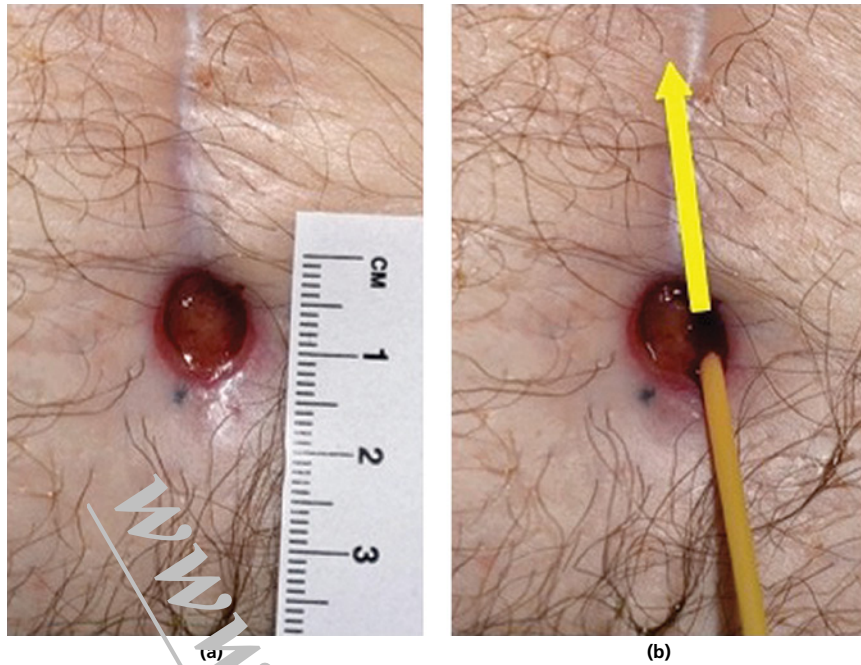


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The importance of probing a wound. (a) A small abdominal wound. (b) On examination with a probe, the wound is actually undermining by 2.5 cm in a cranial direction.



Communication between pilonidal sinus wounds.

Odour

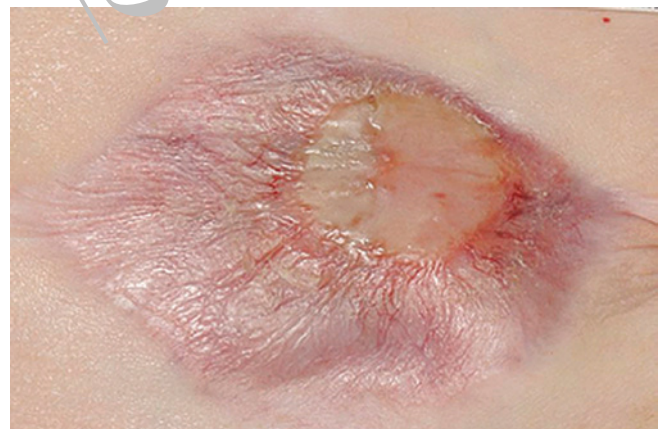
Malodour can be caused by infection, necrotic tissue and saturated dressings. As well as treating the cause of malodour (e.g. debriding necrotic tissue, treating infection), superabsorbent dressings or charcoal dressings may be useful to control odour. Topical metronidazole is useful for malodour associated with fungating tumours.

Pain

Pain is a characteristic feature of many healing and non-healing wounds. Pain can be caused by both nociceptive and neuropathic stimuli. Intermittent pain is often related to dressing removal or recent application of new dressings and may necessitate the use of analgesia prior to dressing change. Constant pain may arise as a result of the underlying condition, including ischaemia, neuropathy,

Wound edge characteristics.

Edges	Type of ulcer
Transparent	Epithelialising
White	Macerated
Sloping	Venous ulcer
Punched out	Arterial/vasculitic ulcer
Rolled	Basal cell carcinoma
Raised/thickened	Squamous cell carcinoma
Undermining	Pressure injury and ulceration, tuberculosis, syphilis
Purplish ± ragged edge	Pyoderma gangrenosum or other inflammatory disease (e.g. vasculitis)



Healing edge of an abdominal wound. The size of the original wound is evident by the amount of newly formed scar tissue present.

tissue oedema, chronic tissue damage (e.g. lipodermatosclerosis), infection or scarring (e.g. atrophie blanche). The nature and type of pain should be identified and treated appropriately. Various pain assessment tools are available to help assess the nature and severity of pain. Patients with recalcitrant or difficult-to-control pain may benefit from referral to a local pain team.

Non-healing wounds

Non-healing wounds have traditionally been defined as those that fail to progress through an orderly sequence of repair in a timely fashion. Such wounds are sometimes thought of as being caused by neglect, incompetence, misdiagnosis or inappropriate treatment

strategies. However, it is important to appreciate and acknowledge that some wounds are resistant to all efforts of treatment aimed at healing and alternative endpoints should be considered. Measures aimed at improving quality of life are paramount in these instances.

Quality of life

Several studies have shown that individuals with non-healing wounds have a decreased quality of life. This is due to a multitude of factors, including the frequency and regularity of dressing changes, which cause disruption to daily routine, lack of sleep, restricted mobility, pain, odour, wound infection and the physical and psychological effects of polypharmacy. The loss of independence associated with functional decline can lead to changes, sometimes subtle, in



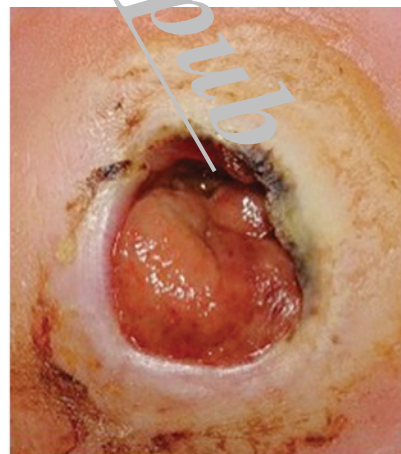
Squamous cell carcinoma with raised edges.



Dead tendon at the base of the wound (indicated by arrow).



(a)

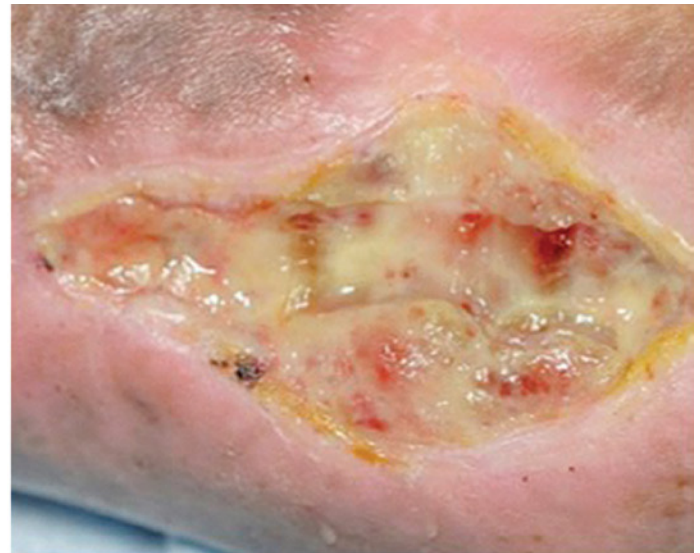


(b)

Examination of the wound bed. (a) Healthy granulation tissue in a hidradenitis suppurativa excision. (b) Unhealthy granulation tissue in a diabetic foot ulcer.



(a)



(b)



(c)



(d)

Examination of the wound bed. (a) Necrotic tissue. (b) Slough. (c) Fibrin (scar tissue). (d) Eschar.

Types of wound debridement

- 1 Sharp – using a scalpel or curette at the bedside
- 2 Surgical – in the operating theatre using sharp or hydrosurgical (high-powered water jet) methods
- 3 Autolytic – facilitation of the body's own mechanism of debridement with moisture-donating dressings
- 4 Biological – larval (maggot) therapy
- 5 Enzymatic – not widely used; paw-paw or banana skin used in developing countries
- 6 Mechanical – wet-to-dry dressings or debridement pads or wipes
- 7 Ultrasonic – low-frequency ultrasound applied to wound bed

overall health and well-being. These changes include altered eating habits, depression, social isolation and a gradual reduction in activity levels. Many individuals with non-healing wounds complain of difficulties with emotions, finances, physical health, daily activities, friendships and leisure pursuits.

Quality of life is not always related to ulcer healing. Patients' concerns and goals of treatment should be taken into consideration. Control of odour, exudate and pain may improve an individual's quality of life. Additionally, optimisation of chronic wound management will lead to a reduction in the frequency of dressing changes, further enhancing quality of life. In a minority of instances, seemingly drastic measures such as amputation in a person with chronic leg ulceration may need to be considered where the quality of life is severely affected by the non-healing wound and its complications.