

Meaningful and comparable information?

Tissue Viability Nursing services and Pressure Ulcers

(September 2010)

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Foreword-Katherine Murphy, Chief Executive, The Patients Association

Speaking in June 2010 in his first major public speech since becoming Health Secretary, Andrew Lansley MP declared that patients needed to know "who is providing quality, safe, effective, accessible services" and that "the combination of information and choice will hold people to account and drive up standards."

The aim was clear.

"So our vision must be of an information revolution across the NHS. Shared decision-making between patients and professionals at every stage. With rapid progress in identifying the evidence base for quality standards, which will be the basis of comparative information on quality and performance, enabling patients to be confident both of the service they should receive and the quality of the hospital or other healthcare provider they are actually receiving."

Importantly, he stated "most of this data already exists – it's just that you can't access it."

But how realistic is this vision? How far away is the ambition from the reality?

I hope this report provides a valuable contribution to understanding at least part of the answer to this question.

We have looked at just one aspect of clinical services, tissue viability nursing and pressure ulcers, and found an astounding lack of available information. The information that is available is held in a large variety of formats making meaningful comparison almost impossible. And this is not a niche service or rare clinical issue. Pressure ulcers were also included in the list of examples of unsafe care in the aforementioned speech by Andrew Lansley MP.

Preceding the writing of the report the Department of Health released a "pressure ulcer productivity calculator" to help NHS Trusts understand how much it was costing them to treat pressure ulcers and how much they could save if they reduced them. The aim of the tool is laudable but our findings suggest the impact can be expected to be limited at best. The Department is also currently working on a national indicator for pressure ulcers but its use will be voluntary and we would want to see reassurance that the self-administered tool captures rates effectively.

In an unambiguous example of the gap between the best and worst of practice in the NHS, our research shows clearly that whilst some Trusts will make use of these tools to drive investment in services to improve prevention, save money and improve patient outcomes many other Trusts do not even know how many pressure ulcers they treat. Even fewer know the levels of ulcers from other causes e.g. diabetes and slow healing surgical wounds that affect their patient populations. These will also benefit from specialist tissue viability nurse input.

Whilst welcoming the drive to provide more meaningful, comparable and timely information for patients, we hope this report highlights just how very far we have to go. And until we reach a point where the quality of care being provided by NHS Trusts is understood in a truly comprehensive way

we would sound a note of caution as the Department of Health moves forward with its two other key policies.

Firstly, if we are to rely on local scrutiny and decision making we must ensure that the tools are in place for would be scrutinisers before we rely on them to make sure their local NHS services are held to account.

Secondly, we are expecting the NHS to improve its services, save money and innovate. If we look at tissue viability nursing and pressure ulcers as an example, some NHS Trusts don't even know how many patients they are treating, how well they are doing and how they compare to other Trusts. This does not bode well for plans to ask the NHS to watch every penny in order to save £20 billion without an impact on patient care.

We are very grateful to Convatec for supporting this research through an unrestricted educational grant. It is vital that challenging research can be undertaken as part of ensuring improvement of services for patients and the public. We are also thankful for the advice given by Richard Buckland from the Wound Care Alliance UK whom helped us ask the right questions and make the best use of the results.

Foreword-Richard Buckland, Treasurer, Wound Care Alliance UK

Unlike damage to other organs, damage to your skin can be seen and will have some effect on your life. Tissue viability is the nurse led specialism that focuses on the prevention and treatment of people with wounds. Little is known about the extent of the problem, we do not know even the simplest of things like how many there are, yet prevention and treatment is a significant cost to patients and the NHS.

Tissue viability is a relatively young specialism and there is no standard description of what a Tissue Viability Service (TVS) offers but in general they provide expert knowledge and leadership including; policy provision, education of staff at all levels, equipment provision, audit to monitor and improve standards as well as the assessment and treatment of people with complex needs in a multitude of settings. We believe that every person with a wound should have the opportunity to access a specialist if they have a problem. However as this report highlights there are limited resources so any TVS relies on referrals from other professionals.

The introduction of targets around MRSA led to an increase in Infection Control Nurses allowing them to become proactive leading to improvements in all areas. Tissue viability is perfectly suited to lead on any initiatives but whilst it's numbers remain limited it will not be able to be proactive. There is still much we do not know about people with pressure ulcers particularly in the community. The recent focus on pressure ulcers is welcomed but it should not be at the exclusion of other wound types.

1. Executive Summary

- Tissue Viability Nursing is the nurse led specialism that focuses on the prevention and treatment of people with wounds, including pressure ulcers, most commonly understood by patients and the public as bed sores and estimated to cost the NHS £1.4–£2.1 billion to treat annually. This represents 4% of total NHS expenditure. Approximately 412,000 individuals will develop a new pressure ulcer annually in the UK.
- Using a freedom of information act based survey we attempted to better understand the level of TVN service provision by the NHS in England and the availability of comparable information available about these services. In total 161 Primary Care and Acute Trusts responded to our FOI request.
- Staffing levels were highly variable, appearing to lack any significant relationship between
 patient Trust population or Trust activity levels. For example, there is a more than tenfold
 difference between activity levels of those Acute Trusts employing one WTE TVN.
- On average there were more ICNs employed than TVNs, with the difference particularly stark
 with Acute Trusts which on average employ 5.2 ICNs and 1.6 TVNs. This compares with a cost to
 hospitals of HCAIs of £1 billion a year, and a cost of pressure ulcers to the NHS of between £1.4£2.1 billion.
- Difficulty arises in making further analysis about TVN services due to a widespread lack of comparable information about the services.
- Only 50% of Acute Trusts and 66% of PCTs could provide any estimates of waiting times for referral to the TVN service, and only 12.5% of Acute Trusts and 36% of PCTs could provide formal audit figures.
- Only 29% of Acute Trusts and 25% of PCTs could provide figures for the number of patients seen by the TVN service.
- Only 74% of Acute Trusts and 34% of PCTs could provide a measure of figures for the incidence
 of pressure ulcers amongst their patient population. Those that could provide the information
 did so in a huge variety of ways making meaningful comparison very difficult if at all possible.
- When compared with C Difficile and MRSA bacteraemia the monitoring of pressure ulcer incidence is much poorer. When compared with the relatively similar costs to the health service, it appears that in Acute Trusts in particular that TVN services are comparatively less well staffed.
- We recommend the introduction of a nationally mandated monitoring programme for the
 incidence of pressure ulcers to act as a driver to improve service provision and to provide
 patients, the public and wider stakeholders with comparable information about the
 performance of their local health services in this area.

2. Introduction

Wounds affect many members of the population both young and old, and are a significant burden on the NHS. With proper diagnosis and early intervention many problems can be avoided and clinical outcomes improved. Tissue viability is the nurse led specialism that leads on the prevention and treatment of wounds. The most common wounds are; leg ulcers, pressure ulcers, surgical wounds and foot ulcers and can be acute or chronic lasting short periods of time or whole life times.

Any wound will have an effect on the individual, but this report focuses on pressure ulcers, probably most commonly understood by patients and the public as bed sores and estimated to cost the NHS £1.4–£2.1 billion to treat annually¹. This represents 4% of total NHS expenditure. Approximately 412,000 individuals will develop a new pressure ulcer annually in the UK.² For patients suffering from pressure ulcers the experience can be incredibly distressing and lead to pain, immobility and death. The presence of pressure ulcers has been associated with an increased risk of secondary infection and a two to four fold increase of risk of death in older people in intensive care units.³

The treatment and prevention of pressure ulcers has been highlighted as a key priority for improving NHS care in recent years. In 2009 prevention and treatment of pressure ulcers was unveiled by the Chief Nursing Officer as one of the High Impact Interventions for Nursing and Midwifery. The last major vision document for the NHS (NHS 2010–2015: from good to great) pledged to "set out an ambition to eliminate all avoidable pressure ulcers in NHS-provided care." In May 2010 the National Patient Safety Agency selected the prevention and treatment of pressure ulcers as one of its "10 for 2010" plans to reduce levels of harm in 10 high risk patient safety areas. The Department of Health is currently piloting a pressure ulcer incidence indicator as one of the 'Indicators for Quality Improvement'.

The aim of this study was to use the example of pressure ulcers and tissue viability nursing to explore the issue of how accessible meaningful performance information was available both the from the perspective of the individual patient and of individuals who might potentially provide more wide ranging scrutiny of the performance of NHS organisations (e.g. Health Overview and Scrutiny Committees, Local Involvement Networks, Non-Executive Directors of Boards, the Care Quality Commission).

Tissue viability as a specialism is poorly understood and yet wound management problems of all kinds affect 200,000 people at any one time⁴. The services available vary between Trusts as there are no national guidelines but generally a tissue viability specialist role involves both prevention and treatment they will have an impact on every wound through training, policy provision, audit and research as well as seeing and treating the 'worst' cases. As morbidity and mortality is high and the

¹ Age and Ageing 2004; 33: 230–235

² Age and Ageing 2004; 33: 230–235

³ Bo M, Massaia M et al. (2003) Predictive factors of in-hospital mortality in older patients admitted to a medical intensive care unit. Journal of the American Geriatrics Society,51(4):529-33

⁴ Posnett J, Franks P.(2007)The costs of skin breakdown and ulceration in the UK. Skin Breakdown: The Silent Epidemic. The Smith & Nephew Foundation.6-12

problems affect people in all clinical specialism's and age ranges we have compared teams of tissue viability nurses with teams of infection control nurses, an area that has received significant investment in recent years and similarly affects a wide range of patients requiring both non-specialist and specialist management. The disparity between the investment of resources at least in terms of staff was stark.

We elected to use a Freedom of Information Act Request survey of NHS Acute and Primary Care Trusts. We selected a series of questions which were refined with the advice of members of the Wound Care Alliance UK. On the 17th April 2010 the requests were sent via email to over 95% of both NHS Acute and Primary Care Trusts and in total over 150 organisations responded to some or all of the questions.

3. Freedom of Information Act request

The Freedom of information act request below was sent to 164 Acute Trusts:

For the financial years 2006-07, 2007-08, 2008-09 and quarters 1 and 2 2009-10:

- 1) For each time period how many whole time equivalent Tissue Viability Nurses were employed by the Trust?
- 2) What nursing grades were the Tissue Viability Nurses employed by the Trust?
- 3) What was the average, shortest and longest waiting time for patients to be seen by a Tissue Viability Nurse following receipt of a referral?
- 4) How many patients were seen by a Tissue Viability Nurse at the Trust in the given time periods?
- 5) For each time period how many whole time equivalent Infection Control Nurses were employed by the Trust?
- 6) What nursing grades were the Infection Control Nurses employed by the Trust?
- 7) What was the average, shortest and longest waiting time for patients to be seen by an Infection Control Nurse following receipt of a referral?
- 8) How many patients were seen by an Infection Control Nurse employed by the Trust over the time period specified?
- 9) What was the incidence of pressure ulcers at the Trust (preferably expressed as a number per 100,000 bed days)?
- 84 Acute Trusts (51%) provided answers to one or more questions.

The Freedom of information act request below was sent to 147 Primary Care Trusts:

For the financial years 2006-07, 2007-08, 2008-09 and quarters 1 and 2 2009-10:

- 1) For each time period how many whole time equivalent Tissue Viability Nurses were employed by the Trust?
- 2) What nursing grades were the Tissue Viability Nurses employed by the Trust?
- 3) What was the average, shortest and longest waiting time for patients to be seen by a Tissue Viability Nurse following receipt of a referral?
- 4) How many patients were seen by a Tissue Viability Nurse at the Trust in the given time periods?

- 5) For each time period how many whole time equivalent Infection Control Nurses were employed by the Trust?
- 6) What nursing grades were the Infection Control Nurses employed by the Trust?
- 7) What was the average, shortest and longest waiting time for patients to be seen by an Infection Control Nurse following receipt of a referral?
- 8) How many patients were seen by an Infection Control Nurse employed by the Trust in the given time periods?
- 9) What was the incidence of pressure ulcers in the community for the Trust population in the given time periods? (preferably expressed as a number per 10,000 population)

77 Primary Care Trusts (52%) provided answers to one or more questions.

Our analysis will focus on key findings from which we have been able to draw the most meaningful conclusions. For example, answers on grades were provided in a disparate manner, making it impossible to draw any meaningful conclusions. We have also focused on the most recent timings (Quarters ½ 2009/10) as responses from earlier time periods were significantly scarcer and make it difficult to draw conclusions. Overall there was a trend of improvement over the time period which is an encouraging sign of a positive trajectory.

4. Tissue Viability Nurse Numbers

The aim of this question was to establish whether any comparison could be made between Trusts for the number of tissue viability nurses, both generally in comparison to activity levels and also against the results of the other questions (e.g. average waiting time for referrals, number of referrals).

Unfortunately (as discussed in more detail in the relevant chapters) across the study the response rates and comparability of responses for the other variables (for example waiting time for referrals and number of referrals) limits the ability for comparisons to be made with the level of service provided and the number of TVN's employed by the Trust.

In total 82 Acute Trusts and 58 Primary Care Trusts provided responses that could be included. Exclusions included those Trusts that provided numbers across incomplete calendar years and Trusts that indicated posts were vacant for a period without specifying the length of time.

For Acute Trusts we have attempted to examine whether there is any relationship between the activity levels of the Trust and the number of TVN's they employ by correlating the answers given against the finished consultant episode bed days figures⁵.

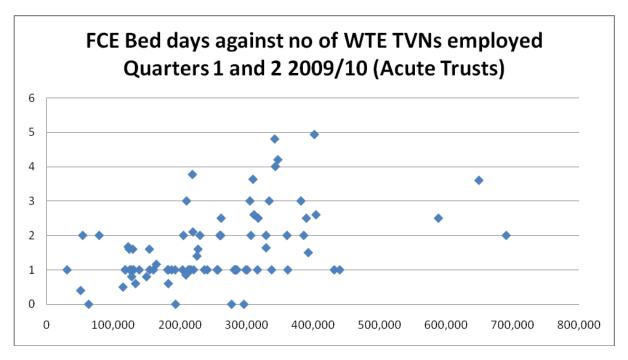


Fig 1.1 Graph comparing the number of whole time equivalent Tissue Viability nurses employed by the Trusts against the Trust activity levels measured by finished consultant episode bed days (82 Trusts)

⁵FCE bed days figures taken from Hospital Episode Statistics Online website 2008/9 http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=212#main%20layout

On average there was one TVN employed for every 161,000 FCE bed days. However the results indicate a significant level of variability between Trust activity levels and the number of TVNs employed.

When considering those Trusts that employ 1 WTE TVN for example, there is a more than tenfold difference between activity levels of the least (30,800 FCE Bed days) and most active (440,383 FCE Bed days) Acute Trust. Similar differences can be found across the different numbers of TVNs employed.

Whilst accepting there may be differences between Trusts (for example the training and use of non TVN nurses to treat pressure ulcers and the case mix of patients), it would be unlikely to account for such a high degree of variability. It is likely to be indicative of wide variations in the standards of pressure ulcer management in primary and acute care organisations.

The key problem, as previously alluded to, is that without reliable performance measures against which to compare Trusts, it is almost impossible to ascertain what would be a suitable ratio of TVN's to clinical activity.

For Primary Care Trusts we have attempted to examine whether there is any relationship between the patient population levels of the Trust and the number of TVN's they employ by correlating the answers given against the registered patient population⁷. Registered GP patient populations do not provide exact figures for local patient population as there will be a proportion of patients that have not registered with a GP Practice, but this figure is widely used for comparison (e.g. the Primary Care Foundation benchmarking report into out of hours care⁸).

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⁶ 20,721,972 FCE Bed days and 129.05 WTE TVNs in total for sample

⁷Attribution dataset GP registered populations 2009, Feb 24th2010-The NHS Information Centre http://www.ic.nhs.uk/pubs/gpregpop09 Accessed June 2010

⁸ http://www.primarycarefoundation.co.uk/page1/page1.html

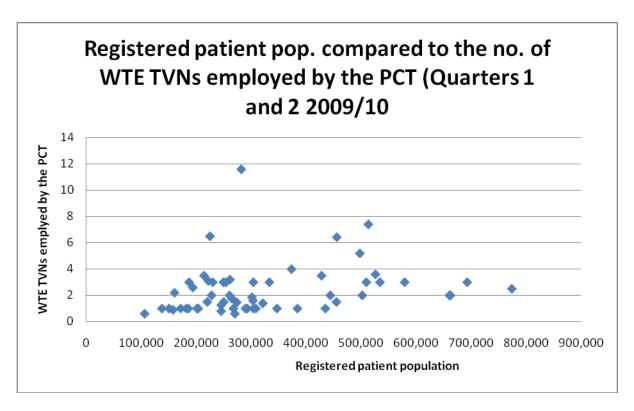


Fig 1.2 Graph comparing the number of whole time equivalent Tissue Viability nurses employed by PCTs against the Trust patient population

As with Acute Trusts there was no clear relationship between registered patient population and TVN numbers with for example Trusts employing 1 WTE TVN with population ranges from just over 100,000 to around 450,000. Acknowledging the difficulty in comparing services that arises from different service configurations, the level of variation would be unlikely to be accounted for by this.

5. Comparisons with Infection Control Nurse numbers

In recent years there has been significant pressure on the NHS to improve its infection control practices, and in particular for Acute Trusts to deliver improvements in MRSA bacteraemia and clostridium difficile infection rates as mandated by national targets. Fig 1.3 shows on average how many Infection Control Nurses (ICNs) are employed by each Acute Trust compared to how many TVNs are employed. The results from a sample of 79 Trusts suggest that more than three times as many ICNs as TVNs are employed by Acute Trusts.

This can only be used as a limited indicator for comparison of priorities and spending as the roles and activities of the two professions differ. But when considering that generally infection control nurses provided a more advisory than clinical care role, the difference is even starker. When you consider that the cost of treating healthcare associated infections in hospital is estimated at £1 billion pounds compared to the previously highlighted cost to the NHS as a whole of treating ulcers of at least £1.4 billion, questions must be asked as to whether equivalent and sufficient resources are being allocated to tackle this problem.

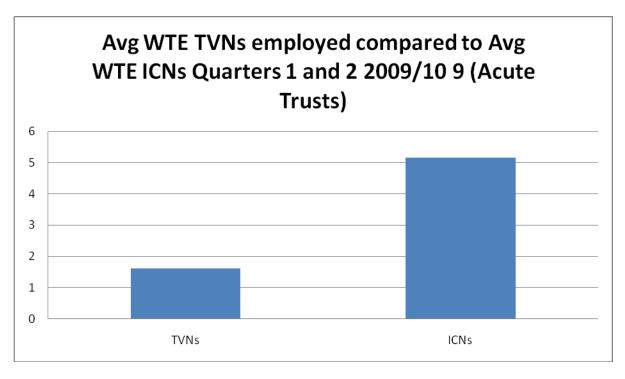


Fig 1.3 Graph comparing average number of whole time equivalent infection control and tissue viability nurses are employed by Acute Trusts

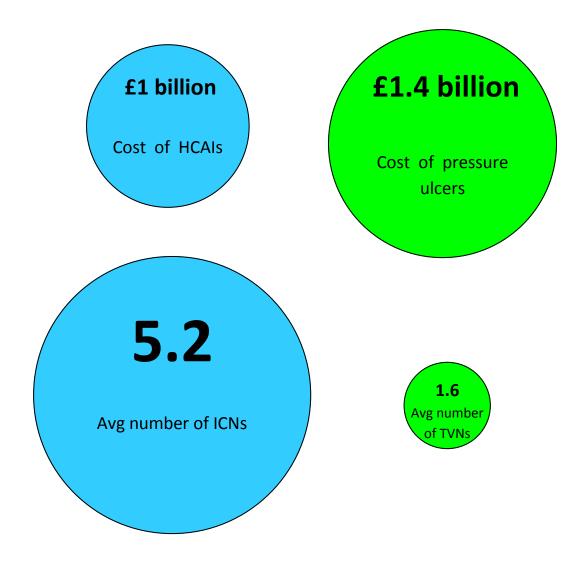


Fig 1.4 Visual comparison of cost to the NHS and staffing levels at Acute Trusts for TVNs and ICNs

There is also a clear difference in Primary Care Trusts as highlighted by Fig 1.5, but this difference is less stark with TVNs at 2.1 and ICNs 2.5 WTEs on average. This may relate to fact that the greatest pressure on reducing HCAIs was exerted on Acute Trusts, even with rates attributed to PCTs during more recent monitoring. As such there may have been a comparatively lessened driver for increasing resources allocated in the community setting.

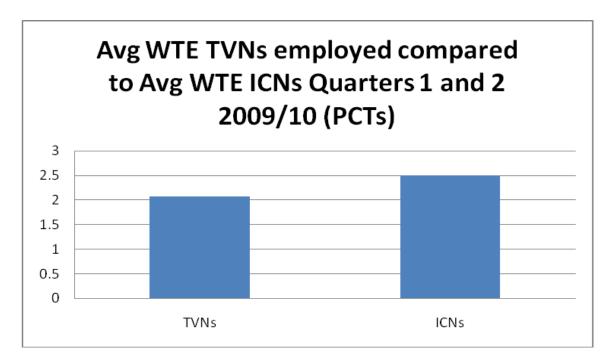


Fig 1.5 Graph comparing average number of whole time equivalent infection control and tissue viability nurses are employed by PCTs

6. Waiting Times

The second aspect now to be considered is one that patients would probably more readily identify as being an important measure of the quality of treatment they would receive if they developed a pressure ulcer as a hospital inpatient or in the community-the length of time it would take for them to see a tissue viability nurse after they had been referred to the service.

Protocols for when referrals were made will be different from Trust to Trust. Some Trusts will operate a model of early referral whilst others will use a model that expects non specialist management to continue for longer periods of time.

80 Acute Trusts and 56 Primary Care Trusts responded to this question. However, the quality of the information provided was variable. Of particular concern, 50% of Acute Trust respondents were unable to provide us with any figures at all relating to waiting times following referral. We would consider waiting times for referrals to be at least an element of performance measurement for any aspect of clinical care, particularly one with the worsening morbidity and mortality associated with a deteriorating clinical picture.

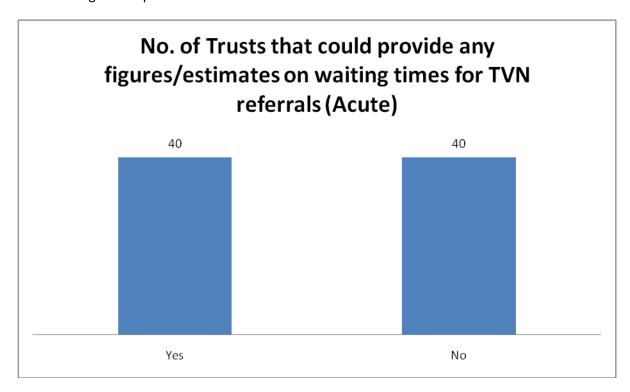


Fig 1.6 Graph showing the numbers of Acute Trusts that were able to responded with any form of figures/estimates to the FOI request on waiting times for TVN referrals

Only 10 Trusts (12.5%) could provide figures that suggested an actual formal measure of referral times was being provided, as exampled by the answer highlighted in Fig 1.7.

FIRSTATTEND	▼	Data ▼	2008-09	2009-10	Grand Total
1st Contact		Average (Days)	2.14	1.28	1.75
		Max (Days)	36.00	29.00	36.00
		Min (Days)	0.00	0.00	0.00

Fig 1.7 An example of formal audit figures of waiting times following referral provided by one Acute Trust

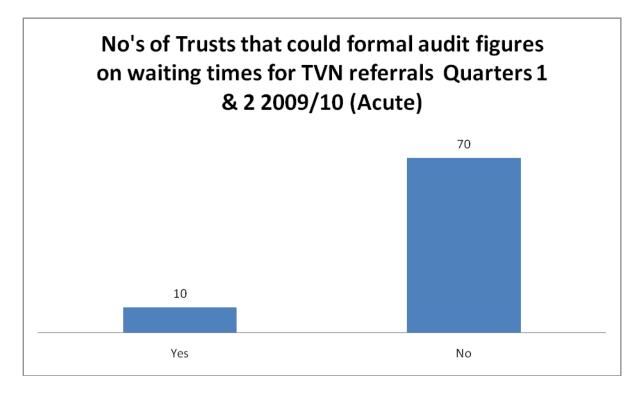


Fig 1.8 Graph showing the numbers of Acute Trusts that responded with formal audit figures to the FOI request on waiting times for TVN referrals

The picture was mildly improved for Primary Care Trusts with 66% (Fig 1.9) able to provide some figures relating to waiting times and 36% (Fig 1.10) able to provide formal audit figures. Never the less, this still reveals a woeful lack of measures of performance in this crucial clinical area. Fig 1.11 is an extract from the 2009 Patients Association report *Patients not Numbers, People not Statistics*, giving an example of the experience of one family awaiting the services of a TVN sometime after a referral was made.

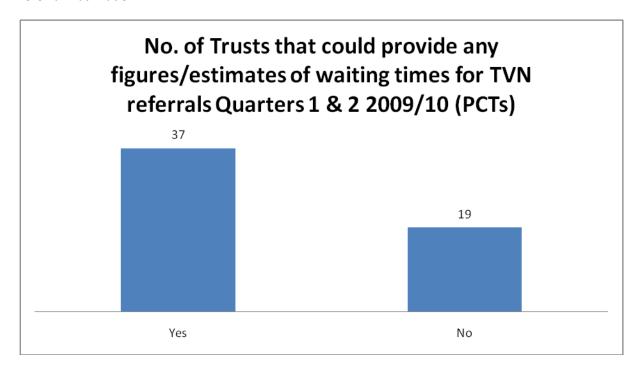


Fig 1.9 Graph illustrating how many PCTs could provide any figures/estimates of waiting times for TVN referrals

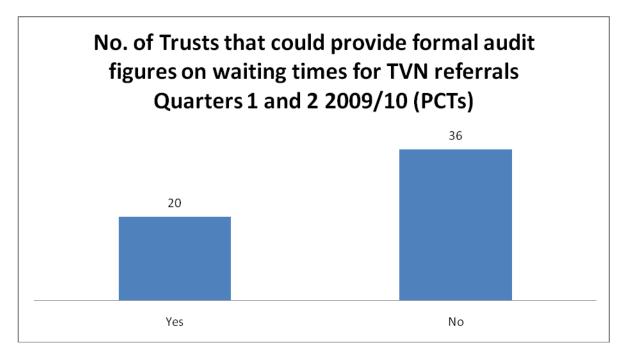


Fig 1.10 Graph illustrating how many PCTs could provide formal audit figures on waiting times for TVN referrals

"We contacted the hospital when she was readmitted due to increasing immobility and arranged for a Marie Curie nurse to do so as well to (we thought) ensure that the proper treatment for preventing an incipient bedsore developing would be followed. We are still investigating whether anything along the proper lines was done... She was eventually referred to a tissue viability nurse but she never came. It was only later that we found out that she was on annual leave for 10 days as staff gave no explanation to us when we enquired about it."

Fig 1.11 Extract from the account of the care of Pamela Goddard written by her son Adrian Goddard as featured in Patients not Numbers, People not Statistics, Patients Association (Aug 2009).

7. Treatment Volume

The pattern of Trusts being able unable to provide basic information about the activity of their tissue viability service is repeated again when asking about the number of patients being referred to the service.

Once again, the variability in how the information was supplied prevents any useful comparisons or analysis to be done about the volume of patients being referred.

On review the question could have better explained whether this was new patients or follow ups to have better allowed for some comparisons however, it is hard to understand how 23 of the 79 Acute Trusts and 12 out of 48 Primary Care Trusts that responded to this question are unable to provide any information at all about how many patients have been referred to the service. Whilst other figures, for example pressure ulcer healing rate, might provide a more accurate picture, patient numbers may be at least one other strand of information for those attempting to measure the performance of a service.

It is important to highlight that TVN services also provide advice and training to other clinical staff and so provision of services will not be limited to the direct clinical care of patients. Successful audit and performance measure (as called for by this report) would also be expected to fulfil part of the role and once again do not relate to the number of patients having contact with the service. This should be noted when moving forward with any measurement and audit of performance, focusing on the quality of care provided, not necessarily the quantity of patients seen.

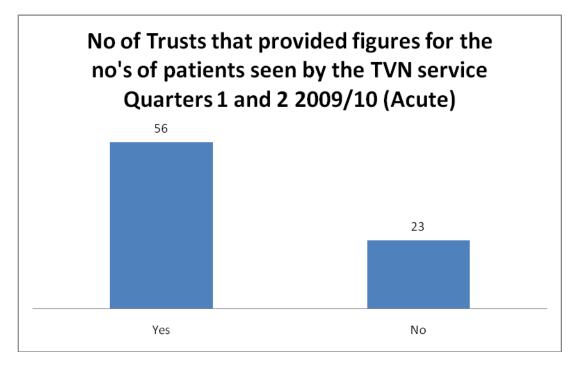


Fig 1.12 Graph showing the number of Acute Trusts that provided figures for the numbers of patients seen by TVN service

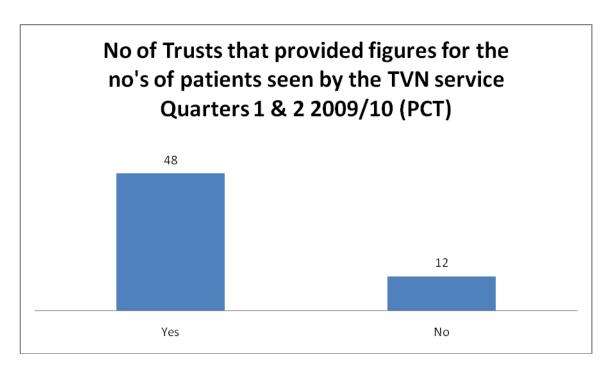


Fig 1.13 Graph showing the number of Acute Trusts that provided figures for the numbers of patients seen by TVN service

8. Pressure Ulcer Incidence

The final graphs highlight those Trusts able to provide a measure of the incidence of pressure ulcers., perhaps the most important issue as it is dealing with outcomes for patients, not process measures. As with the questions relating to waiting times and number of patient contacts, the answers were significantly variable in nature. We asked where possible that figures were provided per 10,000 bed days (the measure used for publication of MRSA rates across the NHS) for Acute Trusts and used the registered GP patient population as a comparison figure for PCTs.

The degree of variation in how figures for incidence were provided varied so much that we were unable to carry out any meaningful analysis of rates. The only reliable and useful analysis of the data is to highlight that in some cases Trusts were unable to provide any measure of any kind about pressure ulcer incidence. Significant proportions were unable to do this.

In a reverse of the other questions a higher percentage of Acute Trusts (74%) were able to provide figures of some kind, with only 34% of PCTs able to do this.

This represents yet further evidence of the worrying absence of information and certainly an almost complete absence of comparable information to enable patients to make informed choices about services (particularly in the case of Acute Trusts) and for the NHS and potential scrutinisers to recognise variations in performance.

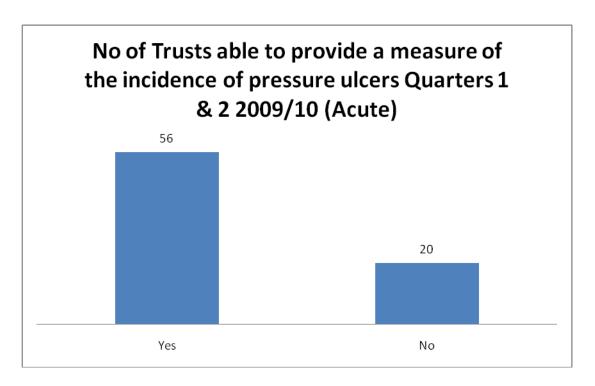


Fig 1.14 Graph illustrating the number of Acute Trusts that could provide a measure of pressure ulcer incidence

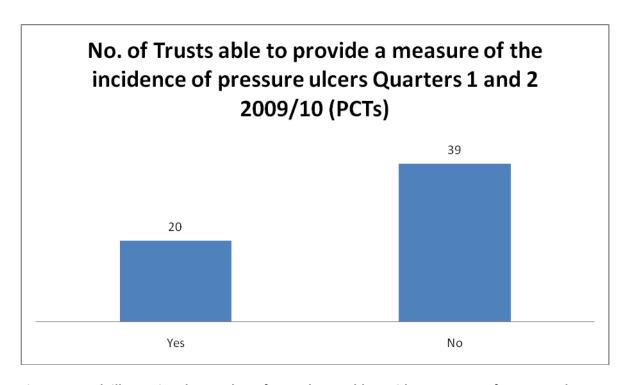


Fig 1.15 Graph illustrating the number of PCTs that could provide a measure of pressure ulcer incidence

9. Conclusions & Recommendations

From the results outlined we have highlighted the lack of information that was available about tissue viability nursing services and pressure ulcer incidence. Dating Quarters 1 and 2 2009/10 it is likely that in the intervening period between data collection and publication of this report improvements have been made. As previously highlighted this is considered to be a high priority area. However, the void of information and variations in service provision are so extensive that we can expect a significant problem to remain. This conclusion is supported by Richard Buckland from the Wound Care Alliance, as highlighted in his foreword.

As acknowledged throughout the report, tissue viability nursing services will vary in their approach, making direct comparisons between services difficult, but we feel the analysis presented above highlights a problem that far outweighs these considerations.

We feel this evidence highlights the need for mandated, standardised monitoring of service provision, performance and outcomes to be used across the NHS in England. We have seen through the monitoring of MRSA Bacteraemia and C Difficile that national monitoring and report is not only feasible but can act as a powerful driver for service improvement. Work is underway on developing a clinical indicator for pressure ulcer care but its use will not be mandated and there is no rigorous framework of external scrutiny to ensure results from the indicator reflect the actual burden of disease.

The proposals of the new Government White Paper focus on localism, but local scrutiny will only be possible if there is widespread availability of comparable data nationally. This information is of course also important for supporting patient choice.

We urge the Department of Health to act on the findings of this report and to address the problem presented as quickly as possible as this area is of huge importance to patients and must be given priority during this period of significant change and uncertainty in the NHS.