Holistic care of a drug-related wound: a case study from a clinic for homeless people

Homeless people can experience difficulties accessing health care. This case study highlights the benefits of a supportive, accessible health service for the homeless.

INTRODUCTION

This case study discusses the exceptionally rapid progress of a wound caused by injecting drugs and examines a range of holistic factors that contributed to successful treatment. While this particular case relates to issues of drug misuse and homelessness, the principles are applicable to wound care across all settings and groups. Literature on wound healing tends to focus on physiological factors. This article emphasises psychosocial aspects, which can be overlooked and played a vital role in this instance.

BACKGROUND

The main focus of St John Ambulance Homeless Service (SJAHSS) in Hastings and St Leonards in East Sussex is a nurse-led primary care drop-in clinic for homeless people in a day-centre run by a local independent charity (Seaview Project). The centre offers open access — that is, no referrals needed. It attracts a broad range of clients who are vulnerable for a variety of reasons.

Accessing health care is typically problematic for homeless people, due to difficulties in registering with a GP, prohibitive appointment systems, lack of access to a phone or transport, disordered lifestyles and experiences of discriminatory attitudes by healthcare professionals (Crisis, 2002). In at least 20%, and possibly as many as 50%, of cases (Griffiths, 2002; Crisis, 1999), homelessness is the result of mental health problems, which in turn often lead to — and/or are the result of — alcohol or drug misuse. A vicious circle of mental ill-health and substance use (‘dual diagnosis’) is common and those affected often find services ill-equipped to deal with them (Mind, 2007).

In addition, homeless people have rates of physical ill health several times greater than those of the general population (Crisis, 2002). Treating their health needs can be challenging, due to missed appointments, co-morbidities, lack of concordance and poor nutrition.

THE CLIENT

After becoming homeless, Paul*, a 42-year-old man with a mild learning disability, was living in temporary supported housing. He had been using a variety of substances, including heroin, alcohol and crack cocaine. Paul was already well known to the homeless service team and presented to the clinic (day 1 of treatment) with a large, deep wound to his right deltoid, measuring approximately 9cm x 4cm in area, with full thickness skin loss and loss of some muscle tissue to a depth of up to 6mm in places (Fig 1). He had applied a bandage from a first-aid box directly around the wound.

Paul had presented to his GP two weeks earlier with an ‘oozing wound to his right deltoid with cellulitis’ (surgery records). We have no further detailed information about the wound’s condition, but the GP prescribed flucloxacillin and phenoxymethylpenicillin for seven days for the cellulitis, and ibuprofen for pain. The practice nurse dressed the wound that day and Paul was asked to return for regular wound care. He returned four days later but declined a dressing. The reasons for this are not clear and Paul did not return to the surgery after that.

When he first presented to the clinic, the wound was clean in appearance — evidence the antibiotics had been taken — but heavily exuding and with the self-applied bandage adhered to the wound.

‘Skin-popping’

Paul explained to the team that the wound had resulted from ‘skin-popping’. This street term refers to subcutaneous drug injection.
and while it reduces some of the serious risks involved in intravenous drug use (such as endocarditis and overdose), it carries a significant risk of abscesses and cellulitis.

For drug users, ‘skin-popping’ is an easier technique to apply but fails to provide the initial ‘rush’ delivered by IV injection. However, the effects of the heroin when taken subcutaneously are longer-lasting and will therefore be more effective at preventing withdrawal symptoms later on.

Paul had been using heroin for about a year and had never injected himself intravenously due to difficulties accessing veins, but had allowed others to do so for him.

**INITIAL TREATMENT AND PROGRESS**

Wound care was started with a protease modulator dressing, Aquacel, to absorb exudate and promote granulation, covered with padding and a light bandage, and was changed twice weekly. The SJAHS nurse coordinator gave Paul a prescription for the wound care products and for Ensure Plus supplement drinks to aid nutrition and wound healing. He was also given advice on how to improve his diet.

Photographs and measurements were taken weekly to monitor the wound’s progress. Within one week (day 8), the entire wound had filled with granulation tissue but had progressed further to overgranulation (Fig 2).

Aquacel was continued and Paul was referred to the local PCT’s community tissue viability nurse (TVN) for further advice. The TVN saw Paul at the day-centre clinic and recommended Acticoat Moisture Control to reduce the excess granulation tissue, which the nurse coordinator prescribed and then initiated the following day (day 16).

**Overgranulation**

The terms ‘overgranulation’ and ‘hypergranulation’ tend to be used interchangeably, but ‘overgranulation’ is the preferred term for this excess granulation tissue, since it is caused by saturation of interstitial tissue with oedematous fluid that has leaked from immature capillaries in fast-growing granulation tissue (Hampton, 2007; Vandeputte and Hoekstra, 2006).

Overgranulation tissue may indicate infection and is commonly associated with highly exuding wounds, particularly those with occlusive dressings (Banks et al, 1999, cited by Hampton, 2007). This is thought to be due to the dressing becoming saturated as a result of excessive wound exudate, leading to insufficient drainage of the wound environment and consequently increasing oedema in the tissues. Discontinuation of occlusive dressings in favour of a less occlusive regimen can be an effective method of reducing this saturation, thereby decreasing the overgranulation (Vandeputte and Hoekstra, 2006).

**Rationale for choice of dressing**

Because overgranulation tissue is raised above the surface of the surrounding skin, epithelial tissue is unable to migrate across the wound surface, delaying wound healing (Vandeputte and Hoekstra, 2006).

The oedema associated with overgranulation can be reduced mechanically by light pressure, achieved by applying a vapour-permeable foam dressing and a supplementary bandage (Young, 1995; Harris and Rolstad, 1994). Treatment with an antimicrobial agent can further reduce excess granulation as this unhealthy tissue is often associated with infection or bacterial colonisation (Hampton, 2007).

Acticoat MC combines vapour-permeable, polyurethane foam with the antimicrobial properties of nanocrystalline silver. Although there is no robust published evidence base yet for this relatively new dressing, some promising studies have been published, such as Thomas (2007), which demonstrated the effective use of Acticoat MC for a previously non-healing diabetic foot ulcer.

In the case of Paul’s wound, which showed no direct evidence of infection, the choice of Acticoat MC over a less expensive foam dressing without silver was guided by the aim to prevent infection and by practitioner experience.

White et al (2001) observed that chronic wounds are inevitably colonised with a mixture of potential pathogens, increasing susceptibility to infection. They also asserted that infection is one of the most significant factors to delay healing.

The TVN’s previous experience confirmed the effective use of Acticoat MC for reducing overgranulation and preventing infection,

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Fig 2. The wound on day 8 – now overgranulating

Fig 3. Day 33 of treatment
The wound exudate increased, causing skin excoriation. The increased exudate is believed to have been caused by the successful release of excess fluid from the oedematous overgranulation tissue, which was now visibly and rapidly reducing in size. The TVN and the homeless service nurse agreed the benefits of the dressing (reduced overgranulation, leading to wound healing) outweighed the unwanted side-effect (excoriation) and that treatment with Acticoat MC should be continued, with twice weekly dressing changes and starting treatment for the excoriation. A barrier film spray, Sprilon, was prescribed to prevent further excoriation.

Fig 3 (p19) shows the wound at day 33 of treatment, with new epithelial tissue evident at the upper end, reduced overgranulation tissue throughout and excoriated skin distal to the wound. Brown staining due to the silver dressing can be seen on the surrounding skin. Although the dressing had been cut to size (as suggested by the manufacturer) to aid cost-effectiveness, some overlap on to the skin margin had occurred, causing this harmless staining, which resolved over the coming weeks.

In just one month (from day 22 to day 54) the wound area had reduced remarkably rapidly from 8.4cm (maximum length) x 3.7cm (maximum width), to just 4cm x 0.5cm, with new epithelial tissue having migrated across the wound. Skin excoriation had resolved as exudate was now minimal (Fig 4).

REASONS FOR SUCCESS
The success of this regimen amazed all concerned and was attributable to several factors relating to the client, the homeless service and the TVN:
- Exceptional concordance from Paul, who attended clinic almost every time he was due for a dressing change, which in turn was influenced by:
  - A good rapport between the client and team,
  - Accessibility of clinics, and,
  - Paul being able to witness the rapid healing process;
- Accessibility of specialist wound care products, facilitated by nurse independent prescribing;
- Effective multidisciplinary working with the community TVN;
- Nurse prescribing of nutritional supplements;
- Improvement in Paul’s diet;
- Reduced substance use after the wound developed – at the time of writing, Paul continues to smoke heroin on occasions, but no longer injects;
- Paul also undertook physical activity during this period.

Rapport and the therapeutic relationship
The value of a good rapport with patients is often under-estimated. SJAHS, although health-focused, places great value on service delivery in a framework of general social support, advocacy, befriending and non-judgmental care.

The Mental Health Foundation (2000), in a study to identify people’s strategies in dealing with enduring mental distress, found that the one recurring theme to emerge above treatments or therapies was relationships with others, whether with family, friends, peers or professionals.

In the world of counselling, the most frequently identified factor associated with effectiveness of psychotherapy is the therapeutic relationship between client and counsellor (Clarkson, 1997). This concept is summarised by Mitchell and Cormack (1998) as a relationship that offers ‘respect, trust and care, and it seems that such relationships may in themselves prove to be healing in the broadest sense’.

It is perhaps this notion that, above all, explains the popularity of complementary therapies and – at times – the lack of a therapeutic relationship that can hinder patients’ concordance with mainstream health care.

While Paul’s relationship with the SJAHS team was not directly related to mental health or counselling practice, the therapeutic relationship is also recognised as a core concept of effective health promotion (Prochaska and DiClemente, 1986), motivational interviewing (supporting behaviour change) (Miller and Rollnick, 2002), and harm reduction. These were all involved in Paul’s care, in relation to drug misuse, dietary changes and concordance.

The team’s warm rapport with Paul proved to be an effective motivational factor in empowering him to make appropriate changes to diet, reduce his drug use and attend clinics regularly.

Furthermore, a relationship that communicates acceptance and support to clients may help to reduce levels of the stress hormone cortisol, which may be raised in response to concerns about ill health or anxieties about attending a healthcare appointment. Raised levels of cortisol have been shown to slow wound healing (Ebrecht et al, 2004; Dyson et al, 2003). It follows that actions taken to minimise stress are likely to improve healing rates.

Accessibility
The core aim of nurse independent prescribing is to improve patients’ access to treatments (Department of Health, 2006a).

Paul’s care and concordance were enhanced by the availability of nurse prescribing at a drop-in clinic at an accessible location.
of where these needs have been met (albeit outside NHS services), resulting in successful treatment against the odds.

**Nutrition**

The importance of good nutrition in promoting wound healing is widely accepted but remains of low priority in health care. However, the benefits of nutritional supplements in wound healing is debatable, although it is clear that sufficient intake of all nutrients is necessary and that needs may increase during the healing process (Perkins, 2000).

In the case of Paul, an adult with a deep wound and a disordered lifestyle involving poor nutrition, it seemed prudent to include a supplement, which may have contributed to the success of his wound healing.

Furthermore, Paul had begun to eat a regular (daily), full meal. This adherent response to advice provided further evidence of the effectiveness of the therapeutic relationship. In addition, as he was frightened of the possibility of worse complications from the wound, Paul showed an eagerness to work with the healthcare team.

**Physical activity**

During the course of treatment, Paul revealed to the team that he had been lifting weights at home. While this caused the nurses concern initially about the possible disturbance that strenuous exercise might cause to healing, it is possible that, conversely, the pumping action had improved vascular return, thereby speeding, rather than delaying, wound healing (O’Meara et al, 2009).

**CONCLUSION**

In conclusion, while appropriate dressing choice and skilled wound management are undoubtedly important aspects of wound healing, a number of other physical and psychosocial factors may be equally essential. Central to all good health care is an effective therapeutic relationship between practitioners and clients.

Healthcare professionals need to develop an attitude of warmth, acceptance and empathy towards those who have experienced prejudice and stigmatisation to overcome barriers to health. These principles are equally applicable to all those who access our healthcare systems.

By week 18, Paul’s wound had healed entirely and he was able to be discharged. The healed, scarred area can be seen in Fig 5. In the following months Paul moved from his temporary accommodation into a flat where he now lives independently and, at the time of writing this article, is in excellent health.

*The client’s name has been changed.*

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**REFERENCES**


Department of Health (2006b) Our Health, Our Care, Our Say: A New Direction for Community Services. London: DH. tinyurl.com/ourhealth


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Fig 5. 18 weeks after start of treatment

Services such as SJAHS fulfil the aims of accessibility that the Department of Health (2006b) strives for. This case is a clear example of where these needs have been met (albeit outside NHS services), resulting in successful treatment against the odds.