Pressure Ulcer To Zero Phase 4
Learning Session 1

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Presentation

- Epidemiology
- Definition, Pathophysiology & Stage of Pressure Ulceration
- Definition, Pathophysiology of Moisture Associated Tissue Damage
- Medical Device Related Pressure Damage
- Risk Assessment + Risk Assessment Tools
- SSKIN Bundle

Pressure Ulcer Prevalence

EPUAP (2002)

Pan European Prevalence Study

Sample Size = 5,000 pts

Standard Data collection tool

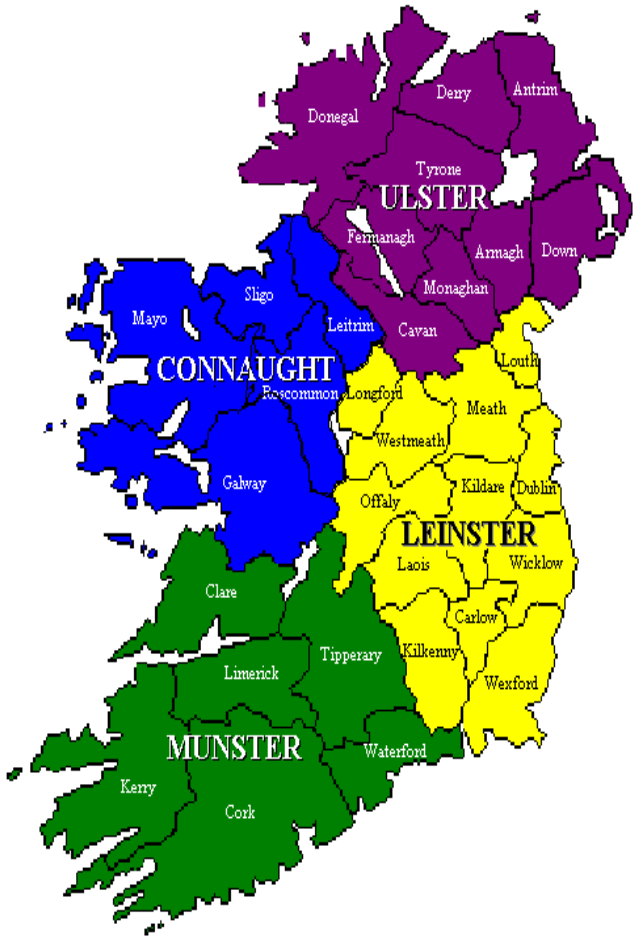
Prevalence Rate = 18%

Range 8.3% in Italy to 22.9% in Sweden

Irish Prevalence Rates

- Moore & Pitman 2000
- Sheerin et al 2005
- Gallagher et al 2008
- Gethin et al, Mc Dermot -Scales et al 2009
- Moore & Cowman 2012

  The mean prevalence is 16% (Moore et al 2013), **varying from 4%** (Mc Dermott- Scales 2009) **to 37%** (Sheerin et al 2005)



The problem

- Global mortality rates from 187 countries found a 32.5 % increase in deaths directly attributable to pressure ulcers from 1990 - 2010 (Lozano et al, 2010).

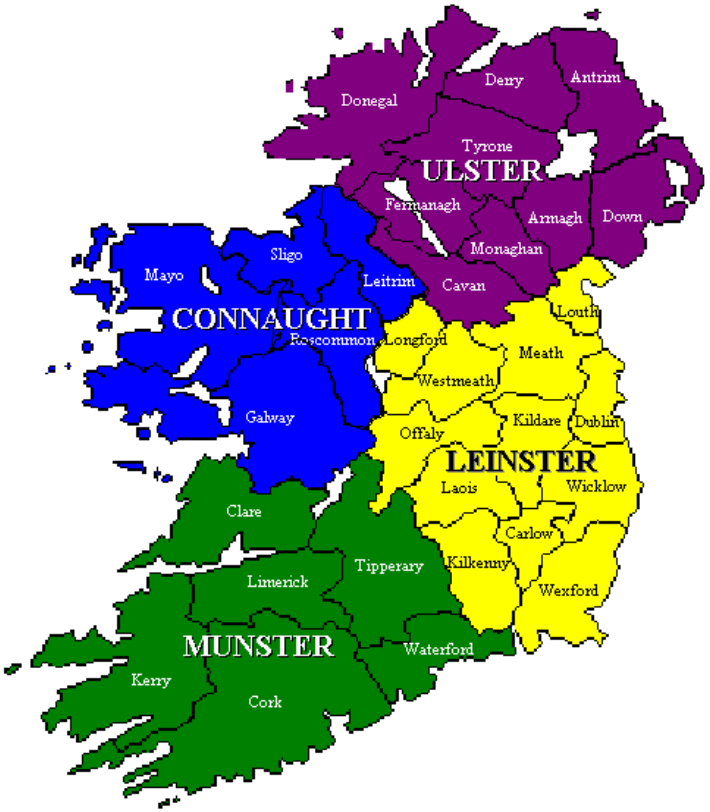
- In Ireland there have been six published studies which have explored pressure ulcer prevalence

(Gallagher et al, 2008, Gethin et al, 2005, McDermot-Scales et al, 2009, Moore & Cowman 2012, Moore &Pitman 2000, Sheerin et al 2005).

Irish Incidence Rates

- Moore & Pitman 2000
- Sheerin et al 2005
- Gethin et al 2005
- Gallagher et al 2008
- Obrien & Cowman 2011
- Moore et al 2011

Mean incidence is 11% (Moore et al 2013) **varying from 8%** (Moore & Pitman 2000) **to 14.4%** (Gallagher et al 2008)



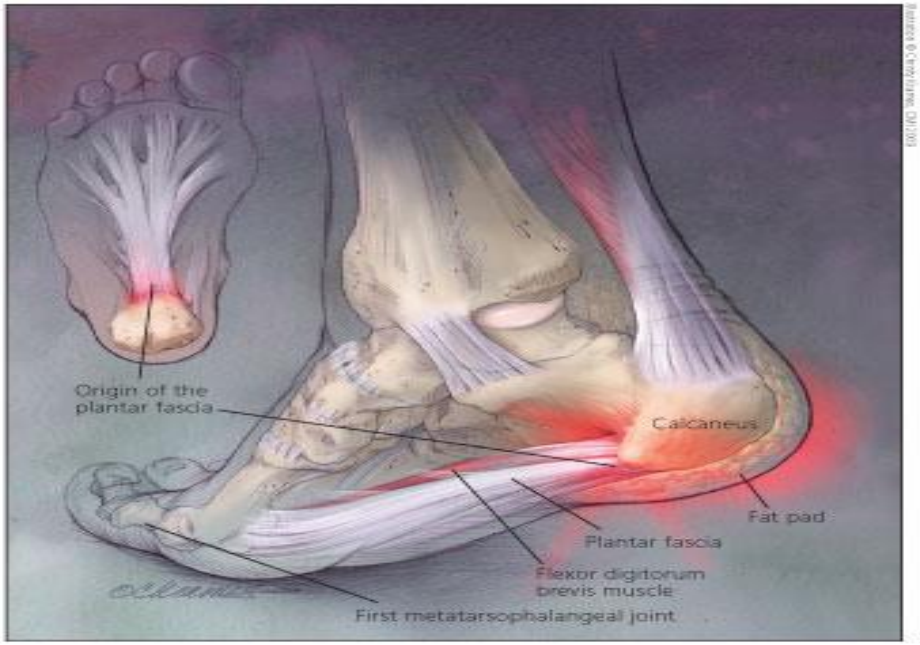
Definition

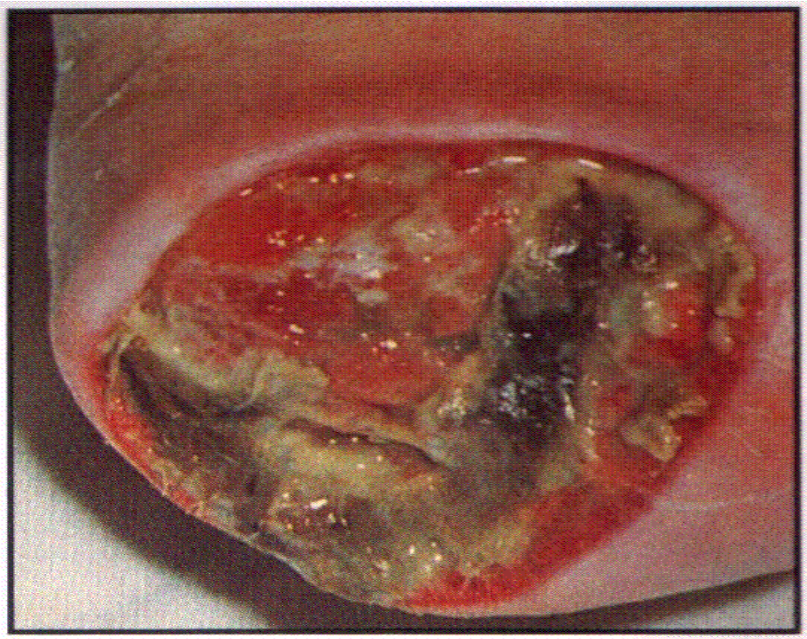
"*A pressure ulcer is defined as a localised injury to the skin and / or the underlying tissue usually over a bony prominence, as a result of **pressure**, or pressure in combination with **shear**.* A number of contributing factors are also associated with pressure ulcers: the significance is yet to be elucidated,

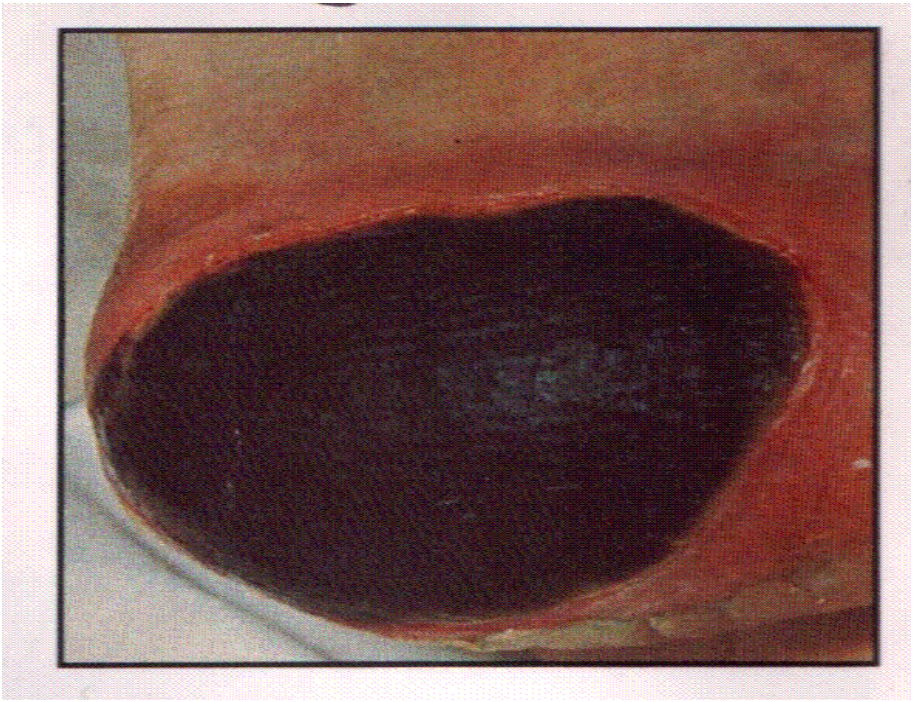
(EPUAP/NPUAP/PPPIA 2014)

*Both **immobility** and diminished activity are considered as primary risk factors*

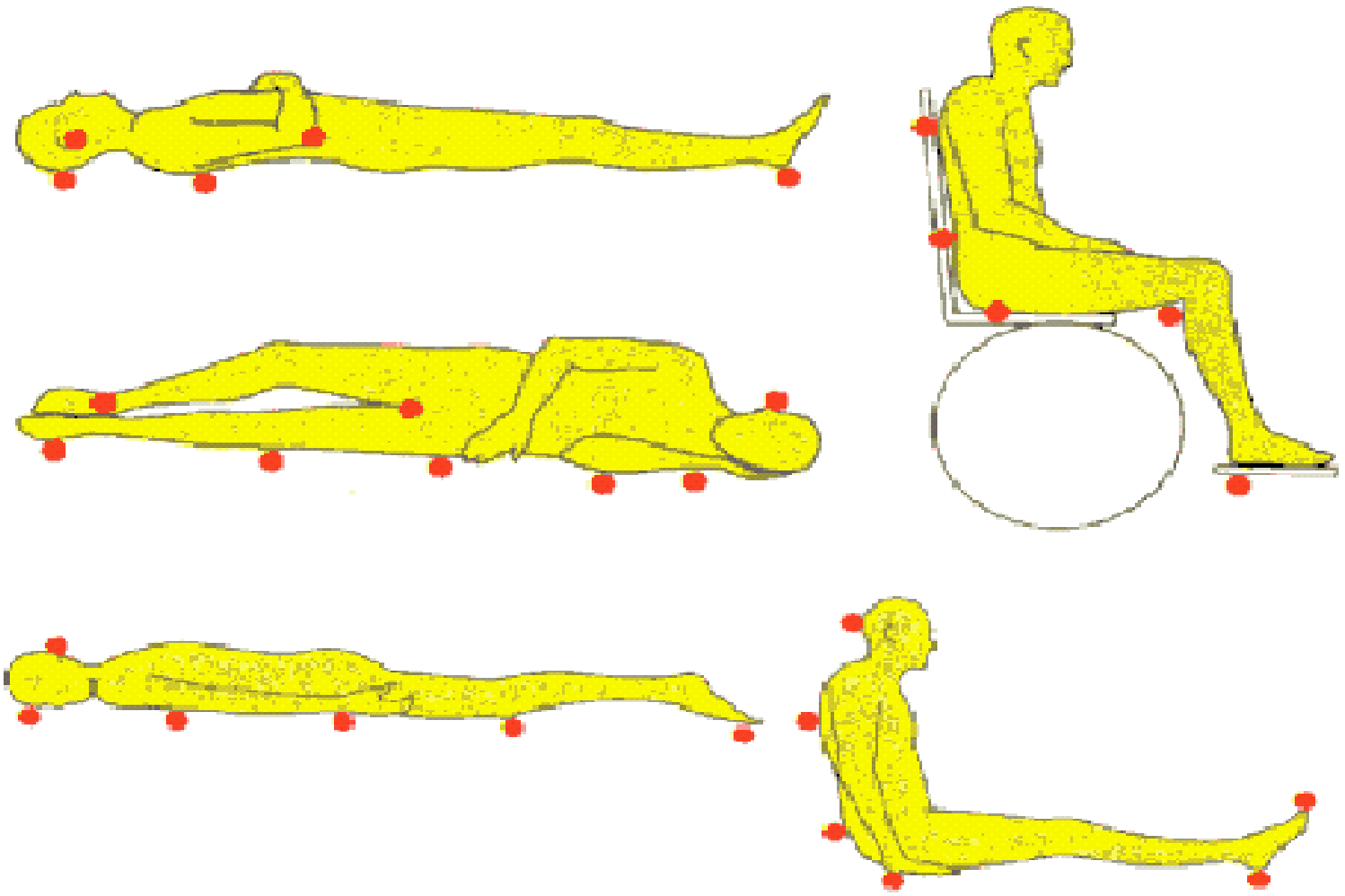
(Bergstrom et al 1992)


Origin of the plantar fascia
Calcaneus
Fat pad
Plantar fascia
Flexor digitorum brevis muscle
First metatarsophalangeal joint





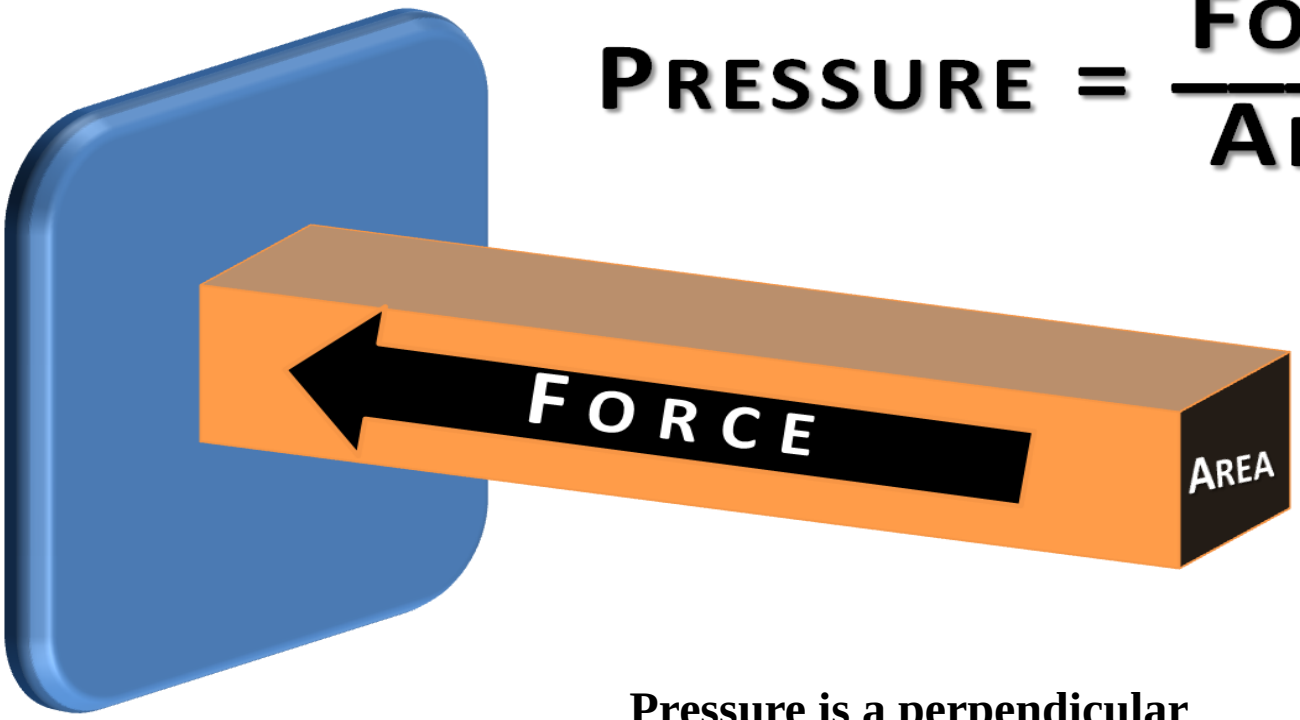
Most common Sites of Pressure Ulceration



Pathophysiology

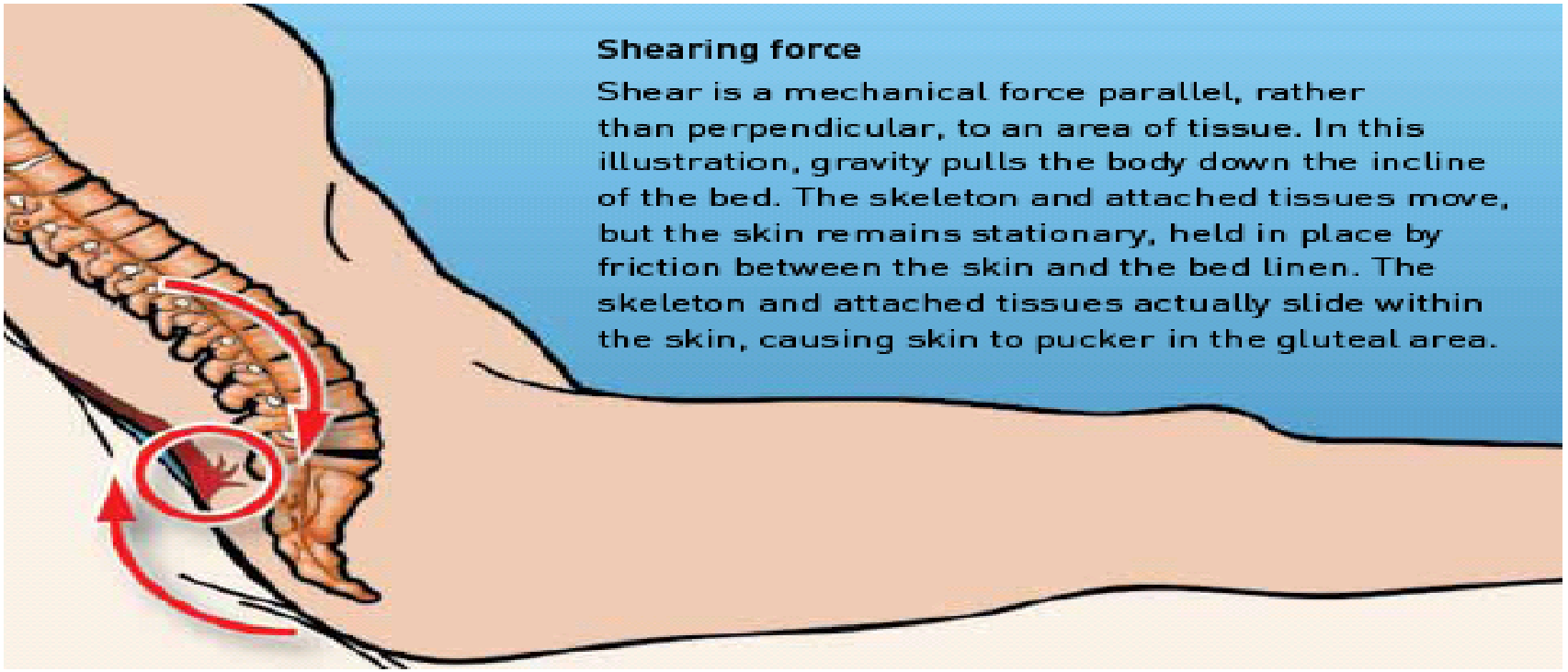
PRESSURE

$$\text{PRESSURE} = \frac{\text{FORCE}}{\text{AREA}}$$



Pressure is a perpendicular load exerted on a unit of area

SHEAR = mechanical stress acting parallel to the plane if interest



The amount of pressure needed to produce occlusion with resultant ischemia is cut in half when sufficient shearing occurs.

Intensity and Duration of Pressure

Low intensity and long duration is as capable of producing tissue injury as high pressure for shorter duration

Prolonged pressure

Tissue Necrosis + Reperfusion Injury

- Fluid forced out of interstitial spaces causing cell to cell contact.
- Cell membrane ruptures with release of toxic material
- Damage to lymphatics impedes removal of toxic substances = tissue necrosis.

Tolerance of Skin & Supporting Structures

- Influenced by Collagen content and auto - regulation mechanism of microcirculation
- Collagen content of the dermis alters with disease, age, spinal cord injury & steroid use.

Physiology & Pressure Ulcer Healing

This process occurs through;

- **REGENERATION,** Identical replication of cells in humans is possible in a limited number of cell types, e.g. epithelial, liver

- **REPAIR,** Main mechanism by which healing occurs in humans whereby loss of tissue integrity is replaced by connective tissue. Important to remember in a Grade 1V Pressure Ulcer where there is muscle loss, this will be replaced by connective tissue & not muscle.

Staging of Pressure Ulcers

Ulceration is an observable alteration of intact skin whose indicators, when compared with an adjacent or opposite area on the body, may include changes in one or more of the following;

- **Skin Temperature** – warmth or coolness
- **Tissue Consistency** – firm or boggy
- **And/Or Sensation** –pain or itchy

EPUAP Staging System (2014)

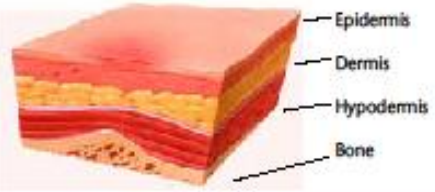
Scottish Adapted European Pressure Ulcer Advisory Panel (EPUAP)
Grading Tool

Grade 1

Non-blanchable erythema (redness) of intact skin.

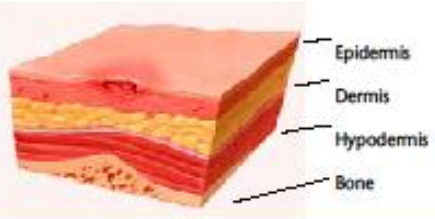
Discolouration of the skin, warmth, oedema, induration or hardness may also be used as indicators, particularly on individuals with darker skin

Progression of a pressure ulcer



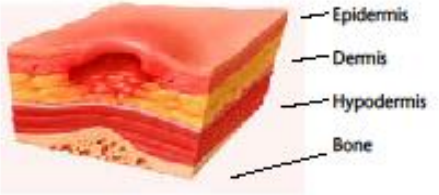
Grade 2

Partial thickness skin loss involving epidermis, dermis, or both. The ulcer is superficial and presents clinically as an abrasion or blister



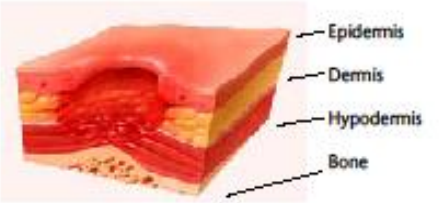
Grade 3

Full thickness skin loss involving damage to or necrosis of subcutaneous tissue that may extend down to, but not through underlying fascia

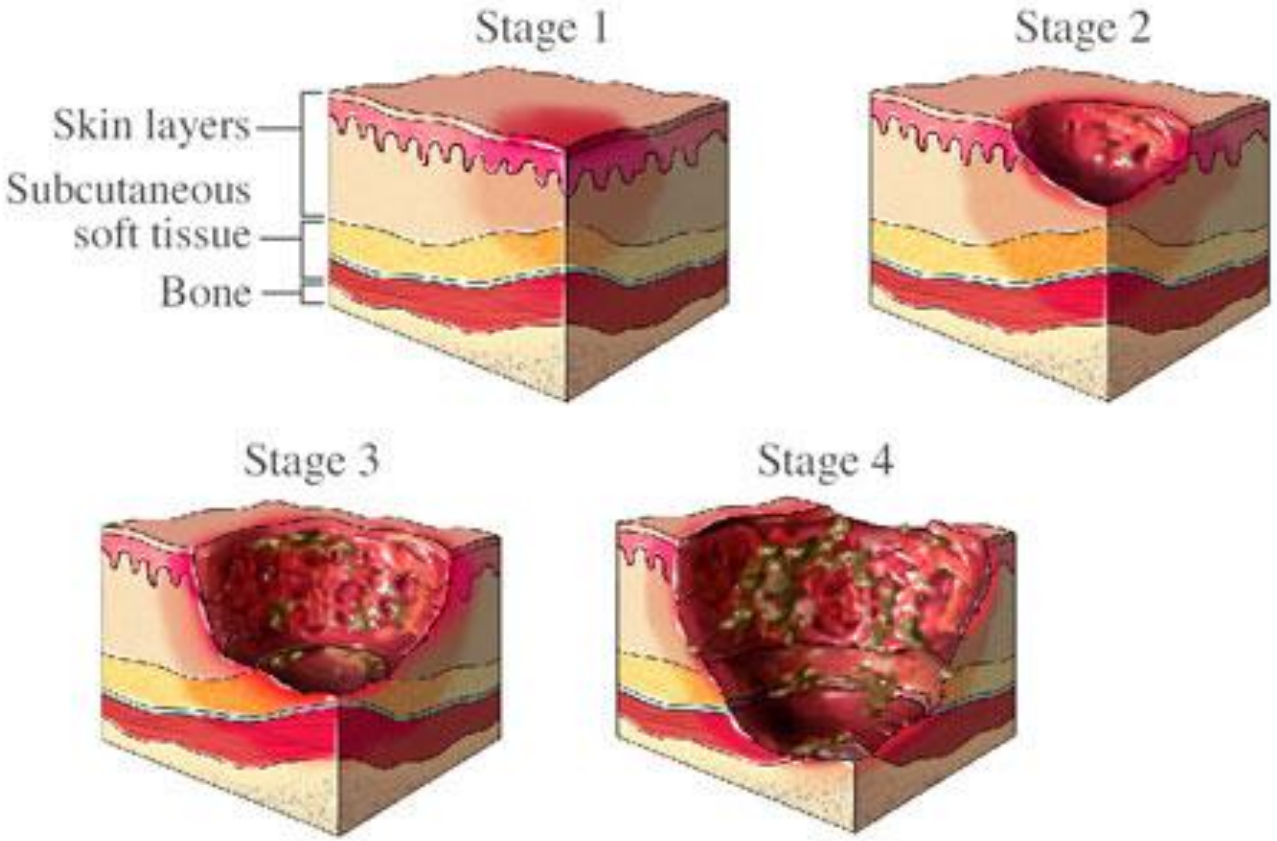


Grade 4

Extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures with or without full thickness skin loss



Images: Colin Blain Medical Photographer Inverclyde Royal Hospital (IRH) Greenock / Science Photo Library


Stage 1
Stage 2
Skin layers
Subcutaneous soft tissue
Bone
Stage 3
Stage 4

CUH

HSE 2018 Pressure Ulcer Category/Staging System Recommendation

Definition: ***"A pressure ulcer is a localised injury to the skin and / or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with pressure ulcers; the significance has yet to be elucidated"***

Category / Stage I

Category/ Stage I: Intact skin with non – blanchable redness of a localised area usually over a bony prominence. Discolouration of the skin, warmth, odema, hardness or pain may also be present. Darkly pigmented skin may not have visible blanching. The area may be painful, firm, soft, warmer or cooler as compared to adjacent skin. (EPUAP 2009)

Category/Stage II

Category / Stage II: Partial thickness skin loss of dermis presenting as a shallow ulcer with a red pink wound bed, without slough. May present as an intact or open/ ruptured serum filled blister filled with serous or sero- sanginous fluid. Presents as a shiny or dry shallow ulcer without slough or bruising. (EPUAP 2009).

Category/Stage III

Category / Stage III: Full thickness skin loss. Subcutaneous fat may be visible but bone, tendon or muscles are not exposed. Slough may be present but does not obscure the depth of tissue loss. The stage may include undermining or tunnelling (EPUAP 2009).

Category/Stage IV

Category / Stage IV: Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present. This stage often includes undermining and tunnelling. Exposed bone / muscle is visible or directly palpable (EPUAP 2009).

In individuals with non-blanchable redness and purple/maroon discoloration of intact skin combined with a history of prolonged, unrelieved pressure/shear, this skin change may be an indication of emerging, more severe pressure ulceration i.e. an emerging **Category/Stage III or IV Pressure Ulcer**. Clear recording of the exact nature of the visible skin changes, including recording of the risk that these changes may be an indication of emerging more severe pressure ulceration, should be documented in the patients' health record. These observations should be recorded in tandem with information pertaining to the patient history of prolonged, unrelieved pressure/shear.
It is estimated that it could take **3-10 days** from the initial insult causing the damage, to become a **Category/Stage III or IV Pressure Ulcer** (Black et al, 2015).

Stable eschar (dry adherent, intact without erythema or fluctuance) on the heel serves as the body's biological cover and should not be removed. It should be documented as at least Category / Stage III until proven otherwise.

Stage 1

- Appears as a defined area of persistent redness (Non-Blanching) in lightly pigmented skin. Intact & usually presents over a bony prominence

- In darker skin tones, it may appear with persistent red, blue or purple hues

Stage ll Pressure Ulcer

Partial-thickness skin loss involving epidermis, dermis or both. The ulcer is superficial and presents clinically as an abrasion, blister or shallow crater

Stage lll

Full-thickness skin loss involving damage to, or necrosis of, subcutaneous tissue that may extend down to, **but not through**, underlying fascia. The ulcer may present clinically as a deep crater with or without undermining of adjacent tissue.

Stage 1V

Full-thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone or supporting structures (tendon, joint or capsule)

Undermining and sinus tracts also may be associated with stage 1V pressure ulcers

Debate: 2 Descriptors (2014, EUPAP)

Deep Tissue Damage

Unstageable

Sacral

Kennedy Terminal Ulcer

- Pear shaped
- Associated with end of life
- Where all measures are in place for prevention of PU’s, yet PU’s occur

Spinal Cord Injury + PU's

- Spinal cord injury occurs when there is any damage to the spinal cord that blocks communication between the brain and the body
- After a spinal cord injury, a person's **sensory, motor and reflex messages are affected**
- In general, the higher on the spinal cord the injury occurs, the more dysfunction the person will experience. Injuries are referred to as complete or incomplete, based on whether any movement and sensation occurs at or below the level of injury
- More men than women are affected. Usually young adults between the ages of 16 and 30
- Each person's recovery from spinal cord injury is different

SCI & Risk of Tissue Injury

- Risk of tissue injury is increased in SCI due to immobility, decreased sensation, and altered pathophysiology
- Risk of Pressure Ulcer development impacts individuals with SCI at every stage of their care
- Receiving acute care in a SCI specific facility at the time of injury significantly reduces the risk of PU development by the time rehabilitation is introduced
- If an individual does develop a PU the length of stay in the acute setting becomes significantly longer, prolonging the recovery period

SCI

- In the general population the risk of PU development decreases on discharge from the acute setting **conversely those with SCI face a life-long risk that impacts their daily living**
- A study by Jackson et al (2010), highlighted that those with SCI saw the development of PU's as a **'perpetual danger'** and lived with a constant tension between living a full life whilst trying to avoid situations that would increase their risk of PU development
- In this study on-going awareness and motivation to prevent PU development was identified as **essential** by these individuals
- They frequently reported barriers to accessing care, services, resources and support

Moisture Associated Lesions

Key risk factor: Incontinence

Type of incontinence:

- Faecal incontinence (diarrhoea/formed stool)
- Urinary incontinence
- Double incontinence (faecal and urinary)

Frequency of Incontinence:

- Frequent episodes of incontinence (especially faecal)
- Use of occlusive containment products
- Poor skin condition (e.g due to aging/steroid use/diabetes).

Additional Risk Factors

Compromised mobility

Diminished cognitive awareness

Inability to perform personal hygiene

Pain

Raised body temperature (pyrexia)

- Medications (antibiotics, immunosuppressants)
- Poor nutritional status
- Critical illness

Prevention

- The presence of any urinary and/or faecal incontinence, even in the absence of other risk factors, should trigger implementation of an appropriate IAD prevention protocol to minimise/prevent exposure to urine and stool and protect skin
- Assessment for IAD should be incorporated into a general skin assessment and performed as part of a pressure ulcer prevention/continence care programme

Skin assessment of an at risk incontinent patient

Inspect areas of skin that may be affected: perineum, perigenital areas, buttocks, gluteal fold, thighs, lower back, lower abdomen and skin folds (groin, under large abdominal pannus, etc) for;

- maceration
- erythema
- presence of lesions (vesicles, papules, pustules, etc)
- erosion or denudation
- signs of fungal or bacterial skin infection

Document findings and any appropriate actions required in patient's healthcare records

Parameter Moisture Lesion vs Pressure ulcer

History: Urinary and/or faecal incontinence

Symptoms: Pain, burning, itching, tingling

Location: Affects perineum, perigenital area; buttocks; gluteal fold; medial and posterior aspects of upper thighs; lower back; may extend over bony prominence

Shape/edges: Affected area is diffuse with poorly defined edges/may be blotchy

Presentation/Depth: Intact skin with erythema (blanchable /non-blanchable), with/without superficial, partial-thickness skin loss.

Other: +/- Secondary superficial skin infection(e.g. candidiasis)

History: Exposure to pressure or shear

Symptoms: Pain

Location: Usually over a bony prominence or associated with location of a medical device

Shape/edges: Distinct edges or margins

Presentation /Depth varies from intact skin with non-blanchable erythema to full-thickness skin loss. Base of wound may contain nonviable

tissue

Other: +/- Secondary soft tissue infection

Assessment relies on clinical observation and visual inspection. No bedside technologies to aid in the assessment and diagnosis of IAD

- If the aetiology of erythema is not clear a standard bundle of interventions for the management of both IAD and pressure ulcer prevention should be implemented and reviewed to assess anticipated response

Two key interventions are critical for the prevention and management of IAD :

Manage incontinence to identify and treat reversible causes (e.g. urinary tract infection, constipation, diuretics) to reduce, or ideally eliminate skin contact with urine and/or faeces.

Implement a structured skin care regimen to protect the skin exposed to urine and/or faeces and help restore an effective skin barrier function.

Medical Device Related Pressure Ulcer

- Prolonged contact & Pressure
- Rigidity & inelasticity of device
- Difficulty adjusting/securing
- Wrong size or selection
- Oedema
- Lack of awareness of skin care needs with devices in place
- Shear & friction

At risk

- Impaired sensory perception
- Impaired ability to communicate discomfort
- Compromised vascularity

34.5% of Hospital Acquired Pressure Ulcers occur in patient's with medical devices (Black Cuddigan et al, 2010)

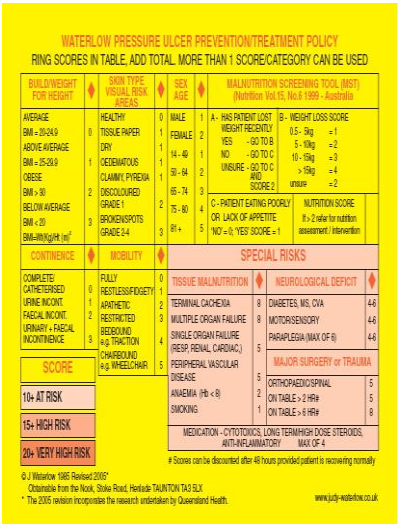
Patients with medical devices are 2.4 times more likely to develop PU's of any kind (White, 2005)

RISK ASSESSMENT

Who is at risk??

Use a structured approach to risk assessment

(NPUAP/EPUAP 2014)


WATERLOW PRESSURE ULCER PREVENTION/TREATMENT POLICY

RING SCORES IN TABLE, ADD TOTAL. MORE THAN 1 SCORE/CATEGORY CAN BE USED

BUILD/WEIGHT FOR HEIGHT

AVERAGE	
BMI = 20-24.9	0
ABOVE AVERAGE	
BMI = 25-29.9	1
OBESE	
BMI > 30	2
BELOW AVERAGE	
BMI < 20	3
BMI=Wt(kg)/Ht (m)^2	

SKIN TYPE VISUAL RISK AREAS

HEALTHY	0
TISSUE PAPER	1
DRY	1
OEDEMATOUS	1
CLAMMY, PYREXIA	1
DISCOLOURED	2
GRADE 1	2
BROKEN/SPOTS	3
GRADE 2-4	3

SEX AGE

MALE	1
FEMALE	2
14 - 49	1
50 - 64	2
65 - 74	3
75 - 80	4
81 +	5

MALNUTRITION SCREENING TOOL (MST) (Nutrition Vol.15, No.6 1999 - Australia)

A - HAS PATIENT LOST WEIGHT RECENTLY

YES - GO TO B

NO - GO TO C

UNSURE - GO TO C AND SCORE 2

B - WEIGHT LOSS SCORE

0.5 - 5kg	= 1
5 - 10kg	= 2
10 - 15kg	= 3
> 15kg	= 4
unsure	= 2

C - PATIENT EATING POORLY OR LACK OF APPETITE 'NO' = 0; 'YES' SCORE = 1

NUTRITION SCORE

If > 2 refer for nutrition assessment / intervention

CONTINENCE

COMPLETE/ CATHETERISED	0
URINE INCONT.	1
FAECAL INCONT.	2
URINARY + FAECAL INCONTINENCE	3

MOBILITY

FULLY	0
RESTLESS/FIDGETY	1
APATHETIC	2
RESTRICTED	3
BEDBOUND e.g. TRACTION	4
CHAIRBOUND e.g. WHEELCHAIR	5

SPECIAL RISKS

TISSUE MALNUTRITION

TERMINAL CACHEXIA	8
MULTIPLE ORGAN FAILURE	8
SINGLE ORGAN FAILURE (RESP, RENAL, CARDIAC)	5
PERIPHERAL VASCULAR DISEASE	5
ANAEMIA (Hb < 8)	2
SMOKING	1

NEUROLOGICAL DEFICIT

DIABETES, MS, CVA	4-6
MOTOR/SENSORY	4-6
PARAPLEGIA (MAX OF 6)	4-6

MAJOR SURGERY or TRAUMA

ORTHOPAEDIC/SPINAL	5
ON TABLE > 2 HRS	5
ON TABLE > 6 HRS	8

MEDICATION - CYTOTOXICS, LONG TERM/HIGH DOSE STEROIDS, ANTI-INFLAMMATORY MAX OF 4

SCORE

10+ AT RISK	
15+ HIGH RISK	
20+ VERY HIGH RISK	

Scores can be discounted after 48 hours provided patient is recovering normally

© J Waterlow 1985 Revised 2005*

Obtainable from the Nook, Stoke Road, Henlade TAUNTON TA3 5LX

* The 2005 revision incorporates the research undertaken by Queensland Health.

www.judy-waterlow.co.uk


BRADEN SCALE–For Predicting Pressure Sore Risk

RISK FACTOR | SCORE/DESCRIPTION | 1 | 2 | 3 | 4

TOTAL SCORE

Risk assessment is the first step in planning pressure ulcer prevention strategies…… ….. Prevention interventions may then be planned, implemented & evaluated

(Moore & Cowman 2014)

However…….

"A Pressure Ulcer risk assessment was conducted within 6 hours of admission/transfer to the unit/ward and was dated, timed and signed by the assessing staff member "……

METRICS

However……. No one tool has 100% sensitivity & Specificity

- Across 9 international prevalence studies it was noted that 48% of all pt who had existing PU, & 48% of HAPU were assessed as low/ no risk (Vangilder et al 2008)
- Irish study 72% of pt with PU were deemed not at risk/ low risk (Braden). 10% had Grade 4. (Jordan O Brien & Moore 2004)
- Exploring the individual components of Braden scale showed that 68% of PU occurred in those that were bed/ chair fast & 64% occurred in those who were completely immobile limited mobility (Jordan O Brien & Moore 2004)
- **IMMOBILITY**

CLINICAL JUDGEMENT ESSENTIAL

(Michael's Story)

Influencing Risk

External

- Surfaces
- Tubing /aids/devices
- Staff ratio
- Staff knowledge
- Patient knowledge
- Care settings – activity
- Care packages
  - ETC

Intrinsic

- Perfusion & oxygenation
- Poor nutrition
- Increased skin moisture
- ↑Body Temp
- Advanced age
- Sensory perception
- Haematological measures
- General health status
- Having had a previous PU
- Etc (NPUAP/EPUAP/PPPIA 2014)

External Factors (continued)

Maternity Risks:

- Epidurals
- Semi recumbent position
- Enlarged uterus + > pressure on pelvis.
- Large amount of fluid present
- Specialist birthing beds with split division
- Thick fluid resistant mattresses (=less 2 way stretch)
- Midwives knowledge of Pressure Ulcer Prevention

Individualised Care Plan

Pressure ulcer prevention is based on the principle that prevention strategies are planned , based on the individual risk factors that the patient presents with

(Moore 2004)

Bariatric Patients

Individuals with a BMI >40 should have a documented risk assessment using a validated scoring tool and appropriate plans put in place with regard to body position, repositioning schedules, skin care and support surfaces

- Suitable equipment from admission
- Check for bottoming out of equipment
- Comfortable girth size
- Pressure ulcers may develop in unique locations e.g. skin folds or areas where equipment is compressing skin

(NPUAP – EPUAP 2009)

SSKIN Care Bundle

The skin care bundle is a powerful tool as it defines and ties best practices together. The bundle also highlights the process of preventing pressure ulcers in a manner visible to all. This helps minimise variation

SSKIN

© NHS Midlands and East 2012

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

SSKIN BUNDLE

Pressure Ulcer Prevention Care Plan
Commence when
Waterlow Score ≥ 10

Addressograph

Frequency of care delivery (circle as appropriate) 1hrly 2hrly 3hrly 4hrly												
Date												
Time (24 Hour Clock)												
SURFACE	See advice re surfaces on LMHG Guideline on Pressure Ulcer Prevention (on T Drive). Indicate each day if Foam ☐ or Pressure Relieving Mattress ☐ (tick)											
Mattress appropriate & functioning correctly:												
Appropriate seating												
Heel protectors												
SKIN INSPECTION	Inspect skin at boney prominence every 2 – 4 hours. Existing Pressure Ulceration: Y/N (Circle). Stage* & site of existing ulceration recorded in wound assessment chart Y / N (Circle)											
Pressure areas checked												
New Redness State Site:												
KEEP MOVING	Frequency of repositioning is determined by skin inspection. If red at least 2 hourly.											
B R Side												
E L Side												
D Back												
CHAIR												
Standing / Mobilising												
INCONTINENCE	Incontinence Related Skin Care regimen Implemented (on T Drive, Tissue Viability Folder) Y / N											
Dry and clean												
Peri-anal skin healthy												
NUTRITION	Fluid Balance Chart / Food Chart in progress Y/N (circle and continue). Otherwise record below											
Meal / snack taken												
Drink taken												
Supplements taken												
Signature												
Grade: S/N = Staff Nurse,												
HCA = Health Care Attendant												
OT = Occupational Therapist												
D = Dietician												
P = Physiotherapist												
S =Student,												
SALT												

KEY: Care Delivered : √ = YES X = NO (if NO Document & Explain in Nursing notes)

RED SKIN – RELIEVE PRESSUE - REVERSE DAMAGE
Patient Pressure Ulcer Prevention Information booklet given ☐

Category/ Stage: *Please refer to the International NPUAP/ EPUAP Pressure Ulcer Classification system*

Pressure Ulcers to Zero

Surface:

Evidence on Support Surfaces for Pressure Ulcer Prevention

- The review found that people lying on ordinary foam mattresses are more likely to get pressure ulcers than those lying on a higher-specification foam mattress.
- In addition the review also found that people who used sheepskin overlays on their mattress developed fewer pressure ulcers.
- While alternating-pressure mattresses may be more cost effective than alternating-pressure overlays, the evidence base regarding the merits of higher-specification constant low-pressure and alternating-pressure support surfaces for preventing pressure ulcers is unclear.

McInnes et al 2015
Cochrane Database of Systematic Reviews

Surfaces (lying)

Support surfaces should be chosen on an individual basis/personal need

The extent to which pressure is concentrated over small areas will determine the degree of potential tissue damage

Reactive Support; Powered or non-powered has the ability to change its load distribution **only** in response to an applied load

Active Support; Powered producing alternating pressure through mechanical means & has the ability to change its load distribution with or without an applied load

Constructed with: Foam, Gel, Fluid, Sand, Air

Powered: to alter the immersion and envelopment characteristics of the surface to control the microclimate (heating, cooling, controlling moisture) or to redistribute pressure

Low Air-Loss: Describes the circulation of air beneath a water-vapour permeable cover to control the humidity at the interface between the individual and the support surface)

Non-powered:

Surfaces (lying + SCI)

Although total bed rest may create a pressure-free wound environment, it has potential complications;

- Muscle wasting & joint contracture
- Loss of bone density
- Respiratory issues
- Malnourishment
- Psychological challenges
- Social isolation
- Cost implications (loss of income)

Balancing the physical, social, psychological and financial needs is a challenging dilemma

Surfaces (Seating + SCI)

Individualise the selection and periodic re-evaluation of wheelchair/seating support surfaces and associated equipment for posture and pressure redistribution with consideration to:

- ❑ body size and configuration
- ❑ the effects of posture and deformity on pressure redistribution
- ❑ Mobility and lifestyle needs

Selection of a wheelchair that provides appropriate support and ability to tilt imperative. Individual assessment that includes pressure mapping

Seating Surfaces + SCI.....

- Centre of pressure displacement is significantly lower in individuals with SCI than healthy individuals indicating impaired dynamic sitting stability
- No difference in centre of pressure displacement between individuals with high or low thoracic SCI
- Significant pressure displacement during forward leaning and backward leaning positioning for individuals who had a previous PU

Seating Surfaces for SCI.....

Evaluation by a seating professional (access to interface pressure mapping & thermography)

- Imperative to be mindful of all seating surfaces e.g. Commodes, toilets, work/travel seating...

A pressure redistribution **cushion** must;

- Provide contour, uniform pressure distribution, high immersion or offloading
- Promote adequate posture and stability
- Permit air exchange to minimise temperature and moisture at the buttock interface
- Provide a stretchable cover that fits loosely on the top cushion surface and is capable of conforming to the body contours

No single surface is appropriate for all individuals with SCI

Seating with existing PU's

Tilt / Lean forward when possible & safe (Tilt-in-space, Recline, Standing features in wheelchairs)

Pressure relief schedules, frequency and duration of weight shifts

Avoid elevating the feet as this can increase the pressure in the sacral area

Weigh the risks and benefits of supported sitting versus bed rest **against** benefits to both physical and emotional health

SKIN

- Skin: Skin turgor, oedema, dry & flaky, erythematous (red),
- Weight loss, skin folds (flaps), loss of muscle
- Weight gain
- Moisture capacity
- Temperature
- Colour

Keep Moving

Repositioning important component in prevention of skin damage

Rationale: Extended periods of lying or sitting on a particular part of the body and failure to redistribute the pressure on the body surface can result in sustained deformation of the soft tissues, ischaemia and tissue damage

- Use moving & handling aids to reduce friction & shear
- If hoist is used, remove the slings once transfer is complete, make sure they are well fitting
- Avoid lying on any tubes/medical devices
- If a PU already exists...the individual must not be directly on the PU, either lying or sitting
- Restrict sitting to 60 minutes 3 times daily if PU exists...balance with emotional/physical/lifestyle needs

Heels

- Heel suspension devices to offload pressure (consider foot drop)
- Used according to manufacturers guidelines
- Pillows placed from knee to Achilles (back of ankle) with knee slightly flexed
- Assess the skin on heels each day by use of a hand held mirror if necessary
- Moisturise daily

Incontinence/Moisture

- Clean & dry, pH balanced skin cleanser (4.0-7.0)
- Do not massage or rub the skin too vigorously (in the presence of inflammation +/- damaged blood vessels or fragile skin
- Cleanse the skin properly after each episode of incontinence, To catheterise or not? Risks associated with medical devices
- Barrier creams for skin protection...increased moisture/humidity increases the risk of skin breakdown
- Self assessment & inspection routinely
- Avoid Sudocream

Nutrition

- Both inadequate nutritional intake and poor nutrition have been proven to correlate with PU development, PU severity and protracted wound healing
- Dehydration a common but under acknowledged contribution to those at risk of PU development
- Inflammation/Infection can significantly increase the risk of malnutrition by increasing metabolism
- Weight & weight history, ability to eat independently, adequacy of total nutrient intake (30-35 kcalories/kg body weight if at risk or with a PU)
- Nutritional supplementation (Cubitan, Fortisip.. Multivitamins, Plenty fluids...)

Nutrition

- **What may be considered an adequate diet may actually be inadequate in the context of an underlying illness**

(Myers et al 1990)

NB

Adequate Hydration

Review of Nutrition & Hydration in Public Hospital 2015

"Malnutrition, in this case under nutrition, can broadly be defined as a state of insufficient uptake of nutrients which can result in weight loss & has a measurable adverse effect on body composition, function and clinical outcome"

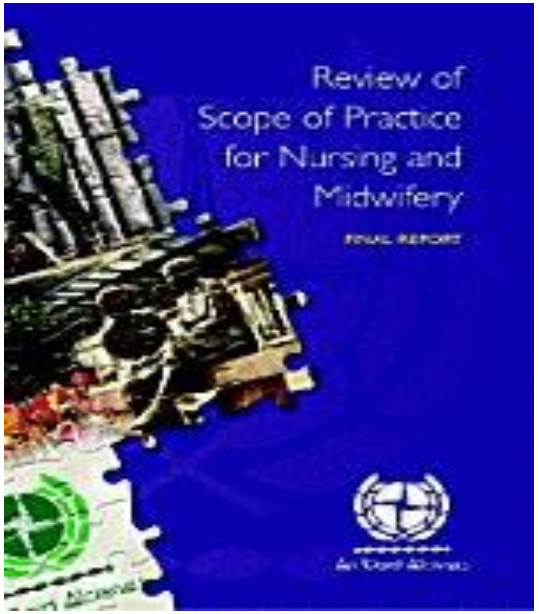
The use of the MUST Screening Tool

Avoidable Pressure Ulcer

Provider of the care did not do one of the following

- Evaluate clinical condition & PU risk
- Plan & implement interventions consistent with pt needs & goals and recognised standards
- Monitor & evaluate the impact of interventions
  OR
- Revise the interventions as appropriate

Scope of Practice Document...Document...



Do no harm!!