

Policy No: 03-3604	Authorised: Roxane Lane	Date: 15/05/2022
PREVENTION OF PRESSURE SORES		

This Procedure summarises the arrangements in place to prevent the onset of pressure sores on a service user.

1. CONSIDERATIONS:

- 1.1 Older people are especially at risk of developing pressure ulcers which are preventable, cause pain, and suffering.
- 1.2 There is no general method of preventing pressure sores and care has to be planned to the individual needs of each service user.
- 1.3 The overall consideration in the prevention of pressure sores must be the potential effects of a sore on the service user's health and well-being.
- 1.4 It is essential that the "RISK" of pressure sores is addressed at the preliminary assessment stage and monitored as often as the health status of the individual service users determine, using a recognised scoring system.

2. DEFINITION:

- 2.1 A pressure sore is also known as a decubitus ulcer. This term is used to describe any area of damage to the skin or underlying tissue caused by direct pressure or shearing force.
- 2.2 The extent of pressure damage can range from persistent erythema to necrotic ulceration, involving muscle, tendon and bone.
- 2.3 Nursing Care staff have an important play a key role in the prevention and management of pressure sores. However, there must be educational, management, dietary input to ensure nutritional needs are met, and risk's are managed. The maintenance of healthy skin helps to prevent the development of pressure sores.

3. MEDICAL INDICATIONS:

- 3.1 *Structure and Function of the Skin:*
The skin is composed of two principle layers, the epidermis and the dermis. The primary functions of the epidermis are to act as a barrier against water loss or gain and to act as a physical barrier against damage and the entry of bacteria. The functions of the dermis are to regulate body temperature, to act as a sensory organ and to dissipate pressure. The dermis varies in thickness over different parts of the body, so the ability to dissipate pressure varies from one area to another. Beneath the dermis there are layers of sub-cutaneous fat, connective tissue and muscle. The thickness of each layer varies from one part o the body to another. In addition to their other functions these layers can, to a greater or lesser extent, dissipate pressure. Beneath all of these layers is usually bone or a body cavity such as the peritoneum.
- 3.2 *Development of a Pressure Sore:*
Living cells require an adequate supply of nutrients and oxygen to survive. Cells vary in the length of time they can survive deprivation of these essential materials. Generally skin cells are very tolerant to the lack of nutrients and oxygen, whereas muscle can survive deprivation for much shorter periods. Oxygen and nutrients are carried in the blood capillaries to individual tissues. Therefore, disruption of the local blood supply will eventually cause death of the cells. The external factors likely to interrupt the local capillary supply are pressure and shear forces.

4. PRE-DISPOSING FACTORS:

- 4.1 *Pressure:*
Pressure is the force exerted perpendicularly over a given area, divided by that area. The greater the pressure on the skin the more the tissue is distorted.

One of the functions of the skin and the underlying tissues is to dissipate pressure. Where these tissues are relatively thin, for example over bony prominences, the capacity to dissipate pressure is reduced. Pressure on the skin can distort the blood vessels in the dermis and can interrupt the blood supply.

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If the supply of nutrients and oxygen is interrupted by continuous pressure then cellular death will occur. This can start the development of a pressure sore, though it may not be immediately evident as a surface ulcer. In addition, pressure can occlude lymphatic vessels with a resultant build-up of toxic waste, which also may contribute to cellular damage.

The areas of the body where the bony prominences of the skeleton are covered by only a thin layer of tissue are those most likely to be subjected to harmful pressure. Pressure sores can develop on any area of the body if there is excessive pressure.

4.2 *Shearing:*

When pressure is applied at an angle to the skin surface the various layers of the skin move over one another causing tissue distortion. This force is called shear. Different areas of the skin have different stages of tolerance to shear.

Damage due to shear forces occurs where there is friction between the skin and, bed sheets. The frictional force holds the upper layers of the skin stationary whilst the deeper layers can move. The different layers of the skin tend to move across one another and the force involved can stretch and squeeze the dermal capillaries. This can lead to tissue ischaemia. The shear forces may also close off the valves in the lymphatic and combined with ischaemia can accelerate tissue necrosis and lead to the development of a pressure sore.

The duration of the shear force is as important as its magnitude. A single improperly executed move can cause considerable damage.

4.3 *Friction:*

Friction forces are invariably associated with poor moving and handling technique, with the service user's skin being subject to friction forces from the Carer's hands, bed linen or seating materials.

4.4 *Mobility:*

Immobility is recognised as a primary factor in the development of pressure sores. Numerous spontaneous readjustments are made by the body to relieve pressure. In illness, this defence may be lost or reduced, due to lethargy, stroke, sedation, loss of consciousness. All service users should be assisted to move their position at regular intervals to allow the blood to flow.

4.5 *Sensory Impairment:*

Sensory loss produces lack of awareness of pain and pressure gives rise to a greater risk of a pressure sore occurring.

4.6 *Poor Nutritional State:*

Inadequate intake of the right foods and/or medical conditions may increase the risk of pressure sore development. Osteoporosis, weight loss, anaemia, vitamin deficiency, and low zinc levels may all increase the risk of pressure sores developing.

4.7 *Oedema:*

Oedema interferes with the supply of nutrients to the cells of the skin and removal of waste products from those cells.

FORMS REFERENCES:

Form No: 3-602 *Risk Assessment - Service User - Pressure Sores & Tissue Viability*