

# A snapshot of England's tissue viability services

In 2006, Dai Havard MP surveyed 173 NHS trusts in England on services for the prevention and treatment of wounds in the hospital setting, including the prevalence of pressure ulcers, the products used to treat wounds and the processes in place for the transfer of wound care patients to the community setting. Following responses from 113 of these trusts, he requested the assistance of KCI Medical in analysing his findings. This article provides a snapshot of England's tissue viability services, highlighting the excellent care often provided for a diverse set of patients and the barriers that tissue viability healthcare professionals are facing every day in the NHS.

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## KEY WORDS

Tissue viability services

Wound prevention

Pressure ulcers

Wound care

Community-based treatment

Benett et al (2004) have estimated that the number of people likely to develop a new pressure ulcer annually in the UK is 412,000, or one in every 150 of the general population and 1 in 23 of the population aged more than 65 years. The study also showed that in 1999/2000, the total cost of pressure care was approximately £1.4–2.1bn, or 4% of the total NHS budget which is equal to the entire NHS budget for mental health.

The rise in obesity and consequently the number of patients with type 2 diabetes is placing an increasing strain on NHS resources. By 2010, it is predicted that more than 2.5 million people (4.2% of the population), will have diabetes (Department of Health, 2006). Foot ulcers are the leading cause of hospitalisation for people with diabetes and are a major cause of morbidity and

mortality. In the UK 5,000 people with diabetes undergo lower limb amputation each year (National Diabetes Support Team, 2006).

Clinical authorities, such as the European Pressure Ulcer Advisory Panel, agree that most pressure damage could be prevented and that it is important to have prevention and educational strategies in place (EPUAP, 2007). In the UK, guidance on pressure ulcer risk assessment and prevention from the National Institute for Health and Clinical Excellence was first published in 2001 and updated in 2005 (NICE, 2005). NICE guidance recognised that the use of pressure-relieving and redistributing surfaces was the cornerstone of most pressure ulcer prevention strategies and policies. However, there remains a lack of research on the efficacy and cost benefits of pressure-relieving equipment, much of which is expensive and likely to form the biggest single part of a trust's expenditure on pressure ulcer prevention.

NICE guidance also recognised the importance of holistic patient care but noted a dearth of convincing evidence to support many of the accepted tenets of pressure ulcer management and wound care. Only one key factor was identified as having a strong evidence base — good patient nutrition.

With an ageing population and a shrinking tax-paying population, it is

becoming increasingly important to identify cost-effective ways of both preventing wounds and delivering care. The role of modern tissue and wound care treatments is vital for both the efficiency of care and quality of life of patients with chronic conditions.

Dai Havard, MP for Merthyr Tydfil and Rhymney, has been campaigning to raise the profile of wound care so that it is given the priority it deserves. In October 2005 he hosted the first parliamentary reception for the Tissue Viability Nurses Association, in order to raise the important issues surrounding wound care with other MPs.

## Methods

In September 2006, a letter was sent to NHS trusts in England from Dai Havard, asking about tissue viability services and the prevention and treatment of wounds, including the prevalence of pressure ulcers, the products used to treat wounds and the processes in place for the treatment of patients with wounds, including their transfer to community-based treatment. It was noted in the letter that some healthcare professionals had difficulty in obtaining funding for some of the newer technologies, including larvae and topical negative pressure (TNP), which have been shown to treat wounds effectively, speed up the healing process and enable earlier hospital discharge (Armstrong and Lavery, 2005; Moues et al, 2005; Schwien et al, 2005; Vuerstaek et al, 2006). In addition, the

letter also mentioned that topical negative pressure, such as vacuum assisted closure (VAC [KCI Medical, Kidlington]) has a portable option for community use, enabling patients to continue treatment at home or prevent them from entering secondary care in the first place.

**Results**

The letter was an open-ended enquiry which expressed an interest in the economics of wound care, mentioning the costs of replacing older mattresses and new therapies such as TNP and the processes in place to enable wound care patients to be moved from the hospital into the community for treatment. No questionnaire was included, resulting in a wide range of responses. Some respondents replied in great detail and enclosed copies of patient management protocols and aids, while other trusts provided shorter answers and less detailed information.

A total of 173 NHS trusts in England were contacted; 113 (65%) responded to the letter, providing an opportunity to obtain an impression of the quality and extent of tissue viability services in England. Overall, there was a variety of responses, both concerning clinical approaches and a disparity in interventions and services available.

**Responses**

**Tissue viability services**

The scope of tissue viability services described ranged from no dedicated provision (8.6%) to multidisciplinary tissue viability teams (31.9%) (Table 1). Those trusts with access to dedicated tissue viability services described a sophisticated approach to pressure ulcer and general wound management including the use of ward/department link nurses, joint wound clinics and access to regional forums in order to share best practice. In contrast those trusts without a tissue viability nurse (TVN) either relied on advice from a neighbouring tissue viability service or wound care groups, practice improvement groups, plastic surgeons, lead matrons and other nurse specialists. All respondents recognised the importance of protecting patients from pressure ulcer damage and effectively treating wounds.

**Pressure ulcer epidemiology**

Information on epidemiology was provided by a total of 101 trusts (89%). There was a wide disparity in the frequency and method of data collection among trusts that measured prevalence and incidence, with some trusts omitting Grade I ulcers from their data collection. Some measures of prevalence and incidence did not distinguish between pressure ulcers acquired in the community and those acquired in hospital. Some trusts appeared not to make any record of prevalence and incidence of pressure ulcers.

Prevalence is generally accepted to be defined as an epidemiological measure of how commonly a disease or condition occurs in a given population at a particular point in time. It is calculated by dividing the number of people with the disease or condition by the number of individuals examined and is expressed as a percentage or cases per 100,000 of population (Le and Boen, 1995). Incidence is defined as the rate of occurrence of new cases. It is calculated as the number of new cases in a specified time period (usually a year) divided by the size of the population under consideration and who are initially free of the disease or condition (Le and Boen, 1995). The letter asked only for prevalence of pressure ulcers and trusts did not define either prevalence or incidence when responding. Three of the 21 trusts with a pressure ulcer prevalence of more than 10% also had an incidence level of more than 1%. Of the 48 trusts that had a pressure ulcer prevalence of less than 10% and gave incidence data, only 11 had an incidence rate that was greater than 1%.

Three trusts had a pressure ulcer prevalence of more than 20%. One trust claimed a zero incidence. A small number of trusts stated that pressure ulcer prevalence data was provided by the companies providing pressure-relieving equipment, while some trusts appeared not to make any record of prevalence and incidence of pressure ulcers.

**Prevention of pressure ulcers**

A total of 108 trusts (96%) provided information on their approach to the

**Table 1**

Provision of tissue viability services

	No. of trusts (% of total respondents n=113)
No dedicated tissue viability nurse	10 (8.6)
One TVN	41 (36.3)
Multidisciplinary tissue viability team	36 (31.9)
Service not mentioned	21 (18.6)
Link nurse system (with or without a TVN)	26 (23.0)

prevention of pressure ulcers (Table 2). Of the 22 trusts that reported a 10% or higher prevalence of pressure ulcers, nine mentioned the use of NICE guidance (although this does not necessarily mean that the remaining trusts did not use NICE guidance) (Table 3).

**Trusts that refer to pressure-relieving surfaces**

Most trusts (108 of 113; 96%) provided information, sometimes very detailed, about the type and use of pressure-relieving surfaces. For example, an NHS trust in Northamptonshire had implemented NICE guidance to replace their bed stock. An annual audit of pressure-relieving foam mattresses had led to 320 mattresses being replaced in 2005. The minimum standard for new frames is a four-section profiling electric bed. However, there was not sufficient budget to replace the bed stock in this way. The possibility of achieving faster replacement using a 10–15 year leasing period was being considered. A five-year operating lease established in 2005 had enabled the trust to provide air mattresses at a significant cost reduction to the previous rental scheme.

**Trusts that mention specific pressure-relieving products/companies**

In response to the request in the letter for information on the steps taken to prevent pressure ulcers, 45 out of 113 responding trusts (40%) mentioned specific products or providers of equipment, making it clear that there is a wide variation in both the products used, including chair cushions and

**Table 2**

Prevention of pressure ulcers

Preventive measure mentioned	No. of trusts (% of total respondents)
Tissue viability service	77 (68.1)
NICE guidance (full or partial implementation)	47 (41.6)
Reference to other form of guidance	21 (18.6)
Waterlow risk assessment	20 (17.7)
Braden scale	3 (2.7)
Specialist mattresses/seating	86 (76.1)
Mention of non-specific pressure-relieving equipment	22 (19.5)
Electric profiling bed frames	45 (39.8)
Information not provided	5 (4.4)

electric profiling beds, and companies that supply products.

**Products/plans for wound care**

A total of 107 of 113 (94%) trusts responding provided a description of the products and/or plans they used (Table 4). Many trusts are using new technologies as part of their wound care, including larvae (maggot) therapy, silver dressings, protease modulators, sequential compression boots, faecal drainage, topical growth factors and TNP. Comprehensive wound care formularies are used by many of the responding trusts (64%) and this is often a joint approach with local PCTs. A wide variety of dressings are provided including foams, alginates, hydrofibres, hydrocolloids, hydrogels, films, honey, and include many of the new technologies listed above.

**Trusts that mentioned TNP/VAC**

A total of 90 (80%) trusts mentioned the use of TNP/VAC therapy, with several trusts describing the role of the TNP unit in the management of their patients. They included a range of trusts

**Table 3**

Pressure ulcer prevention measure mentioned by trusts with a PU prevalence greater than 10%

Preventive measure mentioned	No. of trusts with > 10% prevalence of pressure ulcers (% of total respondents)
NICE guidance	9 (8.0)
Reference to other form of guidance	0
Risk assessment	3 (2.7)
Electric profiling bed frames	8 (7.1)
Specialist mattresses/seating	18 (15.9)
Mention of non-specific pressure-relieving equipment	2 (1.8)
Information not provided	0

some of which own their therapy units and others which prefer to rent.

Since January 2002, an NHS trust in north-east England has compiled an accurate database of TNP/VAC usage. This has demonstrated the increasing use of the therapy, which the trust states is due to 'good outcomes and publication of high-quality literature'.

**Mention of funding in relation to new technologies**

A majority of trusts are able to provide TNP/VAC within the hospital setting, with only 8% mentioning problems obtaining funding for hospital-based TNP (Table 5). Only 33% of responding trusts indicated that TNP could be provided in the community, although 25% outlined that they have problems obtaining funding for TNP outside hospital. One trust, for example, explained that there had been problems in funding for TNP in primary care which, in some cases, has either prevented a patient from leaving hospital when appropriate or has resulted in a patient being unnecessarily admitted to hospital for treatment.

**Approach to hospital discharge**

A total of 97 of the 113 responding trusts (85%) provided information about

**Table 4**

Products/plans in use for wound management

Products or plans in use	No. of trusts (% of total respondents)
TVN care	28 (24.7)
Wound care formulary	72 (63.7)
Mention TNP/ VAC	90 (79.6)
Other medical technology	25 (22.1)
Other e.g. education	19 (16.8)

their approach to hospital discharge (Table 6). Of these, over one-third mentioned TNP in this context, either outlining that the treatment is actively used as part of tissue viability discharge, or conversely that funding barriers prevent its use in this process. However, 19% of trusts reported that they have no plans for wound care following discharge or did not refer to any provision being made.

**Other comments**

Additional comments, outside the categories described above, were made by 75 of the 113 responding trusts (66.3%). Overall 37 trusts commented specifically that TVN care and new technologies such as TNP were underfunded at either a hospital or a community level. Conversely a trust in the north-west of England reported a good tissue viability service in the three PCTs served by the trust, allowing for a seamless discharge into the community for patients with complex needs. This tissue viability service allows for the discharge of patients receiving TNP therapy and has good continuity of care.

**Discussion**

As might be expected, it was clear that funding provision for wound care services and products was a significant concern of the trusts. However, the financial impact of pressure ulcers on the NHS is only part of the story. The cost to patients and their carers and community health and social services cannot be overlooked. As vividly described by a respondent from a trust in the north of England 'many patients suffer pain and distress due to

**Table 5**  
Funding of VAC therapy

	No. of trusts (% of total respondents n=113)
Provision of TNP in the hospital setting	78 (69)
Provision of TNP in the community	37 (32.7)
Problems obtaining funding for TNP in hospital trust	9 (8)
Problems obtaining funding for TNP in the community	28 (24.7)
Other funding-related responses	3 (2.6)

pressure ulcers, have wounds which continue to require treatment for months at home, have compromised mobility and hence increased dependence on formal and informal carers, require extra resources in terms of pressure-relieving equipment at home and are frequently readmitted to hospital with conditions related to pressure ulcers'.

Many of the responding trusts warmly welcomed this survey's interest in tissue viability services and the prevention and management of wounds. Several trusts noted that there was a lack of robust research evidence on the clinical and cost-effectiveness of prevention strategies within the area of tissue viability and that decisions were being made on the basis of expert opinion. A number of trusts emphasised the need for more nursing research in wound care and called for NICE guidance on the use of new technologies such as TNP. The European Wound Management Association (EWMA, 2007) have just produced a position paper on TNP which goes some way to providing peer-reviewed guidance currently not available through NICE.

Although NICE guidance on pressure ulcer prevention and management was first issued in 2001 and updated in 2005, it is clear from the responses to

**Table 6**  
Approach to hospital discharge

	No. of trusts (% of total respondents n=113)
Provision of TNP in the community	37 (32.7)
Provision of TVN care in the community	34 (30.0)
Provision of wound care in community (unspecified)	8 (7.0)
Wound formulary/ community liaison in place	40 (35.3)
Provision of dressings in the community	8 (7.0)
Other responses	9 (7.6)
No community provision/ not mentioned	21 (18.5)

this survey that the approach to wound care is diverse. At present, there are no mandatory feedback mechanisms for the implementation of NICE guidance to evaluate and highlight where practices need to be improved. The preliminary data revealed in the responses provides a snapshot of trust-level wound management in the NHS. It has revealed the dedication of those working in the tissue viability service, but also the disparities in wound care across the country. Unfortunately, the treatment and level of care received by patients with pressure ulcers and other wounds is dependent on which trust and PCT they are treated by.

In addition, demand for specialist wound treatment and care is likely to increase in line with the rise in obesity and type 2 diabetes. Effective community care liaison procedures and the availability of advanced wound care technologies in a primary care setting could be vital to ensure that extra strain is not placed on acute services.

A likely barrier to the improvement of tissue viability services and NHS trusts' access to new technologies will be the procurement structure of the NHS which aims to cut costs where possible.

**Table 7**  
Other comments

	No of trusts (% of total respondents n=113)
National Service Framework/NICE guidance/tissue viability targets needed	1 (0.9)
More education on wound care needed	2 (1.7)
Good healing results from TNP experienced at the trust	6 (5.3)
TNP/TVN service underfunded/provided in hospital only	9 (8)
TNP/TVN under funded/ provided in the community only	28 (24.7)
Current review of wound care ongoing	5 (4.4)
Interested to learn what other trusts are doing on wound care	2 (1.7)
Other (including enclosure of policies)	34 (30.0)

As outlined by the Healthcare Industries Task Force report modern approaches to procurement need to be embedded in the NHS 'ensuring that the role of procurement in supporting the timely uptake of new technologies identified as providing benefits to patients is embraced' (HIFT, 2004).

A key element of further research would be the establishment of a national standard for measuring pressure ulcer prevalence and incidence, so that there could be proper comparisons made between regions and trusts. Some trusts appear to rely on reference values prepared by commercial companies while the majority collect their own statistics. An accurate, consistent and reliable knowledge of incidence and prevalence will provide an essential foundation for further nursing research in this area and provide a benchmark to audit the effect of introducing national guidance. **WUK**

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Key Points

- ▶▶ The approach to wound prevention and care across NHS trusts in England is diverse.
- ▶▶ There is a wide variation in the incidence and prevalence of pressure ulcers across NHS trusts in England.
- ▶▶ The collection and interpretation of pressure ulcer data by NHS trusts in England is inconsistent.
- ▶▶ Funding is often highlighted as a barrier to the use of wound care technologies, especially in the community setting.
- ▶▶ Policies and procedures for the discharge and continuing care of tissue viability patients varies widely across NHS trusts in England.



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