AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE

Selected best practices and suggestions for improvement for clinicians and health system managers

Hospital-Acquired Complication **1**

PRESSURE INJURY

	HOSPITAL-ACQUIRED COMPLICATION	RATE[a]
1	Pressure injury	10
2	Falls resulting in fracture or intracranial injury	4
3	Healthcare-associated infection	135
4	Surgical complications requiring unplanned return to theatre	20
5	Unplanned intensive care unit admission	na[b]
6	Respiratory complications	24
7	Venous thromboembolism	8
8	Renal failure	2
9	Gastrointestinal bleeding	14
10	Medication complications	30
11	Delirium	51
12	Persistent incontinence	8
13	Malnutrition	12
14	Cardiac complications	69
15	Third and fourth degree perineal laceration during delivery (per 10,000 vaginal births)	358
16	Neonatal birth trauma (per 10,000 births)	49

a per 10,000 hospitalisations except where indicated
b na = national data not available

A pressure injury is a 'localised injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction'.[1]

This hospital-acquired complication includes the diagnoses* of:

- Stage III ulcer
- Stage IV ulcer
- Unspecified decubitus ulcer and pressure area.

Why focus on pressure injuries?

Each year, patients in Australia experience a large number of pressure injuries, with 4,313 pressure injuries occurring in Australian public hospitals in 2015-16.[2] The rate of hospital-acquired pressure injuries in Australian hospitals was 9.7 injuries per 10,000 hospitalisations in 2015–16.[2]

Pressure injuries take a long time to heal, which has consequences for patients' quality of life, as such injuries can cause severe pain, and can involve sleep and mood disturbance as well as susceptibility to infection. They also adversely affect rehabilitation, mobility and long-term quality of life.[3] Pressure injury prevention therefore presents an important challenge in acute care hospitals. A number of best practices have been shown to be effective in reducing the occurrence of pressure injuries, but these practices are not used systematically in all hospitals.[4]

Pressure injuries also prolong length of stay. Patients with a hospital-acquired pressure injury remain in hospital for 23.9 days longer on average than patients without this hospital-acquired complication.[2] As the national average cost per admitted acute overnight stay is $2,074[5], each hospitalisation involving a hospital-acquired pressure injury may therefore be associated with $49,569 in extra costs.

* The specifications for the Hospital-Acquired Complications list providing the codes, inclusions and exclusions required to calculate rates is available on the Commission's website.

Significant reductions in pressure injury rates are being achieved in some hospitals through preventive initiatives.[4] The rate for pressure injuries at Principal Referral Hospitals* was 9.8 injuries per 10,000 hospitalisations in 2015-16. If all Principal Referral Hospitals above this rate reduced their rate to 9.8 per 10,000 hospitalisations, then 727 pressure injuries would have been prevented, and more when other facilities are considered.

* Hospitals were classified in the Principal Referral Hospitals peer group for these purposes according to the Australian Institute of Health and Welfare's former definition of major city hospitals with more than 20,000 acute weighted separations and regional hospitals with more than 16,000 acute weighted separations.

What is considered best practice for preventing pressure injury?

All hospital-acquired complications can be reduced (but not necessarily eliminated) by the provision of patient care that mitigates avoidable clinical risks to patients.

The **health service organisation** providing services to patients at risk of pressure injuries:

- Has systems for pressure injury prevention and wound management that are consistent with best-practice guidelines
- Ensures that equipment and devices are available to decrease the risk and effectively manage pressure injuries.

Clinicians caring for patients at risk of pressure injuries:

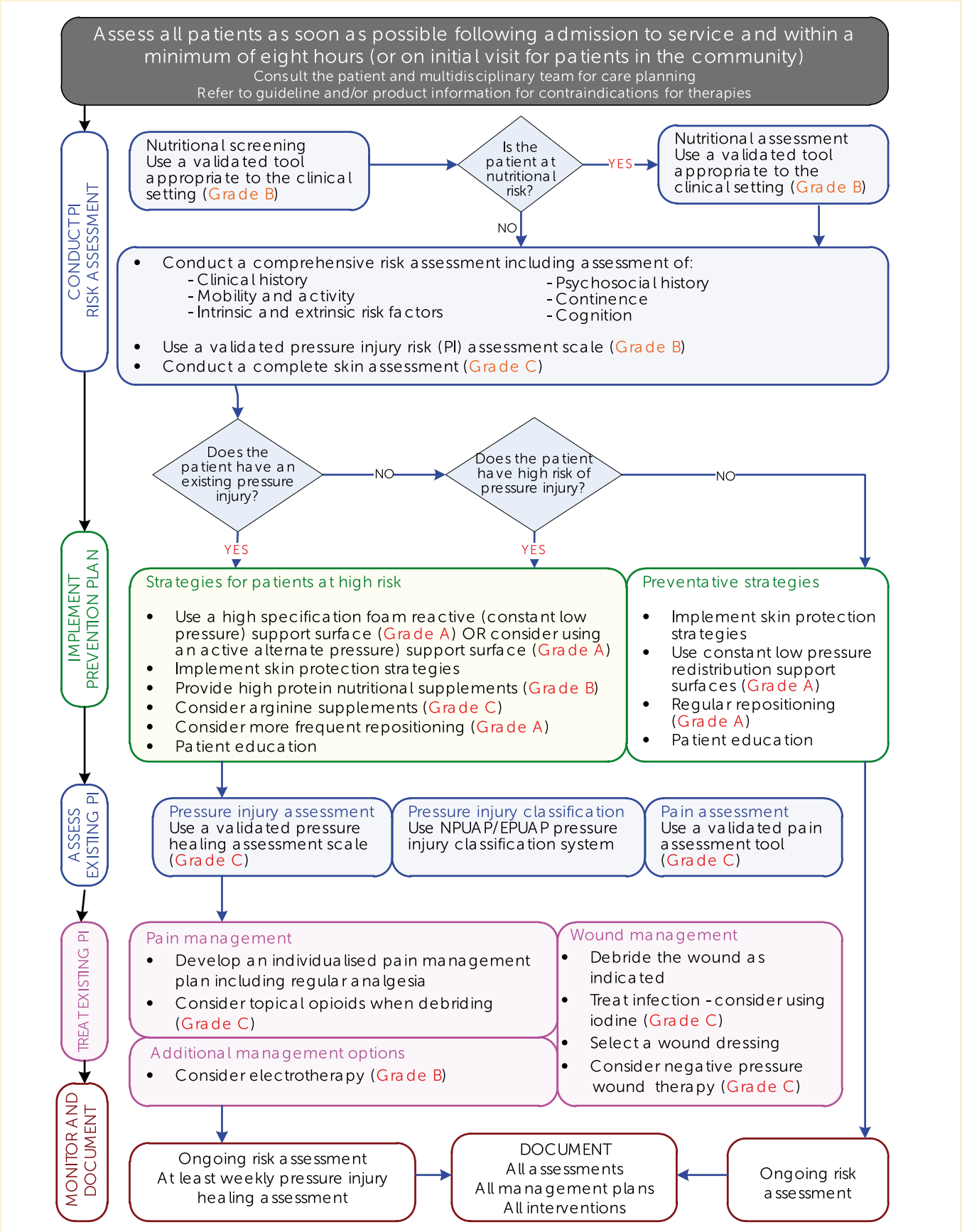
- Conduct comprehensive skin inspections in accordance with best-practice time frames and frequency
- Provide pressure injury prevention and care in accordance with best-practice guidelines.

The National Safety and Quality Health Service (NSQHS) Standards (second edition), in particular the Comprehensive Care Standard[6], support the delivery of safe patient care.

The advice contained in the hospital-acquired complication fact sheets aligns with the criteria in this standard, which are as follows:

- Clinical governance structures and quality-improvement processes supporting patient care
- Developing the comprehensive care plan
- Delivering the comprehensive care plan
- Minimising specific patient harms.

Prevention and management of pressure injury



Recommendation grades: Evidence based recommendations

Grade A = Excellent evidence - body of evidence can be trusted to guide practice

Grade B = Good evidence - body of evidence can be trusted to guide practice in most situations

Grade C = Some evidence - body of evidence provides some support for recommendation(s) but care should be taken in its application

Grade D = Weak evidence - body of evidence is weak and recommendation must be applied with caution

Source: Reproduced with the permission of the Australian Wound Management Association[7]

Clinical governance structures and quality-improvement processes

to support best practice in pressure injury prevention and management

Health service organisations need to ensure systems are in place to prevent pressure injuries through effective clinical governance and quality-improvement processes.

The NSQHS Standards (2nd ed.) describe actions that are relevant to the prevention and management strategies outlined below. These actions are identified in brackets.

Policies, procedures and protocols

Health service organisations ensure policies, procedures and protocols are consistent with national evidence-based guidelines for the risk assessment, prophylaxis and management of pressure injuries. **(5.1a, 5.21)**

Best-practice screening and management

Health service organisations:

- Agree on the process and criteria for pressure injury risk screening **(5.19, 5.7)**
- Inform the clinical workforce of screening requirements **(5.1c)**
- Identify a format for comprehensive skin inspections **(5.7)**
- Identify a format for prevention plans for high-risk patients **(5.7)**
- Identify a management plan format for patients with a pressure injury **(5.22)**
- Implement a wound management system. **(5.21)**

Identification of key individuals / governance groups

Health service organisations identify an individual or a governance group that is:

- Responsible for monitoring compliance with the organisation's pressure injury policies, procedures and protocols **(5.5b)**
- Responsible for presenting data on the performance of pressure injury prevention and management systems to the governing body **(5.5b, 1.6, 1.25)**
- Responsible for overseeing the wound management system. **(5.5)**

Training requirements

Health service organisations:

- Identify workforce training requirements **(5.1c)**
- Train relevant staff on the use of risk screening, prevention plans and pressure injury management plans **(5.1)**
- Ensure workforce proficiency is maintained. **(1.28, 1.27, 1.22)**

Monitoring the delivery of prophylaxis and care

Health service organisations ensure mechanisms are in place to:

- Report pressure injuries **(1.1, 1.9)**
- Manage risks associated with pressure injury prophylaxis and management **(5.1)**
- Identify performance measures and the format and frequency of reporting **(1.9)**
- Set performance measurement goals **(1.8)**
- Collect data on compliance with policies **(1.7b)**
- Collect data about screening activities for pressure injury risk, including whether risk assessment is leading to appropriate action **(1.8)**
- Identify gaps in systems for screening patients for pressure injury **(1.8)**
- Collect data on incidence, prevalence and severity of pressure injuries (see Checklist) **(1.8a)**
- Ensure a root cause analysis is conducted for each occurrence of Stage III or IV pressure ulcer **(1.11c, 1.11d)**
- Provide timely feedback and outcomes data to staff. **(1.9b, 5.2c)**

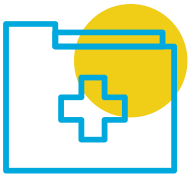
Quality-improvement activities

Health service organisations:

- Implement and evaluate quality-improvement strategies to reduce the frequency and harm from pressure injuries **(1.8, 5.2a, 5.2b)**
- Use audits of patient clinical records and other data to: **(1.16d)**
  - identify opportunities for improving pressure injury prevention plans **(5.2)**
  - identify gaps and opportunities to improve the use of pressure injury prevention plans (such as increasing the number of at-risk patients who have pressure injury prevention plans implemented) **(5.2)**
  - monitor the overall effectiveness of systems for prevention and management of pressure injuries **(1.11g, 1.13c, 1.14g)**
- Use audits of patient clinical records, transfer and discharge documentation and other data to:
  - identify opportunities for improving pressure injury management plans **(5.2)**
  - assess compliance with pressure injury management plan requirements **(5.2)**
  - identify strategies to improve the use and effectiveness of pressure injury management plans. **(5.2)**

Equipment and devices

Health service organisations facilitate access to equipment and devices for the prevention and management of pressure injuries. **(5.23b)**



Developing the patient's comprehensive care plan

to support best practice in pressure injury prevention and management

Clinicians should partner with patients, carers and families in assessing risk, in providing appropriate information to support shared decision making, and planning care that meets the needs of patients and their carers.

Identifying risk factors for pressure injuries

Clinicians identify risk factors for pressure injuries which include[8]:

- Impaired mobility
- Impaired activity
- Impaired sensory perception
- Malnutrition or obesity
- Compromised skin integrity
- Increasing age
- Compromised or reduced blood supply to pressure points
- Severely compromised status of health.

Implement risk assessment screening

Clinicians use relevant screening processes at presentation to assess the risk of pressure injury and requirements for prevention strategies.

Clinical assessment

Clinicians comprehensively assess:

- Conditions
- Medications
- Risks identified through screening process.

Clinicians undertake routine comprehensive skin inspections for patients at risk of pressure injury and document skin inspections in the clinical record.

Informing patients with a high risk

Clinicians provide information about pressure injury prevention and management to high-risk patients and their carers.

Planning in partnership with patients and carers

Clinicians inform patients, family and carers about the purpose and process of developing a pressure injury management plan and invite them to be involved in its development.

Collaborating and working as a team

Medical, nursing, pharmacy and allied health staff work collaboratively to perform pressure injury risk assessment and clinical assessment.

Documenting and communicating the care plan

Clinicians document in the clinical record and communicate:

- The findings of the screening process
- The findings of the clinical assessment process including skin inspections
- The pressure injury prevention plan.

Delivering comprehensive care

to prevent and manage pressure injury

Safe care is delivered when the individualised care plan, that has been developed in partnership with patients, carers and family, is followed.

Collaborating and working as a team

Medical, nursing, pharmacy and allied health staff collaborate to deliver pressure injury prophylaxis and management.

Delivering pressure injury prevention strategies in partnership with patients and carers

Clinicians, patients and carers work in partnership to use the comprehensive care plan to deliver pressure injury prevention strategies where clinically indicated, for example by:

- Re-positioning and / or mobilising regularly
- Reducing pressure, friction, or shear
- Managing pain
- Protecting skin, reducing moisture and optimising skin hygiene and temperature
- Providing adequate nutrition and hydration
- Managing continence.

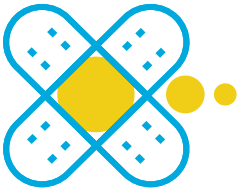
Delivering pressure injury management in partnership

Clinicians, patients and carers work in partnership to manage patients who have pressure injuries according to best-practice guidelines.

Monitoring and improving care

Clinicians should:

- Monitor the effectiveness of these strategies in preventing pressure injury and reassess the patient if pressure injury occurs
- Review and update the care plan if it is not effective or is causing side effects
- Engage in reviewing clinical outcomes, identifying gaps and opportunities for improvement.



Minimising specific patient harm

Patients at risk of specific harms are identified, and clinicians deliver targeted strategies to prevent and manage these harms.

Nutrition and hydration

Clinicians should ensure the nutritional and fluid requirements of the patient are planned, delivered and adjusted as appropriate and the patient's intake is monitored.

Checklist for measuring and monitoring pressure injury

- ☐ Incidence and prevalence measures are frequently monitored
- ☐ Pressure injury rates are examined on a monthly basis
- ☐ Information on rates is disseminated to key stakeholders and staff
- ☐ Root cause analysis is conducted for each occurrence of a Stage III or IV pressure ulcer.

Notes on Incidence and Prevalence

Two types of measures can be monitored: **incidence** and **prevalence rates**.

Incidence describes the number or percentage of people **developing** a new ulcer while in your facility or on your unit. Therefore, incidence only counts pressure injuries developing after admission. Incidence rates provide the most direct evidence of the quality of your care. Therefore, your quality improvement efforts should focus on incidence rates.

Prevalence describes the number or percentage of people **having** a pressure ulcer while on your unit. It may reflect a single point in time, such as on the first day of each month. This is known as **point prevalence**. However, it can also reflect a prolonged period of time, such as an entire hospital stay. This is known as **period prevalence**. Both types of prevalence rates (point and period) include pressure injuries present on admission as well as new ulcers that developed while in your facility or on your unit. Therefore, prevalence rates can provide a useful snapshot of the pressure injury burden but they say less about your quality of preventive care than do incidence rates.

Make sure everyone looking at the data understands the difference between incidence and prevalence. Incidence rates capture only new pressure injuries developing during an admission. Prevalence rates include all pressure injuries present in a group of patients – those that developed during a hospital stay as well as those that developed elsewhere.

There is no single 'right' approach to measuring pressure ulcer rates. Every approach has advantages and disadvantages. While we make specific recommendations above, the most important thing is to be consistent. Rates calculated by one approach or methodology cannot be compared to rates calculated another way.

Additional resources

Australian Commission on Safety and Quality in Health Care. Safety and Quality Improvement Guide Standard 8: Preventing and Managing Pressure Injuries (October 2012). Sydney: ACSHQC; 2012.

Agency for Healthcare Research and Quality (US). Preventing Pressure Ulcers in Hospitals: A Toolkit for Improving Quality of Care: PSI 032016.

Australian Wound Management Association. Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury. Osborne Park, WA: Cambridge Media; 2012.

Clinical Excellence Commission (AU). Pressure Injury Prevention and Management Policy Implementation Guide. Sydney: CEC; 2014.

Clinical Excellence Commission (AU). Clinical Excellence Pressure Injury Prevention Project Monitoring & Auditing Framework, 2014.

National Institute for Health and Care Excellence (UK). Pressure ulcers: prevention and management. Clinical Guideline 179 [Internet]. 2014 23 April 2014.

National Institute for Health and Care Excellence (UK). Pressure ulcers. Quality Standard 89. 2015 11 June 2015.

National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers: Quick Reference Guide. Osborne Park, Australia: Cambridge Media; 2014.

NSW Agency for Clinical Innovation. Pressure Injury Prevention for Critically Ill Adults (SHPN ACI 140009). Chatswood: ACI; 2014.

NSW Health. Pressure Injury Prevention and Management. NSW Health Policy Directive2014; (PD2014_007).

Note on data

The data used in this sheet are for hospital-acquired complications recorded during overnight acute episodes of care in Australian public hospitals in 2015-16. Data are included where hospitals were able to identify that the complication had arisen during an admission using the condition onset flag. Figures reported by the Independent Hospitals Pricing Authority (IHPA) may differ due to the IHPA's methodology, which applies different inclusion/exclusion criteria.

References

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8. Gillespie BM, Chaboyer WP, McInnes E, Kent B, Whitty JA, Thalib L. Repositioning for pressure ulcer prevention in adults. Cochrane Database of Systematic Reviews. 2014(4).

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