Guidelines for the **Treatment** of Pressure Ulcers

(Adapted from EPUAP & NPUAP 2009)

NHS Midlands and East

This guidance should be read in conjunction with your local dressing formulary and anti-biotic prescribing guidelines.

1. Definitions and Grading

A pressure ulcer is defined as an area of localised damage to the skin and the underlying tissue caused by pressure, shear, friction and / or a combination of these factors. In adults damage usually occurs over bony prominences.

Pressure ulcers can be described as a category or grade ranging from 1 to 4. The grading definitions can be found at appendix 1.

2. Distinguishing between moisture lesions and pressure ulcers

a. If damage not associated with pressure, friction or shear is noted, other possible causes need to be identified, such as epidermal stripping due to traumatic removal of tapes or dressings, eczematous skin, sweat or incontinence.

b. The difference between pressure damage and moisture damage may be distinguished by location, shape and depth.

	Likely to indicate a pressure ulcer	Likely to indicate a moisture lesion
Causes If pressure / shear and moisture are simultaneously present, the ulcer could be a combination lesion.	Pressure and / or shear present.	Moisture present. Urine, faeces, sweat and / or exudate.
Location A combination of friction moisture can result in moisture lesions in skin folds.	Tends to be located over a bony prominence.	Limited to the anal cleft and has a linear shape. Not located over a bony prominence. Peri-anal erythema and skin faecal matter.

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	Likely to indicate a pressure ulcer	Likely to indicate a moisture lesion
Shape	Limited to one spot. Circular or regular shape, with the exception of friction damage.	Diffuse – different superficial spots. In a kissing ulcer shape.
Depth	Partial-thickness skin losstop layer (grades 1 & 2). Full thickness skin loss (grades 3 & 4).	Superficial partial-thickness skin loss – which can deepen if infected.
Necrosis	Occurs with pressure ulcers.	No necrosis in moisture lesions.
Edges friction is exerted on a moisture lesion, it will result in superficial skin loss.	Edges tend to be distinct.	Often irregular lesions – diffused or irregular edges.
Colour	Red skin non-blanching (grade 1).	Erythema.

c. When incontinence is a problem it is important not to further damage the skin through use of harsh cleaning products. Emollients should be used instead of soap to wash. The skin should be dried carefully.

3. Pressure ulcer assessment

a. Complete an initial assessment of the patient with a pressure ulcer to include:

The patient's goals of care. If the patient is unable to advise, consult with the family or significant others.

A complete health / medical and social history.

A focused physical examination which includes:

- Skin assessment.
- Factors which may affect healing (e.g. impaired perfusion,

impaired sensation, systemic infection).
- Vascular assessment in the case of extremity ulcers (e.g. history of claudication, and ankle brachial index or toe pressure).
- Laboratory tests and x-rays as required.

Nutrition assessment.

Pain related to pressure ulcers.

Risk for developing additional pressure ulcers.

Psychological health, behaviour and cognition.

Functional capacity, particularly in regard to positioning, posture and the need for assistive equipment and personnel.

The employment and adherence to pressure relieving manoeuvres.

Integrity of seating and bed surfaces.

Patient and carers knowledge re pressure ulcers.

b. With each dressing change. Observe the pressure ulcer for developments which may indicate the need to change the treatment e.g. wound improvement or deterioration, more or less exudate, signs of infection.

c. Assess and accurately document physical characteristics such as location, grade, size, tissue type/s wound bed and peri-wound condition, wound edges, sinus tracts, undermining, tunnelling, exudate, necrotic tissue, odour, presence / absence of granulation tissue and epithelisation.

d. Measuring the pressure ulcer

Position the patient in a consistent neutral position for wound measurement.

Select a uniform consistent method for measuring the wound to facilitate meaningful comparisons of wound measurements over time. (Refer to local guidelines).

e. Use the findings to plan interventions that will best meet the patient`s goals. Treatment needs will alter overtime as the pressure ulcer heals or deteriorates. Treatment strategies should be continuously re-evaluated based on the current status of the pressure ulcer.

4. Methods for monitoring healing

Assess progress towards healing. Consider using one or more of the following methods.

a. Local wound assessment tools or international validated tools e.g. PUSH tool (see Appendix 2).

b. Use clinical judgement to assess signs of healing e.g. decreasing amount of exudate, change in size and improvement in tissue type.

c. Consider using baseline and serial digital photographs to monitor healing overtime.

d. Plot changes in wound dimension on a wound healing curve, look for 20-40% reduction in wound size over 4 weeks as a likely progression to healing. (see Appendix 3 for wound healing curve appendix).

   Re-evaluate the pressure ulcer, the plan of care and the patient`s condition if the pressure ulcer does not show progress towards healing within 2 weeks (or as expected) given the patients overall condition and ability to heal. Consider referral as appropriate.

5. Role of nutrition and hydration in pressure ulcer healing

To be read in conjunction with organisational hydration and nutrition guidelines.

5.1 Screening and assessment for nutrition

a. Screen and assess the nutritional status of the patient with a pressure ulcer at admission and if their condition changes.

b. An example of nutritional assessment is at Appendix 4 – the MUST tool.

5.2 Screening and assessment for hydration.

a. Screen and assess the hydration status of the patient with a pressure ulcer on admission and if their condition changes.

b. An example of Hydration guidelines can be found at appendix 5 – The intelligent Adult Fluid Management Bundle.

5.3 Provide and encourage adequate daily fluid intake for hydration

a. Monitor individual for signs and symptoms of dehydration: changes in weight, skin turgor, urine output, elevated serum sodium, or calculated serum osmolality. See appendix 6 for GULP tool.

b. Provide additional fluids for patients with dehydration, elevated temperature, vomiting, profuse sweating, diarrhoea, or heavily draining wounds.

6. Pain assessment and management

6.1 Assess for pain

a. Pressure ulcers are painful. Use local guidance to assess pain.

b. Assess all patients for pain related to a pressure ulcer or its treatment using a validated scale. Examples can be found at appendix 7.

c. An assessment of pain should include an assessment of body language and nonverbal clues e.g. change in activity, loss of appetite, guarding, grimacing and moaning.

6.2 Prevent pain

a. Use a lift or transfer sheet i.e. sliding sheet, to minimise friction and / or shear when repositioning a

patient, keeping bed linen smooth and unwrinkled.

b. Position the patient off of the pressure ulcer whenever possible.

c. Avoid postures which increase pressure, such as fowler's position greater than 30 degree or 90 degree side-lying position or the semi-recumbent position.

1. Supine ☐ or Semi-Fowlers position ☐
please indicate degree angle of profile i.e. 45%

2. Left side ☐
30 degree tilt

3. Right side ☐
30 degree tilt

4. Chair sitting ☐
*Avoid longer than 2 hours at any one time

(Repositioning example from Bedford Hospital NHS Trust)

d. Minimise pressure ulcer pain by handling all wounds gently; flushing and not rubbing unnecessarily during cleansing; and protecting the periwound skin.

6.3 Management of general pain

a. Organise care delivery to ensure that it is coordinated with pain medication administration and that minimal interruptions follow. Set priorities for treatment.

b. Encourage patients to request a "time out" during any procedure that causes pain.

c. Reduce pressure ulcer pain by keeping the wound bed covered and moist, and using a non-adherent dressing. (note: stable dry eschar is usually not moistened.

d. Use dressings less likely to cause pain and/or those likely to require less frequent dressing changes e.g. hydrocolloids, hydrogels, alginates, polymeric membrane foams, foam soft silicone dressings and ibuprofen-impregnated dressings.

e. For a patient in pain from a pressure ulcer music, meditation, distraction, conversations and guided imagery are sometimes beneficial.

f. Administer pain medication regularly, in the appropriate dose, to control chronic pain following the world health organisation dosing ladder.

g. Encourage repositioning as a means to reducing pain.

h. Manage persistent pressure ulcer pain (Neuropathic) with a local anaesthetic or an adjuvant

(antidepressant or antiepileptic) as well as with transcutaneous nerve stimulation, warm applications or tricyclic antidepressants.

i. Refer the individual with pain to the appropriate professional.

7. Support surfaces for treatment of pressure ulcers

a. Selection of support surfaces is complex and cannot be determined solely on the basis of grade of the ulcer. Please refer to local guidelines.

7.1 Support surfaces

a. Provide a support surface that is properly matched to the patient`s needs for pressure redistribution, shear and friction.

b. Evaluate the appropriateness and functionality of the support surface on every patient contact.

c. Choose positioning devices and incontinence equipment which is compatible with the support surface.

7.2 Positioning

a. Document each repositioning activity after it has taken place.

b. Do not position a patient directly on a pressure ulcer.

c. Continue to turn and reposition the patient regardless of the support surface in use. Establish turning frequency based on the patients response and document repositioning.

d. Consider pressure impact of equipment on skin e.g. masks, cannula`s, tubing, at each repositioning event.

e. Inspect the skin each time the patient is turned / repositioned. Do not turn the patient onto a body surface which is already damaged or still reddened from a previous episode, especially if the area of redness does not blanche.

f. Limit head of bed elevation to 30 degrees for an individual on bed rest, unless contraindicated by medical condition. Encourage individuals to sleep in a 30-40 degree side-lying position or flat in bed if not contraindicated.

g. Use transfer aids i.e. sliding sheet to reduce friction and shear, Lift – don't drag – the individual while repositioning. Do not leave moving and handling equipment under the patient after use.

h. Increase activity as rapidly as is tolerated.

i. Do not leave the patient on a bed pan longer than necessary.

j. Do not use ring or donut-shaped devices.

k. Do not apply heating devices (e.g. hot water bottles, heating pads, built in bed warmers) directly onto pressure ulcers. Heat ncreases the metabolic rate, induces sweating and decreases the tolerance of the

tissue for pressure. When the body heat cannot dissipate, it will increase the risk of skin maceration and may impede healing.

8. Cleansing

a. Cleanse healing, clean pressure ulcers and surrounding skin with warm normal saline or potable water (water suitable for drinking) each time the dressing s changed.

b. Consider using cleansing solutions with surfactants and / or antimicrobials to clean pressure ulcers with debris, confirmed infections, suspected infection or suspected high levels of bacterial colonisation.

9. Debridement

a. Debridement should be carried out by trained personnel only.

b. Do not debride stable hard dry eschar in ischaemic limbs or diabetic digits. Assess the wound daily for signs of erythema, tenderness, oedema, purulence, fluctuance, crepitance and / or malodour (i.e. signs of infection).

c. Dry eschar may be left in situe for patients who are following the Liverpool care pathway (LCP) or where removal conflicts with other care objectives.

10. Dressings

Refer to local formulary. An example of a chronic wound toolkit can be found in appendix 8.

General recommendations

a. Assess pressure ulcers at every dressing change and confirm the appropriateness of the current dressing regime. Document findings and any changes to care plan.

b. Follow manufacturers recommendations, especially related to frequency of dressing change.

c. The plan of care should guide usual dressing wear times and patient preference, and contain plans for dressing changes as needed (for the family, patient, clinicians) due to spoilage, loosening etc.

11. Specialist patient groups

Additional guidelines can be found in appendix 9 for treating pressure ulcers for specialist patient groups, identifying those who:

a. are critically ill
b. have spinal cord injuries
c. are bariatric patients
d. require palliative care.

An example of a Integrated Liverpool Care Pathway can be found in appendix 10.

For more information visit
www.eoe.nhs.uk/pressureulcers