PRESSURE SORE PREVENTION

PREVENTING A PRESSURE SORE

General statement

These guidelines are developed to help identify and support people using KARE services that are at risk of pressure sore.

The aim of these guidelines:

They are a local resource supporting staff to:

- To help staff identify service users in KARE who are at risk of skin breakdown.
- To assist the prevention of pressure sores.
- To initiate management of care to prevent deterioration when a pressure *area or sore is identified.*

Knowledge of these risks can inform the person's Individualised Support Plan

What is a pressure sore?

Pressure injuries occur when *excessive or prolonged pressure* **or** *pressure in combination with shear* is applied to the skin or over a bony prominence.

RISK FACTORS FOR PRESSURE SORE

Immobility is the biggest risk factor for pressure sore development. Those who are unable to move or change their position, because of poor mobility or temporary immobility e.g. person who has broken their leg and is now immobile.

Other secondary risk factors include:

- Those who have no sensation over a part of their body.
- History of pressure sores.
- Malnutrition or low body weight. BMI score ≤ 18.
- Poor nutritional intake - for skin to remain healthy it requires nutrients that can only be supplied by eating a nutritious diet. A **MUST** score (as per Management of Nutrition policy) is completed for anyone deemed at risk. Refer to the appropriate specialist (GP; Dietitian; Speech and Language Therapist) as required.
- Incontinence where there is excess moisture near the skin ***moist skin is 5 times more likely to breakdown, compared to dry skin.**
- Those who are elderly as their skin is more easily damaged.

Other secondary risk factors include:

(continued from previous page):

- Some health conditions can make skin more vulnerable to damage through disruption of the blood supply e.g. diabetes, kidney failure, and heart failure.
- **Splints or Orthoses or casts** – these can cause pressure or friction to the skin if they are too tight or poorly fitting. Casts that are applied e.g. following a fracture can similarly be a risk.

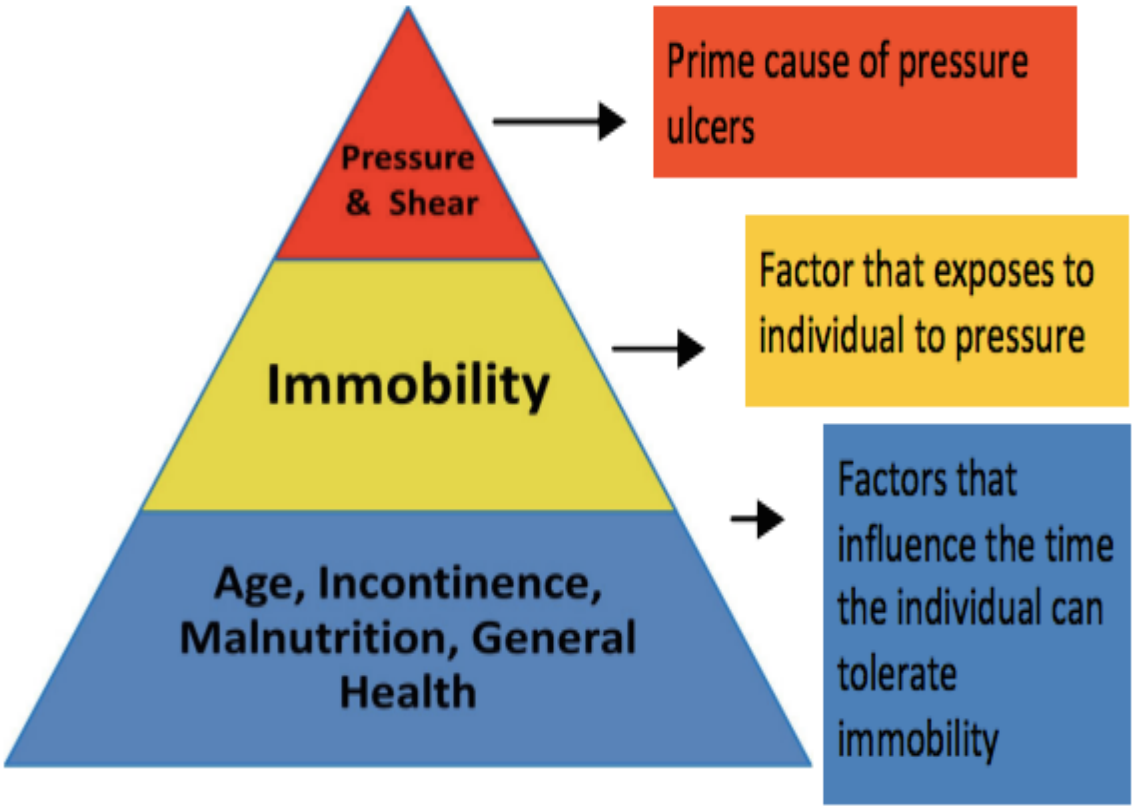


Figure 1: Hierarchy of Risk Factors (Moore et al., 2011)

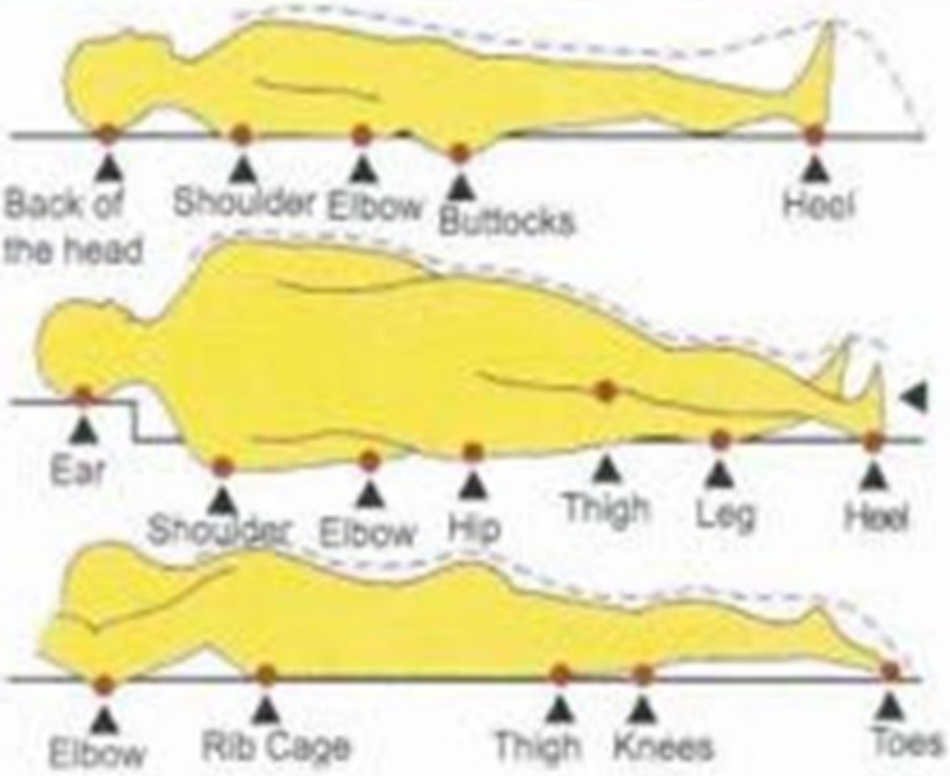
Where are pressure sores found?

- The skin is the largest organ in the body and when intact forms a protective barrier between the body and the external environment.
- Any breakdown to this protective layer can allow infection to enter the body.
- Many individuals whom we support are at increased risk for pressure injuries and staff need to be familiar with these.

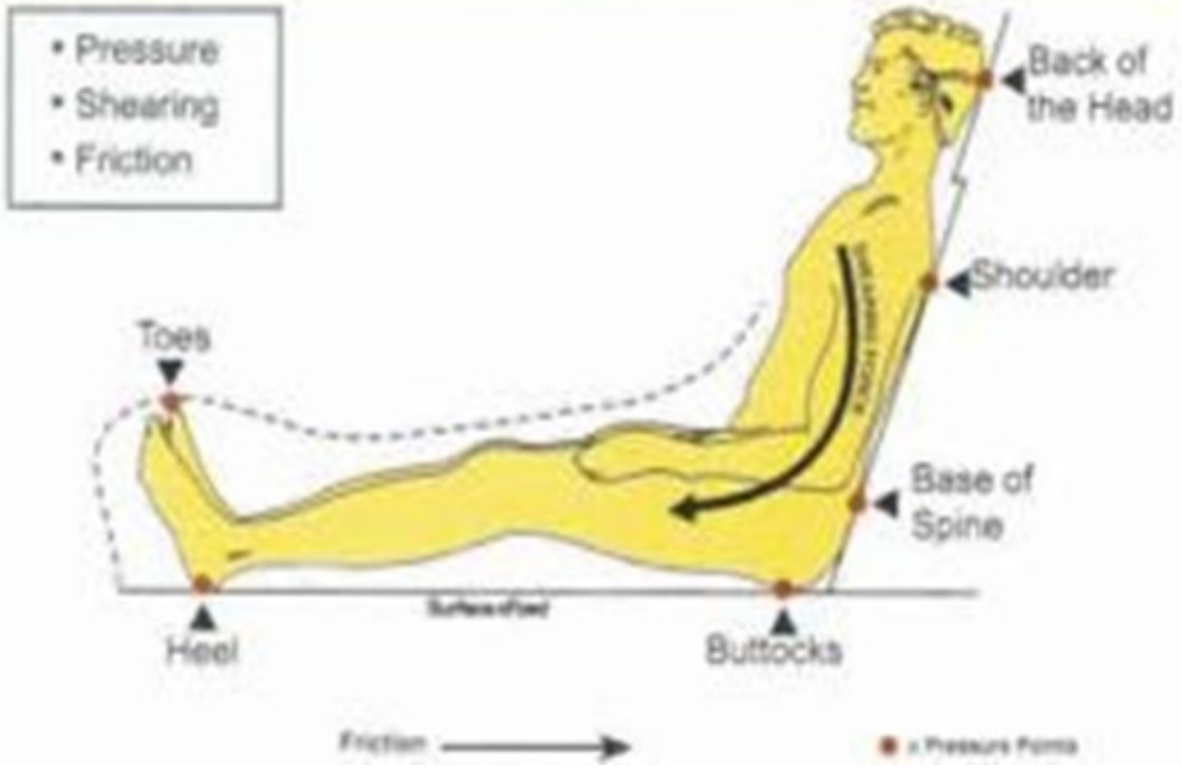
There are common sites that pressure sores occur These are the areas that need to be checked regularly:

- **Buttocks**
- **Base of spine**
- **Heels**
- **Hips**
- **Feet**
- **Ears**
- **Shoulders**
- **Elbows**
- **Skin folds**

Common Sites for Pressure Sores



Main ways that Pressure Sores arise:



Immobility:

People who spend extended periods of their day not moving, either seated or lying are at the highest risk for developing pressure sores. *For example* wheelchair users who are unable to use their arms to reposition themselves and weight shift their own position without a lot of support.

What happens to the skin to cause pressure sores

The biggest cause of pressure sores is *SKIN SHEARING*. Shearing is a combination of pressure and friction.

Some examples of this include:

- When a person slips in their chair, or down the bed
- A sling is pulled on or off with too much force
- When a person drags their body across another surface when transferring.
- Friction damages the top layer of skin.
- Prolonged pressure over an area of the body or over a bony prominence causes blood supply to be interrupted. This can cause the soft tissue in this area to die. For example a person leaning to one side putting all their body weight over one buttocks.

STAGES OF PRESSURE SORES

Pressure sores (sometimes called bed sores/pressure injuries) are an injury to the skin and underlying tissue. They can range from mild reddening of the skin to severe tissue damage—and sometimes infection—that extends into muscle and bone.

Pressure sores are described in four stages:

- **STAGE 1,** sores are not open wounds. The skin may be painful, but it has no breaks or tears. The skin appears reddened and does not blanch (lose color briefly when you press your finger on it and then remove your finger). In a dark-skinned person, the area may appear to be a different color than the surrounding skin, but it may not look red. Skin temperature is often warmer. And the stage 1 sore can feel either firmer or softer than the area around it.

- **STAGE 2**, the skin breaks open, wears away, or forms an ulcer, which is usually tender and painful. The sore expands into deeper layers of the skin. It can look like a scrape (abrasion), blister, or a shallow crater in the skin. Sometimes this stage looks like a blister filled with clear fluid. At this stage, some skin may be damaged beyond repair or may die.

STAGES OF PRESSURE SORES

(CONTINUED FROM PREVIOUS PAGE)

- **STAGE 3**, the sore gets worse and extends into the tissue beneath the skin, forming a small crater. Fat may show in the sore, but not muscle, tendon, or bone.

- **STAGE 4**, the pressure sore is very deep, reaching into muscle and bone and causing extensive damage. Damage to deeper tissues, tendons, and joints may occur.

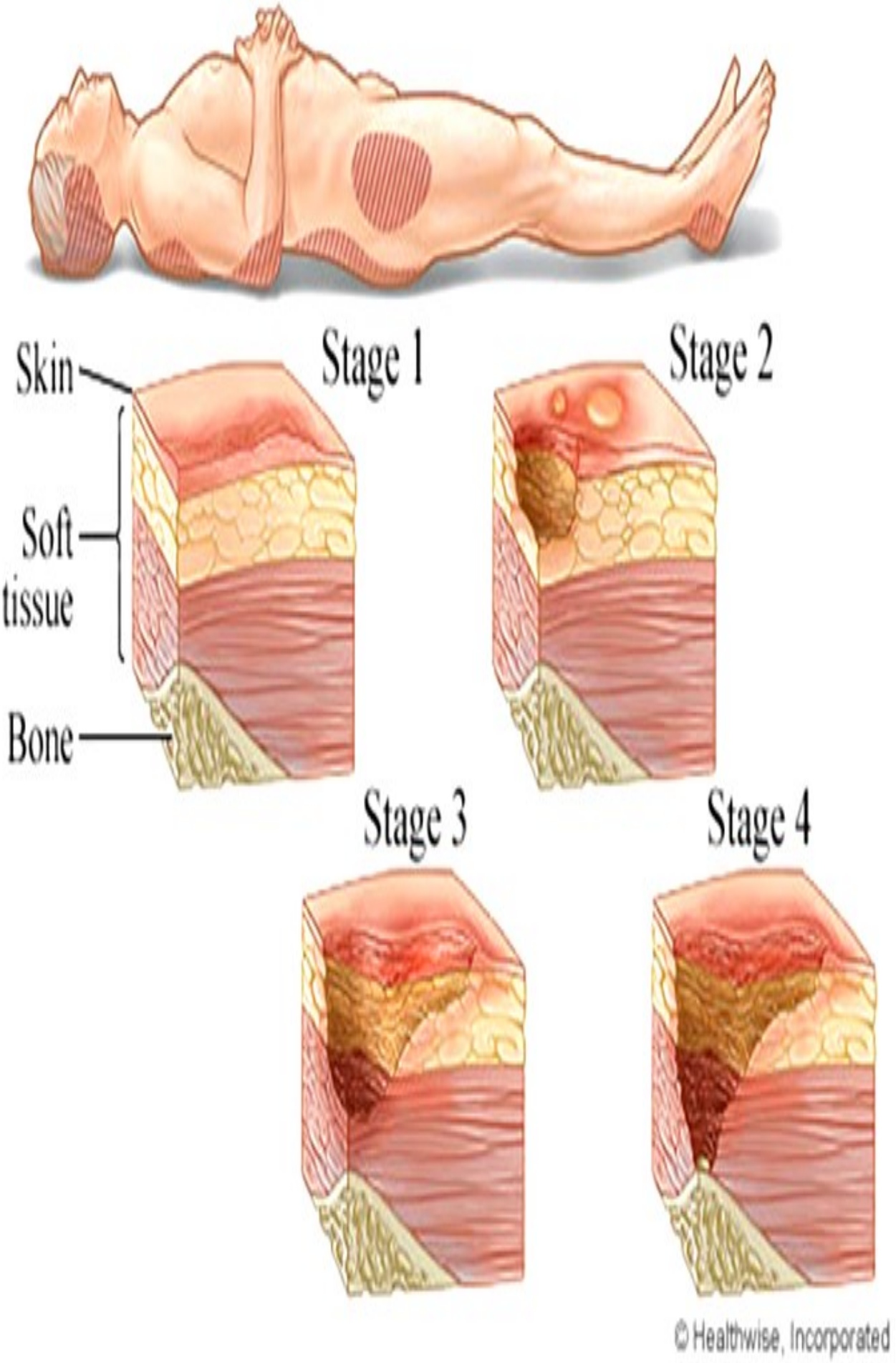
In stages 3 and 4 there may be little or no pain due to significant tissue damage. Serious complications, such as infection of the bone (osteomyelitis) or blood (sepsis), can occur if pressure sores progress.

Sometimes a pressure sore does not fit into one of these stages. In some cases, a deep pressure sore is suspected but cannot be confirmed. When there isn't an open wound but the tissues beneath the surface have been damaged, the sore is called a *deep tissue injury (DTI).*

The area of skin may look purple or dark red, or there may be a blood-filled blister.

IF YOU SUSPECT A PRESSURE SORE, ALWAYS CONSULT A NURSE IN YOUR AREA!

STAGES OF PRESSURE SORES



PROCEDURES FOR STAFF

- **All staff** • are responsible for supporting service users in managing their risks of developing pressure sores. Some staff may be given additional responsibilities.
- **Staff** need to be able to identify people who are increased risk for pressure sores
- **Staff** need to be able to identify any breakdown of skin/ pressure sores.

If a person is deemed at increased risk of pressure sores staff need to:

Inspect skin regularly for the following signs:

- Purplish/ blueish patches on dark skinned people
- Red patches in light skinned people
- Swelling
- Blisters
- Shiny areas
- Dry patches
- Cracks, calluses, wrinkles.

Signs to *feel* for are:

- Hard areas
- Warm areas
- Swollen skin over bony points

Refer the person to the local nurse to complete a *Waterlow assessment scale*.

A **YEARLY REVIEW OF THE WATERLOW** is recommended for those at risk. This frequency of review is increased if a person:

- becomes ill,
- is bedbound,
- has a decrease of mobility,
- change of nutritional status (sudden loss or gaining of weight),
- has been in hospital,
- or has become dehydrated i.e. due to vomiting or diarrhoea.

All of these situations can significantly increase the risks of the person for developing pressure sores.

WATERLOW ASSESSMENT

- KARE have adopted the Waterlow scale as the initial assessment tool. (Appendix 1 and also available on KARE Connect/ forms). The nurse in the local service or house completes the Waterlow with individuals who are at risk.

- This determines an individual's level of risk for skin breakdown (pressure sore development) and creates a numerical score.

- **A Pressure Management Care Plan** is initiated for all service users with a Waterlow score greater than 10. *(Forms)*

If pressure sore or reddening is noted:

- When a service user is identified as having a pink or reddened area of skin always consult a nurse for advice.

- Take pressure off the red area immediately (repositioning) if any skin reddening is noted on a body area *(Stage 1)*

- Contact the OT/Physio re: advice around positioning to off-load the pressure area. You may be asked to monitor and record the positional changes used – *Appendix 1* (Repositioning record and also available on KARE connect)

- A **Pressure Management Care Plan** should be developed if any skin breakdown is present *(Appendix 1 and also available on KARE connect)*

- Regular skin checks are initiated as specified in the **Pressure Management Care Plan** (*Appendix 1* and also available on KARE connect) and recorded using the KARE *Body Marks Record sheet (Appendix 2and also available on KARE connect)*

Pressure Management Care Plan

EXAMPLE of Pressure Care Management Plan

(This tool is based on the S***S.K.I.N tool for pressure management***:

This looks at: Support Surfaces

Keep moving

Improve moisture management (Incontinence)

Nutrition and fluids

These are prompts to help staff identify risks and how to actions to reduce the risk.

Risk factors for skin breakdown identified:	**Action Required**	**By whom**	**Outcome**
Support Surfaces Sitting on a basic foam cushion in wheelchair Waterlow score 16	Contact OT re concerns re cushion	Keyworker	High pressure relief cushion put in place
Keep moving Person unable to walk and sitting for prolonged periods of time	Review with physio Record current positions every day	All staff	Regular change in position e.g. 30 minutes standing twice daily, and bed rest during day
Incontinence		All Staff	Daily skin check Maximum 3 hour pad change
Nutrition Well-nourished no concerns		nurse	Yearly review of MUST score

Action Guidelines for WATERLOW Assessment

Waterlow assessment score 10-14	• Daily skin assessment • Overlays or specialist foam mattresses • When seated; to encourage repositioning every 2 hours (see repositioning) • Ensure there are no folds present in clothes, incontinence pad, causing any excess pressure to the area • Ensure Nutritional intake includes adequate protein, vitamins, and minerals and that the individual is well hydrated. • Skin to be kept dry, change regularly if the individual wears incontinence pads, use adequate Ph. balanced soaps and keep the skin moisturised and soft. • Encourage to wear cotton clothing not nylon • Regular checking and cleaning of cushion covers to ensure no folds in the cover are present, refer to guidelines for maintenance of cushions (provided on receipt of cushion. Contact OT if unsure of cushion maintenance)
Waterlow assessment score over 15	• Support surface –alternating pressure overlays, mattresses and bed systems and high specialist foam or gel cushion • Repositioning guidelines and frequency of same for the individual (Appendix 5) • Skin checks to happen daily • Review all transfer and lifts to avoid any dragging or shear during transfers, to ensure we have all correct lifting equipment and techniques are in use to safeguard against dragging or shearing. • Ensure Nutritional intake includes adequate protein ,vitamins, minerals and that the individual is well hydrated, get the dietician involved • Review all continence and hygiene regimes • Ensure there are no creases present in incontinence pads, clothing, sheets, socks, etc.
Waterlow assessment score over 20	• Alternating pressure mattress ,high pressure relieving cushions adjustable to individual person(air/gel cushions) • Ensure there are no creases present in incontinence pads , sheets ,avoid the use of fitted sheets and avoid use of multiple layers under the person • Repositioning guidelines need to be more frequent • Review of nutrition –High protein, vitamins and minerals, refer to dietitian • Appropriate pain control

Repositioning Guidelines

(Appendix 1)

- Any position if it is maintained for too long becomes uncomfortable for a person and increases their risk of developing pressure over a body part.
- Moving or changing position reduces pressure on body parts, allows blood flow to return to compressed areas of tissue and prevents formation of pressure sores.
- Any static position needs to be changed or adjusted at regular intervals.

This:

- Relieves pressure on areas of compressed tissues
- Improves circulation
- Enhances the individuals comfort
- Prevents musculoskeletal pain

This is the purpose of the repositioning.

- Any resident who cannot move themselves must be helped achieve a change of position at least every 2 hours. This can be through:
- Prompting or supporting a person who can weight bear to stand up briefly
- Prompting a person who can shift their own weight by using their arms to do so (comfort chair, wheelchair)
- Provide and use seating that allows their body weight to be tilted to relieve the area of pressure. (tilt in space seating tilt every two hours to bring weight from bottom to back)
- Providing them with mobility or positioning equipment that facilitates a change of position e.g. walker, standing frame, Acheeva lying station pressure relieving cushion or mattress.
- Any supportive surface or positional aid used for a prolonged time must have pressure reducing materials.

Repositioning Guidelines

(Appendix 1)

(continued)

Guidelines for safe and appropriate use of positional aids will be provided by Clinician (PT or OT) who supplied the equipment

- When moving or transferring an individual who is at risk, avoid dragging or “shearing” their skin when using slings or moving them off or on to support surfaces, including seating.

- If a service user has a Pressure Management Care Plan; repositioning guidelines will be an integral part of this plan and specific guidelines will be in place for the duration of the plan.

- A repositioning record *(Appendix 1)* can be used to record any transfers or changes of position when this is identified as an intervention measure in *Pressure Management Care Plan.*
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- This will include positions to be adopted, frequency of change and outcomes of the repositioning.
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- Training re accurate repositioning will be provided by OT/PT/ Nurse as appropriate.
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- If the person has an area that appears reddened following a previous positioning, do not place the person back onto this area.

REPOSITIONING RECORD, (appendix 1)

Date: **Name:** **D.O.B.**
PIN:

Time:	Position Achieved:	Skin Check	Comment	Signature

Guidelines to follow when completing the "Body Marks Record"

(Appendix 2)

For the purpose of this record staff are asked to record scratches, bruises or any other marks observed.

Definition of a scratch: A score or mark on the surface of the skin caused by a sharp or pointed object.

Definition of a bruise: an injury of the soft tissues that results in breakage of the local capillaries and leakage of the red blood cells. In the skin it can be seen as a reddish purple discoloration that does not blanch when pressed. Bruises develop within minutes to a few days, depending on how deep below the surface of the skin is bleeding. Typically a bruise progresses from red to blue to purple within the first couple of days after an injury.

Stages of bruising:

1. **Red bruises:** first stage the bruise is red, the colour comes from fresh blood leaking into the tissues. Fresh blood is bright red because it contains iron and oxygen.
2. **Blue bruises:** within a few hours blood that has leaked into the tissues loses oxygen and the blood becomes darker, because of this the bruise becomes to look more bluish.
3. **Purple bruises:** Typically over one to three days depending on the severity of the injury a bruise becomes more intensely purple and may even appear black. This occurs as red blood cells break down and iron is released into the injured area.

Guidelines to follow when completing the "Body Marks Record"

(Appendix 2)

1. **Green Bruises:** you'll know that the bruise is beginning to go away when it begins to turn green, it transitions from purple to green at the edges or at the center of the bruise. The green colour is due to the presence of Biliverdin (a haemoglobin breakdown product)
2. **Yellow bruises:** at long last the green bruise will turn to yellow as it enters its final stage of healing. The yellow colour is from the final breakdown product of haemoglobin in the skin called Bilirubin. The yellow fades as the body clears away the last of the debris from the bleed, leaving the skin bruise free and none the worse for wear.

- A separate sheet is to be used for each body mark found regardless of how many may be found in a day.
- All sections are to be completed and signed off by staff member. A daily record is to be kept until the injury has completed healed.
- Once the injury is healed and the record completed, to prevent overflowing of records in the folder completed records can be removed and archived in Section 4 of the archive folder.
- If there are no signs of a bruise healing or an observation of a recurrence of bruising please seek medical advice from the nurse in the area and follow advice given.

Body Marks Record Sheet

Name:	Location:	PIN:	DOB:

Date and time	Please describe in detail the mark that has been observed, e.g. colour od bruise, type of scratch, skin broken or not. Give as much detail as possible. The description of the mark needs to be detailed each time the mark is checked.	**Actions:** describe in detail any actions that were taken, e.g. nurse advised about mark, Social Work department contacted, GP attended.	**Outcome:** Please give details as to the outcome of any actions taken.	**Injury healed Y/N.** Please ensure that a daily record of the injury is kept in order to ensure there is continuity in care.	**Staff signature**

Body Marks Record Sheet (diagram) (Appendix 2)

Appendix 3