Towards international consensus on patient harm: perspectives on pressure injury policy

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Towards international consensus on patient harm: perspectives on pressure injury policy

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Aims To analyse influential policies that inform practice related to pressure injury management in Australia, England, Hong Kong, New Zealand, Scotland and the United States of America.

Background Pressure injuries are associated with significant harm to patients, and carry economic consequences for the health sector. Internationally, preventing and managing pressure injuries is a key nursing activity and quality indicator.

Evaluation Comparative review and synthesis of pressure injury policies that inform practice.

Key issues The predominant focus of policy is on patient risk assessment, compliance with documentation and pressure relief. Financial penalty for institutions is emerging as a strategy where pressure injuries occur. Comparisons of prevalence rates are hampered by the lack of consensus on data collection and reporting. To date there has been little evaluation of policy implementation and implemented policy strategies, associated guidelines remain founded upon expert opinion and low-level evidence.

Implications for nursing management The pressure injury policy agenda has fostered a discourse of attention to incidents, compliance and penalty (sanctions). Prevention and intervention strategies are informed by technical and biomedical interpretations of patient risk and harm, with little attention given to the nature or design of nursing work. Considerable challenges remain if this policy agenda is successfully to eliminate pressure injury as a source of patient harm.

Keywords: nursing, patient harm, patient safety, policy analysis, pressure injury, pressure ulcer, regulation
Introduction

The aim of this study was to identify the core elements of international policies pertaining to pressure injury (PI) and to synthesise progress toward the elimination of patient harm from pressure injury. For the purpose of the review, policy is defined as a plan that steers action and investment (Cheung et al. 2010a) to reduce or prevent pressure injury. Such policies are evidenced through directing statements of intent and clinical practice guidelines that are adopted to guide clinical decision making and link evidence with practice (Walt et al. 2008).

Several methodologies have been developed for the review of policy. In general, policy analysis seeks to establish the goals or problem that the policy seeks to address; the causal assumptions and expected benefits of the policy; and, opportunities to implement the policy (Cheung et al. 2010a). A more contextual approach to policy analysis, and that adopted for the current analysis, presumes that policies are framings that give shape to particular foci and responses to a problem (Coveney 2010). By asking questions about how the problem is represented within policy, the assumptions and presuppositions considered problematic can be brought out more clearly (Bacchi 2012).

The need to conduct the analysis stems from the fact that, despite continued concern and attention to reducing the prevalence of pressure damage, reports suggest that interventions to ameliorate the problem may not achieve sustained results. The rate of preventable hospital-acquired pressure injury fluctuates, and in some instances has increased (Mulligan et al. 2011). Given the prevalence and costs associated with pressure injury, it is timely to undertake an international policy analysis to identify how pressure injury regulation is positioned in various countries, including the nature of prevalence reporting, the types of strategies and interventions aimed at reducing the incidence of pressure injury, and the regulatory strategies aimed at ensuring compliance with pressure injury policies and the implications for nursing practice and leadership.

Background

Preventing and managing pressure injury is a key nursing activity across all care settings and is recognised across international jurisdictions as an indicator of care quality (Montalvo 2007). Pressure injury remains a significant source of physical and emotional harm to patients. Individuals who experience hospital-acquired pressure injury have been shown to have higher mortality, both within hospital and within 30 days of discharge (Lyder et al. 2012). In the UK, pressure injury is identified as the highest burden of harm to patients (HSCIC 2014). These injuries are considered to be a (largely) preventable form of patient harm. Interventions related to pressure injuries are associated with patient burden and an impact on health-related quality of life (Gorecki et al. 2009). Internationally, pressure injuries are associated with major personal costs to patients and the health sector (Dealey et al. 2012). In 2012 it was established that the cost of treating a pressure injury in the UK ranged from £1214 to £14108 per annum; higher costs are reflected by increased healing time and greater risk of complications with more severe injuries (Dealey et al. 2012). In 2009 the estimated annual costs to the National Health Service (NHS) were £2.64 billion (Riordan & Voegeli 2009), or in the order of 2% of the entire NHS budget (Bennett et al. 2004). Internationally, costs are comparable. For example in Australia, the most recently available figures collated by Nguyen et al. (2015) estimate the cost of pressure injury in 2012–3 to be $983 million per annum, with 52,4661 bed days lost.

Despite the prevalence and costs of pressure injury, there is a paucity of robust or large-scale evidence to inform prevention (Nguyen et al. 2015). The evidence for improvement in hospital acquired pressure injury rates is largely limited to quality improvement projects, with few randomised controlled trials. Indeed, much of the nursing literature to date reports knowledge and attitudes of nurses towards pressure injury prevention (see for example: Nguyen et al. 2015, Simonetti et al. 2015) rather than interventional studies aiming to reduce the prevalence and suffering associated with these injuries. Evidence-based clarity is still lacking in relation to best practice in both pressure injury management and prevention. For example, patient repositioning is a staple nursing strategy for both prevention and treatment of pressure injury. However, recent Cochrane reviews reveal a lack of evidence for repositioning as a prevention (Gillespie et al. 2014, Moore & Cowman 2015). Additionally, while there is compelling evidence that pressure injury occurs outside of hospital and older person care settings (Jones 2013), most prevalence studies and evaluations are hospital-based. There is a need for more robust research about pressure injury prevention and management across a
range of clinical contexts.
Predicting those at risk of developing a pressure injury remains a nursing challenge, with assessment tools providing imperfect predictors of risk (García-Fernández et al. 2014b). A number of risk assessment tools are widely recommended as an arm of preventive strategies. Pressure injury risk assessment scales have been developed for differing patient populations, and to date, none have been found to be effective in all patient populations, or in all health-care settings (Kelechi et al. 2013). Furthermore, issues have been raised about the validity and adequacy of these tools. For example, the Braden scale has been found to be a poor predictor of pressure injury risk in surgical patients or during acute illness (He et al. 2012). The low sensitivity and specificity of this tool was highlighted by Mulligan et al. (2011) who reported that 50% of hospital patients with a pressure injury were assessed as low risk utilising the Braden scale. Despite this, the use of this scale by nurses has been advocated, believing it would help to enable a focus on pressure injury prevention strategies. The Waterlow scale is reported as having low inter-rater reliability (Kelechi et al. 2013). Despite these issues with individual tools, it has been argued that the use of a pressure injury risk assessment scale heightens the awareness of risk factors and patients at risk, and ensures that assessment aimed at prevention is occurring (Kelechi et al. 2013).

The PI policy agenda

Internationally, many countries have developed policies and guidelines aimed at reducing the prevalence of pressure injury. There are various approaches taken to these policies and guidelines, and some jurisdictions have introduced financial penalties or rewards associated with pressure injury incidence (Sen et al. 2009). In order for comparative analysis of the prevalence and burden of harm, and to establish the effectiveness of interventions, a consistent definition of pressure injury is required. A range of terms has been used to describe this form of tissue injury. Common terms have included bed or pressure sore, decubitus ulcer, pressure necrosis and ischaemic ulcer. More recently there has been a move towards using the term pressure injury [AWMA 2012, National Pressure Ulcer Advisory Panel (NPUAP) 2014]. Consensus exists on staging injury to the skin and underlying tissue, with this staging system employed widely in reporting systems (NPUAP 2014). Internationally, data collection on the incidence of pressure injury remains limited or patchy. Whilst some jurisdictions (such as Australia) report the incidence and prevalence at facility, state and national levels, in 2013 only five countries (Canada, Finland, Iceland, Norway and Portugal) reported data on pressure injury to the Organisation for Economic Cooperation and Development (OECD).

PI and patient experiences

Adhering to targets for pressure injury reduction involves meticulous documentation of whether the pressure injuries are acquired in a health-care institution or whether the patient is admitted with a pressure injury – the latter often referred to as being an ‘inherited’ pressure injury. The severity or grading of pressure injury is also commonly recorded. However, despite the surveillance of prevalence and severity of pressure injury, the experiences and perspectives of patients themselves tend to be rather less scrutinised. Pain emerged as a significant issue for a small sample of hospital patients who felt that nurses did not adequately recognise or treat the pain and discomfort associated with pressure injury, and that devices aimed at relieving pressure sometimes caused patients additional discomfort and distress (Spilsbury et al. 2007). Gorecki et al. (2012) found similar concerns regarding pain and pressure relieving devices in a qualitative study of 30 patients from England and Northern Ireland. Additionally, these participants reported concern regarding the inconsistent management of pressure injury by health professionals and a lack of continuity of care. Some participants felt that their knowledge of their own pressure injury was discounted by health professionals, which discouraged future collaboration (Gorecki et al. 2012). Aside from prevention, there is little known about strategies that can reduce the suffering associated with pressure injury and interventions for pressure injury.

Evaluation

To provide a richer understanding of pressure injury policy, and to uncover different or contested views on what is central or important in pressure injury policy, we analysed policy documents informing care across the full range of health services from six countries. A convenience sample of policy documents was identified, as the comparative analysis was not intended to be worldwide and it was not feasible to locate an exhaustive collection of documents. Policy documents related to pressure injury were located using relevant health service and professional association websites in the six countries represented by the team of
collaborators. In addition, searches were performed of the Cochrane, National Institute for Health and Care Excellence (NICE) and Joanna Briggs Institute databases. Field experts were also contacted to identify documents not identified through this search. Documents were selected because they were primary national-level policy documents related to pressure injury. Employing a modified set of criteria derived by Cheung et al. (2010b) we examined the policy background; policy goals; resources; monitoring and evaluation; and obligations (including penalties). To allow for comparative analysis (Weimer & Vining 2015), relevant narrative data were extracted from each document, and coded against these criteria. This process of coding and extracting relevant components of narrative description allowed us to explore how the various components of pressure injury policy were represented across the sample of policy documents. This process allowed for identification of components, similarities and identification of gaps and inconsistencies (Ritter et al. 2016). To ensure consistency across the process two authors cross-checked the mapping and analysis, with differences resolved through discussion and consensus. From this analysis a narrative synthesis of pressure injury policy documents was derived.

Results
The search yielded seven national-level policy or standards documents and associated practice guidelines. Two of the policies were multi-country collaborations

Table 1
Policy documents identified

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>2014</td>
<td>National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>Wound, Ostomy and Continence Nurses Society (WOCN), Guideline for prevention and management of pressure ulcers</td>
</tr>
<tr>
<td>England/Scotland</td>
<td>2014</td>
<td>National Institute for Health and Care Excellence (NICE); Pressure ulcers: prevention and management of pressure</td>
</tr>
<tr>
<td>Australia</td>
<td>2012</td>
<td>National Safety and Quality Health Service (NSQHS) Standard 8: Preventing &amp; Managing Pressure Injuries</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2012 Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>2012</td>
<td>The Australian Council on Health Care Standards. EQuIP 5 Hong Kong Guide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2012 Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury</td>
</tr>
</tbody>
</table>
| New Zealand      | 2012 | Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury (Table 1). The primary objectives of the policies reviewed were to summarise evidence and to provide guidance to clinicians on the prevention and management of pressure injury. The goals of the policies almost exclusively focus upon pressure injury risk assessment, nutritional assessment and intervention for those at risk, relief or redistribution of pressure, and optimal wound management. A number of them are predominately focused upon treatment approaches, with less attention given to prevention.

Policy background
The publication date for the policies included in the review ranged from 2009 to 2014, with a number in their second (WOCN 2010, NPUAP 2014) or third iterations (QIS NHS 2009). The main driver for policy development was the need to provide guidance for clinicians regarding the prevention and management of pressure injury. In the UK, pressure injury prevalence statistics and economic modelling were employed to underpin the need for concerted policy action to address the cost burden of pressure injury on health services (NICE 2014). Reflecting concern for harm to patients, policy has increasingly included a focus upon quality, safety and reducing harm.

The work of developing pressure injury policy has been largely undertaken by expert panels drawn from not-for-profit professional organisations and government bodies. Outside of the UK, a significant component of policy development was funded by wound management associations (New Zealand, Australia, Hong Kong, United States) who sought to influence public policy at a national level. A consistent trend over the period of the policy review was the development of policy through collaborative efforts between national interest groups and expert panels. Expert panels were largely constituted by nurse experts in tissue viability and wound management, with minimal evidence of consumer involvement.

Collaboration across a number of the jurisdictions initially produced multi-country policies such the American National Pressure Ulcer Advisory Panel (NPUAP) and the European Pressure Ulcer Advisory Panel (EPUAP). The move towards these multi-country collaborations has supported the review of extensive evidence, large scale collaboration and increased the rigorous of the review process and the scope of recommendations. An outcome of these collaborations has been agreement on classification sys-
tems with a view to standardising international reporting of PI incidence and prevalence.
Evidence and PI policy

As policies have evolved, attention has been drawn to the need for a research agenda that provides an evidence base for the prevention and management of pressure injury. However, few goals in the policies reviewed are explicit or measurable. Throughout the body of policy, the majority of recommendations are founded upon expert opinion rather than empirical evidence, with only a small proportion founded upon mid-range or high level evidence. Illustrative of the absence of sound evidence, the Australian Wound Management Association (2012) report that the majority of the recommendations made (42%) are based on expert consensus in the absence of sufficient evidence, with 9% assessed to have good levels of supportive evidence and 11% strong levels of evidence. The grounding of guidelines in contemporary evidence was also limited in some of the policies reviewed, with one relying on evidence from systematic reviews that had been published 10 years before the release of the policy (QIS NHS 2009).

Policy implementation, monitoring and evaluation

In the majority of country-level policies examined in the review, each jurisdiction has implemented an additional policy and/or guideline that operationalised the national overarching policy and adapted it to particular regional or facility contexts. Another approach has been to operationalise the overarching policy via the provision of implementation tools and resources, rather than through an additional policy. As a result, a wide array of online resources is available to clinicians.

Strategies for monitoring and evaluation of policy implementation are not specifically contained within the policy documents, and no evaluation mechanisms are addressed or mandated. Action to demonstrate policy implementation can be inferred through recommendations regarding the documentation of action in patient notes (such as Scotland and England). Similarly no specific outcome measures are identified in the policy documents. At a country level, parallel to pressure injury policy and guidelines, a number of jurisdictions (Australia, Hong Kong, United States, England and Scotland) have developed quality assurance and audit mechanisms that capture the intent of pressure injury policies. In these countries, specific standards have been developed to address the quality and safety aspects of pressure injury, and facility accreditation is contingent upon meeting these standards. Furthermore, in the United States the National Quality Forum (NQF) has identified hospital acquired stage III and IV pressure injury as ‘never events’ (AHRQ 2015). In this context, stage III and IV pressure injuries are categorised along with 28 other events by the NQF as events that should never occur during hospital admission.

Although international consensus has emerged in recent years in the pressure injury policy area on definitions and grading of pressure injury, there is less consistency across countries on data collection and the reporting of pressure injury incidence and prevalence. Reporting varies from not formally required (New Zealand and Scotland) to institutions being required to have reporting systems in place to achieve accreditation (Australia). A less common feature of pressure injury policy context is the mandated reporting of outcome and assessment data (United States). Table 2 provides a comparative summary of the pressure injury policies reviewed.

Obligations and penalties?

Reflecting the development of policy largely by professional organisations, obligations and penalties are not a feature of pressure injury policy. Similar to the quality assurance mechanisms that have been developed in parallel to pressure injury policy development, there is an emerging trend towards penalty for hospital acquired pressure injury. In Australia, one state has recently introduced a system of financial penalty for the development of severe pressure injury in hospitalised patients (Walker et al. 2015). Similarly in the United States, the Centres for Medicare and Medicaid Services (CMS) do not fund hospital-acquired pressure injury (Sen et al. 2009).

Resources

Reflecting the primary focus on providing guidance for clinicians in the management and prevention of pressure ulcer (PU) and the development of policy by professional organisations, the body of policy gives little attention to investment to support action. The primary human resource issue addressed in the policy is the need for training in assessment, preventive measures and wound management. Organisational capacity, infrastructure, workforce and service redesign are not factors addressed to underpin the goals of the pressure injury policies.
## Table 2
Comparative summary of international PU policy

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Policy and Standards</th>
<th>Goals</th>
<th>Prevalence and Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Policy/ guideline</td>
<td>Addressed in Quality &amp; safety standards</td>
<td>Mandated risk assessment</td>
</tr>
<tr>
<td>Australia</td>
<td>Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury (2012)</td>
<td>Standard 8: National Safety and Quality Health Service Standards</td>
<td>Recommended: Patients screened for PI risk within 8 hours</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Has adopted the policy of accreditation since 2009 The ACHS EQuIP 5 Hong Kong Guide</td>
<td>Hospitals should provide evidence of achievement in seven areas specified in the criterion of 1.5.3: The ACHS EQuIP 5 Hong Kong Guide</td>
<td>Mandatory assessment of risk of developing PI undertaken on admission</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Pan Pacific Clinical Practice Guideline for No National Safety Standards specifically</td>
<td>Health and Disability Services (Safety) Act 2001 requires all New Zealand health and</td>
<td>Not specified, other than to minimise the incidence of pressure related injuries</td>
</tr>
<tr>
<td>Jurisdiction</td>
<td>Policy/ guideline</td>
<td>Addressed in Quality &amp; safety standards</td>
<td>Mandated risk assessment</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>England</td>
<td>the Prevention and Management of Pressure Injury (2012) EPUAP, NAP and PPIA Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline (2014)</td>
<td>NICE quality standard 89: (2015)</td>
<td>Adults with risk factor assessed on admission, neonates, infants and children admitted to secondary care assessed</td>
</tr>
<tr>
<td>Scotland</td>
<td>Best Practice Statement: the Prevention and Treatment of Pressure Ulcer (2009)</td>
<td>Scottish Patient Safety Programme: Patient Safety Indicator (2015)</td>
<td><em>Recommended Patients screened for PI risk within 6 hours</em> PRA, brief three question tool for initial assessment developed by an expert panel Full assessment recommended if risk</td>
</tr>
<tr>
<td>Jurisdiction</td>
<td>Policy/ guideline</td>
<td>Addressed in Quality &amp; safety standards</td>
<td>Mandated risk assessment</td>
</tr>
<tr>
<td>--------------</td>
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<td>----------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>United States</td>
<td>National Pressure Ulcer Advisory Panel (NAP): Prevention &amp; Treatment of Pressure Ulcers (2014)</td>
<td>National Quality Forum identified hospital acquire pressure ulcers (stage III &amp; stage IV) as ‘never events’ (2003)</td>
<td>Minimum Data Set (MDS) mandated reporting of PI risk assessment from skilled and long-term care facilities. Outcome and Assessment Information Set (OASIS) mandated reporting of PI assessment by Home Health Care (HHC) agencies. Implied mandated risk assessment for hospitals based on CMS guidelines that evidence-based practices to be used to prevent PI (this includes risk assessment).</td>
</tr>
</tbody>
</table>
Discussion

In the jurisdictions reviewed, the initiators of pressure injury policy were primarily professional associations, with clinical nurse experts driving forward this agenda. The fundamental premise of much of this work has been the development of policy and clinical practice guidelines to promote consistency in practice and to inform decisions and clinical judgement through evidence.

It is notable that the focus of pressure injury policy has remained largely unchanged since the Agency for Health Care Policy and Research released its policy more than 15 years ago. The predominant focus of policy over this period has been interventions to reduce pressure or to manage pressure injury when they develop. Following the work of Braden and Bergstrom (Bergstrom et al. 1987) the interpretation of pressure or decreased tissue tolerance as the primary aetiological factor for pressure injury has promulgated an ‘end-point’ interpretation of the factors that contribute to pressure injury development.

This end-point framework of causation overlooks the broader care and system-level factors that may contribute to a risk of pressure injury and result in pressure and decreased tissue tolerance. The body of policy analysed for this review highlights that attention remains focused upon the technical aspects of relieving pressure or promoting wound healing and technical or biomedical interpretations of patient risk and harm. This focus on pressure is likely to have arisen from wound management interpretations of pressure injury, largely driven forward by wound management associations. García-Fernández et al. (2014a) have theorised that pressure injuries occur in individuals with some type of dependence, who are unable to care for themselves and are dependent on others for care. Reframing the underlying causative factor as ‘dependence’ rather than ‘pressure’ draws into focus the areas of nursing practice not canvassed in any detail in the current body of policy. Moreover, the capacity of patients for active involvement in their own risk prevention remains overlooked.

The nursing work environment and design of nursing work

Considerable research highlights the link between the nursing work environment and nursing workforce and patient safety and quality (Zhu et al. 2012), with evidence that these factors influence pressure injury incidents and prevalence (Horn et al. 2005, Stone et al. 2007). Given the substantial body of evidence that confirms the profile of the nursing workforce influences nurse sensitive patient outcomes, it is notable that the body of pressure injury policy reviewed has given little attention to staffing or to other human resource contextual factors. The focus of policy remains at the individual patient level. As a consequence, recommended interventions have given priority to screening patients for risk and implementing biomechanical interventions to reduce or redistribute pressure.

Highlighting how the nursing work environment influences pressure injury risk, one Australian study (Mulligan et al. 2011) reported that a contributing factor in pressure injury prevalence was bed management strategies and the impact of these practices on patient care. Mulligan et al. (2011) reported that these administrative strategies increased the number of ‘location moves’ patients experienced during hospitalisation. These moves intensified nursing work, fragmented care and adversely affected the continuity of care by shifting the emphasis from patient-centred care to bed management and patient flow (Mulligan et al. 2011). Similarly, analysis of pressure injury prevalence data for the period 2005–11 in Germany indicated that the number of full-time employees in nursing homes had an influence on the incidence of pressure injury (Heinhold et al. 2014). Examining the influence of nurse staffing on pressure injury and associated interventions Sving et al. (2014) reported that, when the total hours of nursing care was lower, patients were more likely to have pressure-reducing mattresses implemented, but were less likely to have planned repositioning. Whereas, employing a retrospective process-tracing case study method, Pinkney et al. (2014) examined eight cases where individuals had developed a category 3 or 4 pressure injury. Through detailed reconstruction of the cases the organisational context was revealed as a significant contributing factor in the development of these pressure injuries. Specifically, clinicians failed to listen to the patients or carers; clinicians did not recognise or respond to clear signs of an existing pressure injury or to the risk of developing one; and services were not effectively coordinated. Reflection on the findings of these studies suggests that skill mix, nurse staffing and perceived staffing adequacy may potentially be sensitive predictors of pressure injury occurrence.
The challenge of providing evidence to inform policy and practice

Despite the prevalence, costs and harm directly associated with pressure injury, there is a paucity of large-scale or robust evidence to inform preventive policy and guide action. The majority of the recommendations in the clinical practice guidelines reviewed are founded on expert opinion or low-level evidence. In addition, there were regional inconsistencies in policy across countries and between countries (i.e., England and Scotland). In the absence of country-level funding and research focus, much of the published research employed in developing policy and guidelines is under-powered, and many assumptions or common practices have little empirical substantiation.

There remains a lack of consensus around data collection and reporting, which contributes to consider- able variability in data reporting across jurisdictions. This results in limited capacity for comparison across countries and contributes to potential reporting bias. In Australia, data collection on pressure injury remains underdeveloped and available data present a patchy picture of the burden from pressure injury for patients, the health system and broader society. In the USA no established standard has been implemented to guide consistent identification of pressure injury (Zaratkiewicz et al. 2010). These gaps limit the data available regarding incidence, assessment and management and support a need for universal tracking mechanisms. Furthermore, the prevalence of pressure injury in the community or informal care and social service settings has been given little attention (Nguyen et al. 2015). The burden of pressure injury occurring outside of hospital and residential care settings no doubt represents a substantial weight of patient harm as well as economic costs.

Inconsistency between hospital coding systems and pressure injury classification systems has also limited the capacity to identify the mechanisms for pressure injury development (Pan Pacific 2012). Similarly, variations in reporting have limited international comparisons on prevalence. Another area of controversy is the concept of pressure injury avoidability. Expert consensus suggests that not all pressure injuries are avoidable and acknowledges there are patient situations where pressure cannot be relieved and perfusion cannot be improved (Black et al. 2011). The definition of avoidable pressure injuries are those that develop in the absence of assessment or intervention (NHS & NPUAP). The contestability of this definition is high-lighted in case reviews which have, for example, reported that during a 1 year period in five acute NHS trusts (UK), only 43% of pressure injuries sustained were deemed avoidable (Downie et al. 2013).

Implications for nursing management

Considerable challenges remain if this policy agenda is successfully to eliminate pressure injury as a source of patient harm. Moving from a focus of attention to reporting and monitoring incidents, nurse managers should now turn attention to fostering and supporting innovation in the delivery and design of nursing work. As a priority nurse managers and leaders ought to give considered attention to the implications of nursing skill mix and the design of nursing work and work flow upon pressure injury causation in policy and guidelines. It has now been more than a decade since the association was first confirmed between nurse staffing and nursing education levels and patient mortality or poorer clinical outcomes (Aiken et al. 2003, Lang et al. 2004). Yet, sparse consideration has been given in pressure injury policy to the influence of the broader nursing work environment or organisational context and whether this contributes to the risk of pressure injury, or contributes to factors that increase the risk of pressure injury. Similarly, little attention has been given to the nature of nursing work, or whether the design of nursing work, and the conceptualisation of harm and risk perpetuates the risk of patient harm from pressure. To advocate for safer patient and nursing work environments, forms of nursing leadership focused upon developing just work cultures are necessary to influence safety outcomes (Squires et al. 2010).

It is of significance to note that the US policy on pressure injury as a ‘never event’ has spurred the re-examination of clinical practices and a shift to address system approaches to implement evidence-based strategies to address avoidable pressure injury. Rau (2014) reported that 14% of hospitals in the US anticipated that their Medicare funding would be reduced by 1% on the basis of high rates of hospital acquired conditions (including PI). The Centers for Medicare and Medicaid Services (CMS) expects to provide hospitals with information about the calculation of their hospital acquired conditions (HAC) score for the fiscal year 2016 adjustment in late summer 2015. The CMS expects that up to 25% of hospitals will be subject to the penalty, and over time there are plans to increase the number events measured (Health Policy Brief 2015). In recent years evidence has emerged on the benefits of nurse rounding and other forms of work...
re-design (Dyck et al. 2013); however, this evidence remains absent from pressure injury policy and guidelines. If patients’ journeys through the health-care system are to be safe and pressure injury free, it is important to address the various components of the system and their inter-linkages.

It is clear that multicomponent initiatives (e.g. ‘bundling’ interventions) are needed to address pressure injury prevention as a system-wide safety initiative (Sullivan & Schoelles 2013). Prior systematic reviews identify the need to examine daily care processes as another care facet that has had limited focus in reducing avoidable pressure injuries (Soban et al. 2011, Niederhauser et al. 2012, Sullivan & Schoelles 2013). Recent studies using a ‘turn team’ (Still et al. 2013) or the prophylactic use of wound dressings to prevent pressure injury caused by medical devices (Black et al. 2013) exemplify the evolving focus on daily care processes that need to be integrated into daily care practices to prevent pressure injuries. Policy tied with penalties for ‘never event’ occurrence is a driving force to innovate practice.

Conclusions
The pressure injury policy agenda has fostered a discourse of attention to patient incidents, compliance and more recently, financial penalty. Yet the occurrence of pressure injury outside the hospital setting, the patient capacity for involvement, the work environment, the nursing workforce and skill mix, and the system contributions to the development of inconsistency in the assessment and treatment of pressure injury has largely been excluded from consideration. The analysis highlights the significant challenges that remain for nurses, particularly nurse leaders, if this policy agenda is to eliminate patient harm from pressure injury. There is an urgent need for nurse researchers to focus upon robust intervention studies that seek to identify nurse-led or nurse-focused strategies to reduce the prevalence and suffering associated with pressure injury. Moving beyond attention to the biomechanics of pressure injury aetiology, there is a need to adopt whole-of-systems approaches to understanding the factors in the nursing work environment that sustain risk and appropriate mitigation strategies.

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review of nurse-focused quality improvement


