



University of HUDDERSFIELD

University of Huddersfield Repository

Ousey, Karen, Stephenson, John, Barrett, Simon, King, Brenda, Morton, Nicky, Fenwick, Kim and Carr, Caryn

Wound care in five English NHS Trusts: Results of a survey

Original Citation

Ousey, Karen, Stephenson, John, Barrett, Simon, King, Brenda, Morton, Nicky, Fenwick, Kim and Carr, Caryn (2013) Wound care in five English NHS Trusts: Results of a survey. *Wounds UK*, 9 (4). pp. 20-28. ISSN 1746-6814

This version is available at <http://eprints.hud.ac.uk/id/eprint/19049/>

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: E.mailbox@hud.ac.uk.

<http://eprints.hud.ac.uk/>

Wound care in five English NHS Trusts: Results of a survey

KEY WORDS

- ▶ Ageing
- ▶ Infection
- ▶ Survey
- ▶ Wound
- ▶ Wound dressing

KAREN OUSEY

Reader Advancing Clinical Practice, School of Human and Health Sciences, University of Huddersfield, Huddersfield

JOHN STEPHENSON

Senior Lecturer in Biomedical Statistics, School of Human and Health Sciences, University of Huddersfield, Huddersfield

SIMON BARRETT

Lead Nurse for Tissue Viability, Humber NHS Foundation Trust, Hull

BRENDA KING

Consultant Nurse: Tissue Viability, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield

NICKY MORTON

Consultant Nurse: Tissue Viability, Lancashire Care NHS Foundation Trust, Lancashire

KIM FENWICK

Tissue Viability Specialist Nurse, Hertfordshire Community NHS Trust, Watford

CARYN CARR

Advanced Clinical Nurse Specialist, Tissue Viability, Southern Health NHS Foundation Trust, Lyndhurst

This survey aimed to identify and quantify the demographic characteristics, treatment objectives, and wound characteristics of patients from five English NHS Trusts receiving wound treatment. Data from 4772 patients (59.8% female; 79.7% aged >65 years) were received. Approximately half were leg wounds. Most patients had one or more comorbidity, most commonly vascular and cardiovascular. The majority of wounds were <3 months' duration and had no associated infection indicators (a small minority had ≥3 infection indicators). Swabbing was considerably more common in wounds showing no primary infection indicators than in infected wounds. Nurses were most commonly involved with dressing changes. Protecting granulation was the most common treatment objective and dressings were changed most commonly twice-weekly as a scheduled care change. No significant differences in wound or patient characteristics were observed between Trusts.

The population of the United Kingdom is increasing in size and age. During the period 1985–2010, the number of people aged ≥65 years increased by 20% to 10.3 million; in 2010, 17% of the population were aged ≥65 years, with people aged ≥85 years more than doubling to 1.4 million. The percentage aged <16 years fell from 21% to 19% (Office for National Statistics [ONS], 2011).

The ageing population is forecast to continue to grow over the next few decades, with projections suggesting that the number of people aged >85 years by the year 2035 will be 2.5 times larger than in 2010, accounting for 5% of the population, and that those aged 16–64 years will decrease from 65% to 59% by 2035 (ONS, 2011). This is important, because if the younger population is decreasing we can assume that there may be a lack of healthcare personnel in the future to care for the increasing older population. Added to this is the ageing workforce of the health and social care sector, where a high proportion of employees are aged >45 years. In England in 2011, 583 285 nurses were registered with the Nursing and Midwifery Council (NMC, 2011; The Centre for Workforce Intelligence, 2013) Around 80 000 nurses on the NMC register are aged 50–55 years, and 100 000 are aged ≥55 years (Higher Education Policy Institute, 2005).

The expectation is that approximately 25 000 nurses will retire by 2015 (Buchan, 2005). The Centre for Workforce Intelligence (2013) projects an overall decline in the number of nurses between 2011 and 2016 because of reduced education commissions, attrition, rising retirements, net emigration of UK-trained nurses and other trends. We can assume that as the ageing population increases, there will be an increase in the need to prevent and treat challenges associated with skin integrity. However, as a large proportion of the experienced workforce in the health and social care sector is due to retire by 2015, there is a need for tissue viability practitioners to understand the current prevalence and categories of wounds, treatments and the grade of staff managing wounds, and cascade this knowledge to new practitioners, ensuring the understanding of the importance of accurate assessment and timely interventions. Everyone who undertakes wound assessment and management should be able to access appropriate education and skills to ensure competency and confidence. Cook (2011) presented results of a survey of registered and unregistered staff members' perceived competency of wound bed assessment. The author concluded that most respondents believed they were competent or average, but 16% highlighted that they were unsure at times, and 9% stated they would benefit from further training. Importantly

all registered staff have a professional obligation to maintain their knowledge, as defined by the NMC in *The Code: Standards of Conduct, Performance and Ethics for Nurses and Midwives* who are clear that nurses should recognize the limits of their competence, and be accountable for keeping their knowledge and skills up-to-date (NMC, 2008).

This article presents the results of a wound care survey from five English Trusts, which aimed to identify and quantify the age and gender of patients receiving wound treatment, treatment objectives, and the type, duration and characteristics of wounds. The total population for the five Trusts was 2 090 000 people (exact figures for each Trust are not given to maintain anonymity). When interpreting the data, it was not always possible to distinguish between missing/invalid data, and questions that were correctly left blank. For example, respondents were not obliged to tick any boxes for the question relating to comorbidities, so it was not possible to distinguish between those who missed out the question and those who (correctly) left it blank because there were no comorbidities. Hence the calculated proportion refers to the proportion of the total sample who recorded one or more comorbidities. In such cases, proportions of missing data have not been calculated.

METHODS

Ethical issues

Local research governance was received from each participating Trust's research and development office. All data were anonymised and no identifying place, staff or patient names were used. Completed surveys were stored in a locked cupboard in a locked office and all electronic data stored on encrypted computers. Completed data sets have been stored on a secure server at the University of Huddersfield.

Sampling Overview

A total of 4772 usable responses were received. The contribution from each Trust was as follows:

- ▶ Trust 1: 823 (17.2% of the total sample).
- ▶ Trust 2: 1114 (23.3% of the total sample).
- ▶ Trust 3: 914 (19.2% of the total sample).
- ▶ Trust 4: 691 (14.5% of the total sample).
- ▶ Trust 5: 1230 (25.8% of the total sample).

Data were recorded on paper and transferred to SPSS statistical software (version 20.0) for subsequent analyses.

Proportions quoted are based on valid responses to the relevant questions in the survey (*Appendix 1*). All percentages and proportions quoted in this study refer to valid responses.

RESULTS

Patient demographics

The gender balance was similar across all Trusts, with female patients outnumbering male patients in every Trust. Overall, 2154 (59.8%) of all patients were female, and 1449 (40.2%) were male. Patient ages ranged from <14 to >81 years. Ages were grouped; the exact ages of patients was not recorded. While the majority of patients from all Trusts fell into the older age groups, there were some differences in the age distribution between different Trusts; fewer elderly patients were represented in Trust 2 (about 31.4% aged ≥81 years) than in other Trusts, with the greatest proportion of patients in the oldest age group being found in Trust 4 (58.7%). Just under half (1964; 47.9%) of patients were aged ≥81 (*Table 1*).

Table 1. Demographic characteristics of patients (*n*=4772).

| Characteristic | Valid <i>n</i> (%) |
|----------------------------|--------------------|
| Sex | 3603 |
| Male | 1449 (40.2) |
| Female | 2154 (59.8) |
| Age group (years) | 4102 |
| <14 | 7 (0.2) |
| 14–49 | 336 (8.2) |
| 50–64 | 489 (11.9) |
| 65–74 | 648 (15.8) |
| 75–80 | 658 (16.0) |
| ≥81 | 1964 (47.9) |
| Comorbidities ¹ | 5299 |
| General infection | 355 (7.4) |
| Immunosuppression | 187 (3.9) |
| Dermatological conditions | 370 (7.8) |
| Vascular disease | 835 (17.5) |
| Cardiovascular conditions | 882 (18.5) |
| Anaemia | 204 (4.3) |
| Malnutrition | 146 (3.1) |
| Obesity | 470 (9.8) |
| Diabetes | 738 (15.5) |
| Palliative | 220 (4.6) |
| Other | 892 (18.7) |

1. More than one comorbidity could be stated per patient. Percentages refer to full sample. A total of 3296 patients (69.1%) recorded one or more comorbidities.

“This article presents the results of a wound care survey from five English Trusts, which aimed to identify and quantify the age and gender of patients receiving wound treatment, treatment objectives, and the type, duration and characteristics of wounds.”

“In all Trusts, nurses made decisions about treatment plans in a majority of cases.”

The majority of patients from all Trusts had at least one contributing/underlying disease factor. The proportion of such patients ranged from 61.1% in Trust 1 to 74.3% in Trust 5. Approximately a quarter of all patients were reported to have two or more contributing/underlying disease factors, with small numbers with three or more factors. In most Trusts, cardiovascular conditions were the most frequently reported conditions (amounting to 882 patients over all Trusts; 18.5% of all patients). However, in Trust 2, obesity was the most frequently reported condition, although over all Trusts, total numbers with this condition were lower (470 patients; 9.8% of all patients). Other commonly reported conditions included vascular conditions (835 patients; 17.5%), diabetes (738 patients; 15.5%) and dermatological conditions (370 patients; 7.8%) which were recorded in significant numbers in all Trusts (Table 1).

Treatment personnel and location

In all Trusts, nurses made decisions about treatment plans in a majority of cases. In most Trusts, nurses were involved in 75% or more of treatment plan decisions (Table 2). However, in Trust 2 the proportion was lower at around 58% (a significant proportion of responses from this Trust were reported as “Other” (i.e. not a nurse, medic/GP or case manager). In the majority of cases, the occupation of these individuals was not recorded: a range of occupations, including “podiatrist”, “consultant”, “dermatologist” and “surgeon” were recorded in low frequencies. In

all Trusts, the majority (77% or more) of personnel involved with the changing of dressing were nurses or district nurses.

The overall distribution of treatment locations was similar across all Trusts, with the majority of wounds treated in community clinics or in the patient’s home. A minority of wounds were treated at a hospital clinic. The Trusts in which the largest proportion of patients were treated in their own homes were Trusts 4 and 5, with over 80% of wounds treated in this way in these Trusts (Table 2).

Wound categories

A proportion of patients were reported as having multiple wounds and these were recorded by staff on separate forms during the audit, with each wound being counted and analysed separately. The most common wounds in all Trusts except Trust 4 were venous leg ulcers, with 849 venous leg ulcers being recorded in total (20.0% of all wounds). In Trust 4, the most common wounds were traumatic wounds, which were recorded in slightly higher numbers ($n=93$) than venous leg ulcers ($n=91$) in that Trust. However it is worth noting that the majority (80.1%) of these traumatic wounds were located on the lower limb and as such may have in fact been leg ulcers if the duration had been in excess of 6 weeks. After venous leg ulcers, traumatic wounds (591; 13.9%) and surgical wounds (535; 12.6%) represented the next most common types of wounds recorded over all Trusts. No other wound type accounted for more than 8.4% of the total number of recorded wounds; however, all types of pressure ulcer considered together amounted to 767 (18.1%) of all wounds (Table 3). The European Pressure Ulcer Advisory Panel classification (2010) was used by all respondents when identifying a pressure ulcer.

Substantive associations recorded between common wound types and comorbidities at Trust level were also found to exist on the combined data set. Venous leg ulcers were most strongly associated with vascular and cardiovascular conditions, with 215 patients with a venous leg ulcer (39.7%) having vascular conditions, and 117 patients with a venous leg ulcer (21.6%) having cardiovascular conditions. Mixed leg ulcers were also strongly associated with vascular conditions, with 93 mixed leg ulcer patients (46.0%) having this condition. Main reported comorbidities are summarised in Figure 1.

Table 2. Personnel involved and location of treatment plan and dressing change.

| Variable | Valid <i>n</i> (%) |
|-----------------------------------|--------------------|
| Treatment plan decision personnel | 4051 |
| Nurse/district nurse | 3223 (79.6) |
| Medic/GP | 142 (3.5) |
| Other | 686 (16.9) |
| Personnel changing dressing | 3954 |
| Nurse/district nurse | 3304 (83.6) |
| Support worker | 144 (3.6) |
| Other | 506 (12.8) |
| Treatment location | 3887 |
| Patient’s home / community | 2987 (76.8) |
| Community clinic | 526 (13.5) |
| Nursing home | 284 (7.3) |
| Other | 90 (2.3) |

“Across all Trusts, older patients had generally higher frequencies of wounds than younger patients.”

| Variable | Valid n (%) |
|---------------------------|-------------|
| Wound type | 4247 |
| Pressure ulcer category 1 | 121 (2.8) |
| Pressure ulcer category 2 | 355 (8.4) |
| Pressure ulcer category 3 | 203 (4.8) |
| Pressure ulcer category 4 | 88 (2.1) |
| Venous leg ulcer | 849 (20.0) |
| Mixed leg ulcer | 275 (6.5) |
| Diabetic foot ulcer | 200 (4.7) |
| Total leg/foot ulcers | 1324 (31.2) |
| Traumatic wound | 591 (13.9) |
| Arterial leg ulcer | 151 (3.6) |
| Fungating lesion | 60 (1.4) |
| Surgical wound | 535 (12.6) |
| Cellulitis | 104 (2.4) |
| Skin tear | 243 (5.7) |
| Burn | 31 (0.7) |
| Moisture lesion | 95 (2.2) |
| Haematoma | 27 (0.6) |
| Other | 319 (7.5) |

Few obvious associations between gender and wound type were recorded in any of the individual Trusts or in the total sample; however, despite females outnumbering males by 3:2 in the whole sample, the majority of surgical wound patients (237; 53.3%) and diabetic foot ulcer patients (84; 55.6%) were male. Females outnumbered males in all other wound categories.

Across all Trusts, older patients had generally higher frequencies of wounds than younger patients. The highest incidence of all the main categories of

wounds was recorded in the >81 years age group, with the exception of surgical wounds and burns, which were approximately evenly distributed over the entire age range (<14 to >81 years). Of the main wound types, only surgical wounds and venous leg ulcers were recorded in significant numbers in patients below the age of 75.

Wound characteristics

Across all Trusts, the proportion of wounds located on the leg was consistently found to be about half the total number of wounds recorded. Overall, leg wounds amounted to 2350 (50.3%) of all wounds. Interestingly, some practitioners differentiated between leg, thigh, and foot/toe, and as such, there were an additional 286 (6.1%) wounds recorded as being located on the thigh, and a further 705 (15.1%) wounds recorded as being located on the foot/toe.

Of all wounds 434 (9.3%) were recorded on the buttock. No other location amounted to >5.0% of reported wounds. There were no obvious differences in the proportions of wounds in various locations between Trusts (Table 4).

In all Trusts, most recorded wounds were short in duration. The proportion of wounds of <6 weeks’ duration was lower in Trust 5 (49.7%) than in other Trusts. In all other Trusts, this category represented over half of all recorded wounds. In the entire sample, 2493 (53.5%) of all wounds were of <3 months’ duration, with the median wound duration between 6 weeks and 3 months (Table 5).

In most Trusts, the majority of observed wounds were judged to be improving on observation, although in Trust 5 this proportion was slightly lower (49.5%). Overall the total number of wounds judged to be healing was 2563 (55.4%). However, there were no obvious differences in the improvement rates shown over the five Trusts. The proportion of wounds judged to be deteriorating was very consistent at between 8.9% and 9.7% (Table 6).

In all Trusts, a very wide variety of wound lengths and widths was recorded, with most Trusts recording wounds up to about 50–60 cm in length (no wounds >28 cm in length were recorded in Trust 2). Mean wound lengths and widths were very consistent, ranging from 3.14 cm (length) and 2.23 cm (width) in Trust 1 to 3.84 cm (length) and 2.65 cm (width) in Trust 4. Over the whole data set, mean wound length

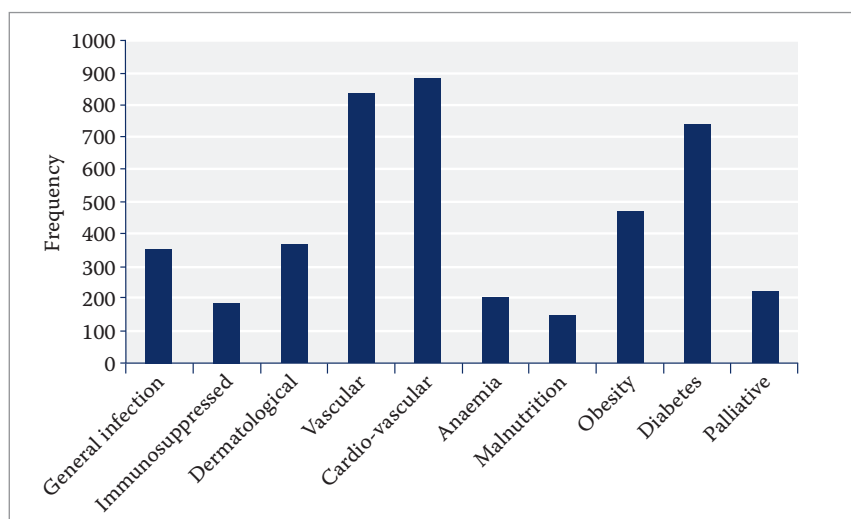


Figure 1. Main reported comorbidities.

Table 4. Wound location.

| Variable | Valid n (%) |
|----------------|-------------|
| Wound location | 4672 |
| Head/neck | 72 (1.5) |
| Arm/hand | 197 (4.2) |
| Groin | 53 (1.1) |
| Front torso | 234 (5.0) |
| Buttock | 434 (9.3) |
| Heel | 212 (4.5) |
| Back torso | 82 (1.8) |
| Leg | 2350 (50.3) |
| Foot/toe | 705 (15.1) |
| Other | 333 (7.1) |

Table 5. Wound duration.

| Variable | Valid n (%) |
|----------------|-------------|
| Wound duration | 4660 |
| <6 weeks | 1473 (31.6) |
| 6 wks–3 mts | 1020 (21.9) |
| 3–6mts | 402 (8.6) |
| 6 mts–1 year | 541 (11.6) |
| 1–2 years | 488 (10.5) |
| 2–5 years | 342 (7.3) |

was 3.46cm (standard deviation [SD], 4.24cm) and mean wound width was 2.42 cm (SD, 2.95cm). Depth assessments were also very consistent with between 77% and 82.3% being classified as superficial in each Trust (79.6% overall; *Table 6*).

Some differences across Trusts were noted in the proportion of wounds observed to be granulating; varying from 54.0% in Trust 2 to 38.5% in Trust 5 (45.7% overall). Most wounds across all Trusts were categorised as moist. Surrounding skin was categorised as dry or healthy/normal in a majority of cases in all Trusts, with no significant differences across Trusts in the proportions of wounds classified in this way.

Practitioners across all Trusts assessed all wounds for signs of infection using appropriate indicators of wound infection. While a majority of wounds in all Trusts were classified as free from infection, the proportions varied slightly from 58.3% in Trust 1 to 68.2% in Trust 2 (overall 64.3%). The most common infection indicator was delayed healing (639; 13.4%), significantly greater in frequency than the indicators increased pain and increased exudate (*Table 6*). A total of 310 patients (6.5%) had three or more infection indicators. Amongst these patients, a different pattern was apparent. The most common infection indicator was increased exudate (194; 17.9%); followed by delayed healing and increased pain (*Table 6*). Antimicrobials were used in 151 patients with 3 or more infection indicators (48.7%).

The incidence of wound swabbing varied widely between Trusts, from 2.4% in Trust 3 to 12.1% in Trust 2 (8.4% across the whole sample). Hence rates varied by a factor of 5 across Trusts, although the baseline proportion was low. Likewise, use of antibiotics varied widely. Again rates were lowest in Trust 3 (9.0%) and highest in Trust 2 (17.0%) – greater by a factor of 2. The rate for the whole sample was 12.6%. In all Trusts, swabbing was considerably more common in wounds showing no primary infection indicator (*Table 7*).

In all Trusts, the most commonly quoted treatment objective was protecting granulation, stated as a treatment objective in a majority of cases (ranging from 55.9% in Trust 5 to 66.1% in Trust 1). Quoted objectives were consistent across Trusts. In addition to protecting granulation, all five Trusts quoted protection of surrounding skin and managing exudate as key treatment objectives (*Table 7*).

Table 6. Wound characteristics (adapted from Fletcher, 2010).

| Variable | Valid n (%) ¹ |
|---|--------------------------|
| Wound healing status | 4623 |
| Deteriorating | 424 (9.2) |
| Static | 1303 (28.2) |
| Improving | 2563 (55.4) |
| First visit | 333 (7.2) |
| Primary wound appearance | 3773 |
| Necrotic | 127 (3.4) |
| Granulating | 1707 (45.7) |
| Overgranulating | 88 (2.4) |
| Slough | 918 (24.6) |
| Epithelialising | 794 (21.3) |
| Other | 99 (2.7) |
| Wound exudate level | 4566 |
| Dry | 995 (21.8) |
| Moist | 2356 (51.6) |
| Wet | 864 (18.9) |
| Saturated | 142 (3.1) |
| Leaking | 208 (4.6) |
| Surrounding skin condition | 4278 |
| Dry | 1841 (43.4) |
| Macerated | 440 (10.4) |
| Excoriated | 255 (6.0) |
| Inflamed | 420 (9.9) |
| Healthy/Normal | 1285 (30.3) |
| Wound infection indicators ² | 5225 ² |
| Cellulitis | 228 (4.8) |
| Increased pain | 327 (6.9) |
| Malodour | 284 (6.0) |
| Friable granulation | 89 (1.9) |
| Abscess / pus | 96 (2.0) |
| Increased exudate | 361 (7.6) |
| Delayed healing | 639 (13.4) |
| Pocketing | 37 (0.8) |
| Erythema | 217 (4.5) |
| Wound breakdown | 200 (4.2) |
| Viscous surface layer | 33 (0.7) |
| No indication of infection | 2714 (56.9) |
| Wound infection indicators in patients recording ≥3 indicators ³ | 1076 ³ |
| Cellulitis | 85 (7.9) |
| Increased pain | 184 (17.0) |
| Malodour | 158 (14.6) |
| Abscess/pus | 31 (2.9) |
| Increased exudate | 194 (17.9) |
| Delayed healing | 191 (17.7) |
| Pocketing | 13 (1.2) |
| Erythema | 96 (8.9) |
| Wound breakdown | 123 (11.4) |
| Viscous surface layer | 7 (0.7) |
| Wound size | 3693 (77.4) |
| Wound length (cm) ⁴ | 3.46 (4.24) ⁴ |
| Wound width (cm) ⁴ | 2.42 (2.95) ⁴ |

1. Unless indicated otherwise. 2. More than one infection indicator could be selected per patient. Percentages refer to full sample. A valid response to this question was recorded in 83.7% of cases. 3. Amongst 310 patients who had 3 or more infection indicators. 4. Mean (± standard deviation).

The incidence of the Doppler/ankle-brachial pressure index (ABPI) procedure also varied widely (by a factor of 3) between Trusts – from 48.4% in Trust 3 to 16.0% in Trust 5 (32.3% overall). The incidence of compression therapy varied by a factor of 2 between Trusts – from 31.2% in Trust 3 to 16.1% in Trust 4 (26.6% overall). In all Trusts, the majority of patients who received either the Doppler/ABPI procedure or compression therapy also received the second procedure (728 out of 1292 patients; 56.3%).

While in all Trusts the majority of dressings were changed weekly or twice-weekly, the proportions of dressings changed at this rate varied from 75.6% (Trust 5) to 62.5% (Trust 4), with an overall proportion of 70.2%. Remaining dressings were changed three or more times per week. For over half of all patients (2420; 55.0%), the primary reason for the dressing change was a routine care change, with individual proportions varying from 51.3% (Trust 5) to 60.9% (Trust 4).

Dressings changed because of expected wear time being reached (1331 patients; 27.9%) and because the dressing was saturated (720 patients; 15.1%) also amounted to a significant proportion of the reported reasons in both the individual Trusts and in the whole sample. No other reason for a dressing change was quoted in more than 10% of cases (Table 8).

Across all Trusts, practitioners formulated treatment plans that encompassed clear treatment objectives. These are presented in Figure 2.

SUMMARY

This survey was performed across five English Trusts consisting of 4772 responses from practitioners involved in wound care activities. It was interesting to note that practitioners reported that those patients who were diagnosed as having venous leg ulcers also presented with vascular and cardiovascular conditions. This requires further investigation, as there may have been some level of misdiagnosis with ulcers being of mixed aetiology. If this is the case, there is an educational need to ensure that all practitioners are able to accurately assess and diagnose ulcer aetiologies and understand the importance of seeking guidance if there are any uncertainties regarding diagnosis.

Identification and management of infected wounds was explored in the survey and highlighted that clinical decision making varied between the

Table 7. Wound treatment factors.

| Variable | Valid n (%) |
|-----------------------------------|--------------------|
| Wound swabbing | 4557 |
| Yes | 384 (8.4) |
| No | 4173 (91.6) |
| Antibiotics | 4500 |
| Yes | 566 (12.6) |
| No | 3934 (87.4) |
| Treatment objectives ¹ | 10355 ¹ |
| Protecting granulation | 2804 (58.8) |
| Debridement of necrosis | 1024 (21.5) |
| Manage bacterial burden | 778 (16.3) |
| Rehydration of wound bed | 354 (7.4) |
| Palliative | 162 (3.4) |
| Manage exudate | 2052 (43.0) |
| Protection of surrounding skin | 2003 (42.0) |
| Managing wound pain | 790 (16.6) |
| Minimise odour | 388 (8.1) |

1 More than one treatment objective could be selected per patient. Percentages refer to full sample. A valid response to this question was recorded in 94.9% of cases.

Table 8. Dressing changes.

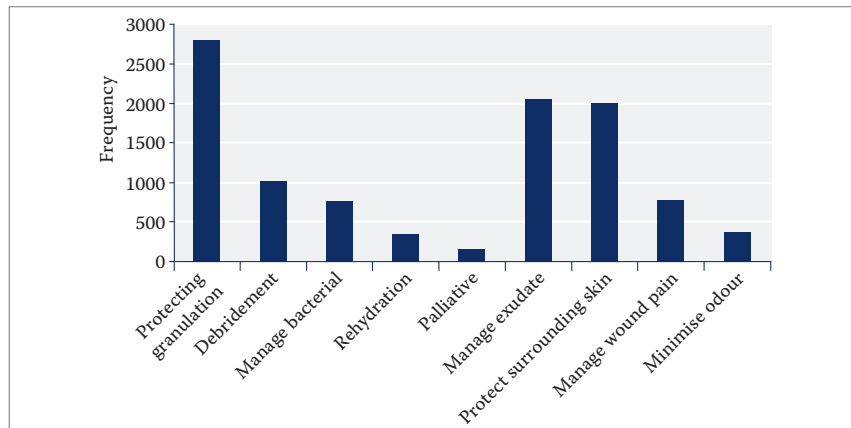
| Variable | Valid n (%) |
|------------------------------|-------------|
| Frequency of dressing change | 4610 |
| More than daily | 119 (2.6) |
| Daily | 309 (6.7) |
| Alternate days | 358 (7.8) |
| 3 times per week | 587 (12.7) |
| Weekly | 1079 (23.4) |
| Twice weekly | 2158 (46.8) |
| Reason for dressing change | 54071 |
| Dressing coming off | 356 (7.5) |
| Scheduled care change | 2517 (52.7) |
| Reaction to dressing | 21 (0.4) |
| Patient expectation | 160 (3.4) |
| Dressing saturated | 720 (15.1) |
| Patient removal | 171 (3.6) |
| Expected wear time | 1331 (27.9) |
| Other | 131 (2.7) |

Note: More than one reason could be selected per patient. Percentages refer to full sample. A valid response to this question was recorded in 92.2% of cases.

“In addition to protecting granulation, all five Trusts quoted protection of surrounding skin and managing exudate as key treatment objectives.”

Trusts when deciding whether to swab a wound, use an antimicrobial dressing or administer antibiotics. In all Trusts, swabbing was considerably more common in wounds showing no primary infection indicator. This finding suggests that more

Figure 2. Wound treatment objectives.



REFERENCES

Buchan J (2005) *Past Trends, Future Imperfect? A Review of the UK Nursing Labour Market in 2004/2005*. Available at: <http://bit.ly/1dshkmX> (accessed 19.09.2013)

Cook L (2011) Wound assessment: exploring competency and current practice. *British Journal of Community Nursing Wound Care Supplement* 16: S34-40

European Pressure Ulcer Advisory Panel (2010) *Pressure Ulcer Prevention*. Available at: <http://bit.ly/aHYNMr> (accessed 19.09.2013)

Fletcher J (2010) Development of a new wound assessment form. *Wounds UK* 6(1):92-99

Higher Education Policy Institute (2005) *The Education and Training of Medical and Health Professionals in Higher Education Institutions*. Available at: <http://bit.ly/17M6UfP> (accessed 19.09.2013)

Nursing and Midwifery Council (2008) *The Code: Standards of Conduct, Performance and Ethics for Nurses and Midwives*. Available at: <http://bit.ly/PhGrP2> (accessed 19.09.2013)

Dunkley L, Haider S (2011) *Nursing and Midwifery Workforce Risks and Opportunities: A Report to Review the Key Workforce Risks and Opportunities Within the Nursing and Midwifery Workforces*. Centre for Workforce Intelligence, London

Office for National Statistics (2011) *Topic Guide to Older People*. Available at: <http://bit.ly/16qs3cBhtml> (accessed 19.09.2013)

The Centre for Workforce Intelligence (2013) *Future Nursing Workforce Projections- Starting the Discussion*. Available at: <http://bit.ly/1dshquN> (accessed 19/09/13)

exploration is required as to which indicators of infection lead a practitioner to swab a wound or prescribe an antimicrobial wound dressing.

The impact of the ageing population was clearly identified in the workload of practitioners managing all wound types and the promotion of skin integrity. It was noted that over 50% of patients were over the age of 81 years. This relates to the figures produced by the Office of National Statistics (2011). Examination of the data has identified that there are a wide range of wound types that require assessment and treatment, with a percentage of these wound types being complex. If, as predicted, a large proportion of the health workforce retires by 2015, managers and tissue viability specialist practitioners will need to clearly identify the educational and skills needs of the workforce. This will include highlighting competencies that clinical practitioners will need to successfully develop and achieve that encompass both registered and unregistered staff. If workforce numbers do decrease, there will be a need to investigate and explore the feasibility of teaching patients and their families/carers to manage uncomplicated wounds when discharged to their home environment, thus ensuring that the wound is managed effectively and that patients, their families and carers understand how to promote skin integrity.



DECLARATION OF INTEREST

This article was sponsored by an unrestricted grant from Coloplast Ltd.

APPENDIX I. Multicentre wound care survey form (based on Fletcher [2010]).

A MULTI CENTRE WOUND CARE SURVEY

Please only complete this form if the patient has a **NON** healed wound

1. **Patient Demographics – Please tick appropriate**
 Male Female
 Age Under 14 14 – 49 50 – 64 65 – 74
 75 – 80 81+ (Waterlow 1985) Age group categories used

2. **Profession**
 a. Please state who decided treatment plan - please tick box or state other
 Registered Nurse Medi/GP Specialist Nurse Other: _____
 b. Please state who changed the dressing today
 Registered Nurse Specialist Nurse Support Worker Other: _____
 c. Please state the location of the treatment today
 Patients Home Community Clinic GP Surgery Nursing home
 Hosp OPD Hosp Ward

3. **Patient co morbidities**
 Please tick as appropriate:
 General Infection Anaemia
 Immunosuppressed Malnutrition
 Dermatological Conditions Obesity
 Vascular Disease Diabetes
 Cardio/Vascular Conditions Palliative
 Others please specify _____

4. **How many wounds in total does the patient have? – Please tick appropriate**
 One Two Three Four Five
 Six Seven Eight More Please specify _____
 *If the patient has more than one wound please complete a separate form for each wound from question 5 onwards. Please ensure you staple all forms together.

5. **Wound Type – Please tick one box only**
 Pressure Ulcer What is the category/stage/grade of the pressure ulcer?
 1 Non blanching erythema of intact skin
 2 Partial thickness skin loss
 3 Full thickness skin loss
 4 Potential extensive destruction, necrosis or damage to muscle, bone
 Venous leg ulcer Arterial leg ulcer Skin tear
 Mixed leg ulcer Fungating lesion Burn
 Diabetic foot ulcer Surgical wound Moisture lesion
 Traumatic wound Cellulitis Haematoma
 Other (please specify) _____

6. **Wound Location – Please tick appropriate**
 Head/neck Front torso Back torso
 Arm/hand Buttock Leg
 Groin Heel Foot/toe
 Other please specify _____

7. **Wound Duration – Please tick appropriate**
 <2 weeks 2-6 Weeks < 6 weeks
 6 weeks – 3 months 3 - 6 months 6 months – 1 year
 2 years – 5 years 5 years + 1 – 2 years

8. **Wound Healing – Please tick appropriate**
 Deteriorating Static Improving First visit

9. **Wound Size** - Please state the maximum length (___cm), maximum width (___cm) and depth (please tick) Superficial deep cavity of wound: _____
 Please state if there is any undermining present? Yes No

10. **Wound bed appearance/tissue type** (Please tick most prevalent tissue type)
 Necrotic (black brown) Slough (cream yellow)
 Granulating (red) Epithelialising (pink)
 Overgranulating Other please state: _____

11. **Wound exudate level – Please tick appropriate**
 Dry Moist Wet Saturated
 Please state the colour of the exudates _____ Leaking

12. **Surrounding skin condition – Please tick appropriate**
 Dry Macerated Excoriated Inflamed Healthy
 Other please specify _____

13. **Wound infection – Indicators – Please tick appropriate**
 Cellulitis Abscess/pus Erythema
 Increased pain Increased exudate Wound breakdown
 Malodour Delayed healing Viscous surface layer
 Friable granulation Pockets at wound base No indication of infection

14. **Wound swabbing** - Has the wound been swabbed in the last 7 days? Yes No

15. **Antibiotics** - Is the patient currently taking antibiotics for wound infection? Yes No

16. **Wound treatment objectives** (Please tick all that apply)
 Protecting Granulation/Epithelialisation Manage exudate
 Debridement of Necrosis or Slough Protection of surrounding skin
 Manage Bacterial Burden Managing Wound Pain
 Rehydration of wound bed Minimise odour
 Palliative

17. **Dressing selection** - please list in order of application - 1st being wound contact layer, please write clearly in CAPITALS. Please state product name and generic group eg. MEPILEX / FOAM
 1. _____ 2. _____
 3. _____ 4. _____

18. Has advice been sought from TVN? Yes No

19. **Compression therapy** - Has the patient had a Doppler / ABPI or other arterial investigations performed in the last 6 months: Yes No
 Is the patient having compression therapy? Yes No
 If yes please tick which is appropriate:
 Compression bandage Compression hosiery reduced compression Compression other

20. **Current frequency of dressing change – Please tick appropriate**
 More than daily Daily Alternate days
 3 times per week Weekly Twice weekly

21. **Reason for dressing change frequency – Please tick appropriate**
 Dressing coming off Patient Patient removal
 Scheduled care change Dressing saturated Expected wear time
 Reaction to dressing Other please specify _____

21a. Does the patient: Concord/comply with treatment? Yes No With lifestyle? Yes No

Thank You for your time