PRESSURE INJURY PREVENTION AND MANAGEMENT

POLICY AND PROCEDURE©

DOCUMENT SUMMARY/KEY POINTS

NSW Ministry of Health Policy Directive

Pressure Injury Prevention and Management

https://www1.health.nsw.gov.au/pds/Pages/doc.aspx?dn=PD2021_023

- The above linked document is a NSW Ministry of Health Policy Directive authored by the CEC and requires mandatory compliance. This document needs to be read in conjunction with the above Ministry of Health Policy Directive
- Comprehensive care standard as per the National Safety and Quality Health Service (NSQHS) Standards requires health service organisations to implement evidence-based systems to prevent pressure injuries (PI's) and to manage them when they do occur.
- This policy was revised to align with the 2019 European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline. The International Guideline 2019.
- Pressure injury prevention and care is everyone's responsibility
- Prevention requires comprehensive risk assessment and implementation of prevention management plan for patients identified "at risk".
- Three main components of a comprehensive risk assessment involves;
  - Use of a reliable and validated risk assessment tool
  - Skin assessment
  - Clinical judgement
- Risk assessment and documentation should begin within eight hours of presentation

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1st July 2022	**Review Period**: 3 years
Team Leader:	Skin Integrity Transitional Nurse Practitioner	**Area/Dept**: Nursing

- Patients identified at risk must be re-assessed on at least a daily basis.
- Risk assessment tools used at SCHN include Glamorgan, Braden Q and the Neonatal Skin Risk Assessment Scale (NSRAS)
- Inclusion of and education to families is an integral part of Pressure Injury (PI) prevention.

CHANGE SUMMARY

- Identification of risk factors and ongoing review of strategies for their effectiveness, considering patients goal of care and preferences
- Skin assessment for patients with identified risk factors and ongoing to ensure prevention/management strategies are effective
- Only health-service acquired pressure injuries and those which have deteriorated to the next stage to be reported in ims+ and an inclusion of an overview of governance and patient safety
- Focus on prevention strategies during transportation or transition of care and an inclusion of a link to the relevant NETS policy
- **10/11/22**: Minor review. Updated Appendix 5 screen shot of Pressure Injury Prevention and Management Plan adhoc form.

READ ACKNOWLEDGEMENT

- All clinical staff should read and acknowledge they understand the contents of this document

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

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1 Purpose

The purpose of this guideline is:

- To inform healthcare professionals of the risks of pressure injury development and strategies to prevent pressure injuries occurring in patients presenting to the SCHN facilities. It will also give guidance on the management of any wound resulting from pressure, shear or friction.
- To ensure staff are working in line with NSQHS Comprehensive Care standard[1]. Comprehensive Care Standard intends to ensure that risk of harm of patients during health care are prevented and managed.
- To ensure best practice principals are adhered to for the identification, prevention and management of pressure injuries.

2 Pressure Injury Definition

A pressure injury (PI) is localised damage to the skin and underlying soft tissue, usually over a bony prominence or related to a medical or other device[2]. The injury can present as intact skin or an open ulcer and may be painful. The injury occurs as the result of intense and/ or prolonged pressure or pressure in combination with shear.

Pressure injuries have significant negative impacts related to patients, society, and health systems (e.g. pain, increased infection rates, morbidity and mortality, increased length of stay in hospital, and raised financial costs). Preventing pressure injury development to reduce the burden of PIs for patients and health care systems is considered a core aim of healthcare organizations[3].

3 Collaboration with patient and families

Parent/ carers are an integral part of the child's care and can assist the healthcare teams prevent and manage pressure injuries. Parent/ carers should be informed of the risk of developing pressure injures whilst in hospital and be provided with information that will assist them to understand and participate in the development of effective and appropriate strategies to prevent pressure injuries.

Factsheets should be distributed to the parent/ carers who child is identified at risk: Link to Factsheet: http://www.schn.health.nsw.gov.au/files/factsheets/pressure_injuries-en.pdf

Suggested preventative strategies should be discussed with the parent/ carers, including inspecting their child's skin; repositioning and device management. These discussions should be documented on the Pressure Injury Prevention and Management Plan (Refer to Appendix 4).

Posters regarding skin assessment checks have been made available for staff, patients and families and are available on the SCHN How safe are we page, under resources (Please see Appendix 10).

4 Contributing factors to pressure injury development

All patients are potentially at risk of developing a pressure related injury whilst in hospital.

A risk factor is any factor that either contributes to increased exposure of the skin to excessive pressure or diminishes the skin's tolerance to pressure[4].

4.1 Risk Factors[4]

Extrinsic Factors include:

- Intensity and duration of pressure, as well as the tissues ability to tolerate pressure are factors affecting the development of pressure injury development.
- High moisture levels at the skin- support surface interface e.g. incontinence, perspiration or wound drainage may increase the amount of friction and shear
- The prolonged pressure present on localised areas of tissue results in the occlusion of blood flow, preventing the supply of oxygen and nutrients to the tissue, resulting in tissue ischemia and re-perfusion injury, leading to cell destruction and tissue death.

Intrinsic factors include:

- The metabolic and physical effects of an increased body/ skin temperature increases the risk of skin damage
- Reduced sensory perception
- Cognitive impairment
- Impaired perfusion and oxygenation
- Medication use e.g. sedatives, hypnotics and analgesics
- Poor nutrition and hydration are also related to dry skin and decreased skin turgor, which increase PI risk
- Existing pressure injury

4.2 Special considerations for children at higher risk in a paediatric setting[5]

4.2.1 Paediatric considerations

Based on pressure injury prevalence and incidence data, neonates and children are at risk of and do develop PI's. Skin breakdown in paediatric patients can result in pain, infection, disfigurement, altered body image, and mortality, as well as increased costs, length of stay, and litigation. [5]

Research has demonstrated that children differ from adults in the anatomical sites of skin breakdown. In infants and children the areas that are affected are the occipital region (primary in infants), sacral region (primary in children), earlobes, and Heels (calcaneous region). [14]

The occipital region in children less than 36 months of age and pressure ulcer formation is due, primarily, to the disproportionately large head, in comparison to body size. At this age the head constitutes a greater portion of the total body weight and surface area. [14]

When children are positioned supine, the occipital region becomes the primary pressure point. Limited hair growth and less subcutaneous tissue contribute to increased susceptibility to the effect of pressure and shearing forces, often leading to pressure-induced alopecia.

Vigorous side-to-side movement of the head, as a result of agitation, also increases the shearing force and friction being applied to the head.

Among neonates and children, more than 50% of PI's are related to equipment and devices. Frequent skin assessments under blood pressure cuffs, transcutaneous oxygen probes, tracheostomy tubes, nasal prong and mask CPAP, arm boards, plaster casts, and traction boots are important preventive measures. Orthotics, wheelchairs, and wheelchair cushions must be frequently readjusted in growing children. [2] Beds and cots should be inspected to ensure that tubing, leads, toys, and syringe caps are not under or on top of patient's skin. The skin around nasogastric and orogastric tubes should be checked regularly. Intravenous cannulas cause a number of pressure injuries in children, please refer to the Peripheral Intravenous Catheters - Clinical Standard for more information regarding taping procedures.

Please note: products manufactured to prevent and treat PI's in adults may not be suitable for children and neonates and special consideration must be given when using any pressure relieving equipment.

4.2.2 Neonatal care

Hospitalized neonates are at risk of developing PI's due to their immature skin, compromised perfusion, decreased mobility, altered neurological responsiveness, fluid retention, skin moisture and medical devices [8]. Premature infants have an underdeveloped epidermal barrier with only a few cornified layers. The dermis is deficient in structural proteins and is easily torn. They are at risk for increased permeability to exogenous materials, additional skin damage and infection [9]. Functional integumentary maturity usually occurs by 34 weeks gestation [10].

In the neonatal population it has been hypothesised that a lack of adipose tissue to deflect pressure from medical devices and exposure to excess moisture are associated with more frequent and severe PI's. Pressure injuries associated with medical devices have been reported as attributing to nearly 80% of all neonatal pressure related injuries and accounting for over 90% of injuries in premature infants [9].

Care and caution should be taken when using the following products for neonates as they are associated with an increased risk of skin injury: [14]

- Skin cleansing products such as alcohol based antiseptic cleansers
- Emollients
- Adhesive tapes
- Devices that emit thermal energy i.e. oxygen saturation probes

4.2.3 Intensive Care Unit

Paediatric patients in the intensive care unit (PICU) have a significant risk of developing PI's.

Identified risk factors in PICU patients include [13]:

- Prolonged immobility
- Impaired sensory perception
- Mechanical ventilation > 3 days
- High frequency oscillatory ventilation
- Extracorporeal membrane oxygenation
- Non-invasive ventilation
- Low cardiac output and use of vasoactive drugs
- Use of muscle relaxants and sedatives
- Multiple medical devices insitu including CPAP masks, ET tubes, intravenous devices, and monitoring devices

4.2.4 Operating Theatre

Surgical patients are at risk of pressure injuries (PI) due to their immobilised state. Evidence suggests that patients undergoing lengthy procedures, anything longer than two hours, are at higher risk of developing a PI [6]. A comprehensive multidisciplinary team approach should be adopted to adequately protect the patient against developing a PI whilst on the operating table.

There is evidence which suggests that some PI's obtained in operating theatres do not appear until up to four days post-operative. This highlights the importance of preventative measures and continuous assessment during all phases of the patient's surgical journey. [30]

There are some procedures which require the patient to be positioned in the prone position. This puts patients at risk of PI's occurring in uncommon areas such as the toes, the tip of the nose, the chin and the iliac crests.

Interventions should be implemented pre operatively, intraoperatively and postoperatively to protect the patient from PIs. Interventions include:

- Ensuring that no wires or tubes are in contact with skin
- Using gel and foam supports as needed
- Elevating heels off the bed when supine
- Use blueys or towels when prepping surgical sites to prevent pooling of prep solutions
- Consider the use of transparent film dressing on reddened bony prominences
- Complete nursing documentation which includes patient position, positioning devices, skin integrity and post operative skin assessment.

Postoperative Management

In the postoperative phase a complete assessment of altered tissue/skin integrity is required. Any discrepancy should be documented in the patient's notes, entered into Incident Management System and communicated to the team.

Skin integrity is to be incorporated into the recovery room nursing report.

4.2.5 Orthopaedics

Patients in traction, skin, spinal or skeletal traction are considered to be high risk due to their immobility and presence of fixed medical devices.

Patients in plaster casts, Hip Spica's and braces should have areas that are at risk of friction/ shearing injuries regularly monitored and assessed.

4.2.6 Patient Transport

Patients may develop pressure injuries whilst under the care of our patient transport teams. Specific care actions and positioning techniques are implemented and can be found in the Paediatric: General Retrieval Care of the paediatric patient practice guideline.

5 Assessment and Screening tools

All inpatients should be assessed on presentation which includes use of a risk assessment tool and a full visual inspection of the patient's skin. The risk assessments must be completed as soon as possible after admission, within a minimum of eight hours.

Re assessment should occur:

- Change in health status or mobility
- Pre-operatively, and as soon as feasible after surgery
- Transition of care
- Prior to discharge
- If a pressure injury develops
- Based on clinical judgement

In addition to this re assessments using the relevant screening tool should occur daily if the patient is at risk or every 72 hours if an inpatient.

To assist clinicians in identifying a patient at risk a pressure injury risk assessment scale or tool must be used [3]. A risk assessment scale is a checklist to determine a score according to a series of parameters considered to be risk factors [4].

Validated risk assessment tools for children are useful for identifying those at risk and increasing awareness of potential pressure related skin injuries, however they cannot encompass every possible situation. Clinicians should use their clinical knowledge, judgement and experience to protect skin and prevent tissue damage in conjunction with the recommended screening tool [5].

The early recognition of which individuals are at risk of developing nosocomial pressure related injuries is considered to be an essential component in their care pathway[1] and it is acknowledged that effective prevention lies in early risk identification [2].

Children who are at risk of developing pressure injuries need to be identified so that preventative measures can be taken. Including an ongoing review of strategies for their effectiveness, considering patients goal of care and preferences

5.1 Screening tools

5.1.1 Glamorgan Scale Risk Assessment (used in the ward environment)

The Glamorgan Scale is accessed through PowerChart in AdHoc Charting – General forms- Pressure injury risk assessment. The Glamorgan Scale is used in all inpatient areas except ICU. The tool is based on three known risk factors that can potentially increase the likelihood of developing a pressure area:

- Mobility
- Other risk factors
- Objects pressing on the skin

Each question (Refer to Appendix 2) has a risk score associated with these answer and these correlates to the risk score category and the suggested care actions.

5.1.2 The Braden Q Risk Assessment Tool

This is used routinely for all ICU patients.
All seven subscales are rated from 1 to 4 – The lower numbers representing HIGH RISK.
The range of possible total scores is 7 to 28 (Refer to Appendix 2).

5.1.3 Neonatal Risk assessment screening tool

Based on the Braden Q risk assessment tool but with modification to the subscales and scoring to meet the specific requirements of neonates (Refer to Appendix 4).

5.2 Skin Assessment

A comprehensive skin inspection is recommended for all patients on admission and daily thereafter, documented in EMR. The patient's skin status is the most significant early indicator of the skin's response to pressure exposure and the ongoing risk of pressure injury.

Inspect the skin of all patients on admission, and at each repositioning, to identify indications of pressure injury including; blanching response, localised heat, oedema and induration and skin breakdown. If a pressure injury is noted on admission please record this on their nursing admission form and ensure a wound management plan of care is in place.

Particular attention should be paid to areas of bony prominence which are at an increased risk for pressure injury due to pressure, friction and shearing forces.

What is a "comprehensive skin inspection?"

It is a general visual check of the skin which includes examination of the entire skin surface to check skin integrity and identify any characteristics indicative of pressure damage/injury.

Taking a look, listen and feel approach to skin assessment means we need to observe the skin, listen to any complaints of rubbing, itching or pain and feel the skin for any unusual coolness, warmth or blistering/ moisture.

Check and monitor the skin beneath devices, prosthesis and dressings when clinically appropriate.

6 Prevention

Prevention requires an on-going risk assessment and implementation of prevention strategies including the selection of and appropriate use of pressure relieving devices.

If a child is at identified at risk of developing a pressure injury they should have preventative strategies documented on the SCHN pressure injury prevention and management plan (Refer to Appendix 5).

All children who are identified as at risk for developing a pressure injury should have their Pressure Injury Prevention and management plan documented weekly or if their condition changes.

6.1 Positioning and repositioning

Patients at risk of pressure injury should be suitably positioned to redistribute pressure, minimise friction and shear forces, and reposition regularly.

Recommendations:

- Where possible the preferred method of repositioning is for the patient to do so independently if able. Reminders to reposition may be necessary.
- It is recommended for patients who are unable to reposition themselves that the repositioning timeframe (including turning) is every 2 hours, unless there is a clear clinical reason detrimental to the patient for not doing so.
- Repositioning is required whilst the patient is in bed as well as in a chair, wheelchair, commode chair or shower chair.
- Repositioning should be performed regardless of the support surface on which the patient is managed.
- Equipment can be used to promote position changes and independent mobility as per physiotherapy or occupational therapy recommendations e.g. using bed rails, overhead bed rails.
- Positions may include; side lying, left side lying, right side lying, prone, seated in a bed or seated in a chair.
- Head of bed should be raised in conjunction with a knee block or for smaller children a pillow under knees to prevent shear forces on sacrum, although children should not be left in this position for extended periods due to risk of loss of muscle length around the knee.
- In patients with Spinal Cord Injury or reduced sensation in the sacral region, the head of the bed should not be elevated past 30 degrees. Further information regarding this can be found here https://aci.health.nsw.gov.au/networks/spinal-cord-injury/pi-toolkit/management/address-causative-and-contributing-factors/bed-positioning

- When examining, repositioning and transferring patients, employ appropriate manual handling techniques. This prevents staff injury, and reduces friction and shearing forces to the patient. Please consider using: hover mats/ pat slides/ slide sheets/ hoist and/ or slings. For further information on transferring and moving patients, refer to the Manual Handling and Ergonomics Procedure document or contact Physiotherapy for assistance/advice on transferring patients and repositioning.
- Monitor the patient's level of pain and ensure appropriate pain relief is provided to encourage and support mobility.
- When repositioning the patient in any position always check the positioning of heels and other bony prominences.

6.2 Pressure Redistributing Equipment

Pressure redistribution surfaces are support surfaces on which patients are placed to manage pressure load to tissue, microclimate, moisture shear and/or friction. Pressure redistribution surfaces are designed to reduce interface pressure through increasing the body surface area or alternating the area of the body in contact with the support surface (i.e. pressure reduction and pressure relief).

At SCHN, all patients all beds and cots will at a minimum, be nursed on a static foam pressure relieving mattress.

Patients deemed at high risk, should be nursed on a high grade pressure redistributing mattress or cushion that is appropriate for the patients weight, age and condition. These mattresses can be hired through State contractor vendors (Please refer to Appendix 6).

Some pressure relieving devices have minimal immersion and redistribution of pressure for weights under 25kg. It is important to ensure weight is considered when selecting an appropriate mattress.

For pressure relieving devices to be effective there must be minimal layering in-between the person and the device.

For patients with an unstable spinal or pelvic injury or fracture, the active support surface is contra-indicated. Those patients should stay on the appropriate non-powered mattress and receive regular pressure relief for their condition.

Higher specification foam support surfaces and non-powered pressure redistributing devices must be used on emergency trolleys, transport stretchers and operating tables for patients at risk of pressure injury.

Refer to Occupational Therapy for advice, suitability assessment or provision of specialised mattress or seating pressure redistributing devices

The following should NOT be used as pressure relieving devices:

- Water-filled gloves under heels – These are not effective due to the small surface area of the heel and the water-filled glove is unable to redistribute any pressure
- Sheepskins Doughnut-type device; these may impair lymphatic drainage and circulation and may contribute to pressure injuries

6.3 Strategies for device related injuries

There are a multitude of different medical devices / equipment that are required as a component of a patient's treatment. It is important to recognise that any foreign object that comes into direct contact with the patient's skin has the potential to cause a pressure injury and vigilance in inspection and monitoring of the patient's skin that is in contact with such devices is paramount in preventing a pressure injuries.

Strategies to help prevent device related pressure injures include:

- Repositioning devices as appropriate e.g. monitoring electrodes, probes, oxygen delivery
- Regular inspection & repositioning of the patient to ensure that they are not inadvertently lying on devices (e.g. tubing, monitoring cables)
- Protective barriers between the device & patients skin e.g. Hydrocolloid dressings under nasogastric tubing, oxygen tubing, CPAP masks, drainage tubing,
- Use of padding to soften hard surfaces; under cast padding under splints; foam padding on IV arm boards.
- If objects require the use of tape to secure to the patient ensure that the tapes are not applied too tightly and that the appropriate tapes are utilised. Where possible use an adhesive tape that has some stretch or elasticity.
- Use the minimal amount of tape/strapping to safely secure the device but allow for maximal visualisation of the patient's skin.
- Utilise the correct size equipment appropriate to the patients anatomical size (nasal cannula, nasogastric tubing)
- Education to families is recommended regarding how they can monitor devices and prevent device related injuries.
- Adhering to key principals for upper limb and lower limb casts, splints and orthoses (see Appendix 9)
- A staff education fact sheet regarding device related pressure injuries can be found on the SCHN How safe are we page under resources.

6.4 Skin Care

Do not vigorously rub or massage the patients' skin.

- Develop and implement an individualised continence management plan where appropriate.
- Use a pH appropriate skin cleanser and dry thoroughly to protect the skin from excess moisture
- Use water based skin emollients to maintain skin hydration.

6.5 Nutrition

Patients with sub-optimal nutrition and hydration as well as overweight and underweight patients are at greater risk of pressure injuries.

As per the Ministry of Health Nutrition Care Policy [15], all inpatients must undergo nutrition screening within 24 hours of admission, then weekly during the patient's episode of care or if the patient's clinical condition changes. At SCHN, nutrition screening is performed via the Paediatric Nutrition Screening Tool (PNST) in eMR (Powerchart). Patients identified as 'at risk' are automatically referred to a dietitian for a full nutrition assessment and nutrition support, as appropriate.

7 Management of a pressure injury

7.1 Pressure injury classification and Management

When identifying and managing a PI an international pressure injury classification system is used. This is a validated system that identifies the level of injury and categorises the severity of pressure injuries from stage I to stage 4. There are also an additional two classifications referred to as suspected deep tissue injury (SDTI) and unstageable (Please refer to Appendix 7).

Correct identification of tissue loss and wound depth will assist in selecting the correct product to manage the wound.

As much as possible the risk or pressure should be removed to enable wound healing. A referral to Occupational Therapy or Physiotherapy is recommended if alternate position or equipment is required to remove pressure or cause.

The choice of dressing will be determined by the individual needs of the patient and the wound and the type of dressing used may differ as the healing process progresses.

The dressing selection will be made in consultation with the medical officer, wound care nurse consultant/specialist when indicated and in line with Wound Assessment and Management Guidelines.

Selecting the wound dressings is based on:

- Comprehensive ongoing clinical assessment,
- Management of pain, malodour, exudate and infection
- Wound size and location
- Availability

Other characteristics that are likely to influence wound dressing selection may include:

- Condition of surrounding skin
- Ease of application and removal
- Ability to maintain moisture balance

- Pain experienced on dressing changes
- Infection control and ability to maintain bacterial balance
- Cosmetic effect
- Skill and knowledge of the health professional
- Accessibility and cost effectiveness
- Suitability of dressing location to wound location
- Patient preference

The frequency of dressing changes will dictate an individualised wound management plan and the frequency of such dressing changes will be directed by the clinician co-ordinating the patient's care, but must take into consideration the dressing properties and the stage of wound healing [10].

7.2 Documentation of Pressure Injury

The presence of a pressure injury either newly developed or pre-existing injury on admission requires documentation.

The following should be recorded in the pressure area prevention and management plan:

- Stage, location and size of the pressure injury (Refer to Appendix 7 for staging).
- Time and date of event leading to the PI, where known
- Actual or probable cause
- Incident management notification number if required

Additionally a Wound assessment chart should be competed (for stage 2 and above) available on iview on eMR

Medical photography is recommended for pressure injuries stage 2 and above

Please note: Only health-service acquired pressure injuries and those which have deteriorated to the next stage whilst an inpatient require reporting to ims+

7.3 Monitoring and Escalation for Consultation & Review

- Any pressure injury not progressing in an expected time frame should be escalated to a medical officer or clinical nurse consultant or nursing practitioner.
- Stage 3 &4, unstageable, or suspected deep tissue pressure injuries should be reviewed by medical officer, clinical nurse consultant, or nursing practitioner. If the injury is sustained afterhours an afterhours medical review is required.
- For pressure injuries stage 2 and above that were developed in the hospital, referral to Hospital in the home should be completed where geographically available.
- For outpatients with a current pressure injury or injuries, a letter to their general practitioner is recommended to ensure the injury is managed in the community.

8 Referral / Transfer of care

If a patient is at risk of developing a pressure injury or have pressure injuries present, and is being transferred to another facility the accepting facility is to be contacted and informed of the risk and pressure injury management plan. This is to ensure the accepting facility is able to have relevant equipment available.

9 Education & Training of staff

All clinical staff involved in direct patient care should undertake the HETI Pressure Injury Online Training Program https://www.heti.nsw.gov.au/education-and-training/courses-and-programs/pressure-injury-prevention-risk-management

SCHN also has a training module available on Learning.kids

10 Governance and patient safety

All health-service acquired pressure injuries should be documented in the Incident Management System (ims+) as soon as reasonably possible after identification of the pressure injury, regardless of its severity. The Patient Safety Team monitor all incidents entered into ims+, and can provide support where necessary when managing pressure injury incidents. When Stage 3, 4 or deep tissue injuries are identified, the Patient Safety Team will collaborate with the Skin Integrity Nurse Practitioner and manager of the area where the pressure injury occurred, and may consider further formalized review in the form of a Case Review. This process engages relevant stakeholders and aims to identify opportunities for improvement to prevent further pressure injuries occurring. More information on this process can be found in the Clinical Incident Management Procedure on ePolicy.

Only health-service acquired pressure injuries and those which have deteriorated to the next stage to be reported in ims+ and an inclusion of an overview of governance and patient safety

The incidence of pressure injures across the SCHN are recorded monthly on the Patient Safety Incident Dashboard. The incident rates and results from the bedside QARs audits are discussed at the SCHN falls and pressure injury subcommittee.

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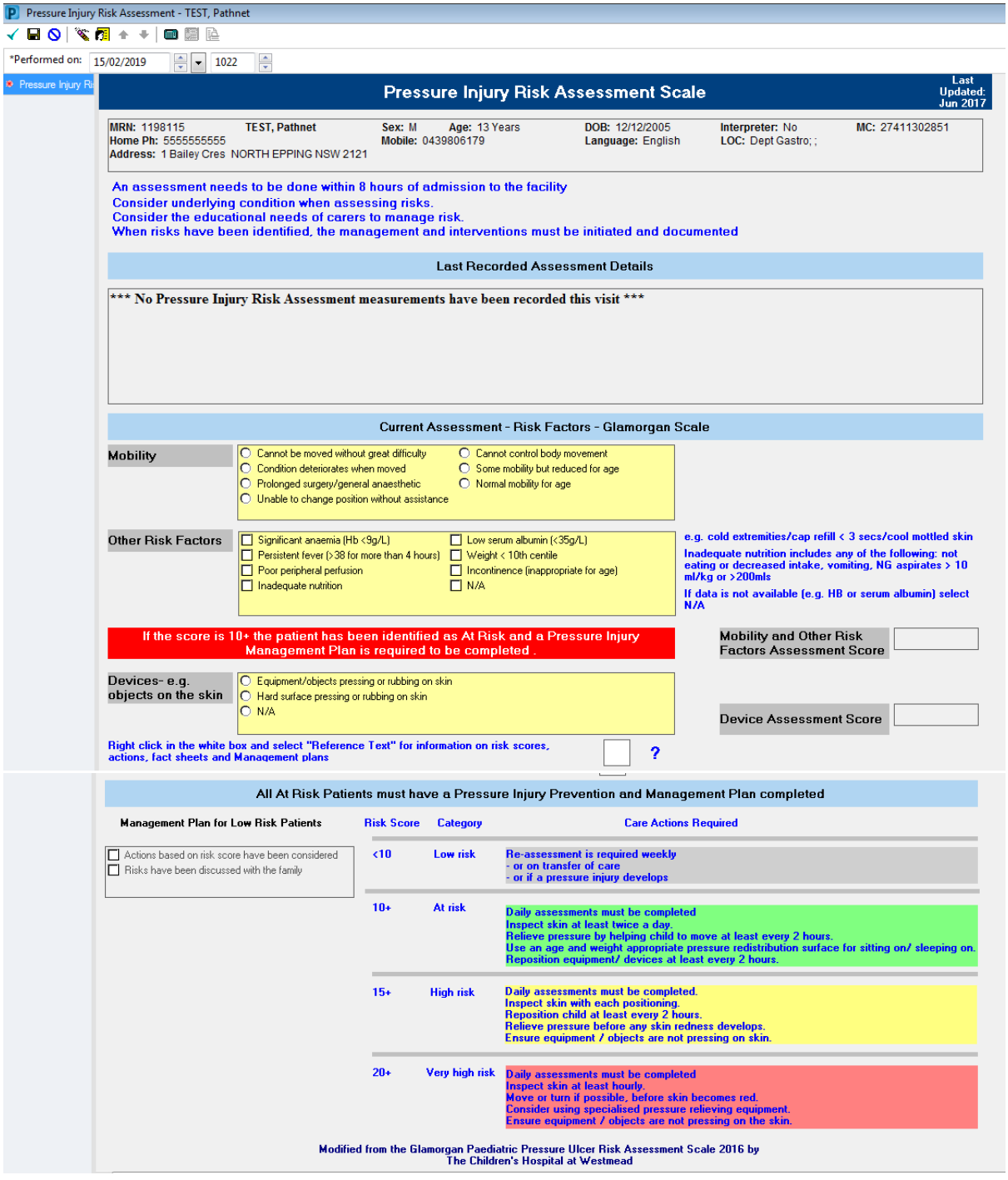
Appendix 1: Pressure Injury Risk Assessment Scale



Pressure Injury Risk Assessment - TEST, Pathnet

*Performed on: 15/02/2019 1022

Pressure Injury R

Pressure Injury Risk Assessment Scale

Last Updated: Jun 2017

MRN: 1198115 TEST, Pathnet Sex: M Age: 13 Years DOB: 12/12/2005 Interpreter: No MC: 27411302851
Home Ph: 5555555555 Mobile: 0439806179 Language: English LOC: Dept Gastro; ;
Address: 1 Bailey Cres NORTH EPPING NSW 2121

An assessment needs to be done within 8 hours of admission to the facility
Consider underlying condition when assessing risks.
Consider the educational needs of carers to manage risk.
When risks have been identified, the management and interventions must be initiated and documented

Last Recorded Assessment Details

*** No Pressure Injury Risk Assessment measurements have been recorded this visit ***

Current Assessment - Risk Factors - Glamorgan Scale

Mobility

- ○ Cannot be moved without great difficulty
- ○ Condition deteriorates when moved
- ○ Prolonged surgery/general anaesthetic
- ○ Unable to change position without assistance
- ○ Cannot control body movement
- ○ Some mobility but reduced for age
- ○ Normal mobility for age

Other Risk Factors

- ☐ Significant anaemia (Hb <9g/L)
- ☐ Persistent fever (>38 for more than 4 hours)
- ☐ Poor peripheral perfusion
- ☐ Inadequate nutrition
- ☐ Low serum albumin (<35g/L)
- ☐ Weight < 10th centile
- ☐ Incontinence (inappropriate for age)
- ☐ N/A

e.g. cold extremities/cap refill < 3 secs/cool mottled skin
Inadequate nutrition includes any of the following: not eating or decreased intake, vomiting, NG aspirates > 10 ml/kg or >200mls
If data is not available (e.g. HB or serum albumin) select N/A

If the score is 10+ the patient has been identified as At Risk and a Pressure Injury Management Plan is required to be completed .

Mobility and Other Risk Factors Assessment Score

Devices- e.g. objects on the skin

- ○ Equipment/objects pressing or rubbing on skin
- ○ Hard surface pressing or rubbing on skin
- ○ N/A

Device Assessment Score

Right click in the white box and select "Reference Text" for information on risk scores, actions, fact sheets and Management plans ?

All At Risk Patients must have a Pressure Injury Prevention and Management Plan completed

Management Plan for Low Risk Patients

- ☐ Actions based on risk score have been considered
- ☐ Risks have been discussed with the family

Risk Score	Category	Care Actions Required
<10	Low risk	Re-assessment is required weekly - or on transfer of care - or if a pressure injury develops
10+	At risk	Daily assessments must be completed Inspect skin at least twice a day. Relieve pressure by helping child to move at least every 2 hours. Use an age and weight appropriate pressure redistribution surface for sitting on/ sleeping on. Reposition equipment/ devices at least every 2 hours.
15+	High risk	Daily assessments must be completed. Inspect skin with each positioning. Reposition child at least every 2 hours. Relieve pressure before any skin redness develops. Ensure equipment / objects are not pressing on skin.
20+	Very high risk	Daily assessments must be completed Inspect skin at least hourly. Move or turn if possible, before skin becomes red. Consider using specialised pressure relieving equipment. Ensure equipment / objects are not pressing on the skin.

Modified from the Glamorgan Paediatric Pressure Ulcer Risk Assessment Scale 2016 by The Children's Hospital at Westmead

Appendix 2: Glamorgan Scale

Glamorgan Tool

Mobility	Score
Child cannot be moved without great difficulty or deterioration in condition / deep sedation	20
Unable to change his/her position without assistance /cannot control body movement	15
Some mobility, but reduced for age	10
Normal mobility for age	0
Other Risk Factors	**Score**
Significant anaemia (Hb <9g/dl)	1
Persistent pyrexia (temperature > 38.0ºC for more than 4 hours)	1
Poor peripheral perfusion: (cold extremities/ capillary refill > 2 seconds / cool mottled skin)	1
Inadequate nutrition: (discuss with dietician if in doubt)	1
Low serum albumin (< 35g/l)	1
Weight less than 10th centile	1
Incontinence (inappropriate for age)	1
N/A - Not aware of the above	0
Devices	**Score**
Devices / equipment / objects / hard surface pressing or rubbing on skin	10

Glamorgan Scale Care Actions

Risk Score	Category	Suggested Action
Mobility 10+	**At Risk**	Inspect skin at least twice a day. Relieve pressure by helping child to move at least every 2 hours. Use an age and weight appropriate pressure redistribution surface for sitting on/ sleeping on.
Devices 10+	**At Risk**	Reposition equipment/ devices at least every 2 hours Ensure equipment / objects are not pressing on the skin
Mobility 15+	**High Risk**	Inspect skin with each positioning. Reposition child at least every 2 hours. Relieve pressure before any skin redness develops. Use an age and weight appropriate pressure redistribution surface for sitting on/ sleeping on. (Please see Appendix 6)
Mobility 20+	**Very High Risk**	Inspect skin at least hourly. Move or turn if possible, before skin becomes red. Use an age and weight appropriate pressure redistribution surface for sitting on/ sleeping on Consider using specialised pressure relieving equipment.

Appendix 3: Braden Q Scale

Category	4	3	2	1
Mobility	*No Limitations:* Makes major and frequent changes in position without assistance.	*Slightly Limited:* Frequent, slight changes in body or extremity position independently.	*Very Limited:* Makes occasional slight changes in body or extremity position. Unable to completely turn self independently.	*Completely Immobile:* Does not make even slight changes in body or extremity position without assistance.
Activity	*No Impairment:* Walks outside the room at least twice a day and inside the room at least once every 2 hours. -All patients too young to ambulate.	*Walks Occasionally:* Walks short distances, with or without assistance. Spends majority of each shift in bed or chair.	*Needs Assistance:* Ability to walk severely limited or non-existent. Cannot weight bear and/or must be assisted into char or wheelchair.	*Confined to Bed:*
Sensory Perception	*No Impairment:* Responds to verbal commands. Has no sensory deficit that would limit ability to feel or communicate pain or discomfort. -Baby responds appropriately to touch.	*Slightly Limited:* Responds to verbal commands but cannot always communicate discomfort or need to be turned; some sensory impairment that limits ability to feel pain or discomfort in one or two extremities.	*Very Limited:* Responds to only painful stimuli. Cannot communicate discomfort except by moaning or restlessness, has a sensory impairment that limits the ability to feel pain or discomfort over half the body.	*Completely Limited:* Unresponsive (does not moan, flinch, or grasp) to painful stimulus due to diminished level of consciousness, sedation or limited ability to feel pain over most of the body surface.
Moisture	*Rarely Moist:* Skin is usually dry; Routine nappy changes; Linen only requires changing every 24 hours.	*Occasionally Moist:* Skin is occasionally moist; Requiring linen change every 12 hours	*Very Moist:* Skin is often, but not always, moist; Linen must be changed at least every 8 hours.	*Constantly Moist:* Skin is kept moist almost constantly by perspiration, urine drainage etc. Dampness is detected every time patient is moved or turned.
Friction – Sheer	*No Apparent Problem:* Able to completely lift patient during a position change; Moves independently Sufficient muscle strength to lift up completely during move; Maintains good position in bed or chair at all times.	*Potential Problem:* Moves feebly or requires minimum assistance; During a move, skin probably slides to some extent against sheets, chair, restraints, or other devices; Maintains relative good position in chair or bed most of the time but occasionally slides down.	*Problem:* Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximum assistance.	*Significant Problem:* Spasticity, contracture, itching or agitation leads to almost constant thrashing and friction
Nutrition	*Excellent:* Is on a normal diet providing adequate calories for age. Usually eats a total of 4 or more servings of meat and dairy products. Occasionally eats between meals. Does not require supplementation.	*Adequate:* Is on tube feedings or TPN, which provide adequate calories and minerals for age or eats over half of most meals. Eats a total of 4 servings of protein (meat, dairy products) each day. Occasionally will refuse a meal, but will usually take a supplement if offered.	*Inadequate:* On a liquid diet or a tube feedings/TPN, that provided inadequate calories and minerals for age or albumin <3mg/dl or rarely eats a complete meal and generally eats only about half of any food offered. Protein intakes include only 3 servings of meat or dairy products per day. Occasionally will take a dietary supplement.	*Very Poor:* NBM and/or maintained on clear liquids, or IVF for more than 5 days OR albumin <2.5MG/DL Never eats a complete meal; Rarely eats more than half of any food offered; Protein intake includes only 2 servings of meat or dairy products per day; Takes fluids poorly. Does not take a liquid dietary supplement.
Tissue Perfusion & Oxygenation	*Excellent:* Normotensive; O_2 sat. >95%, normal Hb, cap refill <2 seconds.	*Adequate:* Normotensive; O_2 sat may be <95%, Hb <10mg/dl, cap refill >2 seconds, serum pH is normal	*Compromised:* Normotensive; O_2 sat <95%, Hb; <10mg/dl, Cap refill >2 seconds, serum pH is <7.40.	*Extremely Compromised:* Hypotensive or patient does not physiologically tolerate a position change

Braden Q Scale Care Actions

Risk Score	Suggested Care Actions	Assessment
Low Risk (Score 22-28)	Position must be changed every 2-4 hours. Continue to reassess daily	Initially only, unless condition changes
Medium Risk (Score 17-21)	Position must be changed every 2 hours. The use of pressure relieving devices and mattresses is recommended	Weekly, unless condition changes
High Risk (Score 11-16)	Position must be changed every 2 hours. Use of specialty beds or mattresses	Daily, unless condition changes.
Very High Risk (Score 7-10)	Area assessed every shift. Position must be changed every 2 hours. Use of specialty beds or mattresses.	Every shift, until condition improves

Appendix 4: Neonatal Risk Skin Assessment Scale (NSRAS)

Existing wound / surgical wound /pressure area ○ Yes ○ No **Date of issue** **/**/**** **Right click in the white square for Reference Text on scoring, interventions and risk decsions.**

Description of issue

Current gestational age
- ○ Neonates <28 weeks
- ○ Neonates >28 weeks and < 33 weeks
- ○ Neonates >33 weeks and <38 weeks
- ○ Neonates >38weeks

Sensory perception
- ○ Diminished level of consciousness/muscle relaxed/heavily sedated/cooled for HIE
- ○ Oversensitive to noise/lights and touch/easliy agitated/difficult to calm
- ○ Easily agitated but calms wiith comfort measures/few self calming behaviours
- ○ Age appropriate responses to stimuli, alert, good self-calming behaviours

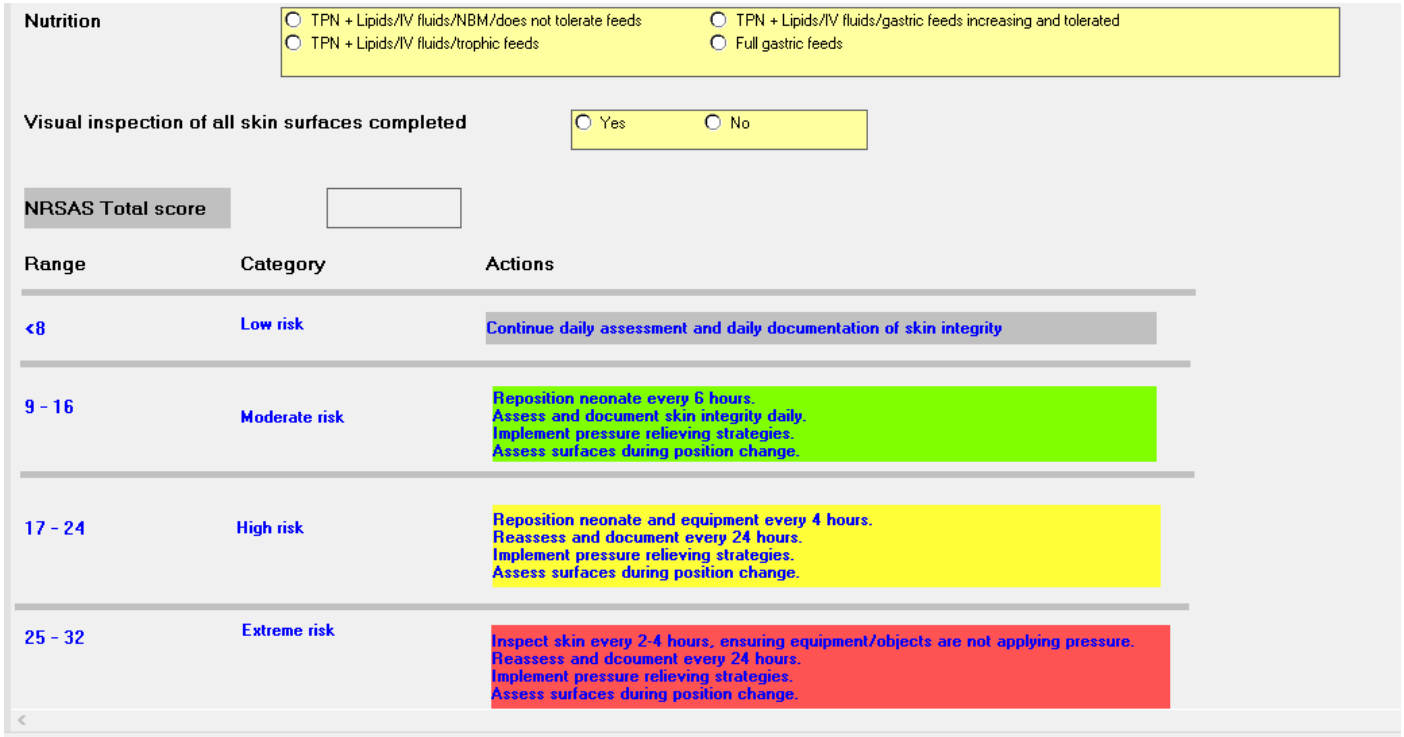
Activity / mobility
- ○ Does not make slight change in position - full assistance required
- ○ Makes occasional slight changes in body or extremity position
- ○ Makes frequent changes in body or extremity position e.g. turns head
- ○ Makes major and frequent changes in position, moving all extremities, turns head

Moisture
- ○ Constantly moist due to humiditiy/urine/wound (non-surgical)/stoma
- ○ Skin moist often - linen needs to be changed once every 8 hours
- ○ Skin occasionaly moist needs linen changed once every 8 hours
- ○ Skin usually dry, routine nappy changes and linen change once a day

Respiratory support
- ○ Intubated and ventilated or CPAP >7cm H20 (including home CPAP)
- ○ CPAP >5 cm H20
- ○ High flow/low flow/micro flow oxygen
- ○ No respiratory support

Visual examination
- ○ Extensive loss of skin integrity/wound/pressure area
- ○ Localised loss of skin integrity/broken area/oedema
- ○ Minor skin irritation/redness
- ○ Skin integrity intact

Blood collection
- ○ >3 attempts in 24hrs for IV access/cannulation/PICC or CVAD line/blood collection/IAL
- ○ Venepuncture resulting in a large bruise around site of insertion/oedema
- ○ Heel pricks >3 in a 24hr period
- ○ Blood collection weekly



Nutrition

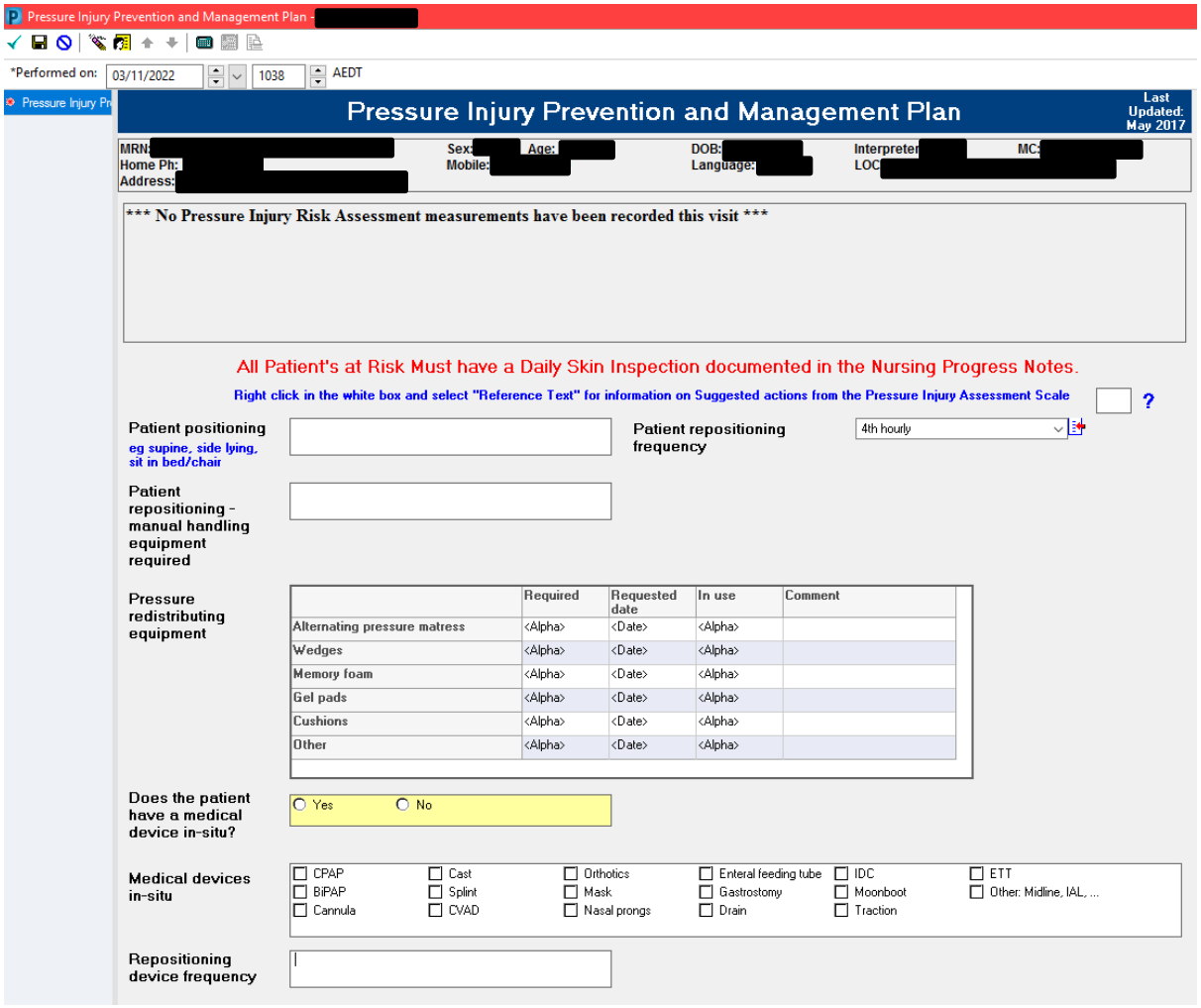
- ○ TPN + Lipids/IV fluids/NBM/does not tolerate feeds
- ○ TPN + Lipids/IV fluids/trophic feeds
- ○ TPN + Lipids/IV fluids/gastric feeds increasing and tolerated
- ○ Full gastric feeds

Visual inspection of all skin surfaces completed ○ Yes ○ No

NRSAS Total score

Range	Category	Actions
<8	Low risk	Continue daily assessment and daily documentation of skin integrity
9 - 16	Moderate risk	Reposition neonate every 6 hours. Assess and document skin integrity daily. Implement pressure relieving strategies. Assess surfaces during position change.
17 - 24	High risk	Reposition neonate and equipment every 4 hours. Reassess and document every 24 hours. Implement pressure relieving strategies. Assess surfaces during position change.
25 - 32	Extreme risk	Inspect skin every 2-4 hours, ensuring equipment/objects are not applying pressure. Reassess and dcoument every 24 hours. Implement pressure relieving strategies. Assess surfaces during position change.

Appendix 5: Pressure Injury Prevention and Management Plan



Pressure Injury Prevention and Management Plan - [redacted]

*Performed on: 03/11/2022 1038 AEDT

Pressure Injury Pr

Pressure Injury Prevention and Management Plan

Last Updated: May 2017

MRN: [redacted] Sex: [redacted] Age: [redacted] DOB: [redacted] Interpreter [redacted] MC: [redacted]
Home Ph: [redacted] Mobile: [redacted] Language: [redacted] LOC [redacted]
Address: [redacted]

*** No Pressure Injury Risk Assessment measurements have been recorded this visit ***

All Patient's at Risk Must have a Daily Skin Inspection documented in the Nursing Progress Notes.

Right click in the white box and select "Reference Text" for information on Suggested actions from the Pressure Injury Assessment Scale ?

Patient positioning
eg supine, side lying, sit in bed/chair

Patient repositioning frequency 4th hourly

Patient repositioning - manual handling equipment required

Pressure redistributing equipment

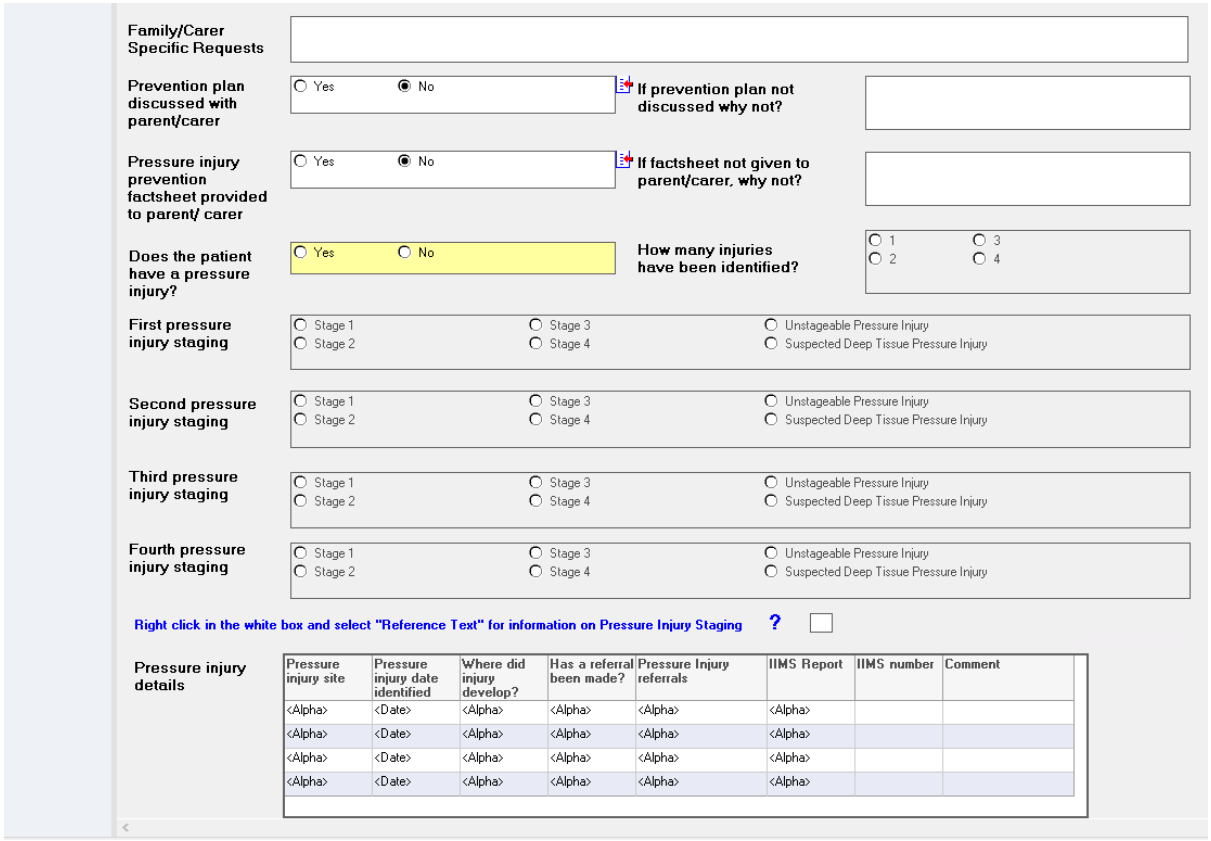
	Required	Requested date	In use	Comment
Alternating pressure matress	<Alpha>	<Date>	<Alpha>	
Wedges	<Alpha>	<Date>	<Alpha>	
Memory foam	<Alpha>	<Date>	<Alpha>	
Gel pads	<Alpha>	<Date>	<Alpha>	
Cushions	<Alpha>	<Date>	<Alpha>	
Other	<Alpha>	<Date>	<Alpha>	

Does the patient have a medical device in-situ? ○ Yes ○ No

Medical devices in-situ

☐ CPAP ☐ BiPAP ☐ Cannula ☐ Cast ☐ Splint ☐ CVAD ☐ Orthotics ☐ Mask ☐ Nasal prongs ☐ Enteral feeding tube ☐ Gastrostomy ☐ Drain ☐ IDC ☐ Moonboot ☐ Traction ☐ ETT ☐ Other: Midline, IAL, ...

Repositioning device frequency



Family/Carer Specific Requests

Prevention plan discussed with parent/carer ○ Yes ◉ No

If prevention plan not discussed why not?

Pressure injury prevention factsheet provided to parent/ carer ○ Yes ◉ No

If factsheet not given to parent/carer, why not?

Does the patient have a pressure injury? ○ Yes ○ No

How many injuries have been identified? ○ 1 ○ 2 ○ 3 ○ 4

First pressure injury staging
○ Stage 1 ○ Stage 2 ○ Stage 3 ○ Stage 4 ○ Unstageable Pressure Injury ○ Suspected Deep Tissue Pressure Injury

Second pressure injury staging
○ Stage 1 ○ Stage 2 ○ Stage 3 ○ Stage 4 ○ Unstageable Pressure Injury ○ Suspected Deep Tissue Pressure Injury

Third pressure injury staging
○ Stage 1 ○ Stage 2 ○ Stage 3 ○ Stage 4 ○ Unstageable Pressure Injury ○ Suspected Deep Tissue Pressure Injury

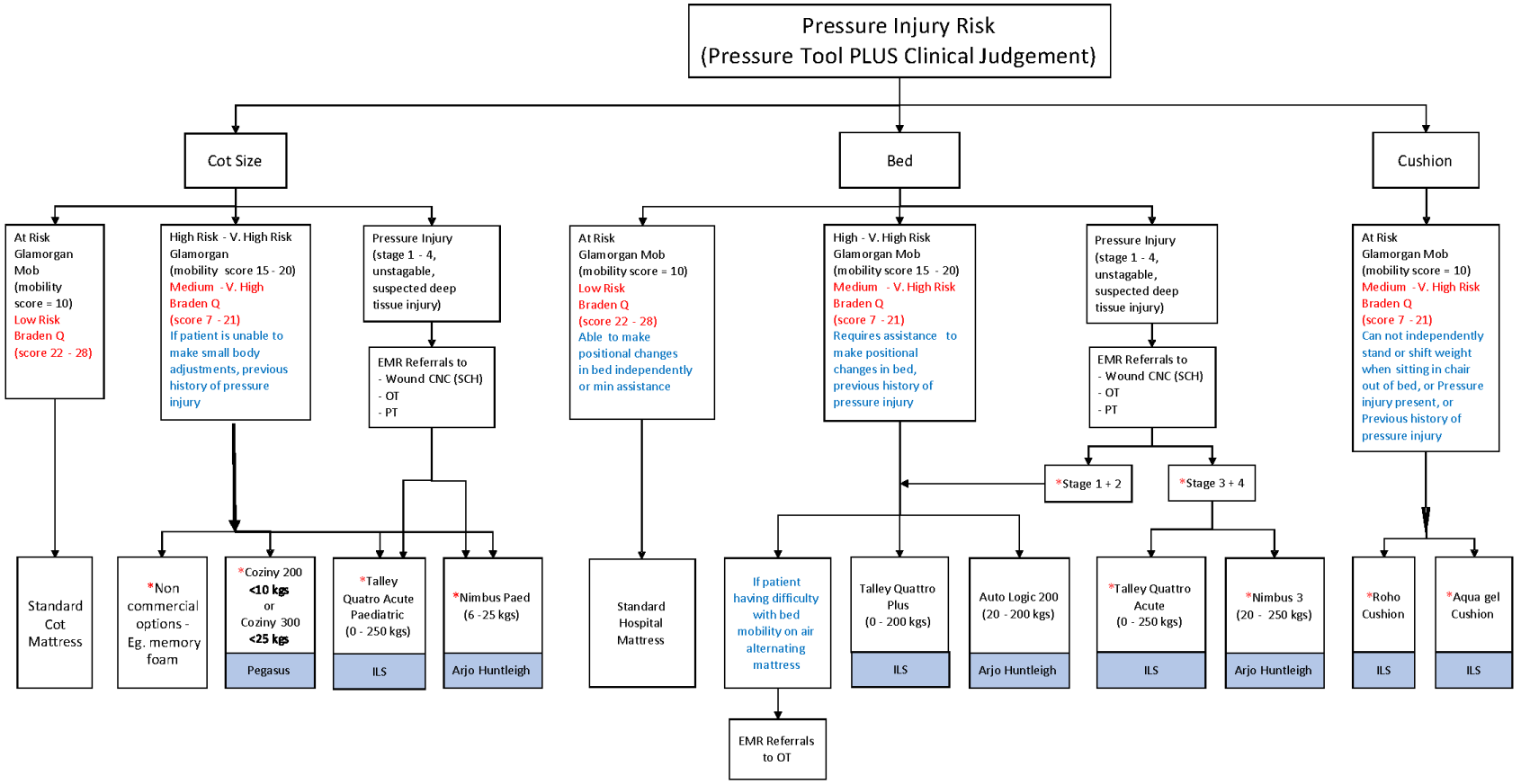
Fourth pressure injury staging
○ Stage 1 ○ Stage 2 ○ Stage 3 ○ Stage 4 ○ Unstageable Pressure Injury ○ Suspected Deep Tissue Pressure Injury

Right click in the white box and select "Reference Text" for information on Pressure Injury Staging ? ☐

Pressure injury details

Pressure injury site	Pressure injury date identified	Where did injury develop?	Has a referral been made?	Pressure Injury referrals	IIMS Report	IIMS number	Comment
<Alpha>	<Date>	<Alpha>	<Alpha>	<Alpha>	<Alpha>		
<Alpha>	<Date>	<Alpha>	<Alpha>	<Alpha>	<Alpha>		
<Alpha>	<Date>	<Alpha>	<Alpha>	<Alpha>	<Alpha>		
<Alpha>	<Date>	<Alpha>	<Alpha>	<Alpha>	<Alpha>		

Appendix 6: Hire of a Pressure Redistributing Mattress at SCHN

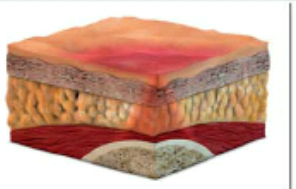
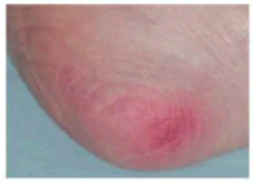
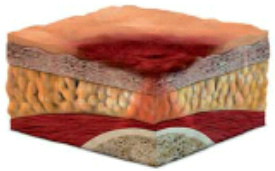
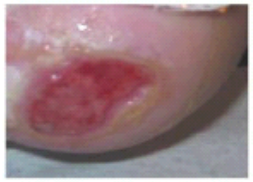
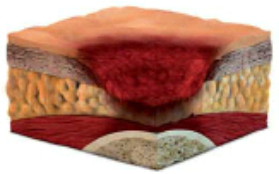
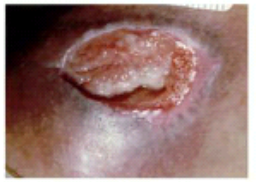
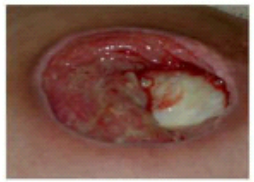
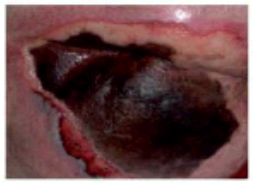
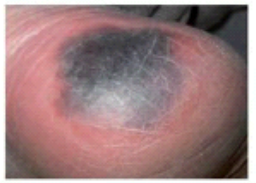


Key:
*OT consultation recommended via EMR referral

Note:
If pressure concerns still exist please complete eMR referral to OT for further assessment and product advice.

Sydney Children's Hospital Network. Developed 2018. Last reviewed Jan 2019

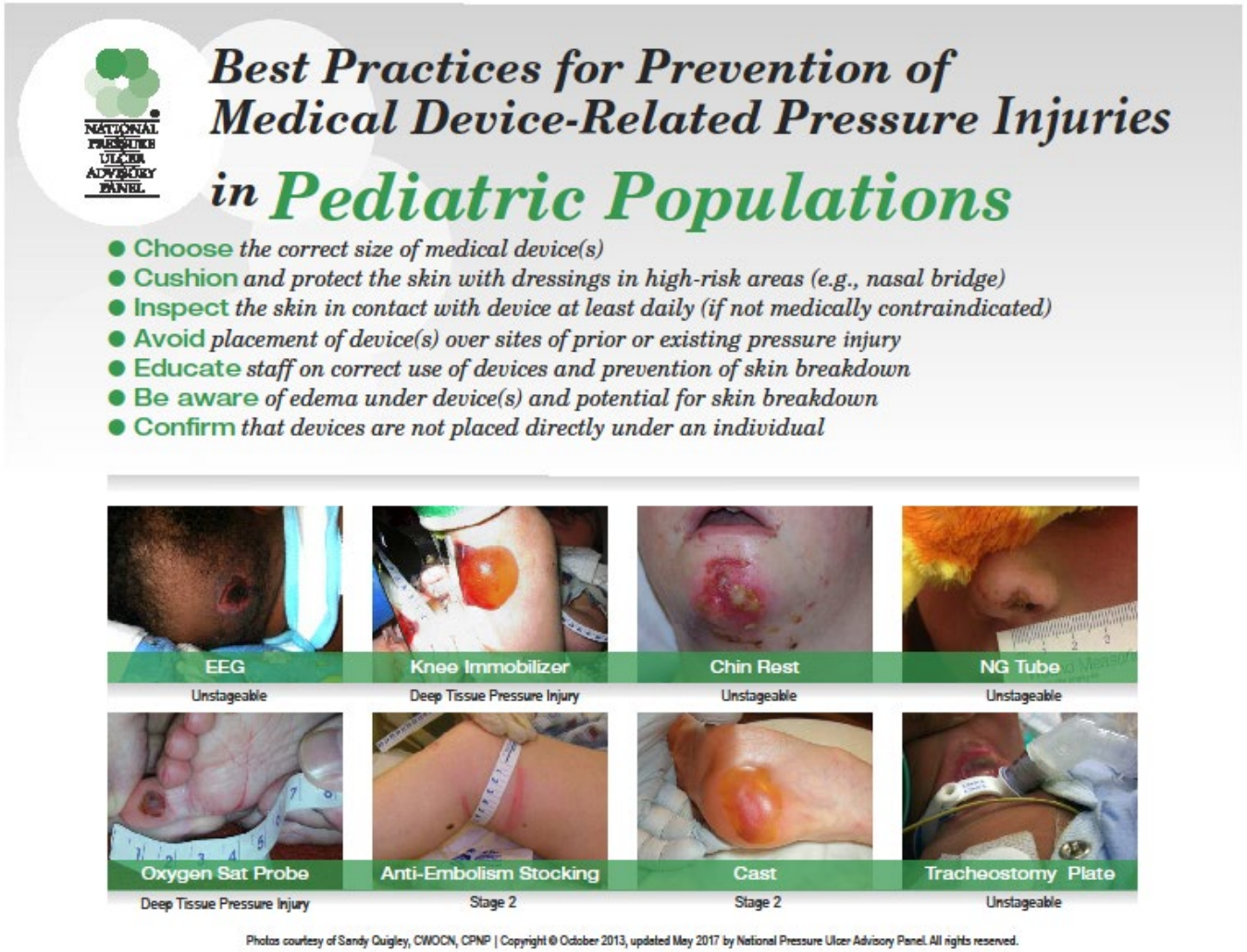
Appendix 7: Staging of Pressure Injuries

Stage I pressure injury: non-blanchable erythema	Stage II pressure injury: partial thickness skin loss	Stage III pressure injury: full thickness skin loss
• Intact skin with non-blanchable redness of a localised area usually over a bony prominence. • Darkly pigmented skin may not have visible blanching; its colour may differ from the surrounding area. • The area may be painful, firm, soft, warmer or cooler compared to adjacent tissue. • May be difficult to detect in individuals with dark skin tones. • May indicate "at risk" persons (a heralding sign of risk).	• Partial thickness loss of dermis presenting as a shallow, open wound with a red-pink wound bed, without slough. • May also present as an intact or open/ruptured serum-filled blister. • Presents as a shiny or dry, shallow ulcer without slough or bruising (NB bruising indicates suspected deep tissue injury). • Stage II PI should not be used to describe skin tears, tape burns, perineal dermatitis, maceration or excoriation.	• Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunnelling. • The depth of a stage III PI varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have subcutaneous tissue and stage III PIs can be shallow. In contrast, areas of significant adiposity can develop extremely deep stage III PIs. Bone or tendon is not visible or directly palpable.
 	 	 
Stage IV pressure injury: full thickness tissue loss	**Unstageable pressure injury: depth unknown**	**Suspected deep tissue injury: depth unknown**
• Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. • The depth of a stage IV pressure injury varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have subcutaneous tissue and these PIs can be shallow. Stage IV PIs can extend into muscle and/or supporting structures (e.g. fascia, tendon or joint capsule) making osteomyelitis possible. Exposed bone or tendon is visible or directly palpable.	• Full thickness tissue loss in which the base of the PI is covered by slough (yellow, tan, grey, green or brown) and/or eschar (tan, brown or black) in the PI bed. • Until enough slough/eschar is removed to expose the base of the PI, the true depth, and therefore the stage, cannot be determined. Stable (dry, adherent, intact without erythema or fluctuance) eschar on the heels serves as the body's natural biological cover and should not be removed.	• Purple or maroon localised area or discoloured, intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue. • Deep tissue injury may be difficult to detect in individuals with dark skin tone. • Evolution may include a thin blister over a dark wound bed. The PI may further involve and become covered by thin eschar. Evolution may be rapid, exposing additional layers of tissue even with optimal treatment.
 	 	 

All 3D graphics designed by Jarrad Giftos, Gear Interactive, http://www.gearinteractive.com.au
Photos stage, I,IV, unstageable and suspected deep tissue injury courtesy C. Young, Launceston General Hospital. Photos stage II and III courtesy K. Carville, Silver Chain. Used with permission.

Based on National Pressure Ulcer Advisory Panel (NPUAP), European Pressure Ulcer Advisory Panel (EPUAP). Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline. 2009, Washington DC: NPUAP cited in Australian Wound Management Association. Pan Pacific Clinical Practice Guideline for the Prevention and Management of Press Injury. Abridged Version, AWMA; March 2012. Published by Cambridge Publishing, Osborne Park, WA.

Appendix 8: Best practice for prevention of device related pressure injuries Poster



Appendix 9: Key Principles for Pressure Care Management When Applying Upper or Lower Limb Splint, Cast or Orthosis

The following are recommended guidelines to prevent device related pressure areas:

Selection of product based on:

- Type of splint/cast required (eg: fracture or serial cast, weight-bearing or NWB, waterproof)
- Clinical assessment of patient
- Any specific departmental policies and procedures

Application of Casting / Splinting:

- A skin assessment and clear documentation in medical records should be completed prior to any splinting or casting. All surgical wounds should be assessed, documented and dressed as per local procedure prior to application of orthosis.
- Ensure all jewellery is removed and ID bands relocated if needed.
- When splinting or casting; padding should be provided over bony prominences or areas at risk of pressure injury Padding may include:
  - Circular undercast padding
  - Adhesive undercast padding
  - Mepilex padding can be placed on high risk areas to increase pressure redistribution.

  Please note: dressing or padding must not be added under an orthotic device without an orthotics review.
- A visual skin inspections should be completed and documented in medical records after a orthosis has been provided or adjusted, including:
  - Skin colour including peripheries to indicate circulation
  - Any visible signs of prolonged redness
  - Tightness of cast (should be able to fit a finger between cast and skin)
- Any pain reported or indicated through non-verbal communication should be explored and documented
- Verbal and written instructions should be provided to patients and families when prescribing / adjusting an orthosis. This should include:
  - wearing regime
  - risk factors and prevention of pressure injuries
  - frequency of skin monitoring

- Donning and doffing techniques.

Network fact sheets should be provided where available

- Non-removable casts are given standard precautions and instructions about when to seek review and/or removal of cast

Follow up:

- A visual Skin inspection should be a standard component of review appointments when any splinting or casting techniques are being used
- Any concerns about skin condition are documented and appropriate reviews initiated
- For any identified pressure injury the following process is recommended:
  - Identifier must complete IMMS.
  - the pressure injury must be documented in medical notes including:
    - Stage, location and size of the pressure injury
    - Time and date of event leading to the PI, where known
    - Actual or probable cause
    - Incident management (IMS+) notification number
  - Completion of PI prevention and management plan to promote healing and prevent further injury.
  - Completion of Wound assessment chart (for stage 2 and above)
  - Medical photography is recommended for pressure injuries stage 2 and above
  - Written recommendations to local GP to manage injury is encouraged for all outpatients

Competencies/Training:

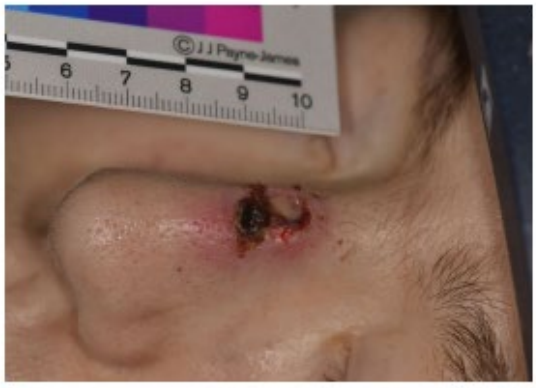
- Each individual allied health department is responsible for teaching, training and maintaining competency for their own staff
- Training is available for non-allied health staff when required (eg: nursing staff in ED, medical/surgical teams)

Appendix 10: SCHN Resources

INFOSHEET

This information sheet is for educational purposes only.
For further information regarding this topic, please contact Skin Integrity NP.

Medical device-related pressure injury prevention



A-E of MDRPI prevention

A: Assess, assess the skin regularly, checking under the device if able
B: Baseline, ensure you have a baseline assessment of the skin prior to applying the device and avoid any high-risk areas if possible
C: Communication, communicate the risks and, management plan with your patient their caregivers and within your team
D: Device care, ensure the device is the correct size, applied correctly and pressure reliving devices are used if possible
E: Evaluate, evaluate your care plan regularly and continue to monitor

Prevention

- Reducing pressure or redistributing it over a larger area
- Controlling the skin's microclimate
- Improving patient nutrition
- Encouraging mobility
- Addressing comorbidities.
- Choosing the correct size medical device to fit the patient
- Removing or moving devices, when possible, to assess skin at least daily
- Avoiding device placement over sites of prior or existing PIs
- Educating staff about the correct use of devices and skin breakdown prevention
- Being cognizant of oedema under devices and the potential for skin breakdown
- Confirming that devices aren't placed directly under a patient who is immobile.
- Cushioning and protecting the skin with dressings in high-risk areas

Risk factors

- Tight or poorly fitted device securement that results in poor circulation, friction, or shearing
- Poor and/or prolonged patient positioning
- Heat, moisture or oedema
- lack of awareness by staff and patients of PI potential
- failure to routinely assess patients' skin under devices

Most common areas

- Ears
- Feet
- Bridge of the nose

Most common devices

- nasal oxygen tubes
- casts and splints
  continuous positive airway pressure (CPAP)/bilevel positive airway pressure (BiPAP) masks

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ASSESSING YOUR PATIENT'S SKIN

LOOK

- Look for areas of erythema
- Does the redness blanch?
- Look under devices
- Consider difference in pigmentation and how discoloration may present
- Compare to other body areas

LISTEN

- Ask the child and their carer if they have any concerns about areas that are rubbing or sore

FEEL

- Feel the skin, check for inconsistencies in temperature, especially in high risk or reddened areas
- Feel for any bogginess or suspected blisters

For more information or advice please contact Sydney Children's Hospitals Network Transitional Nurse Practitioner for Skin Integrity

Don't forget to document your skin assessment in your notes.

This guide has been adapted from:
Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline, The International Guideline, 3rd Edition (2019)