WOUND EDUCATION

CLINICAL TRAINING MADE EASY ©

TRAINING SESSION 7

MODULE 4

Pressure Injury Risk Factors

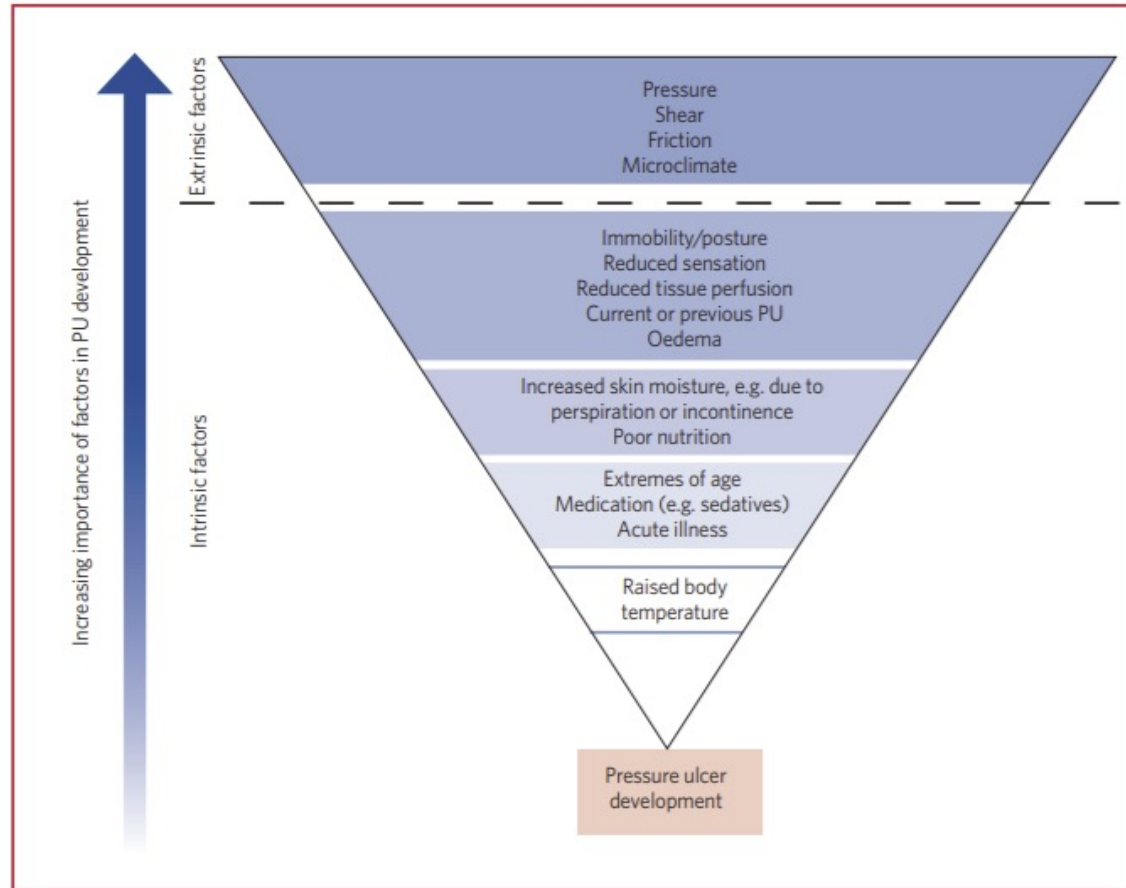
&

Skin Assessment

OUTLINE

- Pressure Intensity & Individual Tolerance
  - Intrinsic
  - Extrinsic
- Risk Assessment Tools
- Reassessment Frequency
- Skin Assessment

Extrinsic & Intrinsic Factors



World Union of Wound Healing Societies (WUWHS) Consensus Document. Role of dressings in pressure ulcer prevention. Wounds International, 2016

NORTON

The Norton Pressure Sore Risk-Assessment Scale Scoring System

The **Norton Scoring system**, shown below, and created in England in 1962, has been the first pressure sore risk evaluation scale to be created, back in 1962, and for this it is now criticized in the wake of the results of modern research. Its ease of use, however, makes it still widely used today.

To evaluate the Norton Rating for a certain patient look at the tables below and add up the values beside each parameter which apply to the patient. The total sum is the Norton Rating (NR) for that patient and may vary from 20 (minimum risk) to 5 (maximum risk).

(Indicatively, a Norton Rating below 9 means Very High Risk, 10 to 13 means High Risk, 14 to 17 medium risk and above 18 means low risk)

Physical Condition	Good	4
	Fair	3
	Poor	2
	Very Bad	1
Mental Condition	Alert	4
	Apathetic	3
	Confused	2
	Stuporous	1
Activity	Ambulant	4
	Walks with help	3
	Chairbound	2
	Bedfast	1
Mobility	Full	4
	Slightly Impaired	3
	Very Limited	2
	Immobile	1
Incontinence	None	4
	Occasional	3
	Usually Urinary	2
	Urinary and Fecal	1

Generally, the risk factor is coded this way:

Greater than 18	Low Risk
Between 18 and 14	Medium risk
Between 14 and 10	High Risk
Lesser than 10	Very High Risk

Another rating system getting more and more popularity is the **Braden Scale**, created in the USA, more recent and precise than the Norton scale, which evaluates factors such as sensory perception, skin wetness, nutrition and such.

WATERLOW

WATERLOW PRESSURE ULCER PREVENTION/TREATMENT POLICY

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

BUILD/WEIGHT FOR HEIGHT	♦	SKIN TYPE VISUAL RISK AREAS	♦	SEX AGE	♦
AVERAGE BMI = 20-24.9	0	HEALTHY	0	MALE	1
ABOVE AVERAGE BMI = 25-29.9	1	TISSUE PAPER	1	FEMALE	2
OBESE BMI > 30	2	DRY	1	14 - 49	1
BELOW AVERAGE BMI < 20	3	OEDEMATOUS	1	50 - 64	2
BMI=Wt(Kg)/Ht (m)²		CLAMMY, PYREXIA	1	65 - 74	3
		DISCOLOURED GRADE 1	2	75 - 80	4
		BROKEN/SPOTS GRADE 2-4	3	81 +	5

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

A - HAS PATIENT LOST WEIGHT RECENTLY	B - WEIGHT LOSS SCORE
YES - GO TO B	0.5 - 5kg = 1
NO - GO TO C	5 - 10kg = 2
UNSURE - GO TO C AND SCORE 2	10 - 15kg = 3
	> 15kg = 4
	unsure = 2

C - PATIENT EATING POORLY OR LACK OF APPETITE	NUTRITION SCORE
'NO' = 0; 'YES' SCORE = 1	If > 2 refer for nutrition assessment / intervention

CONTINENCE	♦	MOBILITY	♦
COMPLETE/ CATHETERISED	0	FULLY	0
URINE INCONT.	1	RESTLESS/FIDGETY	1
FAECAL INCONT.	2	APATHETIC	2
URINARY + FAECAL INCONTINENCE	3	RESTRICTED	3
		BEDBOUND e.g. TRACTION	4
		CHAIRBOUND e.g. WHEELCHAIR	5

SPECIAL RISKS

TISSUE MALNUTRITION	♦	NEUROLOGICAL DEFICIT	♦
TERMINAL CACHEXIA	8	DIABETES, MS, CVA	4-6
MULTIPLE ORGAN FAILURE	8	MOTOR/SENSORY	4-6
SINGLE ORGAN FAILURE (RESP, RENAL, CARDIAC,)	5	PARAPLEGIA (MAX OF 6)	4-6
PERIPHERAL VASCULAR DISEASE	5	**MAJOR SURGERY or TRAUMA**	
ANAEMIA (Hb < 8)	2	ORTHOPAEDIC/SPINAL	5
SMOKING	1	ON TABLE > 2 HR#	5
		ON TABLE > 6 HR#	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

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

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

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Healthcare Improvement Scotland

NATVNS SCOTLAND

WRITE, IMPRINT OR ATTACH LABEL	
Surname	CHI No ....
Forenames	Sex...................
DoB..................	
Location..	

Braden Risk Assessment Chart

Individuals with a total score of 16 or less are considered at risk:
15-16 = low risk, 13-14 = moderate risk, 12 or less = high risk.

Undertake and document risk assessment within 6 hours of admission or on first home visit. Reassess if there is a change in individual's condition and repeat regularly according to local protocol

Date:

Sensory Perception - Ability to respond meaningfully to pressure related discomfort	**1.Completely Limited** Unresponsive (does not moan, flinch or grasp) to painful stimuli, due to diminished level of consciousness or sedation. OR limited ability to feel pain over most of body surface.	**2.Very Limited** Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness. OR has a sensory impairment that limits the ability to feel pain or discomfort over ½ of body.	**3.Slightly Limited** Responds to verbal commands, but cannot always communicate discomfort or need to be turned. OR has some sensory impairment that limits ability to feel pain or discomfort in 1 or 2 extremities.	**4.No Impairment** Responds to verbal commands. Has no sensory deficit that would limit ability to feel or voice pain or discomfort	
Moisture - Degree to which skin is exposed to moisture	**1.Constantly Moist** Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient/ client is moved or turned.	**2.Very Moist** Skin is often, but not always, moist. Linen must be changed at least once a shift.	**3.Occasionally Moist** Skin is occasionally moist, requiring an extra linen change approximately once a day.	**4.Rarely moist** Skin is usually dry. Linen only requires changing at routine intervals.	
Activity - Degree of physical activity	**1.Bedfast** Confined to bed	**2.Chairfast** Ability to walk severely limited or non-existent. Cannot bear own weight and/or must be assisted into chair or wheelchair.	**3. Walks Occasionally** Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair.	**4.Walks Frequently** Walks outside the room at least twice a day and inside the room every 2 hours during waking hours.	
Mobility - Ability to change and control body position	**1.Completely Immobile** Does not make even slight changes in body or extremity position without assistance.	**2.Very Limited** Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	**3.Slightly Limited** Makes frequent though slight changes in body or extremity position independently.	**4.No Limitations** Makes major and frequent changes in position without assistance.	
Nutrition - Usual food intake pattern	**1.Very Poor** Never eats a complete meal. Rarely eats more than 1/3 of any food offered. Eats 2 servings or less of protein (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplement. OR is NPO and/or maintained on clear liquids or IV's for more than 5 days	**2.Probably Inadequate** Rarely eats a complete meal and generally eats only about ½ of any food offered. Protein intake includes only 3 servings of meat or dairy products per day. Occasionally will take a dietary supplement. OR receives less than optimum amount of liquid diet or tube feeding.	**3.Adequate** Eats over half of most meals. Eats a total of 4 servings of protein (meat, dairy products) each day. Occasionally will refuse a meal, but will usually take a supplement if offered. OR is on a tube feeding or TPN regimen which probably meets most of nutritional needs.	**4.Excellent** Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or more servings of meat and dairy products. Occasionally eats between meals. Does not require supplementation	
Friction and Shear	**1.Problem** Requires moderate to maximum assistance in moving.	**2.Potential Problem** Moves feebly or requires minimum assistance. During a move, skin probably slides to some extent against sheets, chair restraints, or other devices. Maintains relatively good position in chair or bed most of the time, but occasionally slides down.	**3.No Apparent Problem** Moves in bed and in chair independently and has sufficient muscle strength to lift up completely during move. Maintains good position in bed or chair at all times.		
Indicate appropriate number and add for total score				**Total Score:**	

BRADEN

Figure 1a The Glamorgan Paediatric Pressure Ulcer Risk Assessment Scale - 2008 version

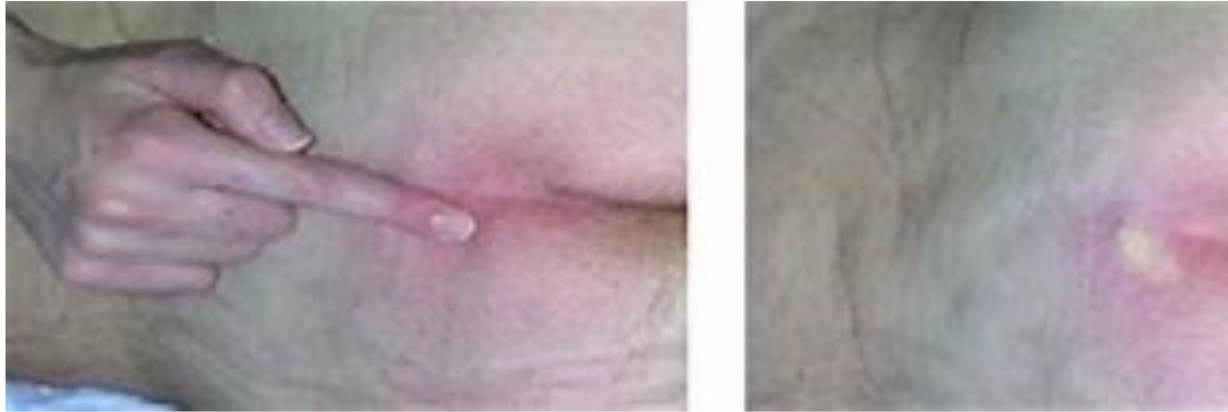
Risk Factor (If data such as serum albumin or haemoglobin are not available, write NK (not known) and score 0)	**Score**	**Date and time of assessments** (Reassess at least daily and every time condition changes)				
Child cannot be moved without great difficulty or deterioration in condition/general anaesthetic	20					
Unable to change his/her position without assistance/cannot control body movement	15					
Some mobility, but reduced for age	10					
Normal mobility for age	0					
Equipment/objects/hard surface pressing or rubbing on skin	15					
Significant anaemia (Hb <9g/dl)	1					
Persistent pyrexia (temperature >38.0°C for more than four hours)	1					
Poor peripheral perfusion (cold extremities/ capillary refill > two seconds/cool mottled skin)	1					
Inadequate nutrition (discuss with dietician if in doubt)	1					
Low serum albumin (<35g/l)	1					
Weight less than 10th centile	1					
Incontinence (inappropriate for age)	1					
Total score						
ACTION TAKEN						
(Yes or no - document in child's nursing record)						
Signature						

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

Glamorgan

Skin Assessment

- Colour
- Temperature
- Oedema
- Turgor
- Moisture
- Integrity
- Sensation
- Medical Device



- Daily Inspection
- Head to Toe
- Nails & Hair
- Skin Folds
- Pressure Points

Re-Assessment

Pressure Injury Risk Assessment & Skin Assessment		
Pressure Injury	Each Shift.	Each home visit
Risk Factors Identified (Acute Care)	Clinical Judgement Change in health status Pre/Post operatively Transition of care On Discharge	Daily Reviewing effectiveness of management plan
No Risk Factors Identified (Acute Care)	Clinical Judgement Change in health status Pre/Post operatively Transition of care On Discharge	Change of condition/care setting
Outpatient/Community Care	Clinical Judgement Change in health status Transition of care On Discharge	Repeated skin inspection Monthly update
Long Term at Risk Patients	Clinical Judgement Change in health status	Repeated skin inspection Monthly update

Question:

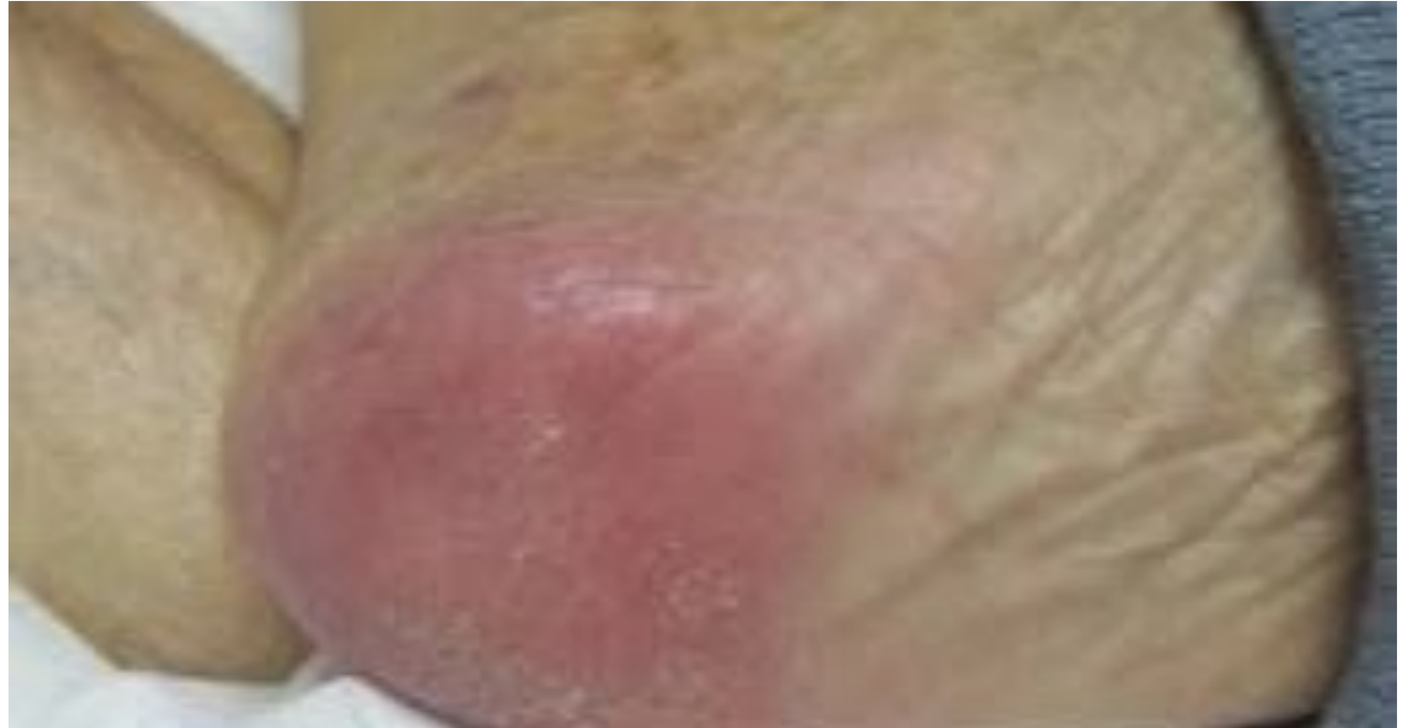
The red area on this patients heel is the site of a previous healed pressure injury. Select the most appropriate response *(more than one answer)*

A. Very High Risk due to the previous injury

B. Reported as a stage 1 pressure injury

C. Not concerning as erythema remains from the previous injury

D. No further action as the scar tissue has toughen the heel preventing further breakdown



A & B

Intrinsic risk factor due to previous injury

Non-blanching erythema is classified as a stage 1 pressure injury.

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Key Points

- Ongoing assessment of each individual's changing intrinsic/ extrinsic risk factors together with routine skin checks is a critical first steps in the prevention of pressure injury development.
- Validated risk assessment tools guide the clinician in identifying people with risk factors.