Reality of wound care in 2017: findings from interactive voting pads

The publication of Guest et al’s study on the economic burden that acute and chronic wounds have on the NHS has provided a national picture and a better understanding of the true cost of wound care (Guest et al, 2015).

One thousand patients’ notes held within the Health Improvement Network (THIN) database were retrospectively examined and cost differences between having a wound or not were analysed. Indeed, from assessing wound care service delivery and costs for the year 2012/13, based on 2013/14 prices, the study estimated that the cost amounted to £5.3 billion, which is on a par with obesity treatment costs. The study also identified that the majority of wound care takes place in a community setting and is nurse-led. Guest et al (2015) has been cited in several recent studies and has even been raised in a debate in the House of Lords. The study also suggested that a ‘high proportion of wounds were unclassified’, highlighting shortcomings in undertaking wound assessment and accurate documentation.

These findings set the scene for a series of wound care study days to facilitate education to nurses on the reality of wound care, which were organised by JCN in collaboration with Urgo Medical, across ten different regions in the UK throughout 2017.

THE REAL COSTS OF WOUND CARE

The demographics of patients presenting to the NHS for wound care has significantly changed over the last decade. There has been an expansion in the ageing population, resulting in patients with increasing comorbidities, which impact on the ability of a wound to heal (Guest et al, 2015; Evans 2017; Mahoney et al, 2017).

This situation has affected community nurses, who are now experiencing a surge in caseloads with more patients having complex healthcare needs (Evans, 2017; White, 2017).

As said, the annual cost of managing wounds and associated comorbidities in the NHS has been estimated to be £5.3 billion (Guest et al, 2015). When you compare this to the £5 billion spent on managing obesity, the potential opportunities are evident (Mitchell, 2017). Over a year, approximately 4.5% or 2.2 million adults in the UK will have a wound. Of these, 278,000 were venous leg ulcers (VLUs), of which 52% were new in the study year and 47% healed (Guest et al, 2015; 2017). The resources required to manage these wounds and associated comorbidities cost the NHS £941.1 million in 2012/2013 (Guest et al, 2017). There is, however, unwarranted variation in the costs for non-elective admissions per 100,000 patients per clinical commissioning group (CCG) from £8,000 to £184,000. The average cost of admissions is £75,000 (Mitchell, 2017). The current emphasis is on keeping patients out of hospital and caring for them in the community (Evans, 2017; Guest et al, 2017; Mitchell, 2017), which begs the question — are community services able to support this demand? And, do they have adequate resources and training to care for patients presenting with wounds?

POLITICAL AGENDA

The House of Lords recently held a short debate on ‘improving the standard of wound care in the NHS’ (22 November, 2017). This consisted of nine questions from the floor and a response from Lord O’Shaughnessy, Parliamentary Under-Secretary of State for Health. It was reported that a staggering two million patients are treated for wounds every year at a cost of more than £5 billion, citing Guest et al’s 2015 statistics. It was clear that all those who spoke recognised that ‘total cost of care’ is where the Department of Health (DH) should be focused. Education, funding and access to technology was a common theme (Browning, 2017). The NHS response was variable, suggesting that healing wounds took too long and that diagnosis was not good enough, with inadequate commissioning of services by CCGs compounding the problem, and limited access to specialist services, with undertrained staff and a lack of suitable dressings (Browning, 2017; Guest et al, 2017). The debate recognised a drop in the number of district nurses (DNs), whose role in ensuring safe and effective wound care in the community is crucial (Browning, 2017).

WHY DO WOUNDS FAIL TO HEAL?

It is vital that healthcare professionals have the skills, knowledge and experience to complete comprehensive holistic assessment. There is a wealth of published evidence available to support clinicians in wound assessment, particularly when wounds fail to heal. Guidelines have also been published by the National Institute for Health and Care Excellence (NICE, 2016), Royal College of Nursing (RCN, 2001), and the European Wound Management Association (EWMA, 2008) to name but a few. Effective management lies in recognising the complex combination of factors, both within and outside the wound, which are involved in the process of healing.

Factors that affect healing can broadly be categorised into four key areas:

- Patient-related
- Wound-related
- Skills and knowledge of healthcare professionals
- Resources and treatment-related.

This article was supported by Urgo Medical
Wound healing is a complex and multifactorial process, and, as in any process, things can and do go wrong. Scientific understanding of wound care has improved over the last twenty years, which has been accompanied by an ever-increasing range of dressings. Despite this, healing rates in the UK are reported to be as low as 50% (Guest et al., 2017). In addition, the number of patients developing and living with a wound is growing at an estimated 12% per annum (Guest et al., 2017). Escalating costs associated with treatment have led to Department of Health (DH) initiatives which are aimed at improving patient outcomes and reducing clinical variations in patient pathways. Last year saw the introduction of a minimum data set for wound assessment and associated CQUIN targets (NHS England, 2016), along with Betty’s case — a cost comparison of two patient pathways, optimal versus sub-optimal, which highlights the personal and financial costs associated with getting things wrong for patients (NHS England, 2017).

The challenge to address the factors highlighted in the reports is multifactorial. As is echoed in this paper, these can be grouped into three areas:

- **Staff knowledge, education, experience, values and beliefs, the practice–theory gap, failure to promptly assess, accurately diagnose and then choose treatments that effectively address the identified underlying problem.**
- **System problems: reductions in the number of community staff, silo budgets, innovation stifled by risk aversion, lack of communication between systems and complex interplay between primary, secondary, social and third sector care.**
- **Demographics: increasing patient numbers, increased life expectancy, frailty, patient expectations, beliefs and values, dependency on healthcare professionals.**

Attention needs to be focused on accurate diagnosis as the central tenet of care. It is the essential starting point that enables both patients and clinicians to begin discussions about treatment choices. It is accepted that over the next few years health care needs to reduce variation, and the field of tissue viability must embrace this. Encouraging the adoption of standardised and easy-to-follow pathways, not just in each trust, but that work across trusts and ideally in all care sectors is vital. This will help to ensure that treatment choices are grounded in evidence and relevant to the patient group receiving care.

It is essential that healthcare professionals managing wounds work collaboratively with patients, and not only understand the healing process, but understand how to achieve patient-centric positive outcomes. The DH’s ‘Innovation into action’ paper aims to support delivery of the ‘Five Year Forward View’ and outlines funding streams to enable the development and adoption of solutions that offer health efficiencies (NHS England, 2015). NHS Scotland (2015) and NHS Wales (2014) have also introduced their vision of how to achieve efficiencies. Perhaps the simplest and most visual is NHS Wales’ concept of prudent health care, which considers four principles:

- Co-production where patients and partners are equal partners
- Greatest health need first
- Do only what is needed
- Reduce variation.

Essentially, all of these papers call for a move from a patient population that is dependent on healthcare providers to one that is empowered to make informed choices about their health and wellbeing and is enabled to self-care.

The challenge for nursing over the next decade is both to enthuse and prepare nurses of the future to challenge, innovate and embrace quality improvement initiatives.

**Jeanette Milne**
Lead nurse tissue viability, Northumbria Healthcare NHS Trust

**REFERENCES**


Patient-related factors
With age, metabolic processes slow down, which prolongs tissue repair. Elderly patients are also more prone to concurrent diseases, such as arthritis, cardiovascular or pulmonary disease, that require medication. Diseases and treatments that directly affect the immune system have a major impact on a wound (EWMA, 2008). Patients with diabetes are prone to neuropathy, infection and poor tissue perfusion, so it is important to try and control the diabetes to optimise healing.

Correcting, where possible, the underlying wound pathology and any comorbidities is a central feature of wound management. If the underlying disease cannot be corrected, or is difficult to manage, wound healing can be delayed (EWMA, 2008; Barrett, 2017).

Psychosocial factors also play a part, as a patient living with a chronic wound often experiences pain, leaking and malodorous dressings, which can lead to social isolation and even depression (Upton and Upton, 2012). There is also the issue of non-concordance and/or the patient interfering with dressings/treatment.

Wound-related factors
Wounds can be traumatic, acute or chronic. Good documentation is important and many community nurses have wound assessment forms or local guidelines to follow. Best practice also advocates following a structured treatment pathway (Wounds UK, 2016). Measuring the wound and observing and recording the type of tissue present, i.e. necrotic, sloughy, granulated should always be undertaken. It is essential to note any break in the skin’s integrity, as this can become a portal of entry for bacteria and foreign bodies. The anatomical location of a wound will also have an impact on the risk of infection. For example, pressure ulcers are commonly contaminated by bodily fluids. Preventing wound infection is vital, as this can lead to additional costs with admission to hospital, antibiotics or higher cost antimicrobial dressings (Sibbald et al, 2003).

It is also important to note that elevated protease activity (EPA) of metalloproteinases (MMPs), mainly MMP-9 and MMP-8, can interfere with collagen synthesis, as well as growth factors, and thus have a detrimental effect on wound healing (Harding et al, 2011; Uccioli et al, 2015).

Keeping a moist wound environment has been shown to improve healing times (Tickle, 2015). However, the challenge is what is moist and what is too wet, and how to recognise the difference? Many community nurses will have a local formulary to guide them as to which dressings to use and how to apply them.

Skills and knowledge of the healthcare professional
Guest et al (2015) suggested that ‘wound care should be considered as a specialist segment of health care and requires specialist training to diagnose and manage properly’. However, studies have shown that this is not always the case (Panca et al, 2013; Mitchell 2017; White et al, 2017). Indeed, it has been found that some nurses without specialist knowledge are left to deal with vulnerable patients who subsequently deteriorate with delays in healing (Anderson, 2010; White, 2017; BBC, 2018), and so more should be done to ensure community nurses are adequately trained in wound care (Patton, 2009).

The most common wound type documented in Guest et al’s study (2015) was unspecified leg ulcers. The EWMA (2016) position document on leg ulcer management states that nurses conducting leg ulcer assessment should have the appropriate level of anatomical and physiological knowledge. Nurses need to be skilled in performing ultrasound Doppler examination to measure the patient’s ankle brachial pressure index (ABPI) to meet national standards. Furthermore, consensus from research indicates that patient outcomes are better and that there are higher levels of evidence-based practice, leadership and change management when a nurse has had specific postgraduate training (Clark et al, 2015; EWMA, 2016).

Resources and treatment-related factors
Recent public debate on the NHS (Browning, 2017; BBC, 2018) has pointed to a lack of recognition by commissioners, budget holders and managers regarding wound management and the importance of early detection (White et al, 2017).

Tissue viability services are under pressure to reduce spending on dressings and wound care devices, with some areas having restricted access to appropriate wound care products. Access to training under the current economic climate and ongoing budgetary cuts, combined with unfilled qualified nursing posts, present their own challenges. Internal organisational training is often not standardised, yet education and training are vital in providing skilled knowledgeable practitioners (Anderson, 2010; Evans, 2017). This is consistent with the findings from the study days mentioned above, which identified that nurses considered lack of time, insufficient knowledge and practical skills to be a barrier to quality wound care in clinical practice.

However, it is fair to say that some areas are doing better than others (Mitchell, 2017; White et al, 2017), and that patients who have access to specialist wound clinics or tissue viability services appear to have improved healing rates and reduced admissions (Anderson, 2010; Chamanga et al, 2014).

REALITY OF WOUND CARE IN 2017 — STUDY DAYS

The objectives of these study days were to:
- Provide relevant education to community nurses on the importance of best practice in wound care
- Discuss how the NHS is changing and what healthcare professionals need to help them cope with the changes
- Understand the clinical and patient factors that may delay healing
- Obtain real-time live data regarding current practice and pressures associated with wound care through the use of attendees
responding to a series of questions via interactive voting pads.

Support a flexible learning approach for healthcare professionals to share their knowledge by accessing peer-reviewed e-learning modules.

**Method**

A total of 650 clinicians attended the events, comprising mainly community, general practice, district, and tissue viability nurses. Speakers presented a range of topics concerning the importance of acute and chronic wound care in a community environment, in line with the education requirements based on the Nursing and Midwifery Council (NMC) revalidation requirements for continuing professional development (CPD) and participatory learning (NMC, 2016).

At each event, the delegates were asked a series of questions based on the publication by Guest et al (2015) (Table 1). They responded using an electronic voting system — Table 2 provides the percentage of correct responses given for each question at the different events (overall, only 17.1% of answers given were correct).

Following speaker presentations, delegates were also asked to discuss and debate in groups:

- Why some wounds fail to heal — the clinical and patient factors involved.

Their answers were collated, which allowed for a unique dataset to be obtained across all locations, which

---

**Table 1: Key pad questions posed to attendees at each of the ten events, based on Guest et al’s 2015 study (correct answer indicated in red)**

<table>
<thead>
<tr>
<th>Questions</th>
<th>Multiple choice answers to choose from</th>
</tr>
</thead>
</table>
| 1. What is the total annual cost of wound care to the NHS?                | 1. £50m  
                                   | 2. £5m  
                                   | 3. £25m  
                                   | 4. £0.45 trillion  
                                   | 5. £1 trillion  
                                   | 6. £5 billion  
                                   | 7. £75m  
                                   | 8. £1 gazillion |
| 2. In the UK, what percentage of all wounds are pressure ulcers?          | 1. 2.5%  
                                   | 2. 50%  
                                   | 3. 7%  
                                   | 4. 62%  
                                   | 5. 17%  
                                   | 6. 14%  
                                   | 7. 21.5%  
                                   | 8. 28% |
| 3. In the UK, what percentage of all wounds are diabetic foot ulcers?     | 1. 2.5%  
                                   | 2. 50%  
                                   | 3. 3%  
                                   | 4. 18%  
                                   | 5. 8%  
                                   | 6. 14%  
                                   | 7. 21.5%  
                                   | 8. 28% |
| 4. From this study, what was the single largest wound classification?     | 1. Stubbed toe  
                                   | 2. Venous leg ulcer  
                                   | 3. Surgical wound  
                                   | 4. Burns  
                                   | 5. Stepped on lego in the dark  
                                   | 6. Unspecified leg ulcers  
                                   | 7. Skin tears  
                                   | 8. Trauma wound |
| 5. In the UK, what percentage of all wounds are leg ulcers (all types)?   | 1. 2.5%  
                                   | 2. 50%  
                                   | 3. 32%  
                                   | 4. 35%  
                                   | 5. 17%  
                                   | 6. 25%  
                                   | 7. 25.5%  
                                   | 8. 28% |
| 6. For those patients included within the study who already had a wound, what was the mean duration of this existing wound(s)? | 1. 100 days  
                                   | 2. 60 days  
                                   | 3. 730 days  
                                   | 4. 28 days  
                                   | 5. 1,000 days  
                                   | 6. 200 days  
                                   | 7. 150 days  
                                   | 8. 180 days |
| 7. What is the single biggest cost of wound care?                         | 1. Wound care dressings  
                                   | 2. Additional prescriptions  
                                   | 3. GP time  
                                   | 4. District nursing time  
                                   | 5. Ambulance transfers  
                                   | 6. Litigation  
                                   | 7. Practice nurse time  
                                   | 8. Specialist nurse time |

---

© 2018 Wound Care People Ltd
Awkward anatomical sites
Shortage of staff to apply dressings
Not using correct protocol/pathway for the wound
Non-concordance with treatment regimen
Commissioners not commissioning appropriate services
Limited dressings in care home/slow ordering and delivering process.

The dominant theme that emerged from these discussions was inappropriate dressing use and not using the correct protocol/pathway for the wound.

The responses also raised questions around resources, as has been highlighted in the literature (Browning, 2016; Evans, 2017; Mitchell, 2017; Guest et al, 2017; White, 2017).

Emphasis on dressings is a common cry, but evidence suggests that dressings do not heal wounds, but rather support the wound environment (World Union of Wound Healing Societies, 2007).

Accurate assessment and good management not only means healthcare professionals being competent in the care they are providing, but also involves patients being educated about and having a say in choice of treatment/therapy, i.e. patient-centred care (EWMA, 2016).

The mistreatment of underlying comorbidities, and/or failing to diagnose the cause of a wound, as identified by Guest et al (2015), supports the need both for further education and access to specialist services.

Continuity of care was also raised in discussions at the study days, mirroring what is heard all too often in the media around pressures on services and a reduction in the number of experienced community nurses (Browning, 2017; BBC, 2018).

Despite the wealth of literature, there does not appear to be a coordinated approach to documentation of care plans. This is a key element of best practice and is a worrying trend if nurses are to meet the NMC revalidation requirements for CPD and participatory learning (NMC, 2016).

The patient factors which attendees felt contributed to delays or non-healing in wounds, included:

- Patient refusing compression bandaging
- Non-concordance with treatment
- Patient touching/removing dressings
- Dirty house
- Poor nutrition
- Lifestyle — smoking, obesity, etc
- Poor self-care and hygiene
- Former drug addict, resulting in delayed healing.

Overall, attendees tended to reflect on poor patient concordance, poor diet/nutrition, and lifestyle-related factors.

While it should be appreciated that communities vary and there has been an increase in dementia, perhaps this raises the question as to whether nurses are given enough time to understand why patients are not supporting the treatment offered? Are patients truly non-concordant, or have their issues, especially regarding compression therapy, perhaps not been explored or discussed? Have alternative treatments been offered to the patient that they will tolerate? Also, who is applying the bandages and have they had appropriate training, with the skills to recognise when bandaging goes wrong? With regards to diet and nutrition, are nurses aware of additional dietary needs, or are community nurses relying on food supplements? If a patient is on a high protein diet, who is ensuring that it is actually eaten? Nursing homes and some community areas have innovative ways of ensuring patients are supported to eat, such as red trays so that healthcare support workers are aware that the patients needs additional support when eating.

It has been well documented that socially deprived areas have more health problems, and, in some homes, hygiene is not a priority (EWMA, 2008; Mitchell, 2017). Thus,
community nurses need to be aware of what support is available locally and maybe work in collaboration with charities or social services.

Inevitably, patient factors raise more questions than can be answered, but community nurses are in a unique position to help patients with their wound healing and be part of that journey. Engaging with work currently on offer, i.e. improving communication between care teams (social services, GPs, carers, etc) can help to identify unwarranted variation in practice and thereby improve the provision of day-to-day wound care (Evans, 2017).

CONCLUSION

The questions/statements put to the delegates elicited varied responses through the interactive voting pads, providing a range of ‘sound-bites’ from a representative group of community-based clinicians on their understanding of the current state of wound care provision in the NHS. The exercise also helped the healthcare professionals who took part to highlight and identify where opportunities for future development and education were needed.

REFERENCES

Anderson I (2010) Costs can be cut by providing high quality training in leg ulcer care. Nurs Times 106(35): 8
BBC radio 4 today programme, 2 January 2018. Available online: www.bbc.co.uk/programmes/b09k0nc9 (accessed 2 January, 2018)
Mahoney K (2017) More wounds, less time to treat them: 1717 nurses discuss the challenges in wound care in a series of study days. Br J Community Nurs 22(Suppl 6): S33–S38
1. 44% 20% 29% 16% 32% 38% 0% 37% 28% 25% 2. 7% 9% 4% 2% 6% 3% 2% 4% 1% 3. 23% 21% 14% 24% 15% 24% 16% 12% 11% 15% 4. 32% 38% 33% 17% 22% 18% 8% 14% 22% 21% 5. 40% 28% 32% 33% 44% 36% 28% 22% 31% 11% 6. 11% 17% 12% 22% 10% 0% 9% 11% 25% 15% 7. 5% 9% 2% 2% 10% 3% 3% 2% 5% 6% 8. 11% 17% 12% 22% 10% 0% 9% 11% 25% 15% 9. 40% 28% 32% 33% 44% 36% 28% 22% 31% 11% 10. 23% 21% 14% 24% 15% 24% 16% 12% 11% 15% Table 2: Percentage of delegates who selected the correct answer to the seven questions (Table 1) via the voting pads at each study day

Table 2: Percentage of delegates who selected the correct answer to the seven questions (Table 1) via the voting pads at each study day

<table>
<thead>
<tr>
<th>Question number</th>
<th>Event 1</th>
<th>Event 2</th>
<th>Event 3</th>
<th>Event 4</th>
<th>Event 5</th>
<th>Event 6</th>
<th>Event 7</th>
<th>Event 8</th>
<th>Event 9</th>
<th>Event 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>44%</td>
<td>20%</td>
<td>29%</td>
<td>16%</td>
<td>32%</td>
<td>38%</td>
<td>0%</td>
<td>37%</td>
<td>28%</td>
<td>25%</td>
</tr>
<tr>
<td>2</td>
<td>7%</td>
<td>9%</td>
<td>4%</td>
<td>2%</td>
<td>6%</td>
<td>3%</td>
<td>2%</td>
<td>4%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>23%</td>
<td>21%</td>
<td>14%</td>
<td>24%</td>
<td>15%</td>
<td>24%</td>
<td>16%</td>
<td>12%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>4</td>
<td>32%</td>
<td>38%</td>
<td>33%</td>
<td>17%</td>
<td>22%</td>
<td>18%</td>
<td>8%</td>
<td>14%</td>
<td>22%</td>
<td>21%</td>
</tr>
<tr>
<td>5</td>
<td>40%</td>
<td>28%</td>
<td>32%</td>
<td>33%</td>
<td>44%</td>
<td>36%</td>
<td>28%</td>
<td>22%</td>
<td>31%</td>
<td>11%</td>
</tr>
<tr>
<td>6</td>
<td>11%</td>
<td>17%</td>
<td>12%</td>
<td>22%</td>
<td>10%</td>
<td>0%</td>
<td>9%</td>
<td>11%</td>
<td>25%</td>
<td>15%</td>
</tr>
<tr>
<td>7</td>
<td>5%</td>
<td>9%</td>
<td>2%</td>
<td>2%</td>
<td>10%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>5%</td>
<td>6%</td>
</tr>
</tbody>
</table>