulcers are acknowledged as typical end-of-life-wounds (Kayser-Jones et al, 2008; Woo, 2015). In 1877, Jean-Martin Charcot (who is famous for the clinical description of the group of signs and symptoms known as the Charcot foot) recorded butterfly-shaped sacral ulcers that developed before death, calling them decubitus ominusus (Sibbald, 2009). Another famous clinician, Dr Alois Alzheimer, noted in 1906 that the first patient he cared for with Alzheimer's disease died from septicaemia due to pressure ulceration (Sibbald, 2009). Kennedy Terminal Ulcers were described in 1989 as a specific subgroup of pressure ulcers that develop in dying individuals — with over half dying within 6 weeks of developing this type of pressure ulcer. Twenty years later the problem is still present, an Italian study identified that 10.5% of patients receiving palliative care at home also had pressure ulcers (Bonaldi et al, 2009). A higher percentage (37%) of end-of-life dementia sufferers had pressure ulceration (Nourhashemi et al, 2012). Pressure ulcers are identified as a type of wound present within the last 6 months of life (Takahashi, 2008; Maida et al, 2012).

The development of pressure ulcers at the end of life reflects the reduced availability of oxygen and other physiological processes necessary to sustain normal skin function. When this situation arises, the skin is unable to defend itself

from external trauma and injury such as pressure damage. Under these circumstances, the pressure damage is said to be unavoidable and may develop regardless of appropriate pressure ulcer prevention interventions (Sibbald, 2009; Haesler, 2014).

LEG ULCERATION AND MALIGNANCY

Marjolin's ulcers are chronic wounds/scars in which normal cells mutate into cancerous cells. They have been found to occur in established venous leg ulcers and pressure ulcers (Choa et al, 2015). The clinical signs described by Ghasemi et al (2016) include irregular borders, hypergranulation tissue and a friable/bleeding wound surface. In this study of atypical leg ulcers, 16% were found to be cancerous following a wound biopsy. The authors advise clinicians to have a high suspicion for malignancy in atypical ulcers or those not responding to an appropriate treatment plan. Unfortunately, a delay in diagnosis may be due to a lack of access to diagnostic examination and support (Ghasemi et al, 2016).

PAIN AND MALIGNANT WOUNDS

Tamai et al (2016a) identified pain in malignant breast wounds. The pain was present in 77.3% of patients and described as continuous throbbing pain and tender pain. The size of the wound did not correlate with the pain intensity.

Pain may be related to the location of the cancer, for example, during sneezing for facial cancer and when passing urine and faeces for anal malignancies.

Individuals with malignant wounds may have other associated causes of pain; moisture associated dermatitis was identified in malignant breast wounds (Tamai et al, 2016b). Pruritis can also be a common complaint in this group of patients (Tilley et al, 2016).

The pathology of pain in malignant wounds includes nerve damage, tissue ischaemia, inflammation and infection (Maida et al, 2016). Malignant wound pain can have both neuropathic and nociceptive elements along with psychological, spiritual and social dimensions. Woo (2015) suggests various pharmacological methods to manage neuropathic wound pain including tricyclic antidepressants (amitriptyline) and calcium-channel ligands (gabapentin, pregabalin)

or a topically applied lidocaine patch (5%). If pain is present during dressing change, sublingual fentanyl (a short acting potent narcotic analgesic) may provide temporary pain relief during the procedure. Topical morphine (aqueous injectable form) when mixed with a hydrogel is reported as providing local pain relief in malignant wounds (Woo, 2015). The above treatment suggestions must take into account the current medication regimen of the individual, local medicines policies and guidelines and the product licence and indications.

ODOUR

The odour from malignant wounds is due to the necrosis and slough in the wound bed that can recur following debridement due to the advancement of the cancer and subsequent tissue death (Alexander, 2010). In addition, wound infection can be a cause of wound odour. Individuals undergoing chemotherapy may be more prone to wound infection, including fungi and yeast infections, due to their suboptimal immune system (Sibbald, 2009). Odour is a symptom of malignant wounds that causes great distress and embarrassment, mouldy and putrid are terms individuals have used to describe the odour from their malignant wounds (Reynolds and Gethin, 2015). Patients stated that 'they could once again touch other people once their own wound odour had diminished' (Lo et al, 2008). Systemic or topical Metronidazole is recommended as an option for odour management along with debridement and topical antimicrobial therapy to lower the wound bioburden (Woo, 2015).

The impact of noxious odour can be upsetting for the carers and nurses, who described being reluctant to breathe in deeply when the wound was exposed to avoid inhaling the odour and who subsequently washed/scrubbed themselves to try to remove the lingering odour on their clothes and their person (Alexander, 2010).

SEXUALITY

Reynolds and Gethin (2015) report how odour and itching that occurred both inside and outside the malignant wounds, adversely effected the ability of the individual to relax during times of sexual intimacy. In addition, partners recalled concerns

about causing pain and discomfort during episodes of sexual physical closeness. These situations can lead to an individual losing their sexual identity at a time when physical closeness and intimacy can provide comfort and solace.

SELF-MANAGEMENT AND THE CARING BURDEN

Individuals will often try to elicit some control with self-management strategies, especially if they do not want others to see the malignant wound. However, these strategies may have limited success, the use of toilet paper as a wound dressing and reducing fluid intake to reduce the frequency of urination were reported examples of unsuccessful coping mechanisms (Lo et al, 2008).

Often the care of the malignant wound takes over the lives of the individuals and their carers with their previous existence being violently transformed by a new, unfamiliar and unwelcome existence (Alexander, 2010). Carers can recount vivid memories of looking after a person with a malignant wound and describe the event as an intense and unforgettable experience (Alexander, 2010).

Nurses describe caring for an individual with a malignant wound as extraordinarily impactful, confronting and emotionally draining (Alexander, 2010).

Individuals testify to the difficulties they had in managing malignant breast wounds due to a lack of advice from healthcare professionals (Probst et al, 2013). Providing education to carers on how to manage malignant wounds resulted in positive patient outcomes including an improved quality of life (Lo et al, 2012).

PSYCHOLOGICAL IMPACT

The presence of a malignant wound is a visual reminder of the cancerous process; advanced and incurable disease and impending death (Alexander, 2010; Watret, 2011). Maida et al (2016) refer to the 'profoundly visible and often palpable stigmata of advanced cancer'. The malignant wound often follows a path of rapid cutaneous destruction, and individuals refer to themselves as 'rotting away' (Alexander, 2010). Probst et al (2013) found women with malignant breast wounds were distressed by what they saw

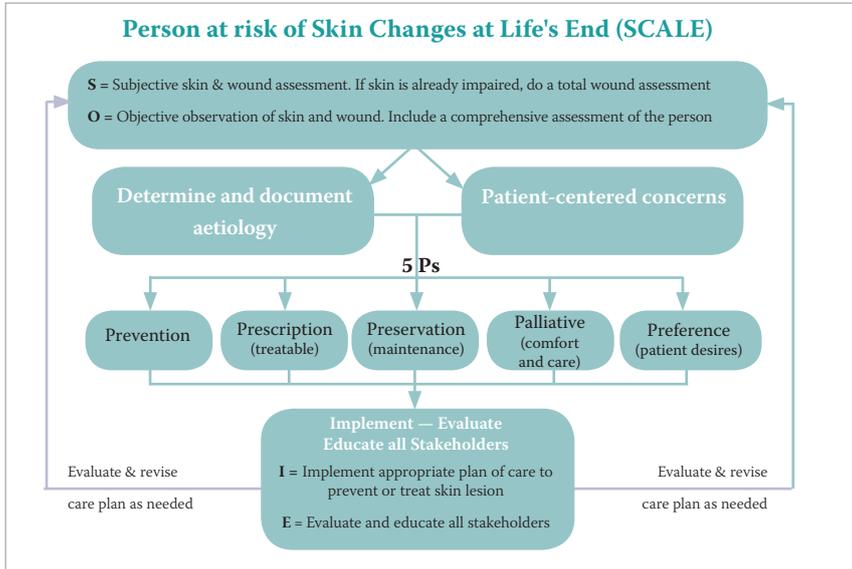


Figure 1. The SOAPIE mnemonic with 5P enable (adapted from Wounds, 2010 HMP Communications)

as an erosion of their physical boundaries and were struggling to maintain the ‘boundness of their bodies’. They further conveyed the feeling of losing control over their body, themselves and their lives (Probst et al, 2013). People feel able to share a cancer diagnosis but unable to share the malignant wound due to its repugnant nature (Lo et al, 2008).

The disfigurement has both cosmetic and aesthetic implications (Maida et al, 2006). The disfigurement can result in isolation, psychological and spiritual distress (Tilley et al, 2016). Clinical depression has been identified in individuals with malignant wounds and appropriate pharmacological and non-pharmacological interventions can help; cognitive behaviour therapy can enhance coping skills in the face of physical and psychological distress (Maida et al, 2016). An aspect that can positively influence quality of life is the presence of hope. It is sometimes difficult to maintain hope when the malignant wound is a permanent visual reminder of imminent mortality (Verdon, 2015). Hope might not extend to healing but to a pain-free and peaceful death (Maida et al, 2016). However, individuals have questioned why they have such an unpleasant departure from life, with their last days dominated by the demands of a malignant wound (Alexander, 2010).

PALLIATIVE WOUND CARE

Palliative wound care requires palliative care to be combined with effective wound management. Prioritisation should be given to symptom management and the relief/prevention of pain along with psychological, spiritual and emotional support. It is essential to provide a palliative framework with the focus on patient-centered care with patient and family goals at the forefront of all aspects of decision-making (Alexander, 2010; Maida et al, 2016; Tilley et al, 2016).

Palliative wound care is often without the aim of complete healing, it is symptomatic care — not disease-focused — with the aim to improve quality of life (Dale and Emmons, 2014). Wound healing may not be a viable option and the potential for new wounds to develop, i.e. pressure ulcers, may cause distress to the individuals and their family/carers. Individuals may not relate their primary diagnosis to a delay in wound healing and consequently have unrealistic expectations of their wound healing trajectory; stabilisation of existing wounds may be a more pragmatic outcome (Nenna, 2011). However, healing of early pressure damage was noted in individuals within the last six months of life (Maida et al, 2012).

The Skin Changes at Life’s End consensus document (SCALE, 2009) contains ten statements to guide skin care based on the 5Ps:

- » Prevention
- » Prescription (treatable)
- » Preservation (maintenance)
- » Palliative (comfort and care)
- » Preference (patient desires) (Figure 1).

The international prevention and management of pressure ulcer guidelines (National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance, 2014) provide a number of recommendations for individuals in palliative care that include:

- » Patient and risk assessment
- » Pressure redistribution
- » Nutrition and hydration
- » Pressure ulcer care
- » Pain assessment
- » Management and resource assessment.

Fundamental to all the recommendations is to implement the guidance in accordance with the wishes of the individual and their overall health status (Haesler, 2014; Langemo et al, 2015).

The nature of palliative wound care often requires a more inventive treatment regimen with potential new treatments that include 6% Miltefosine and electrochemotherapy, the latter being a combination of medication and electric pulses (Adderley and Holt, 2014; Maida et al, 2016). If bleeding at the wound bed is problematic, silver nitrate sticks, topical sucralfate paste, oral antifibrinolytics, radiotherapy and embolisation may be considered (Maida et al, 2016). Pruritis may be present and may not respond to oral anti histamines, in such situations tricyclic antidepressants, gabapentin, transcutaneous electrical nerve stimulation (TENS) may provide symptomatic relief (Maida et al, 2016).

The established treatments of radiotherapy and systemic chemotherapy either alone or part of a wider treatment plan have a palliative as well as curative role and may help to shrink the tumour and relieve symptoms of advanced disease, i.e. reduce exudate levels. However, both treatments bring with them unwanted side effects such as radiotherapy skin reactions that will normally resolve within a short time following cessation of the treatment. Chemotherapy can adversely affect the ability to taste food and drink and leave people with a dry mouth and an unpleasant taste along with mucosities, pain, nausea and vomiting (O'Regan, 2007). For management advice regarding skin reactions caused by radiotherapy, download the online best practice statement from Healthcare Improvement Scotland (2010).

The palliative wound care model should take into account the risk of executing the treatment plan against its potential benefits; repositioning to prevent pressure ulceration may cause the individual increased pain (Woo, 2015). However, it should not preclude active treatments where appropriate and which correspond to the wishes of the individual and their carers (Woo, 2015). The active treatments may focus on supportive strategies to prevent exacerbation of existing wounds and their symptoms and from the development of new wounds, e.g. device-related pressure damage (Woo, 2015).

A considerable limitation on the delivery of palliative wound care is the limited amount of time the clinician has to attempt different interventions before implementing a treatment plan that provides optimum symptomatic relief for the individual. Consequently, for people with malignant wounds, prognosis is grave and therapeutic options limited (Alexander, 2010). However, care delivered by sensitive, knowledgeable and skilled carers made people feel better about their malignant wounds (Lo et al, 2008). Even at the end of life, combining a palliative model of care with effective wound management can significantly enhance the patient's quality of life (Nenna, 2011).

CONCLUSION

The skin is subject to failure like any other organ when the body is dying. Malignant wounds may be due to primary skin cancers or erosion from an underlying malignancy. Chronic wounds, for example, venous leg ulcers and pressure ulcers have the potential to alter their wound bed status from non-healing to malignant. Pressure ulcers are also accepted as wounds that may occur at the end-of-life in the presence of skin failure.

Malignant wound have a myriad of unpleasant symptoms including odour, pain, bleeding and excessive exudate. Healing is often not a therapeutic reality and symptom control is the priority often involving treatment regimens that sit outside of common wound care practice.

The presence of a malignant wound is a visible example of the underlying disease process and imminent death. Formal and informal carers experience the adverse effects of caring for an individual, with a malignant wound, with the sorrowful memory staying with them forever. The individual with a malignant wound can suffer a physical and social death due to the unacceptable and offensive presence of the wound. Their normality is turned on its head and they find themselves in a painful and undesirable situation.

Palliative wound care prioritises wound-related pain and symptom management. End-of-care within a palliative model can enhance the experience for all involved and increase the quality of life for the individual.

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REFERENCES

- Adderley UJ, Holt IGS (2014) Topical agents and dressings for fungating wounds. *Cochrane Database Syst Rev* 15(5): CD003948.
- Alexander SJ (2010) An intense and unforgettable experience: the lived experience of malignant wounds from the perspectives of patients, caregivers and nurses. *Int Wound J* 7(6): 456–65
- Bonaldi A, Parazzini F, Corli O, Lodetti, L (2009) Palliative care at home in cancer patients in Milan. *European Journal of Palliative Care* 16(1): 40–42
- Choa R, Rayatt S, Mahtani K (2015) Marjolin's ulcer. *BMJ* 351: h3997
- Ghasemi F, Anooshirvani N, Sibbald RG, Alavi A (2016) The point prevalence of malignancy in a wound clinic. *The International Journal of Lower Extremity Wounds* 15(1): 58–62
- Healthcare Improvement Scotland (2010) *Skincare of Patients Receiving Radiotherapy*. Available at: http://www.healthcareimprovementscotland.org/previous_resources/best_practice_statement/radiotherapy_skincare.aspx (accessed 12.04.2017)
- Kayser-Jones J, Kris AE, Lim KC et al (2008) Pressure ulcers among terminally ill nursing home residents. *Research in Gerontological Nursing* 1(1): 14–24
- Langemo D, Haesler E, Naylor W et al (2015) Evidence-based guidelines for pressure ulcer management at the end of life. *Int J Palliat Nurs* 21(5): 225–32
- Lo SF, Hu WY, Hayter M et al (2008) Experiences of living with a malignant fungating wound: a qualitative study. *J Clin Nurs* 17(20): 2699–708
- Lo SF, Hayter M, Hu WY et al (2012) Symptom burden and quality of life in patients with malignant fungating wounds. *J Adv Nurs* 68(6): 1312–21
- Maida V, Ennis M, Corban J (2012) Wound outcomes in patients with advanced illness. *Int Wound J* 9(6): 683–92
- Maida V, Alexander S, Case AA, Fakhraei P (2016) Malignant wound management. *Public Health and Emergency* 1: 33
- Morison MJ, Ovington LG, Wilkie K (2004) *Chronic Wound Care*. Mosby, Edinburgh: 167
- National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance (2014) *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline*. Available at: <https://www.npuap.org/wp-content/uploads/2014/08/Updated-10-16-14-Quick-Reference-Guide-DIGITAL-NPUAP-EPUAP-PPPIA-16Oct2014.pdf> (accessed 13.04.2017)
- Nenna M (2011) Pressure ulcers at end of life: an overview for home care and hospice clinicians. *Home Healthcare Now* 29(6): 350–65
- Nourhashemi F, Gillette S, Cantet C et al (2012) End-of-life care for persons with advanced Alzheimer disease: design and baseline data from the ALFINE study. *J Nutr Health Aging* 16(5): 457–61
- O'Regan PO (2007) The impact of cancer and its treatment on wound healing. *Wounds UK* 3(2): 87–95
- Probst S, Arber A, Faithfull S (2013) Malignant fungating wounds—the meaning of living in an unbounded body. *Eur J Oncol Nurs* 17(1): 38–45
- Reynolds H, Gethin G (2015) The psychological effects of malignant fungating wounds. *EWMA Journal* 15(2): 2932
- Sibbald RG, Krasner DL, Lutz J (2010) SCALE: Skin Changes at Life's End: Final Consensus Statement: October 1, 2009. *Adv Skin Wound Care* 23(5): 225–36
- Takahashi PY, Cha SS, Kiemele LJ (2008) Six-month mortality risks in long-term care residents with chronic ulcers. *Int Wound J* 5(5): 625–31
- Tamai N, Mugita M, Ikeda M, Sanada H (2016a) The relationship between malignant wound status and pain in breast cancer patients. *Eur J Oncol Nurs* 24: 8–12
- Tamai N, Akase T, Minematsu T et al (2016b). Association between components of exudates and periwound moisture-associated dermatitis in breast cancer patients with malignant fungating wounds. *Biol Res Nurs* 18(2): 199–206
- Tilley C, Lipson J, Ramos M (2016) Palliative wound care for malignant fungating wounds: holistic considerations at end-of-life. *Nurs Clin North Am* 51(3): 513–31
- Verdon A (2015) Fungating wounds: causes, characteristics and impact on patients. *Wound Essentials* 10(2): 60–3
- Watret L (2011) Management of a fungating wound. *Journal of Community Nursing* 25(2): 31
- Woo KY, Krasner DL, Kennedy B et al (2015) Palliative wound care management strategies for palliative patients and their circles of care. *Adv Skin Wound Care* 28(3): 130–40