USING A SSKIN BUNDLE FOR PRESSURE ULCER MANAGEMENT & PREVENTION

WITH FOCUS ON THE FIVE ASPECTS OF SSKIN

7 MARCH 2019

NUTRICIA CARE
LIFE-TRANSFORMING NUTRITION

Learning Outcomes

- ✓ To provide an understanding of the risk of pressure ulcer formation
- ✓ To understand how to use a SSKIN care bundle as part of pressure ulcer care and prevention
- ✓ To provide an Understanding of the five aspects of a SSKIN care bundle

PRESSURE ULCERS

There are huge cost implications involved in treating pressure ulcers across the health service.

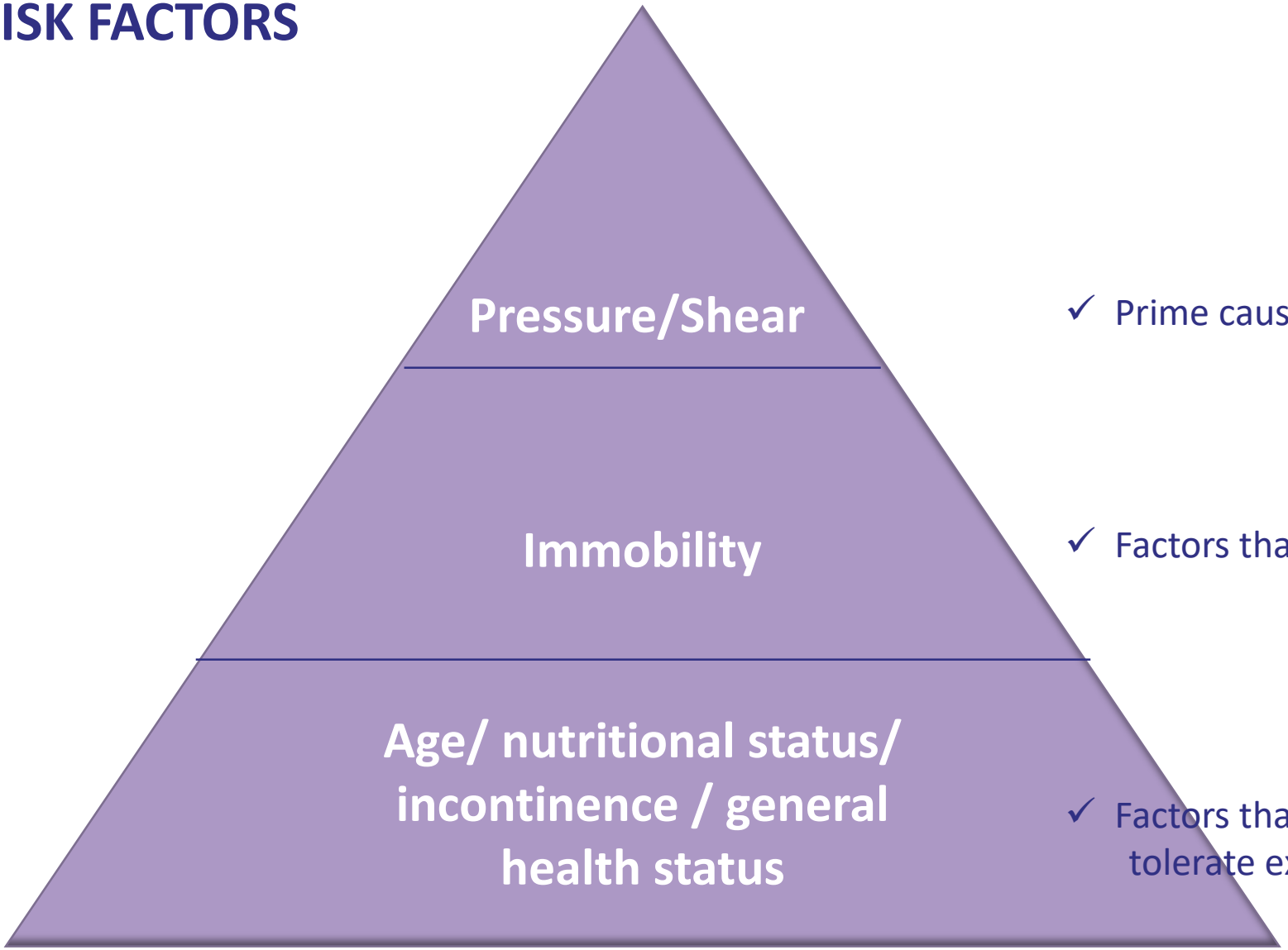
The estimated cost in Ireland:

- To treat one patient with stage four pressure ulcers cost €119,000 [1]
- To manage pressure ulcers in all care settings in a single year is costing €250,000,000 [1]

- ✓ A pressure ulcer is a localised area of injury to the skin and/or underlying tissues that is caused by pressure and/or shear[2]
- ✓ Usually located over bony prominences[2]
- ✓ Can be caused by an external device[2]

REF: 1 Gethin et al, 2005 2. NPUAP, EPUAP, PPPIA, 2014

RISK FACTORS



- ✓ Prime cause of pressure ulcers
- ✓ Factors that expose individuals to pressure
- ✓ Factors that influence the time the individual can tolerate exposure to pressure/shear

REF: Moore et al, 2011

RISK ASSESSMENT

- Pressure ulcer risk assessment should be part of the assessment process used to identify patients at risk of a pressure ulcer. [1]
- There are currently over 90 risk assessment tools in use [1]
- The ideal tool should be reliable, valid, sensitive and specific [2]
- Nice (2001) advices that risk assessment tools should be used as a memory aid and do not replace clinical judgement.

REF: 1. HSE,2018 2. NPUAP,2014

RISK ASSESSMENT

Conduct a structured risk assessment within 6 hours of first presentation and first assessment in the community to identify patients at risk of developing a pressure ulcer (HSE,2018)

- ✓ If a patient's condition is unstable then reassess every48-72 hours until stable, thereafter, weekly assessments should be carried out. (HSE,2018)
- ✓ Conduct a reassessment if there is a significant change in the patients condition (HSE,2018)
- ✓ Include a comprehensive **skin assessment** as part of every risk assessment
- ✓ All risk assessments must be documented.
- ✓ Develop and implement a risk based prevention plan for patients identified as being at risk of developing a pressure ulcer.
- ✓ Re-evaluate the pressure ulcer assessment plan if the pressure ulcer does not show signs of improvement within two weeks.

SSKIN BUNDLE FOR PRESSURE ULCER PREVENTION

Five Critical Areas of Pressure Ulcer Prevention:

S skin assessment

S surface

K keep moving

I incontinence

N nutrition

"Evidence suggests that the best practice in pressure ulcer prevention is by incorporating a SSKIN bundle into the service user care" HSE,2018

REF: HSE,2018

SSKIN BUNDLE

Pressure Ulcers to Zero

Frequency of care delivery (circle as appropriate)	1 hrly	2hrly	3hrly	4hrly								
Date												
Time (24 Hour Clock)												
SURFACE	Indicate each day if Foam Matress or Pressure Relieving Mattress											
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 assesment 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											
BED R side												
BED L side												
BED Back												
CHAIR												
Standing/Mobilising												
INCONTINENCE	Incontinence Related Skin Care regime implemented 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: SN = Staff Nurse												
HCA= Health care Attendant												
OT= Occupational Therapist												
D= Dietician												
P= Physiotherapist												
S= Student												
SALT												
KEY: Care Delivered: V = YES X = NO (if NO Document & Explain in Nursing notes)												

RED SKIN - RELIEVE PRESSURE - REVERSE DAMAGE

Patient Pressure Ulcer Prevention Information booklet given ☐

Category/Stage: Please refer to the HSE National Wound Management Guidelines 2017 for the Pressure Ulcer Classification System

SKIN- SKIN CARE & INSPECTION

- The sratum corneum of the epidermis provides the skin barrier.
- It is resilient and protects the underlaying layers from irritants and allergens and prevents water loss from the body.
- Ideally, skin is smooth and elastic and does not itch.
- Natural skin pH is slightly acidic at 4-5.5, this protects the body from microbes.
- Psoriasis, eczema, infections (bacterial or fungal) and pruritus are common skin conditions associated with ageing – all associated with dry skin and itching

REF: 1. COWDELL ET AL, 2012 2. WATSKINS, 2008

CHANGES IN THE SKIN WITH AGEING

- A reduction in cell turnover leads to papery skin, a less efficient skin barrier and an increased vulnerability to injury i.e. friction/moisture/trauma [1]
- Reduction in elastin & collagen reduces elasticity of the skin causing wrinkles and creases [2]
- Thinning of the epidermis & dermis decreases sensation and temperature control [3]
- A reduction of water retention & decreased sebum production causes skin dryness and increases sensitivity to irritants. [4]
- Metabolic activity of fat cells slow down leading to loss of fatty tissue [4]
- Reduction in melanin content can lead to uneven pigmentation. [4]
- Conditions such as liver disease, kidney failure, iron deficiency anaemia, thyroid issues or nervous system disorders can contribute to itchy skin (pruritus) [1]

REF: 1. COWDELL ET AL, 2012 2. FLOUR, 2009 3. FARAGE ET AL , 2009 4. FARAGE ET AL, 2012

SKIN CARE AND INSPECTION

Skin health is essential for the wellbeing of older adults.

Skin hygiene for dry skin is a balance of cleanliness and over washing (affects the skin barrier function)

Continuous use of Soap can:

- Raise pH of the skin (Watskin, 2008)
- Affect normal flora
- Increase risk of colonisation
- Damage the skin barrier
- Remove lipids and natural oils from the body

SKIN CARE FOR DRY SKIN

- ✓ Use a soap substitute product or an emollient for washing or bathing.
- ✓ Emollients reduce water loss by covering the outer skin with a protective layer of film
- ✓ Emollients keep water in the skin allowing damaged cells to repair themselves
- ✓ As well as retaining moisture, an emollient will moisturise dry skin, ease itch, reduce scaling, soften cracks, allow other topical creams to enter the skin.

HSE,2018

SKIN CARE

- ✓ Use a PH balanced skin cleanser [2]
- ✓ Keep skin clean and dry[2]
- ✓ Pat skin dry, do not massage or rub reddened skin[2]
- ✓ Use an emollient to moisturise the skin[2]
- ✓ Apply in the direction of hair growth[1]
- ✓ Encourage skin care in the independent individual

REF: 1. COWDELL ET AL, 2012 2.HSE,2018

SKIN INSPECTION

- ✓ Ongoing assessment is important to detect early signs of skin damage.
- ✓ Use finger touch method to determine if the skin is blancable or non blanchable.
- ✓ In every assessment: check skin temperature, oedema, change in tissue consistency and localised pain and assess skin around medical devices.
- ✓ Avoid positioning individual on an area of erythema whenever possible
- ✓ Conduct wound assessments for existing pressure ulcer.

REF: HSE,2018

SURFACE

Support surfaces are designed to redistribute pressure, manage tissue load and microclimate and may have other therapeutic functions

Two key aspects of surface choice:

- ✓ **IMMERSION:** how deep one sinks into the support surface

- ✓ **ENVELOPMENT:** the ability of the support surface to mould with the body shape –equalising pressure.

REF: NPUAP, EPUAP, PPIA, 2014

SURFACE

Support surface depends on the individual's:

- ✓ Level of immobility/inactivity
- ✓ Need for microclimate control and shear reduction
- ✓ Size and weight
- ✓ Risk of developing new pressure ulcers
- ✓ Number, severity & location of existing pressure ulcers

- ✓ NB Repositioning is still required for pressure relief even if using a pressure redistribution surface.

In all cases, the manufacturer's recommendations for the use and maintenance of pressure redistribution surfaces should be followed. (NPUAP,EPUAP,PPIA,2014)

REF: HSE, 2018. NPUAP, EPUAP & PPPIA, 2014

MATTRESSES

PREVENTION

76.8 Use a high specification reactive foam mattress rather than a non-high specification reactive foam mattress for all patients assessed as being at risk for pressure ulcer development.
NPUAP/EPUAP/PPPIA Recommendation: Strength of Evidence = A; Strength of Recommendation =👍(NPUAP/EPUAP/PPPIA 2014:106)

76.11 Use an active support surface (overlay or mattress) for patients at higher risk of pressure ulcer development when frequent manual repositioning is not possible.
NPUAP/EPUAP/PPPIA Recommendation: Strength of Evidence = B; Strength of Recommendation =👍(NPUAP/EPUAP/PPPIA 2014:108)

MATTRESSES

EXISITING PRESSURE ULCERS

76.15 Consider using a high specification reactive foam mattress or non-powered pressure redistribution support surface for patients with Category/Stage I and II pressure ulcers.
NPUAP/EPUAP/PPPIA Recommendation: Strength of Evidence = C; Strength of Recommendation =👍(NPUAP/EPUAP/PPPIA 2014:110)

76.16 Select a support surface that provides enhanced pressure redistribution, shear reduction, and microclimate control for patients with Category/Stage III and IV pressure ulcers. For all practical purposes, patients presenting with non-blanching redness or purple/maroon discolouration of intact skin should be provided with the same level of pressure redistribution as a Category/Stage II - IV pressure ulcer. Offloading and pressure redistribution may allow reperfusion of ischaemic and injured tissue, limiting the extent of infarcted or dead tissue.
HSE Recommendation Evidence Grade: D

SEATING

- Three important aspects: the width, depth and height of a chair- too large (unbalanced- affects stability)/too tight (distorts spinal position)
- High pressure to buttock, Coccyx and upper thighs.
- Feet must be supported- lost of stability, slide out of chair.
- Use an appropriate pressure redistributing seat cushion for individuals whose mobility is reduced- consider immersion and envelopment ability.
- For individuals with existing Pressure ulcer: Refer to specialist seating professional for evaluation if sitting is unavoidable.

REF: NPUAP, EPUAP, PPPIA, 2014

HEELS

- ✓ The posterior prominence of the heel sustains intense pressure even when a pressure redistribution surface is used.
- ✓ Inspect heels regularly
- ✓ Ideally heels should be free of all pressure ‘floating heels’
- ✓ Use a foam cushion under the length of the calf to float the heel
- ✓ IF existing stage 1-2 pressure ulcer: use pillow or suspension device to ‘float the heels’
- ✓ Stage 3-4: use a device that elevates the heel from the surface of the bed- a pillow is usually inadequate.

Remove the heel from any heel suspension device every 6-8 hours to assess the skin.

REF:NPUAP, EPUAP & PPIA, 2014

KEEP MOVING

Aim: to redistribute pressure and enhance comfort

- ✓ Encourage mobility, self repositioning or pressure relief lifts to able individuals.
- ✓ Individual's who may be on temporary bed rest should increase activity as soon as appropriate.
- ✓ Limit the time spent in a chair without pressure relief

REF: NPUAP, EPUAP & PPPIA, 2014

FOR INDIVIDUALS WHO CANNOT SELF REPOSITION

Skin cell death can occur as quickly as 2-4 hours [1]

Determine repositioning frequency based on [2]

- Tissue tolerance
- Level of activity/mobility
- General medical condition
- Skin condition
- Comfort

- Reposition all patients at risk of or with existing pressure ulcers, unless contraindicated
- Avoid positioning on existing pressure ulcer or bony prominences with reddened skin
- Use of support surface does not replace the need for repositioning
- If changes in the skin do occur – review frequency of repositioning
- If they cannot tolerate major shifts in body position- consider more frequent small shifts in position to allow for some tissue reperfusion
- Document repositioning regimes, specifying frequency and position adopted and include evaluation and outcome of the repositioning regimen

REF: 1. LOERAKKER ET AL, 2010 2. NPUAP EPUAP & PPPIA, 2014

30 Degree tilt

- ✓ Chosen position should offer stability, security and comfort
- ✓ Consider frequency, method & quality of life
- ✓ **30 degree tilt**: less pressure on bony prominences avoid occlusion of blood supply
- ✗ **90 degree tilt:** decreases blood flow and increases interface pressure

90 Degree tilt

Images sourced from HSE guidelines 2018 Ref: Moore et al,2011

SEATING

- ✓ Seating should not exceed 2 hours. Some people can only tolerate less.
- ✓ Select a seating posture that limits pressure and shear exerted on the skin and soft tissues.
- ✓ Modify sitting schedule and re-evaluate the seating surface and the individual's posture if the ulcer worsens/fails to improve.
- ✓ For ulcers located on the sacrum, coccyx or ischia- **limit seating to periods of sixty minutes or less**

INCONTINENCE (MOISTURE ASSOCIATED SKIN DAMAGE)

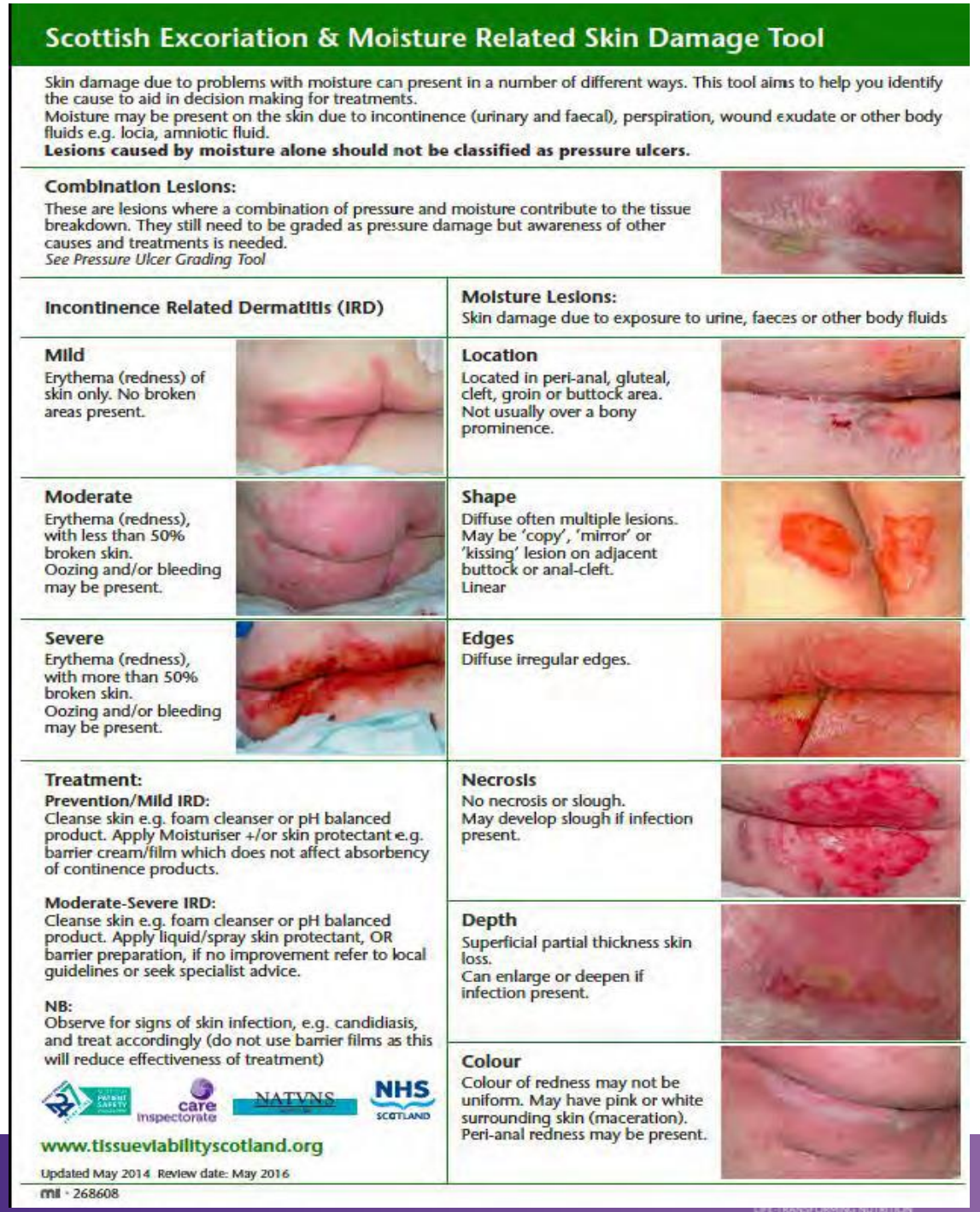
- The skin acts as a barrier between the body and the external environment.[1]
- Damage to the skin barrier allows for moisture lost and irritants and allergens to be introduced causing inflammation, discomfort, increased risk of infection or skin breakdown.[1]
- Dryness or exposure to excessive moisture are two of most common factors associated with skin damage.[1]
- Incontinence affects more than 50% of people living in nursing homes [2]

Ref: 1. Woo et al, 2009 2. Zimmeraro Bliss et al, 2006

INCONTINENCE

If skin is constantly damp & warm- skin breakdown and fungal or bacterial infection are more likely [1]

- ✓ Develop individualised continence care plan[2]
- ✓ For the individual at risk of both incontinence associated dermatitis and pressure ulcers, an individualised prevention plan should be implemented including repositioning and use of pressure redistributing devices [2]
- ✓ For prevention of IAD, use of a pH balanced cleanser and apply a skin protector and reapply post episode of incontinence [2]



Scottish Excoriation & Moisture Related Skin Damage Tool

Skin damage due to problems with moisture can present in a number of different ways. This tool aims to help you identify the cause to aid in decision making for treatments.
Moisture may be present on the skin due to incontinence (urinary and faecal), perspiration, wound exudate or other body fluids e.g. locia, amniotic fluid.
Lesions caused by moisture alone should not be classified as pressure ulcers.

Combination Lesions:
These are lesions where a combination of pressure and moisture contribute to the tissue breakdown. They still need to be graded as pressure damage but awareness of other causes and treatments is needed.
See Pressure Ulcer Grading Tool

Incontinence Related Dermatitis (IRD)

Mild
Erythema (redness) of skin only. No broken areas present.

Moderate
Erythema (redness), with less than 50% broken skin.
Oozing and/or bleeding may be present.

Severe
Erythema (redness), with more than 50% broken skin.
Oozing and/or bleeding may be present.

Treatment:
Prevention/Mild IRD:
Cleanse skin e.g. foam cleanser or pH balanced product. Apply Moisturiser +/or skin protectant e.g. barrier cream/film which does not affect absorbency of continence products.

Moderate-Severe IRD:
Cleanse skin e.g. foam cleanser or pH balanced product. Apply liquid/spray skin protectant, OR barrier preparation, if no improvement refer to local guidelines or seek specialist advice.

NB:
Observe for signs of skin infection, e.g. candidiasis, and treat accordingly (do not use barrier films as this will reduce effectiveness of treatment)

www.tissueviabilityscotland.org

Updated May 2014 Review date: May 2016

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Moisture Lesions:
Skin damage due to exposure to urine, faeces or other body fluids

Location
Located in peri-anal, gluteal, cleft, groin or buttock area.
Not usually over a bony prominence.

Shape
Diffuse often multiple lesions.
May be 'copy', 'mirror' or 'kissing' lesion on adjacent buttock or anal-cleft.
Linear

Edges
Diffuse irregular edges.

Necrosis
No necrosis or slough.
May develop slough if infection present.

Depth
Superficial partial thickness skin loss.
Can enlarge or deepen if infection present.

Colour
Colour of redness may not be uniform. May have pink or white surrounding skin (maceration).
Peri-anal redness may be present.

REF: 1 WOO, ET AL, 2009 2. HSE, 2018

Nutrition

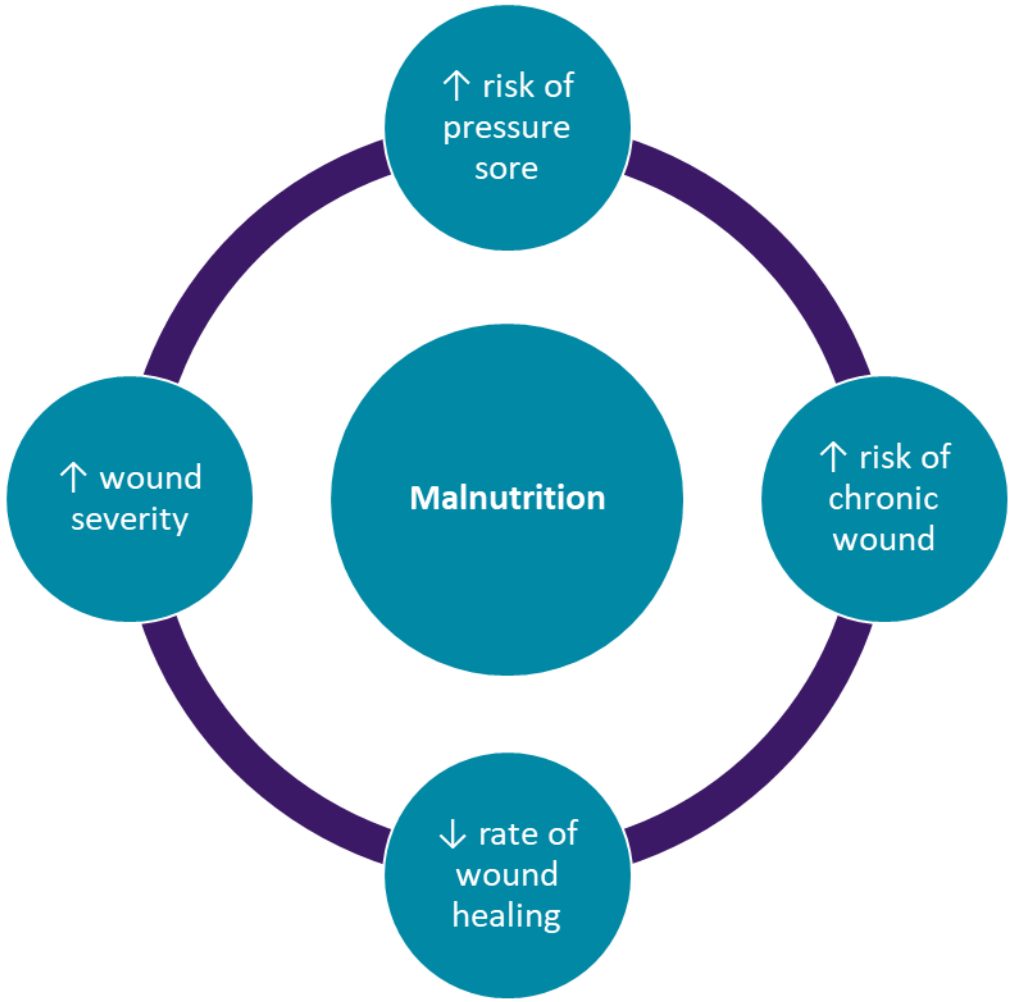
"Good nutritional status is essential for the management of pressure ulcers and is generally accepted as an essential part of care rather than a specific factor influencing outcomes"

HSE, Wound Management Guidelines, 2018

THE LINK BETWEEN NUTRITION AND WOUND HEALING

Nutritional deficiencies can directly impact wound healing by:

- Lengthening the inflammatory phase
- Decreasing fibroblast proliferation
- Altering collagen synthesis
- Increasing the risk of a wound becoming chronic



REF: HSE, 2018

HSE RECOMMENDATION 20.13 & 92.6

GRADE A EVIDENCE

Consider using a supplement that contains high protein, arginine and micronutrients for ***adults who are malnourished with a pressure ulcer Category/Stage III or IV or multiple ulcers for at least 8 weeks.***

THE HSE NATIONAL WOUND MANAGEMENT GUIDELINES 2018

NUTRICIA Cubitan

CUBITAN, THE *ONLY* ORAL NUTRITIONAL SUPPLEMENT INDICATED FOR THE DIETARY MANAGEMENT OF CHRONIC WOUNDS*

Cubitan has shown to be more effective vs high protein formula.[4]

Per Bottle	Cubitan®	Ensure® Plus High Protein	Ensure® Plus Advance	Fresubin® Protein Energy	Fresubin® 2kcal	Altraplen® Protein	Fortisip® 2kcal
Added Free Arginine	2.44g	0g	0g	0g	0g	0g	0g
Zinc	9mg	2.2mg	3.85mg	3.2mg	3.2mg	3mg	4.8mg
Vitamin C	250mg	26mg	35.2mg	37.6mg	37.6mg	30mg	40mg
Vitamin E	38mg	4mg	5.5mg	7.5mg	7.5mg	4mg	5.2mg

*Accurate at time of publication. Feb 2019

NUTRICIA Cubitan

TO SUMMARISE

- ✓ **Recognising an individual's tissue tolerance plays a huge role in pressure ulcer prevention**

- ✓ **Ageing skin is vulnerable to skin dryness, irritation and damage.**

Five key aspects of pressure ulcer prevention are:

1. Appropriate surface use
2. Daily skin care & inspection
3. Increased mobility/regular repositioning
4. Appropriate continence care plan
5. Maintenance of a good nutritional status

- ✓ **Use of a SSKIN bundle is recommended for pressure ulcer prevention.**

THANK YOU FOR LISTENING

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