Monitoring pressure damage using Datix risk reporting system

Monitoring pressure damage is a key part of the role of tissue viability clinical nurse specialists. Prevalence surveys of pressure damage are both staff and time-intensive. Before the introduction of Datix incidence reporting, Powys Local Health Board (LHB), situated in rural mid-Wales, used a paper-based system which supplied poor quality data. Following use of Datix incidence reporting, the quality of data has greatly improved, which has assisted the tissue viability service to provide a more targeted approach to this area of their role.

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Pressure damage
Datix risk assessment
Practice development
Local health board

Pressure ulcers or bed sores as they are more commonly known to the general public are nothing new — they have been around for as long as man has been able to record the world around him. The causes of pressure damage are well documented; unrelieved pressure, shear and friction, along with patient-specific comorbidities, which can increase the overall risk of pressure damage development (Clarke, 2001).

Pressure damage is both painful and costly to the sufferer in terms of increased length of stay in hospital, or periods of restricted lifestyle and needs to be relieved to prevent further damage and promote healing (Hibbs, 1990; Clark, 2005).

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The development of pressure damage or pressure ulcers, either in the community or in hospital, is a significant factor in delaying recovery or discharge for patients (Clark et al, 2004). For healthcare professionals, pressure damage is costly in terms of increased bed days or number of visits patients in the community need. Reporting pressure damage is vital to monitoring this clinical risk (Department of Health [DoH], 1992, 1993).

For any healthcare professional, pressure damage is costly in terms of increased bed days or number of community contacts. Reporting pressure damage is vital to monitoring this clinical risk.

Powys Local Health Board (LHB) covers rural mid-Wales and is unique in that it does not have a large district general hospital but relies on surrounding counties to provide acute care. It does, however, have 10 community hospitals offering rehabilitation and elderly care as well as elderly mental health units. There are also maternity units offering midwife-led deliveries. These clinical areas have been noted for their high risk of pressure damage development (National Institute for Health and Clinical Excellence [NICE], 2005).

The tissue viability service at Powys LHB, the author's health board, has three part-time nurses, equivalent to two full-time staff, who cover the patient groups in the community hospitals, nursing and residential homes, as well as those being cared for in the community.

It has been speculated that pressure damage may indicate that there has been some form of abuse or neglect (Hirschael, 1996). In the early 1990s, as part of the purchaser/provider split within the NHS, pressure damage was introduced as a quality indicator (DoH, 1993). More latterly, the introduction of reporting of grade 3 and 4 pressure ulceration to the protection of vulnerable adults team (DoH, 2000; Association of Directors of Social Services [ADSS], 2005), highlights the importance of assessment, monitoring and reporting pressure damage. In response to the purchaser/provider reconfiguration (DoH, 1993), Powys LHB introduced a paper-based system of reporting pressure damage. Fifteen years later the system was considered no longer fit for purpose and in need of updating.

Development of current practice

The original monitoring system outlined below was developed before the introduction of the tissue viability service in 2004. It only collected data

without providing any feedback to relevant clinical areas — nor was training targeted according to the results. Indeed, it was not evident to the staff who sent in the forms if the data collected was ever used, which as a consequence, lead to poor quality information.

On admission to any care setting in the Powys LHB, irrespective of where the patient was being admitted from, staff were required to assess each patient using various condition-specific assessment tools, relating to nutrition (Todorovic et al, 2003), falls, activities of daily living, etc. All patients were assessed for the risk of pressure damage. Following assessment of patients who were found to actually have pressure damage, or to have developed pressure damage while in the LHB's care, staff were expected to complete the risk assessment form, photocopy it and send it to the practice development nurse, who then transcribed the information into an Excel-type database.

This slow, cumbersome system was inherited by the tissue viability nurses (TVNs), except that there was now poor access to the database.

Following appointment to the role, the TVNs requested access to the pressure damage database, but it was found that only the practice development nurse had a copy of the database and the access codes. The database was reviewed by the IT team, who found that it was unable to provide the relevant information that was requested by the tissue viability team. The pressure monitoring group, in consultation with the IT team, decided that it would not be worth trying to develop the database and that an alternative system needed to be found. The author found it difficult to understand how any database rich in important information could be allowed to become unusable.

Before developing a new system, the success or otherwise of the current paper-based system needed to be assessed. This prompted the simple question of whether the system was still fit for purpose, or if a more effective way of reporting could be developed, preferably one which would appeal to clinicians.

All too often, new ways of working appear to be imposed on clinical staff without much thought to their impact on the working day, e.g. will the change result in repeating work that has already been undertaken? Can the change reduce workload and streamline current practice?

Thus, an audit was undertaken of 100 separate cases of reported pressure damage using the paper-reporting system. As suspected, the results proved disappointing as the forms contained poor quality information and highlighted the inability of the system to identify the origin of the pressure damage, which had led to incidents being ascribed to Powys LHB. The LHB's pressure management guidelines state that skin inspection must take place within two hours of admission to a ward or at first visit in the community, but full care plans can be written up thereafter. Was the lack of information due to the assessment tool used, the documentation needed to record the assessment, or simply a result of staff forgetting?

Following a full review of patients' notes along with the audit, it was felt that the audit demonstrated the assessment forms could not, and should not, be analysed in isolation. A system that would follow the patient through all their healthcare contacts, the whole patient journey, was needed to understand how, why, and when pressure damage had occurred.

As part of a postgraduate diploma in wound healing and tissue viability being undertaken by one of the team members, the assessment tool was reviewed and compared to others available. Powys LHB use the Pressure Sore Prevention Score (PSPS) tool (Lothian, 1989). However, much work studying the clinimetric/psychometric testing of pressure risk assessment tools has suggested that nurses' opinion is the best judge when assessing patients' potential risk of pressure damage (Maylor, 1997; Gould et al, 2002; Clarke, 2005; Sharpe et al, 2005), and that no one tool demonstrates high levels of reliability or validity.

Datix is a clinical software package designed to manage clinical risks arising from practices within an organisation and is currently used by almost 75% of the NHS (Datix, 2008). However, does this figure represent 75% of acute trusts, or does it include community practices as well? All clinical areas within Powys LHB have online access to the database and can submit both near misses and clinical or other incident reports. An incident can be described as any event or circumstance arising during NHS care that could have had, or did lead to, unintended or unexpected harm, loss or damage (National Patient Safety Agency [NPSA], 2001).

The reporting of clinical incidents and near misses via Datix was already fully implemented within Powys LHB for such incidents as falls. By utilising this familiar system for reporting pressure damage, it was felt that staff would embrace the change more quickly.

A decision to evaluate the usefulness of Datix as a tool for reporting and monitoring pressure damage was made by the pressure ulcer monitoring group. A sample of 36 good standard pressure damage reports originally submitted via paper form in 2005 were transferred to Datix to test the system.

By reporting pressure damage via the Datix risk reporting system, information is delivered to the inbox of the TVNs instantaneously, facilitating quicker response times and an earlier introduction of pressure-relieving devices. It would be difficult for the tissue viability service to personally review all patients reported to have pressure damage. Instead, all reports are reviewed and feedback is provided via email or by telephoning the ward or community nurses. The system allows the TVNs to prioritise patients with increasing severity of pressure damage, with grade 3 and 4 ulcers, and those for whom there is cause for concern, as indicated by the reporting staff.

The system also records all entries made to each submission, as well as linking each individual patient's incidents. Thus, the full picture of what is occurring to each individual patient can be held together. The system can follow the movement of a patient from community into and out of the community hospital, or into and out of the local health board.

The 100 pressure damage reports submitted on paper that were transcribed to Datix demonstrated that the system supported the data that the team wanted to record, and gave real scenarios to use as examples for staff during training.

In August 2006, electronic submission of pressure damage reports was introduced to the community nursing teams (*Figures 1 and 2*), including pressure ulcers of grades 1–4 in the adverse event field. To ensure that the required data was entered into the system, a prompt sheet was developed to assist ward or community staff. It was hoped that data input would be both quick and easy, while at the same time collect the relevant information. Training was initially provided by a general programme roll out with dates and times circulated to all clinical areas. Training included a review of the Datix system by the clinical governance team and specific training surrounding how the system should be used. Further training continued for many months and prompt cards were developed and sent to all clinical areas.

The system and its benefits (i.e. not having to photocopy forms and distribute them with the inevitable delays that incurred) was then demonstrated to the hospital matrons and ward managers, and, with their support, was introduced into the community hospitals.

Reports are now received from 43 different entry points into Powys LHB, including local acute district hospitals, local nursing and residential homes, as well as all community nursing teams, community hospitals and the mental health teams.

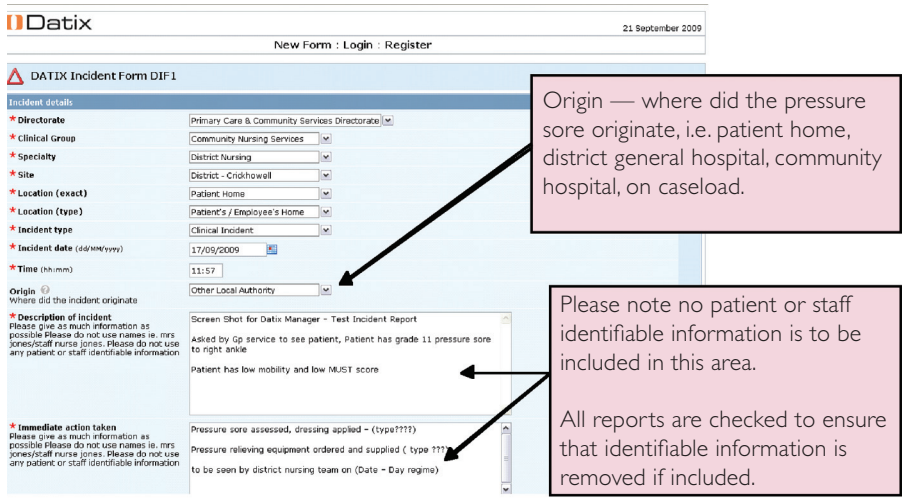

Figure 1: Form to be completed by all staff, accessed via intranet.

Figure 2. Screen shot of the Datix system.

Outcomes observed

Since the introduction of Datix reporting, Powys LHB have had 1,439 reported incidents of pressure damage. The system allows incidents relating to specific patients to be linked, thus the patient's journey can be seen from admission, through episodes of care to discharge. As the system never deletes episodes, if a patient is readmitted it is easy to search the system to gain more information about how the patient responded to treatment, equipment or dressing products in the past. The only obstacle is the amount of information submitted. Staff need to be encouraged to record as much as possible, which benefits both the patient and the healthcare professional, helping them in their care planning.

All patients admitted to Powys community hospitals can expect to be assessed within the first two hours of admission (Griffin, 2006). By adhering to the hospitals' policy of earliest skin inspection, it has been seen that pressure damage has been brought in both from the community or from discharging district general hospitals. Early inspection ensures that appropriate and immediate pressure relief is employed. Powys LHB uses a castellated foam mattress as a standard mattress, which is recommended for patients up to and including medium to high risk but with intact skin, but also has a supply of electronic mattresses.

In the community, skin inspection is included in a patient's first assessment, so that referral to the tissue viability service can be made as soon as possible. Before discharge, a patient with pressure damage should ideally have been provided with an appropriate mattress. In Powys LHB, Datix report numbers (i.e. the individual patient Datix number to assist in linking all incidences) are included in discharge documentation, so that community staff can link their reporting of damage to caseload with the discharge report from the hospital.

Data from Powys LHB (*Table 1*) shows an initial increase in reported pressure damage incidents, which is probably the result of the increasing numbers of areas reporting. The three years of data show that incidents of pressure damage are now remaining stable, with a slight reduction in overall numbers.

Discussion

As staff became more involved with reporting pressure damage, they also became more aware of the need for accurate recording of where patients in their care came from. The system lists all local nursing/residential homes and discharging acute hospitals to the local health board.

The pressure damage data is, as far as possible, 'live', reflecting what incidents of pressure damage are present within the LHB. However, it has to be accepted that there may be gaps. The system demonstrates that some hospitals and district nursing teams are using the system more effectively than others, e.g. updating the reports regularly and giving more information. Ongoing monitoring and targeted training around pressure damage and its effects and the use of the system will in time improve this. The system also gives information that can be used within local risk assessment planning.

By working with partners in both the acute and private sectors and providing feedback about pressure damage suffered by patients, Powys LHB are looking to reduce incidence. From June 2008 up until June 2009, information taken from the running report facility within the Datix system, which searched for where pressure damage originated from, shows that 45% of reported pressure damage was inherited by the LHB; in comparison, 35.5% originated in community hospitals (*Figure 3*). It could be suggested that those going into the acute sector have a greater number of comorbidities and are therefore at significantly higher risk of pressure damage. Powys LHB are continuously building up information and now have data that can be used to review any patterns or trends in pressure damage.

Table 1

Details of all reported incidents of pressure damage

Year/ month	Number of pressure damage reports	Year/ month	Number of pressure damage reports	Year/ month	Number of pressure damage reports	Year/ month	Number of pressure damage reports
2006/01	12	2007/01	11	2008/01	62	2009/01	49
2006/02	10	2007/02	30	2008/02	66	2009/02	41
2006/03	8	2007/03	27	2008/03	51	2009/03	8

This information is being reviewed by the commissioning team when negotiating contracts for secondary services in order to improve care for patients.

No system should ever be allowed to stagnate and the LHB clinic are now looking to add further improvements. The recommendations from the *In Safe Hands* report (Welsh Assembly Government, 2000) and the Care Standard Act (2000) advise regarding pressure damage of grades 3 and 4 as potential cases of neglect and to consider applying for a protection of vulnerable adults order (POVA). The author's clinical governance team are looking to integrate this into the Datix interface, thus reducing the need for duplication of information — keeping the system electronic and records safe. This would speed up notification to the designated POVA lead to initiate action.

Conclusion

This paper demonstrates collaborative working by the clinical governance team and the tissue viability team spanning several years. Powys LHB now have a system that is fit for purpose, capable of producing and safekeeping high quality data. Auditing the incidence of pressure damage is easier, and specific individual areas can be targeted for extra training or support.

The complexity of pressure damage should never be overlooked. The unfortunate rise litigation is a potentially frightening outcome and alone should encourage all practitioners to assess documents and report all that they find. The Datix system can only hold information that is put into it. TVNs are ideally placed to provide the appropriate information. However, they can only offer support and advice to patients and clinical staff. It is the

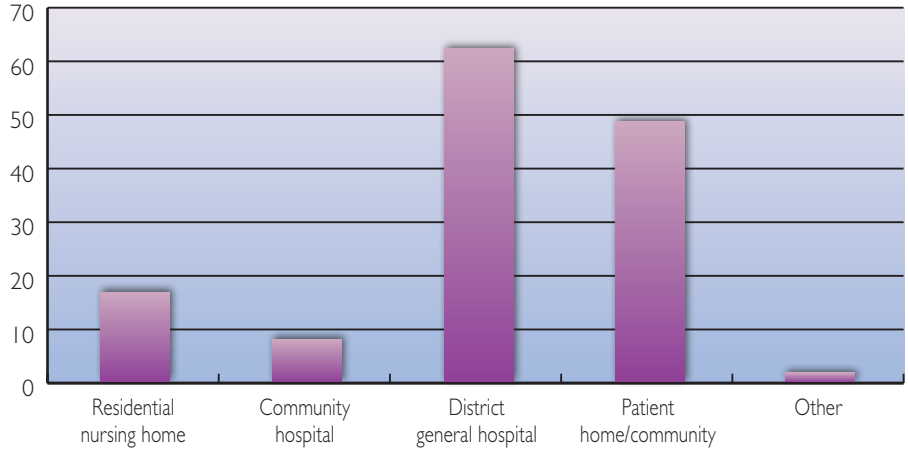

Figure 3. Grades 3 and 4 pressure damage by origin for 2008–2009.

practice of the clinical staff in either the community or hospital setting that determines how any pressure damage is treated.

Any patient with pressure damage has a documented journey of care, which follows them from their home into hospital and, where appropriate, back to their home, residential or nursing home, as their condition dictates. When a new incident is reported, by searching the system a picture of the patient's potential for pressure-related problems can immediately be built up. The patient may be presenting with grade one pressure damage, but the Datix system enables clinicians to see that they may have had pressure-related problems in the same area before, which may influence mattress choice. Using the stored data contributes to holistic assessment and enables clinicians to make more informed choices about care strategies.

At the time of writing, the Datix system at Powys LHB has 219 active cases of pressure damage — in total, information on over 1,500 cases of pressure damage. This offers a wealth of information in terms of commissioning services, number of bed days per patient, as well as provision of specialist equipment such as mattresses, beds and other pressure-relieving surfaces.

Powys is the only local health board in Wales using this system, and monthly reports of this important clinical risk are sent to the National Patient Safety Agency (NPSA). WUK

Jacqueline Griffin won the Wounds UK 2009 award for Innovations in Primary Care, sponsored by KCI Medical, for her work on 'Introducing Datix reporting to monitor pressure ulcers'.

Key points

- Pressure damage is expensive to patients in terms of pain or discomfort, and can increase the time spent in hospital or reduce independence.
- The care given by staff to patients has a direct influence on the long-term effects of pressure damage suffered by patients.
- The incidence of pressure damage should be considered in the context of an older population having a greater number of comorbidities.
- Being able to review past care of patients can help to improve their current care.

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