

Wound care in older adults

Abstract

Wound care in older adults is complex. A logical, structured approach should be taken, using a nursing process such as assessing, planning, implementing and evaluating. This clinical focus paper outlines the nursing process

to support wound care in this patient group. It recommends considering dressing selection as a cost-effective, prescribing decision because of the risks and comorbidities associated with these patients.

■ Wound care ■ Older adults ■ Prescribing ■ Assessment ■ Care planning ■ Evaluation

In the UK, 18% of the population is 65 years and over and this proportion is increasing (Office for National Statistics, 2018). Global figures suggest that the number of people aged over 60 years is expected to more than double by 2050 (United Nations, 2017). An ageing population increases the complexity of nursing practice, particularly as 75% of 75 year olds in the UK have more than one long-term condition (Barnett et al, 2012).

Wound care is mainly a nursing task in the UK (Pagnamenta, 2017). The assessment and management of wounds is complex (Cryer, 2015) and selecting an appropriate regime for wound management is no easy task. In 2012–2013, wound care and the comorbidities associated with it accounted for 18.6 million practice nurse visits and 10.9 million community nurse visits (Guest et al, 2015). Ageing is associated with alterations in wound healing; for example, it may take longer than expected (Gould et al, 2015).

The aim of this paper is to provide guidance on achieving a holistic, person-centred approach to the assessment and management of wound care in older adults. To ensure a logical, structured approach to wound care, a nursing process should be considered. This paper recommends Yura and Walsh's (1978) nursing process: assessing; planning; implementing; and evaluating (APIE).

Assessing

The underpinning principles of assessment should be applied to all older adults with a wound. Assessment is a systematic,

deliberate and interactive process (Heaven and Maguire, 1996). It is essential that nurses involve patients in the assessment process. They should allow the patient to tell their story and adopt a model to provide structure. Consultation models such as Pendleton (Pendleton et al, 2003) or Calgary Cambridge (Silverman et al, 2005) provide structure and recognise the patients' perspective.

Nursing models such as the Roper-Logan-Tierney (Roper et al, 1985) and Gordon's functional health needs (1994) models provide useful structures to prompt holistic assessment, particularly for staff who are less familiar with consultation models. One example covers nutrition; older adults who are undernourished are at a greater risk of chronic wounds (Sherman and Barkley, 2011; Williams and Barbul, 2012). Carbohydrates, protein, fatty acids, minerals and vitamins are required for wound healing, so assessment of diet is essential for achieving holistic assessment.

Part of the assessment process should consider whether a wound is acute or chronic. Cutting and Tong (2003) recognise there is a complex science to this process. Broderick (2009) puts it simply: 'An acute wound is traumatic or surgical and moves through the stages of the healing process in a predictable time frame. A chronic wound does not progress through the stages of healing and is not resolved over an expected period of time regardless of the cause.'

Alternatively, wounds could be considered chronic if they have been present for more than 6 weeks (Kane and Krasner, 1997). When assessing acute wounds, practitioners should consider if closure could be achieved through the use of primary, secondary or tertiary intention. Frail, older adults are often at risk of skin tears (Payne and Martin, 1990; Everett and Powell, 1994) and, if the skin flap is viable, healing by primary intention may improve healing rates. Rando et al (2018) provide a useful protocol to facilitate wound healing in residential settings, which, with adequate training, carers could use.

Chronic wounds are more likely to affect older than younger adults (Gould et al, 2015). Delayed wound healing in older adults, combined with the unpredictable and complex healing of chronic wounds, creates a challenge for professionals

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Table 1. Tissue, inflammation/infection, moisture, edge advancement (TIME) descriptors for wound bed preparation

Tissue	Inflammation	Moisture	Edge advancement
Epithelial tissue (pink)	None	Dry	Callus
Granulation (red)	Normal	Moist	Encrusted debris
Slough (yellow)	Abnormal; unexpected time period	Wet	Overgranulation
Necrosis (black/brown)	Abnormal: unexpected acute inflammation	Saturated	Rolled wound edge
Unhealthy granulation	Abnormal: chronic inflammatory disease	Leaking	Thickened wound edge
Overgranulation	Infection	Serous	Undermining
Visible tendon/bone	Most important diagnostic indicators Cellulitis Pus Abscess Subtle signs Delayed healing Erythema (with or without induration) Haemopurulent exudate Malodour Seropurulent exudate Wound breakdown or enlargement Increase in local skin temperature Oedema Serous exudate with erythema Swelling with increase in exudate volume Unexpected pain or tenderness (European Wound Management Association, 2005)	Haemoserous	
Visible muscle		Seropurulent	
		Purulent	
		Haemopurulent	

involved with wound care. The majority of chronic wounds are associated with conditions that are more common in older adults, such as vascular disease, venous insufficiency, unrelieved pressure, diabetes mellitus (Gould et al, 2015) and malignancy.

Therefore, practitioners should consider specific assessment tools to explore underlying aetiology. Patients with leg ulcers should be screened for arterial disease, via Doppler assessment to determine ankle brachial pressure ulcer index (Scottish Intercollegiate Guidelines Network, 2010; Association for the Advancement of Wound Care, 2017). Nurses could consider blood tests, such as a full blood count, erythrocyte sedimentation rate, urea and electrolytes, albumin, HbA1c, autoantibody screen and clotting and haemoglobinopathy screen (National Institute for Health and Care Excellence (NICE), 2015a) as part of the assessment. Pressure areas should be graded using the European Pressure Ulcer Advisory Panel, National Pressure Ulcer Advisory Panel, Pan Pacific Pressure Injury Alliance (2014) tool. Risk of pressure damage should be assessed using a validated scale to support clinical judgment (NICE, 2014), such as the Waterlow (1985) or Braden (Bergstrom, 1987) tools.

Wound bed preparation is part of the assessment process to inform dressing selection. TIME (tissue, inflammation/infection, moisture, edge advancement) provides a specific tool to underpin assessment (*Table 1*).

Planning and implementing

When planning care, it is vital that nurses consider outcomes that are specific, measurable and achievable (Dougherty et al, 2015). In wound care, selecting a wound dressing to reach

the desired outcome is challenging. There is a large range of wound dressings with differing performance characteristics and costs, which creates a challenge for health professionals (NICE, 2015b). Cutting (2016) highlights the imprecision surrounding wound dressing selection, acknowledging that awareness in relation to the role that appropriate dressing selection can play is lacking. With a changing workforce within nursing, exacerbated following the Willis Commission (2012) report, a wider range of clinical staff are now being involved in the selection of wound dressing strategies.

There is an argument for dressing selection to be considered a prescribing decision. Certainly, NICE (2015b) considers this a prescriber's decision in terms of dressing optimisation. Historically, district nurses (DNs) have prescribed dressings as part of the care planning process, taking into account associated contraindications, side effects, cautions and risks as part of that prescribing decision.

However, as the number of DNs has dwindled (Maybin et al, 2016), a changing workforce is being used to bridge the gap in demand. Healthcare assistants, nursing associates and nurses need to do little more than pick a dressing from a store cupboard that has been dictated via a trust formulary. Use of trust formularies and, on a larger scale, the 'generic specification project' (NHS Supply Chain, 2015) have not aided in raising the awareness of associated prescribing risks with dressing selection.

When nursing older adults with comorbidities, caution must be taken with dressing selection. Iodine can be systemically absorbed (depending on the dose) and is contraindicated in patients with severe renal impairment and thyroid disorders (Joint Formulary Committee, 2017). Similarly, silver is contraindicated in patients with significant renal or hepatic impairment,

KEY POINTS

- To achieve a person-centred, holistic approach, nurses should consider using a consultation model such as Calgary Cambridge or Pendleton, or a nursing model
- A nursing process, such as assessing, planning, implementing and evaluating (APIE), provides structure to wound care interventions
- Wound care in older adults is highly complex and dressing selection should be considered as a prescribing decision
- Practitioners should establish the desired outcomes, including the patient perspective, when selecting dressings

or G6PD deficiency; it can also interact with other drugs, such as sulphonamides (Joint Formulary Committee, 2017). Pagnamenta (2017) highlights that dressings are listed as medical devices from a legal standpoint.

Arguably, a non-prescribing nurse would have the skills to consider evidence-based practice (EBP) as part of the dressing selection process. However, some practitioners can be antagonistic towards EBP (Madden, 2012). There is a debate around the meaning of EBP, particularly regarding overreliance on randomised controlled trials according to hierarchies of evidence. Essentially, the concept of EBP is the 'use of current best practice in making decisions about the care of the individual patient ... integrating individual clinical expertise' (Sackett, 1996: 71). Therefore, practitioners should consider individual requirements of older adults, such as medication, comorbidities and patient preferences before making decisions on wound care regimens. For example, a hydrocolloid dressing demonstrates better healing rates than paraffin gauze in a systematic review on acute and chronic wound dressings (Chaby et al, 2007). However, if the wound is a fungating breast wound on a patient reaching the terminal phase of life, it might be more appropriate to consider a foam dressing with silver to reduce odour (Kalemikerakis, 2012) as, ultimately, quality of life takes priority (Adderley and Holt, 2014). The outcome may not be to heal the wound, but to keep the patient infection free and comfortable instead.

The NHS is under significant financial strain and therefore cost effectiveness with dressing selection will contribute to ambitions for a sustainable NHS. The annual cost of wound care and associated morbidities has been estimated to be £4.5–£5.1 billion (2012–2013), two thirds of which was accounted for in community care (Guest et al, 2015). Each clinician recognises the burden of making a cost-effective decision; in terms of dressing selection, this might be ill conceived. Essentially, a dressing might cost more per unit than its cheaper counterpart but may reduce the cost of the overall episode of care. If a specific regimen cannot be justified on clinical grounds, it is recommended that professionals select the least costly dressing that meets the characteristics for wound healing (NICE, 2015b).

Practice nurses and DNs are under pressure to reduce demand and therefore faster wound healing may be welcomed. Wherever possible, nurses should consider what would be an appropriate frequency of dressing change and prescribe the minimum quantity of dressings to prevent stockpiling and waste (NICE, 2015b). Regardless of the wound care regimen selected, it is imperative that specific, achievable and measurable outcomes are clearly written to aid assessment, planning, implementation and evaluation.

Evaluating

Reassessment is part of the evaluation process. Nurses should consider whether the dressing has been effective and achieved the desired outcome. The wound bed should be reviewed using TIME to establish progress. Wound edges provide a parameter to determine improvement (Mulder, 2011). If the wound has healed, long-term preventive measures to protect newly formed epithelial tissue should be considered. During maturation, a scar will have only up to 80% of the strength of the tissue before the wound occurred (Kanzler et al, 1986).

Addressing underlying aetiology, such as long-term graduated compression for venous deficiency (NICE, 2015a) or ongoing pressure relieving equipment for patients at risk of pressure damage, with particular attention to vulnerable sites should be considered.

If the wound is not improving, nurses should consider infection. Swabs may be required if there are clinical signs of infection, and should be taken from the wound after cleansing and debridement (Public Health England, 2018). Further bloods form part of this reassessment, if clinically indicated. A dressing change might be appropriate and, again, this should be seen as a new prescribing decision.

Antimicrobial dressings are valuable where wounds are colonised; however, silver will delay wound healing and may incur a greater cost. In 2015, silver accounted for 9% (£20.5 million) of the items supplied on prescription (NICE, 2015b). A health economic analysis of data by Leaper et al (2013) estimated that costs were lower when silver rather than non-silver dressings were used, because of a reduced bacterial bioburden (Jemec et al, 2014).

Conclusion

Wound care in older adults is complex and it is imperative that a structured approach, such as APIE, is considered. Ideally, EBP will inform dressing selection. However, dressing selection in wound care is not straightforward (NICE, 2015b; Cutting, 2016). This paper encourages professionals to consider dressing selection in wound care as a prescribing decision. There are greater prescribing risks when nursing older adults because of comorbidities and polypharmacy. Wound care is a great expense to the NHS and, while it is sensible to optimise dressing selection with the lowest associated cost (NICE, 2015b), practitioners should take a holistic approach as shorter healing rates and lower dressing frequency may be more cost effective in the longer term. **CWC**

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CPD REFLECTIVE QUESTIONS

- Do you consider dressing selection as a prescribing decision?
- Reflect on an occasion when you selected a dressing. How did you assess, plan, implement and evaluate this dressing selection? List the factors that influenced your decision.
- Have you witnessed an increase in demand on community services for wound management in older adults?

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