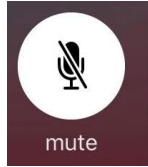
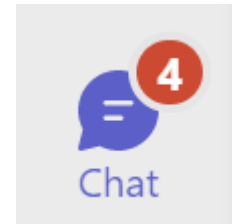


Welcome

- Please put yourself onto mute 
- We will be recording the webinar and publishing the recording on the NWCSP website.
- We will have time for questions at the end but if you have a question, please pop it in the chat.





**National Wound Care
Strategy Programme**



**Pressure
Ulcers**

**Changing the
categories – causing
chaos or clinical
improvement?**

Working in partnership with

**Health
Innovation
Network**

NHS



**What if the
coroner asks.....**

Other comments

- There will be no standardisation
- We will be out of step with Europe
 - New guidance due next year
- Anxiety that patients will 'be missed'
- The amount of work time and money that has been put into PU resources, reporting systems, EPR systems and education already
- Links made to incident reporting

It's been described as a national embarrassment

Are we that pompous in the UK that we can't even follow the EPUAP guidelines now

We are well on the way with our implementation and although it has been hard work it seems a much better approach

Thank goodness we are finally addressing the categories



Why have we changed the categories? - Background

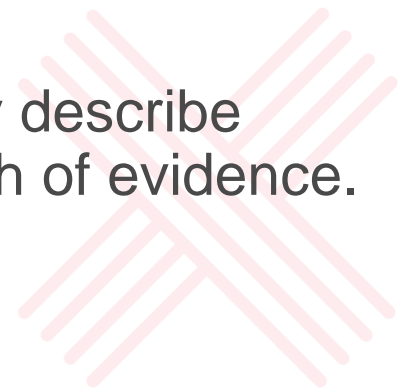
- Internationally there is not 1 agreed categorisation system.
- The 'International Perspectives' paper from the guideline working group has identified inconsistencies and at best will offer something that says 'a recognised' tool.
- Discussion with key members of EPUAP workstreams suggested they were perplexed about how and why the UK use categorisation tools.
- The recommendation for the categorisation systems is that they are useful in research and wider surveillance.



What do the International Recommendations (2019) say?

The recommendation are:

- *Use a pressure injury classification system to classify and document the **level of tissue loss**. (Good Practice Statement) and*
- *Consider two-clinician verification of differential diagnosis and classification in both prevalence and incidence studies and routine clinical practice **as needed** (p200).*
- *Verify that there is **clinical agreement** in pressure injury classification amongst the health professionals responsible for classifying pressure injuries.*
- What they **do not say** is that we must use the classifications as they describe them; All are Good Practice Statements which is their lowest strength of evidence.



This is a key paper

- The purpose of the WHO ICD-11 is a statistical comparison of diseases and severities. It follows an overarching hierarchy of diseases using standardised terminology, but it is **not an educational tool for diagnosing diseases**. Therefore, it is to be expected that these classifications will differ, however, importantly, the extent to which application of different classifications to the same PU/PI leads to different staging is unknown.

Pressure ulcer/injury classification today: An international perspective

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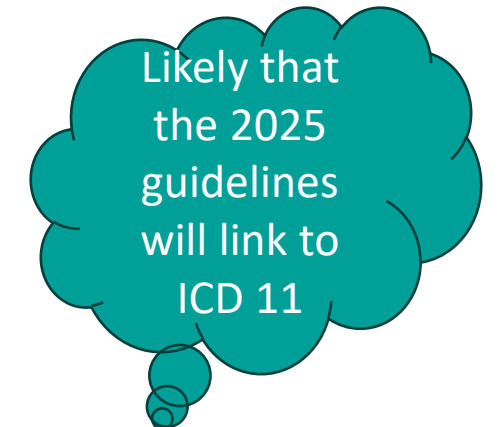
Keywords:
Assessment
Classification
Diagnosis
Pressure injury
Pressure ulcer
Reliability
Skin
Viability
Wound

ABSTRACT

There has been an ongoing debate in the healthcare community about what pressure ulcers/injuries are, and how to name, define and classify them. The aim of this discussion paper is to provide a brief theoretical background about pressure ulcer/injury classification, to explain the approach the Guideline Governance Group has taken during the 2019 update of the International Guideline for 'Prevention and Treatment of Pressure Ulcers/Injuries' and to share views on how to best implement pressure ulcer/injury classification. First formal pressure ulcer/injury classifications were introduced in the 1950s and today various pressure ulcer/injury classification systems are used worldwide. Disincentives between commonly used classification systems may be considered a limitation that impedes clinical and scientific communication. However, the conceptual meaning of pressure ulcer/injury categories described within the various classification systems is comparable and the current evidence does not indicate that one classification is superior to another. Therefore, the Guideline Governance Group created a crosswalk of the major pressure ulcer/injury classifications in common use across different geographic regions. Clinicians are encouraged to use the classification system adopted by their healthcare setting in the most consistent way. The validity of pressure ulcer/injury classification is closely linked to its intended purpose. Studying measurement properties of pressure ulcer/injury classification systems must follow state-of-the-art methods. Structured educational interventions are helpful for improving diagnostic accuracy and reducing misclassification of pressure ulcers/injuries. Implementation of innovative skin and soft tissue assessments and revised pressure ulcer/injury classifications are only worth implementing, when the diagnostic information improves clinical care.

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- In addition to the general conceptualisation of validity in terms of evidence supporting the proposed use of a measurement or classification **diagnostic accuracy** is the key aspect of PU/PI classification.
- Therefore, clinicians are encouraged to use the system adopted by their healthcare setting in the best possible and most consistent way
- Given that research is ever evolving, it is expected that things we take for granted today will be outdated in the future as we develop a better understanding of PU/PI aetiology, pathogenesis, diagnosis, prevention or treatment
- **PU/PI classification system are only worth implementing, when the diagnostic information improves clinical decision making leading to improved PU/PI prevention and treatment.**

The history of pressure ulcer categorisation

Distinguished two types of decubitus: superficial wounds resembling abrasions and deep severe necrotic ulcers that start in deeper soft tissues under intact skin. This simple two-category classification was based on aetiology and pathogenesis, yet had negligible impact on the later PU/PI classification developments

Shea described the category of a 'closed pressure sore' 'to characterise the innocent clinical presentation that conceals a deep potentially, rapidly fatal lesion.' [26]. Shea's classification was also based on the 'pathophysiology of soft tissue breakdown' and one of its purposes was to guide PU/PI treatment

Losing the way
The descriptions of 'stages' I and II were especially different from Shea's classification because the authors focussed on visible clinical signs and ignored the early involvement of deeper subcutaneous soft tissues. The phenomenon of severe soft tissue destruction under innocent looking skin ('closed pressure sore' [26]) was also excluded.

Based on the assumed pathogenesis and progression he described three stages of 'pressure sore' development from 'Circulatory Disturbance' (1. stage) to 'Deep Penetrating Necrosis' (3. stage)

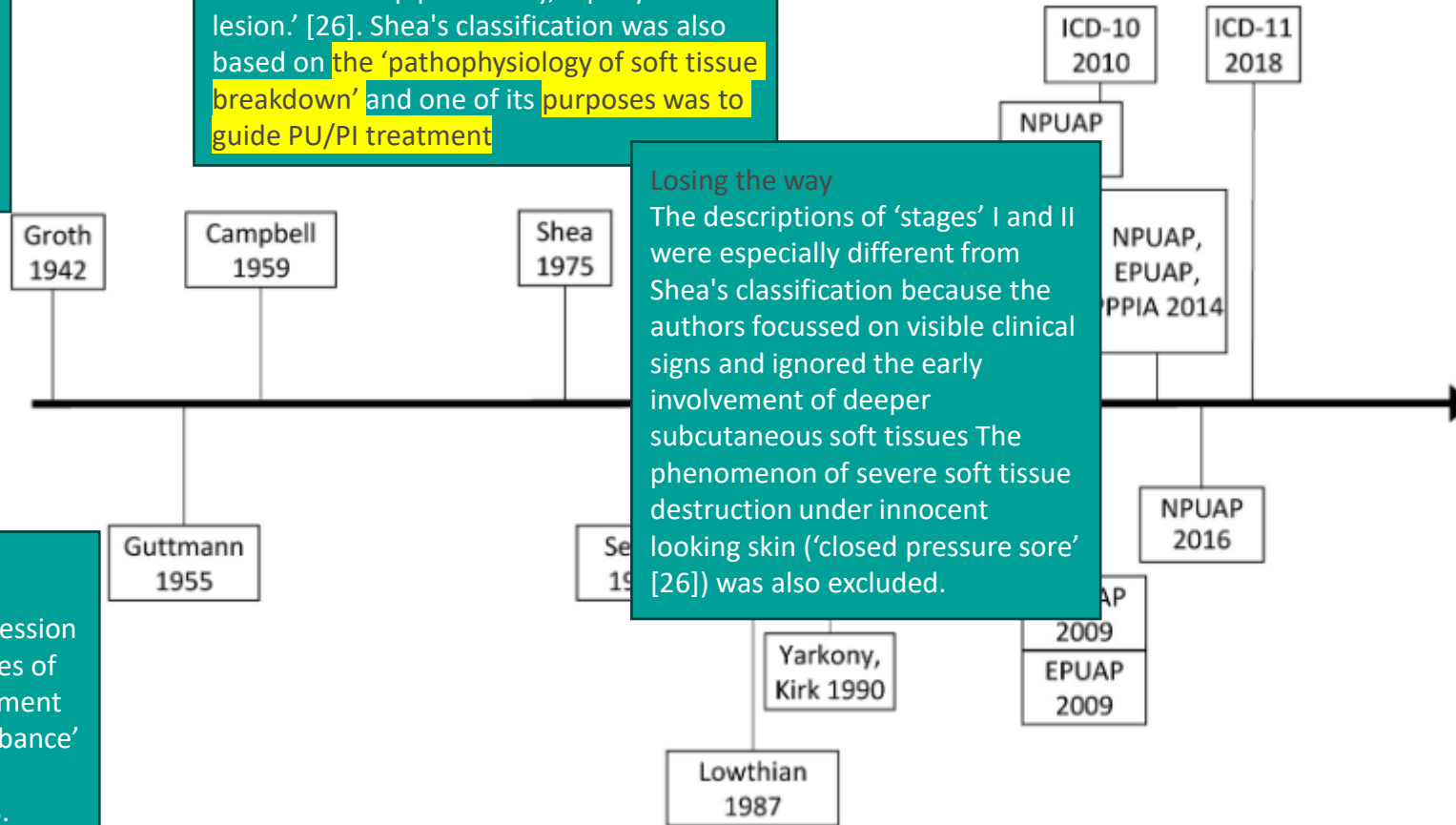


Fig. 1. Pressure ulcer/injury classification over time.

When is a PU/PI classification valid and to what extent is a revision of a classification justified?

- The only way to answer these questions is to first define the purpose and theoretical framework underpinning the classification system.
- While Groth 1942, Guttman, Campbell and Shea 1975 explicitly referred to the pathophysiology of pressure ulceration, the theoretical backgrounds of later classifications were less explicit and primarily described the extent of tissue damage and loss.



To answer your challenges- “*There will be no standardisation*”

- There is currently no standardisation.
- The category descriptors are so vague there are many areas that are open to significant interpretation.
- Many organisations / regions apply their own viewpoint e.g.
 - Category 2 descriptor specifies that it doesn't have slough
 - In one regional category tool this is not recognised it states says *grade 2 can have superficial layer of slough*

Direct quotation from Recommendation consultation



These are responses from TVNs to questions about how they categorise locally

2. Category 2 Blister - can this be blood streaked? |

We categorise cat 2 blister with serous and serosanguineous.

it is misleading on epuap for this description. have always termed a blood filled blister as an Unstageable – going forward will be cat 3. We may alter incident if it just forms a scab and heals with 2-4 weeks

blisters.. yes, we think they can obviously be blood streaked

We have always advised that if there is blood present in a blister, the level of damage which had to occur for the blood to be present in the first place would have to have breached the dermis layer, indicating at least a category 3?

2 this depends again on the practitioner – however if there is a blood streak I would say that's ok to be a category 2 as long as it is predominantly clear

Cat 2 – in blister terms has been clear fluid filled, yet on occasions the blood filled blisters reabsorb and are no more than a Cat 2.

I would say yes. I have observed injury/ shearing trauma causing bleeding but without losing full perfusion to sub cutaneous tissue.

4. How do we categorise ears and the nose where there is nothing under the skin apart from cartilage? Do we say the cartilage is 'an underlying structure' and call it a 4 or just say a 3 because there is no visible bone, muscle or tendon?

We categorise as cat 4 pressure ulcer or predominantly cat 4 secondary to medical devices usually glasses, ill fitting hearing aids and oxygen tubing.

Due to this description

This rarely happens to be fair but we term cat 2 unless cartilage exposure, then it would be cat 4 but never seen

4 – we would categorise as cat 4 on the ear / nose if there was exposed cartilage.

We would say it was a category 3 here.

4 We report as a 4 as is an underlying structure

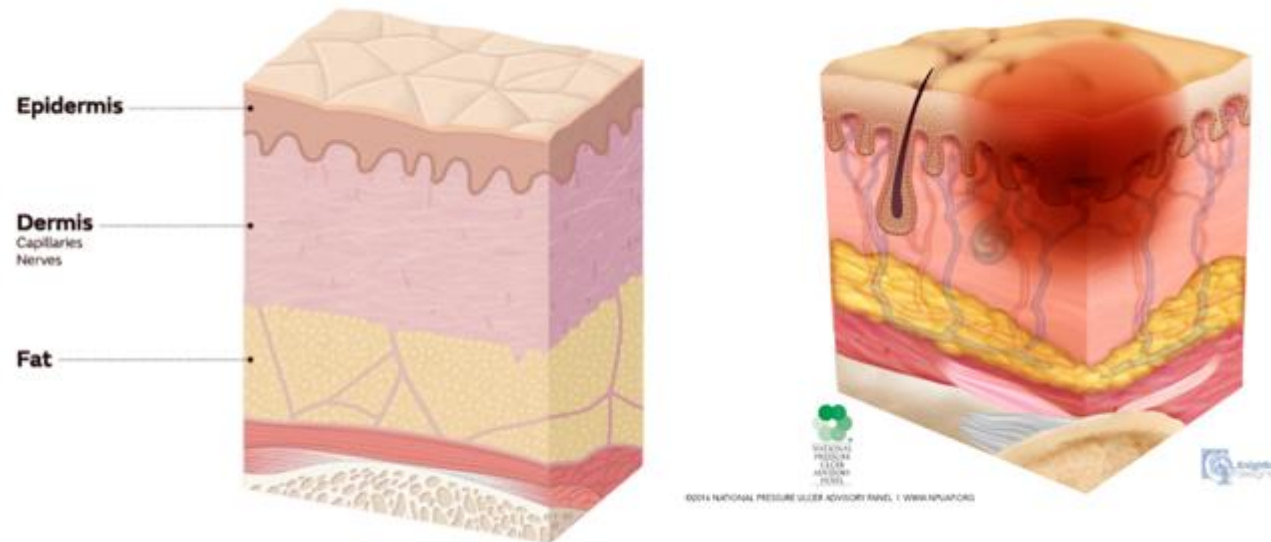
Ears and nose – In theory could they ever be a cat 4 if we use the description?

I've always questioned this one, but if no deep structure visible I would encourage category 3. Malleolus damage would be similar.

NB: These questions were asked to help design the new categorisation tool – to look at the extent of variation and put into place a single answer – possibly not the 'right' answer but at least a standard one.

The highlighting and colours have no meaning – this is how the information came to me.

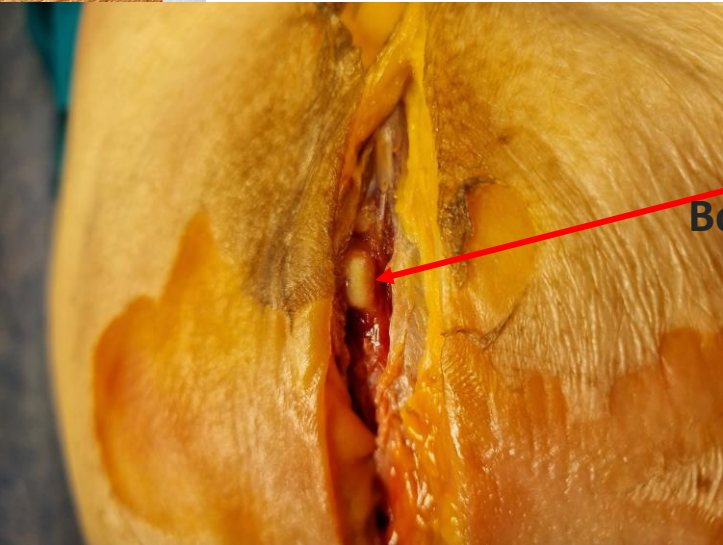
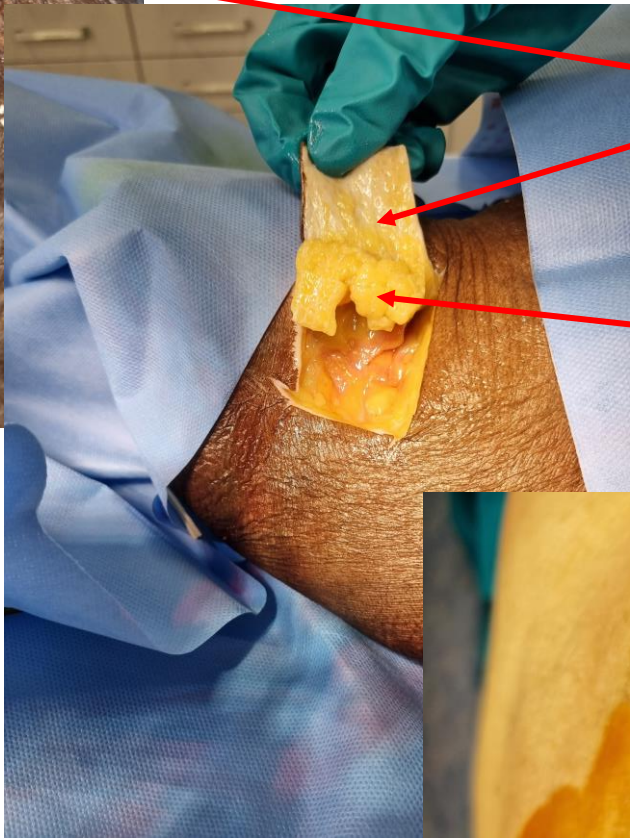
This is a seriously flawed model



Not all areas of the body have subcutaneous fat or muscle or bone
Some areas have other tissues i.e. cartilage
Some areas do not map at all i.e. mucosal
The vision presented of tissue depth is very unrealistic



Tissue depth and categories

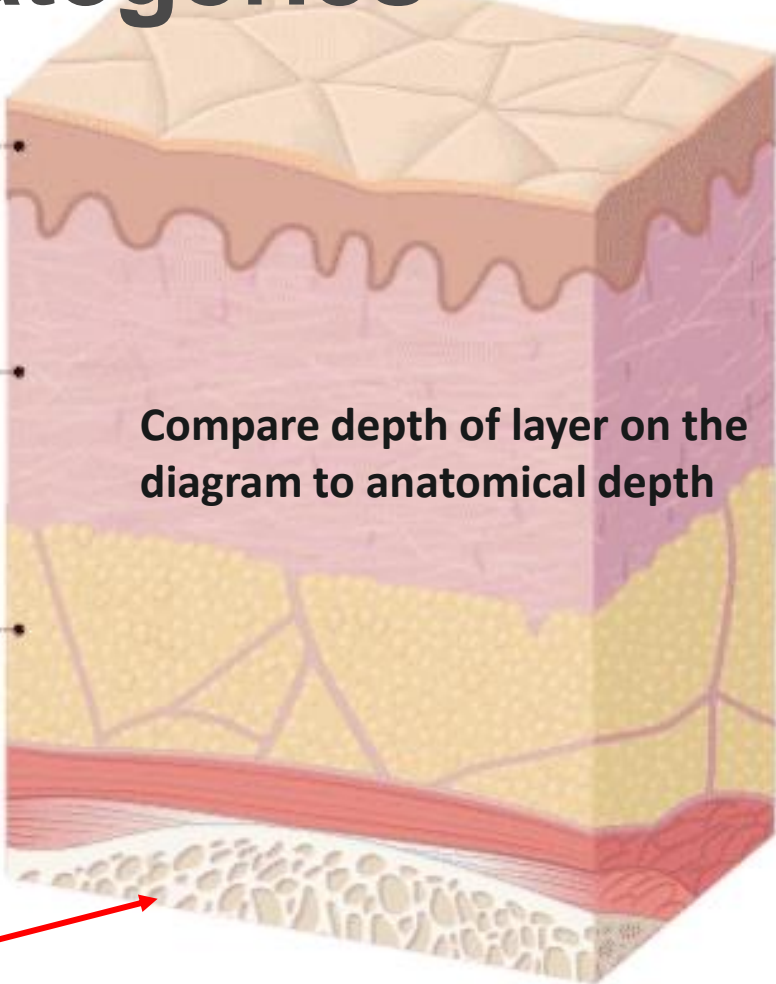


Epidermis

Dermis

Capillaries
Nerves

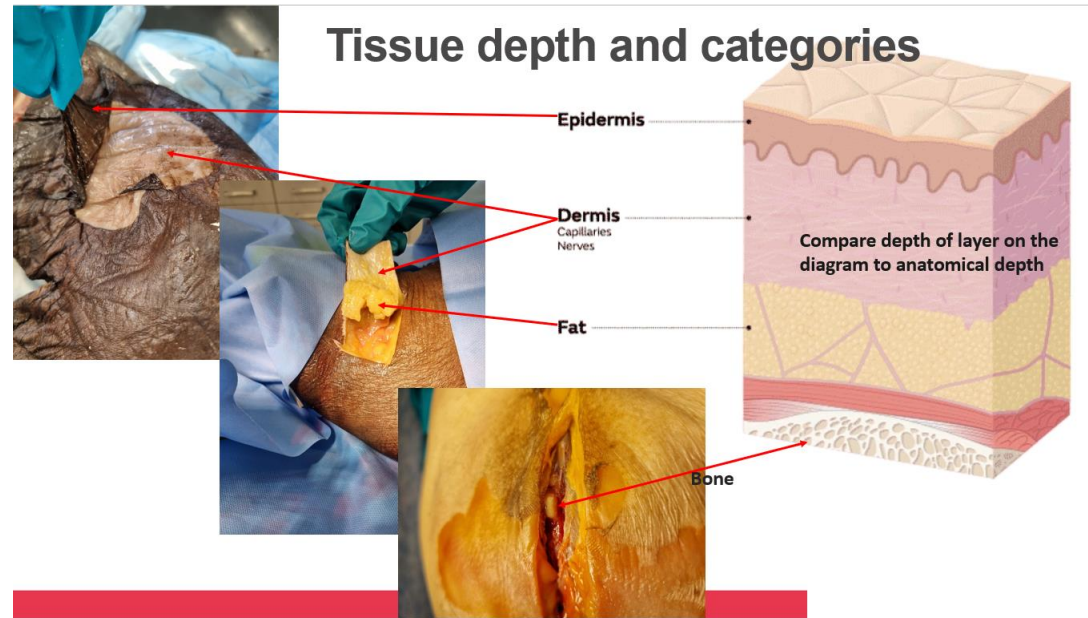
Fat



Compare depth of layer on the diagram to anatomical depth

Bone

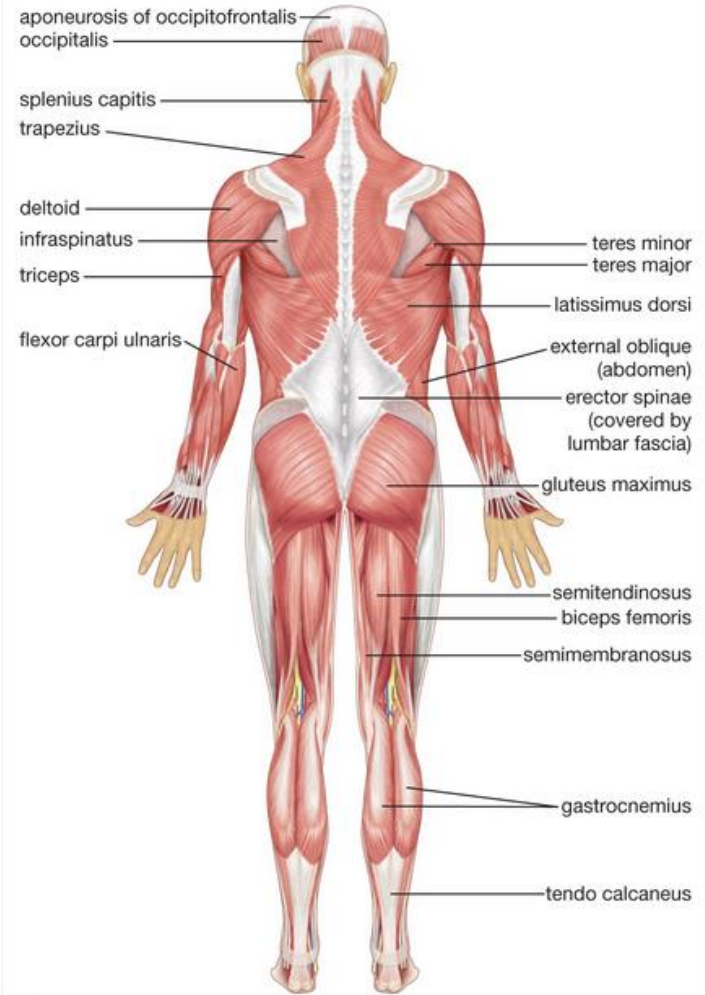
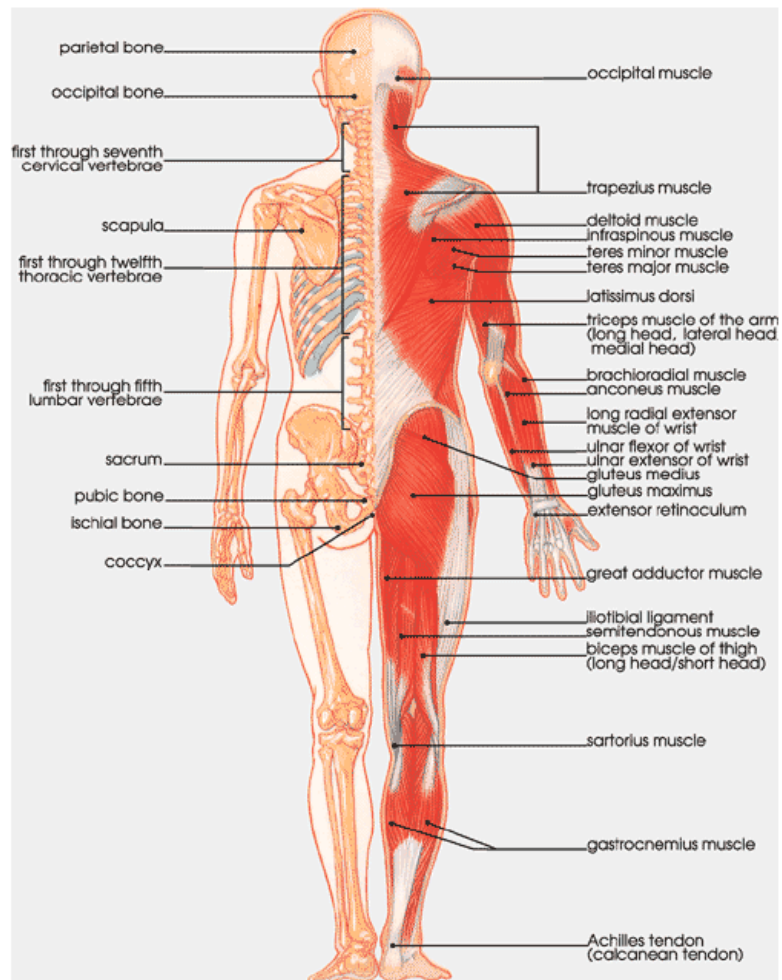
But even this model is flawed



- We teach anatomy badly
- Do we underestimate category 4s?
 - Especially on the heel and sacrum where there is no muscle

When we teach categories how often do we highlight this – How close is the bone to the surface? Where on the body is there an absence of muscle

Posterior view of muscles & bones:

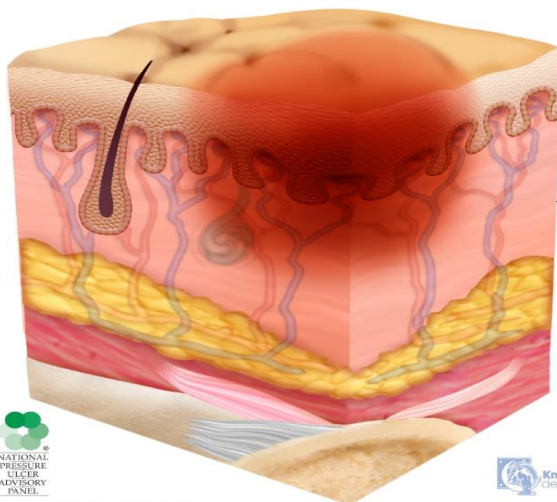


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What is the difference between these?

Use a pressure injury classification system to classify and document the level of tissue loss.

Category 1 pressure Ulcer



Inflammation vs ischaemia



In both the damage occurs in the dermis – it must do, it is an inflammatory response, inflammation occurs from the blood vessels and the epidermis is avascular.

How do you lose the epidermis? It is not an ischaemic event – the epidermis does NOT have a blood supply, so the only way of removing the epidermis other than loss of dermis is friction or shear.

The DEPTH of damage is the same, one has had the surface rubbed off. Both are generally easily reversible.

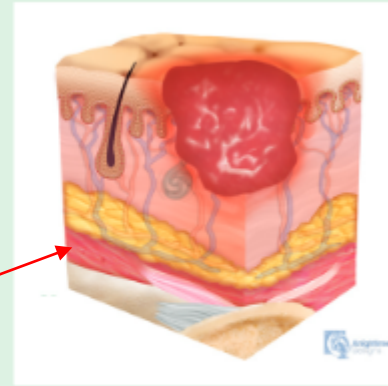
It is not possible to visualise the subtlety of loss of specific layers with the naked eye.

Blisters can only be serous?

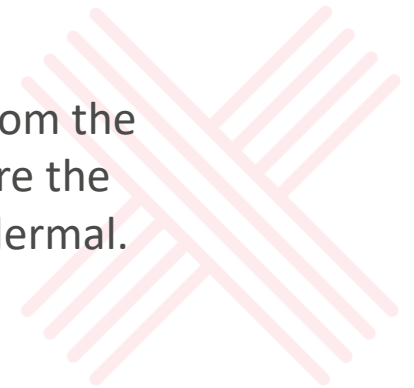
STAGE 2 PRESSURE INJURY

Partial-thickness skin loss with exposed dermis

Partial-thickness loss of skin with exposed dermis. The wound bed is viable, pink or red, moist, and may also present as an intact or ruptured serum-filled blister. Adipose (fat) is not visible and deeper tissues are not visible. Granulation tissue, slough and eschar are not present. These injuries commonly result from adverse microclimate and shear in the skin over the pelvis and shear in the heel. This stage should not be used to describe moisture associated skin damage (MASD) including incontinence associated dermatitis (IAD), intertriginous dermatitis (ITD), medical adhesive related skin injury (MARS), or traumatic wounds (skin tears, burns, abrasions).



There are 2 types of blister – intra epidermal and sub epidermal – lifting of the epidermis from the dermis. If the dermis is damaged there is likely to be damage to the blood vessels – therefore the blister will contain blood. It is not possible to SEE the difference between intra and sub epidermal.



Category 3

Category 3: Full thickness skin loss

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 Category 3 pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have subcutaneous tissue, and Category 3 ulcers can be shallow. In contrast, areas of significant adiposity can develop extremely deep Category 3 pressure ulcers. Bone/tendon is not visible or directly palpable.

Unstageable Pressure Injury.

You can't have a category 3 on an ear! Are you prepared to report them all as 4s?

A category 3 pressure ulcer is generally not deep, most PU occur over bone, most bony prominences have little fat or muscle covering them apart from the ITs and trochanter, some like the heel do not have any muscle covering

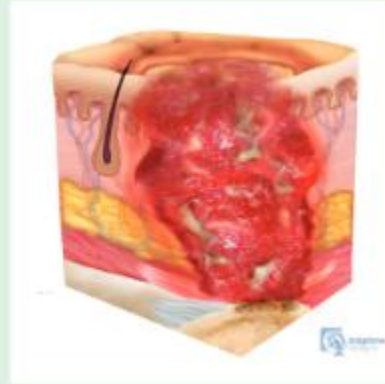


Category 4

STAGE 4 PRESSURE INJURY

Full-thickness loss of skin and tissue

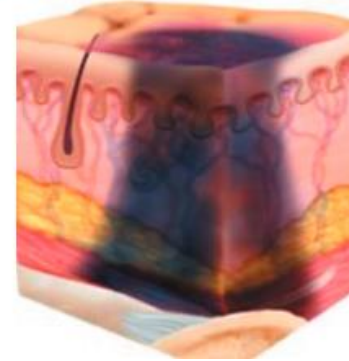
Full-thickness skin and tissue loss with exposed or directly palpable fascia, muscle, tendon, ligament, cartilage or bone in the ulcer. Slough and/or eschar may be visible. Epibole (rolled edges), undermining and/or tunneling often occur. Depth varies by anatomical location. If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury.



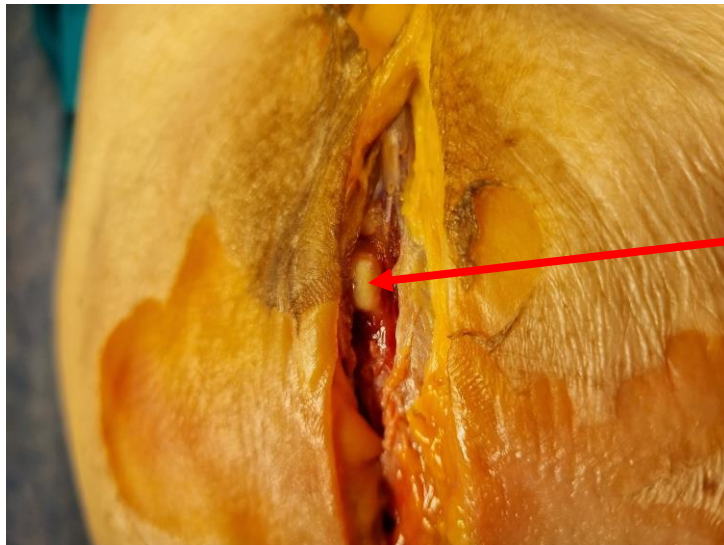
DEEP TISSUE PRESSURE INJURY OR AN IMPOSTER?

Intact or non-intact skin with localized area of persistent non-blanchable deep red, maroon, purple discoloration or epidermal separation revealing a dark wound bed or blood-filled blister. Pain and temperature change often precede skin color changes. Discoloration may appear differently in darkly pigmented skin. This injury results from intense and/or prolonged pressure and shear forces **at the bone-muscle interface.**

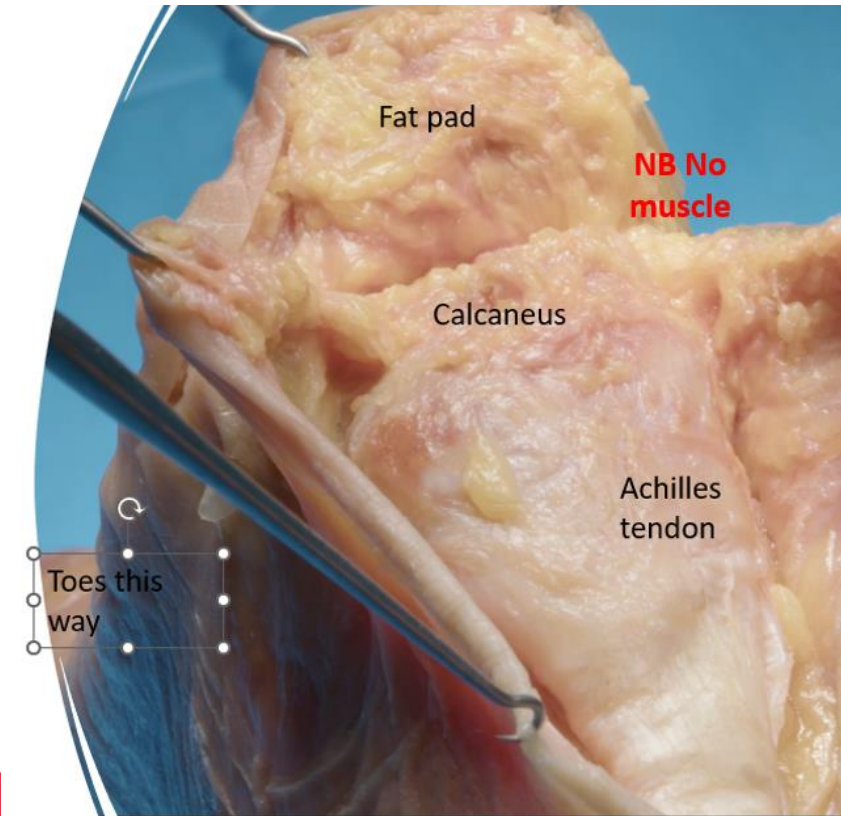
The wound may evolve rapidly to reveal the actual extent of tissue injury or may resolve without tissue loss. If necrotic tissue, subcutaneous tissue, granulation tissue, fascia, muscle or other underlying structures are visible, this indicates a full thickness pressure injury (Unstageable, Stage 3 or Stage 4).



ring “in the muscle”



Sacrum –
note no
muscle
covering.....



What happens to DTI?

- How many 'become a 2'? – so not deep
- How many resolve? – so maybe never a PU
- How many were something else in the first place?
- How many become a category 3 or 4?
- How many neither evolve nor resolve – the skin is intact but you can feel damage?
- How many patients die before you know?



Local data

In May 2023 from SystemOne ICT report.

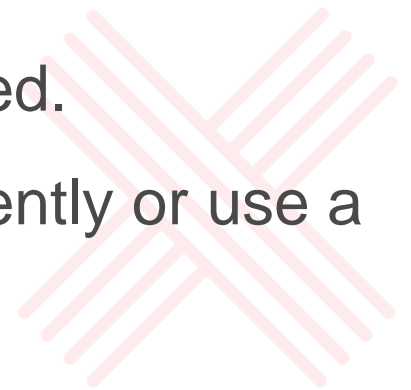
- 26 DTIs reported. 6 were. 20 were not.
- Of the 6
 - 5 died.
 - 1 resolved.
 - 1 evolved - then RIP within 6/12.
 - Other 4 died within one month, 3 of those in 2/52.

From 3/12
worth of data
72% not DTIs



If we don't label it a DTI care may not happen

- If it is labelled as vulnerable skin the patient should be put on the prevention pathway.
- What would (should) they do different for a DTI than a category 1 or a blister?
 - Staff should follow aSSKINg.
 - Staff should be regularly reviewing and escalate if concerned.
 - There is no guidance that says reposition them more frequently or use a different piece of equipment.



- In addition to the general conceptualisation of validity in terms of evidence supporting the proposed use of a measurement or classification **diagnostic accuracy** is the key aspect of PU/PI classification.
- We have consistent evidence now demonstrating duplication or **misdiagnosis of about 56-67%.**

1										
2	Month	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	
3	Total Number of Incidents	82	75	82	73	93	90	94	90	
4	Correct Incidents (%)	37.80%	30.67%	37.80%	32.88%	43.01%	33.33%	45.74%	40.00%	
5	Incorrect Incidents (%)	62.20%	69.33%	62.20%	67.12%	56.99%	66.67%	54.26%	60.00%	
6	Number of Correct Incidents	31	23	31	24	40	30	43	36	
7	Number of Incorrect Incidents	51	52	51	49	53	60	51	54	
8	Average Age	76	67	69	70	75	79	75	75	
9	Median Age	80	68	75.00	77.00	82.00	84.00	81.00	78.00	
		81	95	87.00	51.00	61.00	88.00	89.00	81.00	
10	Mode Age									
11	Gender (Male)	17	13	16	15	27	12	20	21	
12	Gender (Female)	14	10	14	9	13	18	23	15	

Data from a large organisation – supplied January 2024

Are we making a difference- **misdiagnosis of about 56-67%.**

- This despite all of the time, effort, teaching, validation etc.
- We need to do things differently.

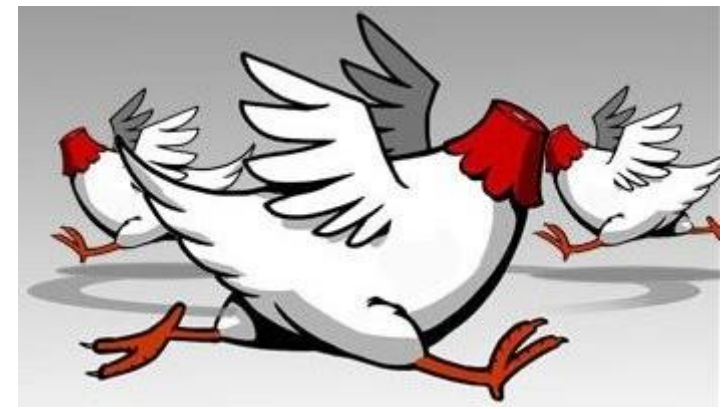


Categorisation systems

- None of them offer good reliability (can we get the same results).
- None of them have good validity (does it measure what it purports to measure).



What are we trying to achieve?



- Reduction in harm
 - How does allocating an arbitrary categorisation do this?
- Benchmarking
 - So much inconsistency no one can benchmark.
- Improving patient care and patient experience
 - Allocating a category does neither of these.

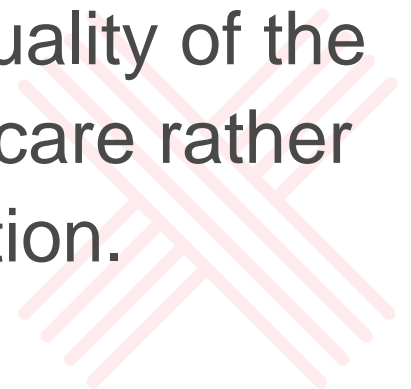


- PU/PI classification systems are only worth implementing, when the diagnostic information improves clinical decision making leading to improved PU/PI prevention and treatment.
- How does classification drive care or improve decision making?
 - It does not describe the wound to help select a dressing.
 - It does not indicate which equipment to choose.
 - It does not indicate frequency of repositioning.
 - It does not indicate severity of harm.
 - It does not indicate how, why or where the pressure ulcer occurred.
- What would drive care?
- What would be useful information?



What would drive improvements in care

- Deliver evidence - based practice.
- Focus on quality improvement work.
- Support staff in feeling they can make a difference rather than always being wrong.
- Identify the right metrics and work on improving the quality of the data from the clinical record to allow staff to focus on care rather than documentation and incident reporting / investigation.



Things I want to know

Obsessing about the 'number' does not help with any of this

- How many patients have a harm (a pressure ulcer)?
- Did we put them on the right pathway?
 - Did we fail or is the pathway inadequate?
- What was the outcome for that patient?
 - Did develop a PU and the outcome was:
 - Healing
 - Improvement
 - Deterioration
 - Complication (Infection / amputation)
 - Death

But also – how many patients were NOT harmed so:

Tell me about our population

- How many patients fall into each pathway (Green, Orange, Red).
- What are the outcomes of them being on that pathway?
- What can we do at a system level to better manage our known population?

Skin discolouration related to pressure, shear and or friction



This heel ulcer appears as a dry blood blister

This heel ulcer appears as a linear area of deep purple black discoloration

Intact skin
Blister



An intact serum-filled blister

Full thickness skin loss without bone exposure



A shallow open ulcer with a red pink wound bed without slough



A superficial ulcer with collapsed blister

Full thickness skin loss with bone exposure or directly palpable



In this wound, the bone is clearly visible



Pressure ulcers where the skin is not broken

Pressure ulcers where the skin is broken but no bone visible or directly palpable

Pressure ulcers where the skin is broken and bone visible or directly palpable

Preventative care

- Implement and review the aSSKINg Bundle
- Skin assessment and skin care
- Surface
- Keep moving
- Incontinence and moisture
- Nutrition and hydration
- Giving information or getting help
- When appropriate, assessment and initiation of Self-Management
- Assess risk if condition changes
- Onward referral to specialist services, as needed

Escalate interventions if deterioration in skin or wound status noted

Wound care

- Wound assessment
- Wound bed cleansing and debridement
- Peri-wound skin cleaning
- Appropriate dressing
- Measure
- Record
- Onward referral to specialist services, as needed
- Review effectiveness of treatment plan

Manage risk of osteomyelitis

Consider use of topical antimicrobial
Increased vigilance for signs of infection
Scan / x ray



Mucosal

MDRPU

WORK IN PROGRESS

Skin - Inspect, Clean and Protect

- Inspect on a regular basis in line with the repositioning regimen
- Clean and dry using neutral pH balanced products and a gentle patting motion to dry
- Protect, using barrier films, hydrocolloids, foams or silicone products
- Record and manage any existing damage

Reassess / Remove

- Is the device still necessary – can it be replaced or removed?

Therapeutic device selection

- What are the options? Which type is most appropriate for the patient and their situation
- Measure the patient and select the correct size



Regular review of skin condition

- Lift the device and inspect the skin, rotate the site and or device if possible

Apply

- Ensure the device is positioned correctly
- Secure the device in situ, ensure the securement is applied with sufficient tension to maintain function but not over tightened as this may cause skin damage. *N.B. most devices can still function with a percentage leakage*



This infant has Category 1 damage to the cheeks and a small unstageable ulcer on the ear



This neonate has damage to the nares that cannot be categorised



The damage caused by this urinary catheter could be categorised as a DTI (d)



Although difficult to identify, this PU was caused by the leather ring at the top of an old-fashioned calliper



Damage has occurred where the spectacles and elastic from the oxygen mask press on the pinna of the ear



Although difficult to identify, this PU was caused by the patient having their feet caught in the bed sheets which were tightly twisted across the toes

But that still doesn't address the categories!

True

- But we need to use a consistent standard
- The ONLY consistent standard we have is the clinical coding system
- We need to find a way to work with it
- Our MOST IMPORTANT step

Get Pressure ulcer Yes / No right

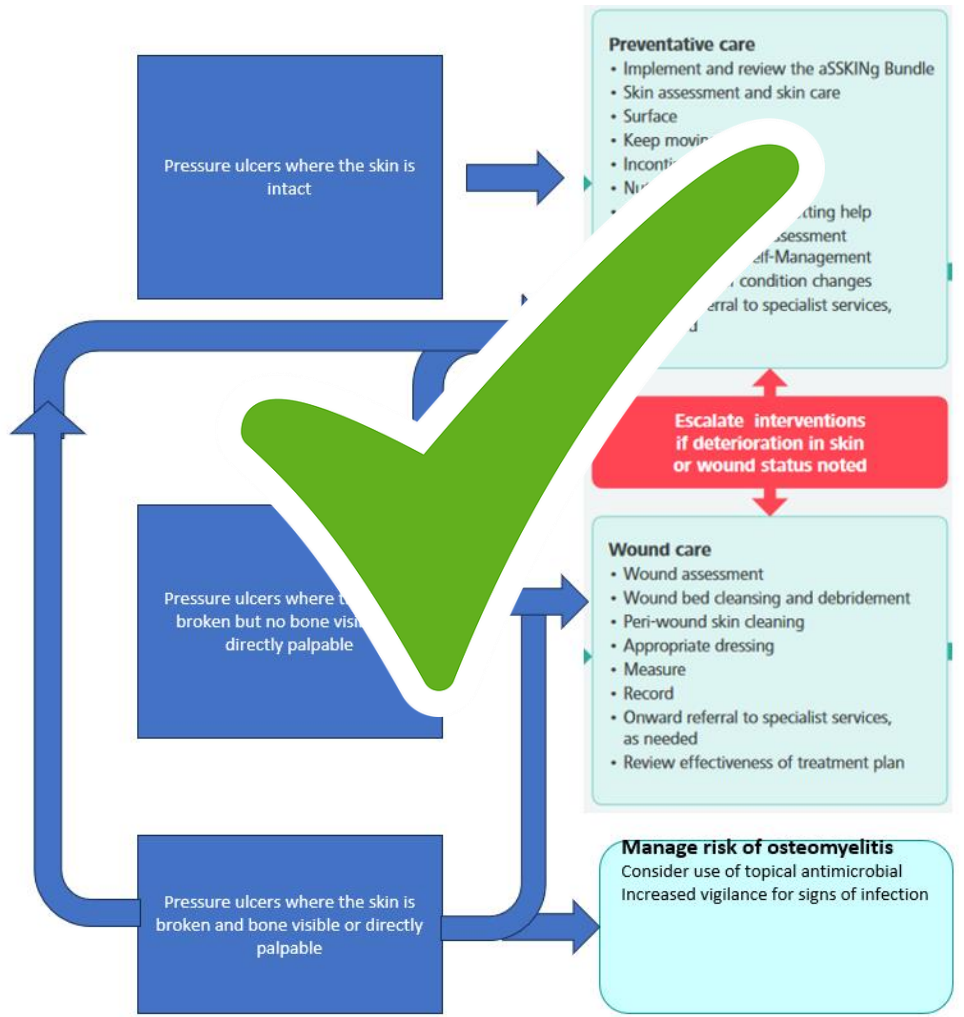


What about allocation of harm?

- Changes to PSIRF and PSIRP
- Category DOES NOT equal harm



Linking categories to care not reporting



2. Can category of pressure ulcer be matched to a LFPSE degree of harm?

No, the degree of harm depends on the actual impact for this patient as a result of the patient safety incident and does not correlate with the category of pressure ulcer. For example, a patient with a category 3 pressure ulcer could fall into moderate harm because they needed additional healthcare for 3 months.

However, if the same ulcer was on the heel and expected to affect mobility even after healing, then that would be graded as severe harm. Each pressure ulcer must be assessed for degree of harm, using category of pressure ulcer only as a guide and the reason for the level of harm selected should be demonstrated in the free text description of the incident.

If a patient has multiple pressure ulcers that developed by the same mechanism, then only one incident need be recorded. The harm associated with this incident would be the actual level of harm to the patient (i.e., the highest level of harm the patient has incurred from any or all of the pressure ulcers).

If a patient has multiple pressure ulcers which developed due to different mechanisms (i.e. one develops due to a monitoring device, and the other is related to profiling bed equipment), two distinct incidents have occurred and should be recorded as such.

<https://www.england.nhs.uk/long-read/policy-guidance-on-recording-patient-safety-events-and-levels-of-harm/>

There is a lot of explaining to do

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PHRASE OF THE DAY
13SEP20

the tail wags the dog
(phrase)

a situation in which an unimportant thing dominates or controls the whole of other important thing(s).




What next

- This is a complete refresh.
- I can't promise it won't change as our knowledge, understanding and technology changes.
- We need to work hard to ensure Boards and ICBs understand the changes.
- We need to support education to explain the changes.



If we really want to improve.....

- We will never reduce harm by focussing on categories.
 - We will reduce harm by focussing on delivery of the right care.
 - Primarily prevention.
 - Then reversing reversible damage (we must catch the categories 1s).
 - Then improving healing rates for the PU that do occur.
 - We need to make things simpler for staff and specialist.
 - We need to ensure Boards understand the changes and why.
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