

Pressure Sores



Corinne Ward

Introduction



- ⌘ 3-9% of hospital patients may have a pressure sore at any one time
- ⌘ In the UK the calculation of prevention and treatment is 60 Million Pounds a year
- ⌘ Has a negative effect on the patient's well-being and recovery
- ⌘ Prolongs hospital stays
- ⌘ Is a quality indicator of hospitals

Learning objectives



- ⌘ Better understanding of causative factors leading to pressure sores
- ⌘ Definitions
- ⌘ Overview of European pressure ulcer prevention Guidelines
- ⌘ Awareness of pressure relieving systems

Pressure Sores




- ⌘ The term pressure sore infers that the lesion is a sore caused by pressure (Davies, 1994).
- ⌘ In addition, shearing forces also cause mechanical stress to the tissue.
- ⌘ Terms used: Decubitus ulcer, decubiti, (Latin word decumbo- lying down) bedsore, pressure sore, pressure ulcer and pressure necrosis.

Factors leading to tissue breakdown



- ⌘ In order for nurses to sift fact from fiction, ritual from rational action they need a basic understanding of the cause of pressure sores (Walsh and Ford, 1989)
- ⌘ Causative factors can be analysed into two groups: Intrinsic (within the patient) and Extrinsic (outside the patient) factors.

Causative Factors leading to Pressure sores



Intrinsic Factors:

- ⌘ Age
- ⌘ Malnutrition
- ⌘ Chronic illness
- ⌘ Ischaemia

Extrinsic Factors:

- ⌘ Pressure: over bone
- ⌘ Shearing forces-poor positioning esp. when patient slides down the bed or is dragged up
- ⌘ Friction: two surfaces rub together-top layers of epithelium cells are scraped off

Definitions



- ⌘ **Pressure** is defined as “a perpendicular load or force (e.g patient’s body weight) being exerted on a unit of area (e.g the buttocks)
- ⌘ **Shear** is a “mechanical stress that is parallel to a plane of interest”
- ⌘ **Friction** is “the force related to two surfaces moving across one another”

(Miller & Clover, 1999)

Major points of pressure over bony prominences



Possible sites of pressure damage



Pressure Damage



- ⌘ Most pressure damage could be prevented and it is important to have prevention and educational strategies in place - based on the best available evidence.
- ⌘ With the ageing population, and changes in patterns of sickness, the problem of pressure sores will increase unless action is taken

Prevention is better than cure



- ⌘ Turning positions-should be documented
- ⌘ The 30-degree tilt helps modify the patient's position using strategically placed pillows:
 - ☑ for maximum support
 - ☑ protection of vulnerable areas
 - ☑ sacral clearance from the support surface
 - ☑ assistance with inspection of at-risk areas

The 30° Tilt



Pressure Ulcer Prevention Guidelines



- ⌘ Identify 'at risk' individuals needing prevention and the specific factors placing them at risk
- ⌘ Maintain and improve tissue tolerance to pressure in order to prevent injury
- ⌘ Protect against the adverse effects of external mechanical forces: pressure, friction and shear
- ⌘ Improve the outcome for patients at risk to pressure damage through educational programs

Preventive hospital systems



- ⌘ Two-to-four-hourly patient turning (not always feasible)
- ⌘ The use of mattresses and overlays which either redistribute or reduce pressures is often indicated
- ⌘ Support systems fall into three main categories: Constant-low-pressure systems, alternating-pressure systems and turning devices

Constant -low-pressure systems



- ⌘ **Foam overlays** - Similar to the egg shell mattress)
- ⌘ **Fibre-filled overlays** - filled with silicone hollow core fibres
- ⌘ **Foam mattresses** - High-density foam with returns to its original shape
- ⌘ **Gel-and-water-filled overlays** - both are heavy and difficult to move

Alternating Pressure systems



- ⌘ Alternating-pressure overlays: these are one-cell deep and usually include a waterproof, vapour permeable, multi-stretch cover
- ⌘ Alternating-pressure mattresses: many have two layers of cells, lifting the patient completely off the bed. These vary in size and shape but usually have the cells under the patient's head remaining static

Choosing the right product



- ⌘ Patient's risk should be assessed
- ⌘ The manufacturer will specify the category of patient able to use the product
- ⌘ Patient preference should be considered
- ⌘ Patient's weight
- ⌘ Practical considerations: the level of maintenance offered, speed of delivery, mattress inflation time, the alarm system, cleaning requirements, response to movement, ease of use, size and weight, and cost-effectiveness