



Tissue Viability Society

Achieving Consensus in Pressure Ulcer Reporting

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The Tissue Viability Society welcomes the use of this document at a national and local level. However, we request citation as to the source, using the following format:

Tissue Viability Society. Achieving Consensus in Pressure Ulcer Reporting. JTV 2012

Purpose of Document

This document is for all organisations that are involved in the reporting of pressure ulcers. It represents the consensus view of a large number of Tissue Viability Nurses from across England and we recommend its adoption.

Executive Summary

Following a consensus meeting in November 2011, the Tissue Viability Society is proposing the following guidance for reporting pressure ulcers.

1. The NPUAP/EPUAP (2009) definition should be used to describe a pressure ulcer.
2. Skin damage determined to be as a result of incontinence and/or moisture alone, should *not* be recorded as a pressure ulcer.
3. A lesion that has been determined as combined; that is, caused by incontinence, moisture and pressure should be recorded as a pressure ulcer.
4. Both avoidable and unavoidable pressure ulcers should be reported. For *national* reporting purposes, the Department of Health definitions for avoidable/unavoidable pressure ulcers should be used.
5. Prompt pressure ulcer risk assessment and formal examination of an individual vulnerable to pressure damage, together with knowledge regarding their previous circumstances of care/use of pressure relieving equipment will point to the origin of pressure damage.
6. A time-frame is immaterial and misleading, thus the 72-hour rule should be discarded.
7. The NPUAP/EPUAP (2009) classification should be used, including the category of 'unstageable'.
8. Further education is required before the category of deep tissue injury is used in pressure ulcer reporting.
9. Pressure ulcer incidence is a more accurate measure of pressure ulceration than prevalence, and is therefore the recommended method of data collection.
10. Monitoring at *national* level should identify both the overall burden of pressure ulcers to the NHS and performance of individual trusts and use a standardised data set.
11. Monitoring at *local* level should be undertaken to ensure trusts meet local targets and benchmarks. It is acknowledged that such monitoring will vary between organisations.
12. Monitoring at *organisational* level will include all of the above and any additional data to monitor effectiveness of local strategies or identify specific organisational issues.

13. A Serious Incident Requiring Investigation (SIRI) should be undertaken if serious harm from pressure damage arises, using the following criteria:

- ◆ Loss of limb
- ◆ Loss of life
- ◆ Requiring surgery for their pressure ulcer
- ◆ Transfer for care of pressure ulcer e.g. transfer to Plastics for treatment
- ◆ Cluster of pressure ulcers in a clinical area (as defined by DPC)
- ◆ At the provider organisation discretion

14. For all category 3 and 4 pressure ulcers, root cause analysis (RCA) should be undertaken by the senior nurses responsible for the care of the patient and where the injury is believed to have occurred. Any findings/actions required should be reviewed and agreed by the Tissue Viability Nurse (TVN).

15. The detail and quality of pressure ulcer RCA templates should be improved and include a standard data collection set.

16. Individuals completing the RCA process and associated documentation should be competent to do so, and should seek training and support where necessary.

1. Background

1.1 The Tissue Viability Society welcomes the fact that pressure ulcers (PUs) are considered to be a key quality indicator and thus of interest to the Department of Health (DH) and to health care commissioners. During the past 3 years, requests from commissioners for pressure ulcer rates have been made under the CQUIN¹ framework and associated policy, such as the High Impact Actions², National Patient Safety Agency³ and Nurse Sensitive Outcome Indicators (NSOI) for NHS Provided Care⁴.

1.2 Key issues during this period have included:

- ◆ Establishing the purpose of data collection/monitoring both locally and nationally
- ◆ Establishing robust data collection methods within organisations and a lack of acknowledgment and understanding of the problems of establishing such systems by commissioners
- ◆ Difficulties in agreement with commissioners regarding their data requirements (Box 1)
- ◆ Determining the purpose of monitoring
- ◆ Conflicting national guidance

Box 1: Facets of data collection requiring agreement between commissioners and providers

- PU definition
- Definition of avoidable/unavoidable PUs
- Reporting of incipient pressure ulcers
- Pressure ulcer classification (Categories/Grades, 1-4 / 2-4 /Unstageable/ DTI)
- Prevalence or incidence rates; including numerator definitions (number of patients/number of PUs, severity) and denominator definitions
- Serious untoward incident/serious incidents requiring investigation
- Root Cause Analysis

1.3 Local implementation without clear national guidance has led to a lack of standardisation across the country. A recent survey of Tissue Viability Nurses (TVNs) showed that there is considerable debate regarding both the data requested by commissioners and its value⁵. Tissue Viability Nurses are concerned that the data has little value if it is not collected in a rigorous and practical way, and that comparisons between organisations are pointless as there is no standardised data set used across the country.

1.4 During the 2011 Tissue Viability Society conference, an open meeting was held to discuss the reporting problems at local level. It was proposed that the Society seek a way to resolve some of these issues and to obtain consensus from all parties in England. To this end, a small working group representing TVN groups from across the country undertook a national survey⁵ to determine the extent of the problem. This was followed by a meeting in November 2011, which sought to achieve consensus on the various aspects of pressure ulcer reporting.

2. **Purpose of this Document**

This document presents a series of consensus statements, with the relevant supporting material, to provide a framework for pressure ulcer reporting which could be utilised both nationally and at local level. It is based on the consensus achieved at a meeting in Birmingham in November 2011. Statements associated with aspects of pressure ulcer reporting are presented at the start of each section.

3. **Levels of Monitoring**

3.1 The TVS strongly recommends that a standardised data set should be used for PU incidence (not prevalence) reporting, and that such reporting take place at three levels:

National Level: In order to understand the overall burden of pressure ulcers to the NHS and as a performance monitor of individual trusts

Local Level: To meet local targets and benchmarking; it is acknowledged that such monitoring will vary between organisations

Organisational Level: Monitoring will determine the effectiveness of local strategies and identify any specific organisational issues

4. Defining a Pressure Ulcer

- ◆ **The NPUAP/EPUAP⁶ definition should be used to describe a pressure ulcer**
- ◆ **Skin damage determined to be as the result of incontinence and/or moisture alone should *not* be recorded as pressure ulceration**
- ◆ **A lesion that has been determined as combined; that is caused by incontinence, moisture and pressure should be recorded as a pressure ulcer**

4.1 In the recent international pressure ulcer guidelines developed by the US National Pressure Ulcer Advisory Panel (NPUAP) and the European Pressure Ulcer Advisory Panel⁶) pressure ulcers were defined as:

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. A number of contributing or compounding factors are also associated with pressure ulcers; the significance of all these factors is yet to be elucidated.

4.2 However, determining the causative factors of skin damage can be challenging; for example, confusion can exist between a lesion caused by pressure and one resulting from moisture such as urine and/or faeces. The differentiation between the two is deemed to be of clinical importance⁶ as the prevention and treatment strategies differ, as do the consequences and outcomes for the patient. If a skin lesion has developed as a result of moisture it is important to control urinary and/or faecal incontinence, if the cause is pressure, then offloading and a review of support surfaces should be the priority⁷. The key to identifying the differences lies in the location, shape and depth of damage⁸. These characteristics have been determined by the European Pressure Ulcer Advisory Panel⁹ and can be seen in Appendix 1.

5. Definition for Avoidable/unavoidable Pressure Ulcers

- ◆ **Both avoidable and unavoidable pressure ulcers should be reported. For *national reporting purposes*, the Department of Health definitions for avoidable/unavoidable pressure ulcers should be used**

- 5.1 There are currently four different definitions for unavoidable and avoidable pressure ulcers. Two of these can be found appendix 2.

The Department of Health/ National Patient Safety Agency definitions are as follows¹⁰:

Avoidable Pressure Ulcer

“Avoidable” means that the person receiving care developed a pressure ulcer and the provider of care did not do one of the following: evaluate the person’s clinical condition and pressure ulcer risk factors; plan and implement interventions that are consistent with the persons needs and goals, and recognised standards of practice; monitor and evaluate the impact of the interventions; or revise the interventions as appropriate.”

Unavoidable Pressure Ulcer

“Unavoidable” means that the person receiving care developed a pressure ulcer even though the provider of the care had evaluated the person’s clinical condition and pressure ulcer risk factors; planned and implemented interventions that are consistent with the persons needs and goals; and recognised standards of practice; monitored and evaluated the impact of the interventions; and revised the approaches as appropriate; or the individual person refused to adhere to prevention strategies in spite of education of the consequences of non-adherence”

- 5.2 A further definition has been developed by the Midlands and East NHS Pressure Ulcer Expert Working Group:

Unavoidable means that the individual developed a pressure ulcer even though the individual’s condition and pressure ulcer risk had been evaluated; goals and recognised standards of practice that are consistent with individual needs has been implemented; the impact of these interventions had been monitored, evaluated and recorded; and the approaches had revised as appropriate.

- 5.3 It must be acknowledged that there are patient situations in which unavoidable pressure ulcers will occur (Box 2)

Box 2: Physical and social factors which may lead to unavoidable pressure ulceration

- ◆ Haemodynamic or spinal instability may preclude turning or repositioning
- ◆ Patients may refuse to be repositioned
- ◆ Patients following the Liverpool Care Pathway (or other end-of-life pathways) may not be able to tolerate repositioning as frequently as their skin may require
- ◆ The patient has not previously been seen by a healthcare professional
- ◆ The patient has mental capacity but refused assessment and/or treatment even where initial assessment has signs of pressure damage, or has not complied with the agreed plan of care
- ◆ The patient is known to a healthcare professional but an acute/critical event occurs which affects mobility or the ability to reposition; for example the patient being undiscovered for a period following a fall or loss of consciousness

6. 72-hour Timeline

- ◆ **Prompt pressure ulcer risk assessment and formal examination of an individual vulnerable to pressure damage, together with knowledge regarding their previous circumstances of care/ use of pressure relieving equipment will point to the origin of pressure damage.**

- ◆ **A time frame is immaterial and misleading and the 72-hour rule should be discarded.**

6.1 The time from unrelieved pressure to observable pressure damage can vary from hours to days/weeks, depending upon the site of the body and the depth of skin/soft tissue covering that site. For example, a tight fitting BIPAP mask will cause pressure damage to the nose within hours, whereas the pressure damage over an ischium may take several days/weeks to become apparent.

7. Pressure Ulcer Classification

- ◆ **The NPUAP/EPUAP⁶ classification should be used, including the category of 'unstageable'**
- ◆ **Further education is required before the category of deep tissue injury is used in pressure ulcer reporting**

7.1 Reporting of pressure ulcers by classification has been extremely confusing as different methods of classification and reporting have been used, all of which can distort the incidence figures as explained here;

Figures using Categories 1-4

A total of 60 pressure ulcers are reported, of which 15 (25%) are categories 3 or 4 (may include Deep Tissue Injury or unstageable)

Figures using Categories 1-4 + Deep Tissue Injury and Unstageable

A total of 60 pressure ulcers are reported, but there appear to be less 3s and 4s simply because they have more categories to distribute them amongst.

Figures including moisture lesions

Additionally some areas include moisture lesions in their reporting, which means they have a higher total of pressure ulcers (denominator) and the relative percentage of 3s / 4s is smaller.

8.2 The most recent system for pressure ulcer classification is the version published by NPUAP/EPUAP⁶ (Appendix 3).

8. Prevalence and incidence definitions and calculations

- ◆ **Pressure ulcer incidence is a more accurate measure of pressure ulceration than prevalence, and is therefore the recommended method of data collection**
- ◆ **Monitoring at *national* level should identify both the overall burden of pressure ulcers to the NHS and performance of individual trusts and use a standardised data set**
- ◆ **Monitoring at *local* level should be undertaken to ensure trusts meet local targets and benchmarks. It is acknowledged that such monitoring will vary between organisations**
- ◆ **Monitoring at *organisational* level will include all of the above and any additional data to monitor effectiveness of local strategies or identify specific organisational issues**

8.1 The problems of data capture are well documented in the literature and are a challenge for a number of reasons. Accurate reporting in clinical records by clinical staff is an issue; indeed it is recognised that high pressure ulcer prevalence/incidence may be reported by ‘good’ clinical areas that have good identification and documentation, and the true extent of the problem in ‘poor’ clinical teams and institutions remain hidden. Extracting robust data cumulatively is difficult in paper-based healthcare records and requires local tracking and transcribing. Tracking patients within acute Trusts can be difficult with a risk of duplicate reporting.

8.2 Following data capture, data management and interpretation is then an issue: for example, how do organisations deal with deterioration of an existing pressure ulcer; can an adjustment be made for case-mix?

8.3 In addition, calculation of incidence is not undertaken using a standard method, and definition of the numerator and denominator populations has been interpreted and implemented differently, resulting in variation in reported rates.

8.4 Local agreements with Commissioners have been further confused by the release of the Nurse Sensitive Outcome Indicators (NSOI) for the NHS and commissioned care, Version 3⁴.

8.5 Incidence data should be monitored using a standardised data set (Box 3).

Box 3: Standardised Data Set for Incidence Reporting

Indicators

Indicator 1: measures the cumulative incidence of all newly acquired pressure ulcers

Indicator 2: measures the cumulative incidence of patients with newly acquired pressure ulcers.

Indicator 3: measures device-related pressure ulcers separately

Numerators

Numerator 1: Cumulative Incidence is the total number of **new pressure ulcer(s)** that have developed upon patients in the preceding month

Numerator 2: Cumulative incidence is the total number of **patients** that have developed new pressure ulcers in the preceding month

Numerator 3: Cumulative Incidence is the total number of new **device-related** pressure ulcer(s) that have developed upon patients in the preceding month

Numerator Inclusions

- ◆ All newly developed pressure ulcers of Category 2 or above
- ◆ All new pressure ulcers acquired after admission/transfer in a healthcare setting where expert assessment and clinical history does not ascertain damage started prior to admission

Numerator Exclusions

- ◆ Pressure ulcers present on day of admission//transfer in a healthcare setting and those where the damage began prior to admission.
- ◆ Category 1 pressure ulcers (as their presentation may not be a clear pressure ulcer.)
- ◆ Skin damage from moisture e.g incontinence dermatitis

Denominators

Denominator inclusions

- ◆ Inpatient Incidence per 1000 bed day = Total bed days divided by 1000. Community/Primary Care Organisations per 10,000 population = PCO population estimate divided by 10,000

Denominator Exclusions

- ◆ Patients in out-patients, day case and ambulatory care settings

Special considerations for community incidence

The community component of the indicator is complicated by the large number of community healthcare providers which care for people with pressure ulcers as follows:

- ◆ Community nursing services
- ◆ Nursing homes
- ◆ Residential homes
- ◆ GP services
- ◆ Mental Health Trusts
- ◆ Community beds

For a true community pressure ulcer incidence rate to be determined commissioners/DoH will need to compile data from all data sources and there is a high risk of double counting. For comparison of community incidence the methodology adopted needs to be clearly described by commissioners.

9. The Reporting of pressure ulcers as Serious Untoward Incidents/Serious Incidents Requiring Investigation

- ◆ **A Serious Incident Requiring Investigation (SIRI) should be undertaken if serious harm from pressure damage arises, using the following criteria:**
- ◆ **Loss of limb**
- ◆ **Loss of life**
- ◆ **Requiring surgery for their pressure ulcer**
- ◆ **Transfer for care of pressure ulcer e.g. transfer to Plastics for treatment**
- ◆ **Cluster of pressure ulcers in a clinical area (as defined by DPC)**
- ◆ **At the provider organisation discretion**

9.1 The reporting of Serious Untoward Incidents or Serious Incidents Requiring Investigation (SUI/SIRI) should be seen as separate from the reporting of PU incidence, despite both being based on the clinical incident of the development of a pressure ulcer. There is a national framework for investigating and learning from SIRIs³. SIRI's were formally known as Serious Untoward Incidents (SUIs), or Serious Incidents (SI's).

9.2 The National Patient Safety Agency³ (NPSA) defines severe harm as '*a patient safety incident that appears to have resulted in permanent harm to one or more persons receiving NHS funded care*', and a SIRI as '*an incident that has occurred in relation to NHS funded services and care resulting in:*

- ◆ Unexpected or avoidable death of one or more patients, staff, visitors or members of the public
- ◆ Serious harm to one or more patients, staff, visitors or members of the public or where the outcome requires lifesaving intervention, major surgical/medical intervention, permanent harm, or will shorten life expectancy, or result in prolonged pain or psychological harm (this includes incidents graded under the NPSA definition of severe harm)
- ◆ A scenario that prevents or threatens to prevent a provider organisation's ability to continue to deliver health care services; for example, actual or potential loss of personal/organisational information, damage to property, reputation or the environment, IT failure, or allegations of abuse
- ◆ Adverse media coverage or public concern for the organisation or the wider NHS;
- ◆ One of the core set of 'Never Events' as updated on an annual basis

- 9.3 A majority of organisations report category 3 and 4 pressure ulcers as SIRIs. While undoubtedly some pressure ulcers do meet the definition of severe harm, not all do. Classing all category 3 and 4 pressure ulcers in this way may lead to a burden of investigation that makes it difficult to move forward quickly and implement learning. The implementation and sharing of learning is the prime reason for SIRI reporting.
- 9.4 The category of a pressure ulcer does not always indicate the severity of the wound. An infected category 2 pressure ulcer may lead to septicaemia and death. Some category 3 and 4 ulcers, for example, a necrotic full thickness pressure ulcer on the ear lobe caused by a clip-on ear ring, may not be considered as serious as a pressure ulcer that results in the loss of limb and/or life. The classification system does not take account of pressure damage on less common parts of the body, where there is little if any muscle, for example, the mucosal membrane, scrotum, penis or lips.
- 9.5 It has been demonstrated that the classification of pressure ulcers is not totally reliable and that people may find difficulty differentiating between a category 2 and a category 3 ulcer and also between a category 3 and 4¹.
- 9.6 A patient that develops a pressure ulcer of any grade has suffered harm and this should be taken seriously; however, if all ulcers are reported as a SIRI based on their category alone, this would diminish the overall response to all SIRI's.
- 9.7 A SIRI should be reported immediately and confirmed within 3 days. It should be noted that it is not always possible to confirm the severity of 'unstageable' pressure ulcers or deep tissue injury in this time period - it may be weeks before the depth of damage can be clinically assessed. Therefore, there is an unfair burden on the clinician to judge severity with incomplete clinical information or be responsible for the organisation being a 'late reporter'.
- 9.8 Many Trusts are performance managed by either the commissioners or Strategic Health Authorities on both the number of SIRI's and the timely management of these. The numbers of SIRI's is public record, thus early reporting of a SIRI, even if later downgraded, may have a detrimental effect on the public image of an organisation.
- 9.9 A SIRI requires a full level 2 response; a full safety investigation or root cause analysis (RCA). Anecdotal evidence suggests that an RCA can take up to 20 hours of front-line nurse time to complete in addition to the time spent by the relevant panels and input from the organisation, clinical governance, commissioners and safety leads in the strategic health authority. Teams have suggested that there are so many RCA's in progress that there is insufficient time to spend on sharing the learning and changing practice, thus they are not actually resulting in a change of practice or reduction in the number of pressure ulcers. It is reported in some areas that there are consistent themes emerging, so much so that checklists have been developed.

- 9.10 The downgrading of a SIRS if the pressure ulcer meets the definition of 'unavoidable' occurs in some regions but is not consistent. Currently, some organisations do not report until the RCA is complete and the determination of avoidable / unavoidable has been made.
- 9.11 In view of the above, and based on a successful pilot in South Central NHS South of England Strategic Health Authority, the criteria for serious harm in relation to pressure damage for SIRS reporting are that PUs result in:
- 1) Loss of limb
 - 2) Loss of life
 - 3) Requiring surgery for their pressure ulcer
 - 4) Transfer for care of pressure ulcer e.g. transfer to Plastics for treatment
 - 5) Cluster of pressure ulcers in a clinical area (as defined by DPC)
 - 6) At the provider organisation discretion

10. Root Cause Analysis

- ◆ **For all category 3 and 4 pressure ulcers, root cause analysis (RCA) should be undertaken by the senior nurses responsible for the care of the patient and where the injury is believed to have occurred. Any findings/actions required should be reviewed and agreed by the Tissue Viability Nurse (TVN)**
- ◆ **The detail and quality of pressure ulcer RCA templates should be improved and include a standard data collection set**
- ◆ **Individuals completing the RCA process and associated documentation should be competent to do so, and should seek training and support where necessary**

10.1 Preventing harm is a key driver within NHS services, however when an incident occurs, the learning from that incident is crucial to preventing a re-occurrence effecting future patients.

10.2 The NICE guidelines¹² (NICE 2005) recommend that pressure ulcers of grade 2 and above are reported locally as incidents. This ensures that information is gathered about the circumstances of the pressure ulcer and helps prevent future incidents. The process of reporting is not an end in itself however, as it is important for learning to take place. Root cause analysis can help to identify local priorities for action.

10.3 RCA has its origins in high-risk industries such as commercial aviation and nuclear power and is a structured approach advocated by the National Patient Safety Agency (NPSA), offering a framework for reviewing patient safety incidents. Investigations can identify what, how, and why patient safety incidents have happened. Analysis can then be used to identify areas for change, develop recommendations and look for new solutions³.

10.4 RCA is used by many NHS providers following development of category 3 and 4 pressure ulcers and some organisations also include category 2 ulcers. The RCA is completed by a variety of health care professionals at different levels within the organisation. NHS organisations have developed individual RCA templates focused on the contributing factors associated with pressure ulcer development however gaps in data collection have been identified¹³ (Hawkins 2011). There is no agreed national document/data set, and little training related to RCA completion. The NPSA has recently launched a RCA training program to address this issue. (RCATraining@npsa.nhs.uk).

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Appendix 1: Differences between a pressure ulcer and moisture lesion⁹

	Pressure Ulcer	Moisture Lesion	Remarks
Causes	Pressure and/or shear must be present.	Moisture must be present (e.g. shining, wet skin caused by urinary incontinence or diarrhoea).	If moisture & pressure/shear are simultaneously present, the lesion could be a pressure ulcer as well as a moisture lesion (combined lesion).
Location	A wound not over a bony prominence is unlikely to be a pressure ulcer.	A moisture lesion may occur over a bony prominence. However, pressure and shear should be excluded as causes, and moisture should be present. A combination of moisture and friction may cause moisture lesions in skin folds. A lesion that is limited to the anal cleft only and has a linear shape is no pressure ulcer and is likely to be a moisture lesion. Peri-anal redness/skin irritation is most likely to be a moisture lesion due to faeces.	It is possible to develop a pressure ulcer where soft tissue is compressed (e.g. by a nutrition tube, nasal oxygen tube, urinary catheter). Wounds in skin folds of bariatric patients may be caused by a combination of friction, moisture and pressure. Bones may be more prominent where there is significant tissue loss (weight loss).
Shape	If the lesion is limited to one spot, it is likely to be a pressure ulcer. Circular wounds or wounds with a regular shape are most likely	Diffuse, different superficial spots are more likely to be moisture lesions. In a kissing ulcer (copy lesion) at least one of the wounds is most	Irregular wound shapes are often present in combined lesion (pressure ulcer and moisture lesion). Friction on the heels may also

	pressure ulcers, however, the possibility of friction injury has to be excluded	likely caused by moisture (urine, faeces, transpiration or wound exudate).	cause a circular lesion with full thickness skin loss. The distinction between a friction lesion and a pressure ulcer should be made based on history and observation.
Depth	Partial thickness skin loss is present when only the top layer of skin is damaged (grade 2). In full thickness skin loss all layers are damaged (grade 3 or 4). If there is a full thickness skin loss and the muscular layer is intact, the lesion is a grade 3 pressure ulcer. If the muscular layer is not intact, the lesion should be diagnosed as a grade 4 pressure ulcer.	Moisture lesions are superficial (partial thickness skin loss). In cases where the moisture lesion gets infected, the depth and extent of the lesion can be enlarged/deepened extensively.	An abrasion is caused by friction. If friction is exerted on a moisture lesion, this will result in superficial skin loss in which skin fragments are torn and jagged.
Necrosis	A black necrotic scab on a bony prominence is a pressure ulcer grade 3 or 4. If there is no or limited muscular mass underlying the necrosis, the lesion is a pressure ulcer grade 4. Necrosis can also be considered present at the heel when the skin is intact and a blue/black shimmer is visible	There is no necrosis in a moisture lesion.	Necrosis starts without a sharp edge, but evolves into sharp edges. Necrosis softens up and changes colour (e.g. blue, brown, yellow, grey) but it is never superficial. Distinction should be made between a black necrotic scab and a dried up blood blister.

	under the skin (the lesion will most likely evolve into a necrotic eschar).		
Edges	If the edges are distinct, the lesion is most likely to be a pressure ulcer. Wounds with raised and thickened edges are old wounds.	Moisture lesions often have diffuse or irregular edges.	Jagged edges are seen in moisture lesions that have been exposed to friction.
Colour	<p>Red skin</p> <p>If redness is non-blanchable, this is most likely a pressure ulcer grade 1. For people with darkly pigmented skin persistent redness may manifest as blue or purple.</p> <p>Red in wound bed</p> <p>If there is red tissue in the wound bed, the wound is either a grade 2, 3 or 4 pressure ulcer with granulation tissue in wound bed</p> <p>Yellow in wound bed</p> <p>Softened necrosis is yellow & not superficial it is either a grade 3 or 4 pressure ulcer. Slough is</p>	<p>Red skin</p> <p>If the redness is not uniformly distributed, the lesion is likely to be a moisture lesion</p> <p>Pink or white surrounding skin</p> <p>Maceration due to moisture.</p>	<p>Red skin</p> <p>If the skin (or lesion) is red and dry or red with a white sheen, it could be a. o. a. fungal infection or intertrigo. This is often observed in the natal cleft.</p> <p>Green in wound bed</p> <p>Infection</p> <p>Be aware that zinc oxide ointments may result in whitened skin.</p> <p>Whilst eosine is not recommended, it is still used in some areas. It will turn the skin red/brown and obstruct the</p>

	<p>a creamy, thin and superficial layer; it is a grade 3 or 4 pressure ulcer.</p> <p>Black in the wound bed</p> <p>Black necrotic tissue in the wound bed indicates a pressure ulcer grade 3 or 4.</p>		<p>observation of the skin.</p>
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EPUAP (2005) reproduced with permission

Appendix 2: Alternative definitions of avoidable and unavoidable pressure ulcers

Definition 1:

National Pressure Ulcer Advisory Panel¹⁴

Unavoidable Pressure Ulcer

“Unavoidable” means that the individual developed a pressure ulcer, even though the provider had evaluated the individual’s clinical condition and pressure ulcer risk factors; defined and implemented interventions that are consistent with resident needs, goals, and recognized standards of practice; monitored and evaluated the impact of the interventions; and revised the approaches as appropriate .

Definition 3:

Bedfordshire and Hertfordshire Tissue Viability Nurses Forum

Unavoidable pressure damage: proposed definition

Unavoidable means that the individual developed a pressure ulcer even though the individual’s clinical condition and pressure ulcer risk had been evaluated; goals and recognised standards of practice that are consistent with individual needs had been implemented; the impact of these interventions had been monitored, evaluated and recorded; and the approaches had been revised as appropriate.

Appendix 3: NPUAP Pressure Ulcer Categories⁶

Category I: Non-blanchable erythema

Intact skin with non-blanchable redness of a localized 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 as compared to adjacent tissue. Category I may be difficult to detect in individuals with dark skin tones. May indicate “at risk” persons.

Category II: Partial thickness

Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled or sero-sanguinous filled blister. Presents as a shiny or dry shallow ulcer without slough or bruising*. This category should not be used to describe skin tears, tape burns, incontinence associated dermatitis, maceration or excoriation.

*Bruising indicates deep tissue injury.

Category III: Full thickness skin loss

Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle is *not* exposed. Slough may be present but does not obscure the depth of tissue loss. *May* include undermining and tunneling. The depth of a Category III pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have (adipose) subcutaneous tissue and Category III ulcers can be shallow. In contrast, areas of significant adiposity can develop extremely deep Category III pressure ulcers. Bone/tendon is not visible or directly palpable

Category IV: Full thickness tissue loss

Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present. Often includes undermining and tunneling. The depth of a Category IV pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have (adipose) subcutaneous tissue and these ulcers can be shallow. Category IV ulcers can extend into muscle and/or supporting structures (e.g., fascia, tendon or joint capsule) making osteomyelitis or osteitis likely to occur. Exposed bone/muscle is visible or directly palpable.

Additional Categories

Unstageable/ Unclassified: Full thickness skin or tissue loss – depth unknown

Full thickness tissue loss in which actual depth of the ulcer is completely obscured by slough (yellow, tan, gray, green or brown) and/or eschar (tan, brown or black) in the wound bed. Until enough slough and/or eschar are removed to expose the base of the wound, the true depth cannot be determined; but it will be either a Category III or IV. 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.

Suspected Deep Tissue Injury – depth unknown

Purple or maroon localized area of discolored 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 tones. Evolution may include a thin blister over a dark wound bed. The wound may further evolve and become covered by thin eschar. Evolution may be rapid exposing additional layers of tissue even with optimal treatment.