Management of pressure ulcers in elderly patients

Pressure ulcers are an injury that damages skin and the layer(s) of tissue beneath, which have been exposed to pressure (NHS, 2014). They can occur in patients of varied ages; however, the most vulnerable age group who are at risk of developing pressure ulcers are patients aged 75 and above (Hope, 2014). Elderly patients tend to have co-morbidities due to the ageing process, which can sometimes leave them with limited mobility or bedridden and this then can put them at further risk of developing pressure ulcers (Jaul, 2010). Due to having a growing elderly population, it is extremely important to address the risks of pressure ulcers. There is no particular environment in which pressure ulcers occur, as they are a concern in all settings where social care is being provided, medical treatments are carried out – including private homes. This paper will review the evidence regarding the risks and management of pressure ulcers. The focus of this paper will be elderly patients and the following topics will be discussed; risk assessment, patient assessment, pressure recognition and removal, non-surgical treatments/advice, complications of pressure ulcers and surgery.

On recognition of a pressure ulcer or the possibility of one developing on a patient, a suitably trained health or medical professional should do a documented risk assessment (NICE, 2014). This risk assessment should cover two interlinking areas, ‘ risk factors’ and ‘ signs/symptoms’. It is important to assess an elderly patient’s current health status and not just the status of their health as documented previously on records or on admittance to see a professional, as a variety of factors can affect the development of a pressure ulcer – some factors more rapidly than others. Questioning into previous medical history and also looking at previous

medical notes is often very informative and usually allows the professional to know of any co-morbidity which could present a further risk or act as an indirect cause of the development of a pressure ulcer. Diabetes and musculoskeletal disorders are often flagged up on assessments as a factor which can impact a pressure ulcer (Benbow, 2012). Sometimes due to the elderly patient suffering from a type of dementia, their ability to communicate or remember life events deteriorates and therefore they cannot provide the professional assessing the ulcer with key medical information. Also, some patients may be in trauma or are not conscious; this, again, makes the information gathering stage of the patient's current health status difficult for the assessing professional. In such complex cases, the patient's wider network such as relations or the multi-disciplinary team of health and social care professionals who have previously supported the patient may have more knowledge on the patient's life history. Nursing home staff are required by the Care Quality Commission to keep records of their residents' care plans and more specialist homes have routine logs written about their residents; these often can act as a good indicator of physical, mental and behavioural status and changes which have occurred with the elderly patient (CQC, 2015).

Determining any other condition which an elderly patient may suffer from is important, because this needs to be considered in the patient's care plan and management of the Pressure ulcer as it could have direct impact on the healing of a pressure ulcer. For example, if the elderly patient has diabetes, their wound healing process maybe prolonged (Leik, 2013). Furthermore, as elderly individuals have thinner skin; this already puts them at greater risk of

skin damage due to pressure. Musculoskeletal disease such as osteoarthritis is usually diagnosed in elderly individuals and it can limit the mobility of the patient or their ability to do specific activities (NHS, 2014). This may result in patients being in the same position for long periods of time, which may then put pressure on that area of the body, putting them at greater risk of developing a pressure ulcer. Also, elderly individuals who are less mobile are more likely to have poor circulation, which can impact on the time taken for a pressure ulcer to heal. Therefore, blood flow should also be taken into consideration when doing the risk assessment. Above are some examples of how the management of Pressure ulcers can become complex; there are more diseases such as terminal diseases and other medical conditions that need to be taken into consideration when planning the care or prevention of a pressure ulcer.

Often both the lack of nutritional intake and loss of weight are two interrelated common concerns in elderly patients, unless the cause is due to a different factor such as underlying pathology of disease. Therefore, in addition to including these factors in the risk assessment, health education to encourage the patient to eat needs to be provided to the patient, their relations and health and social care staff supporting the patient. Health advice/education/guidance is important because an underweight elderly individual is more likely to have less tissue around their bones and possibly poorer blood vessel quality, hence making them more at risk of damage from pressure and also poorer healing (MNT, 2014). Also, a lack of protein in an elderly patient’s diet, which supports tissue growth and repair, can also cause greater damage to their skin from pressure. Low nutritional intake can

also cause fatigue and frailty in elderly individuals and this can impact an elderly individual's engagement and ability to do daily activities (Morelli and Sidani, 2011), hence impacting their psycho-social status, which may disengage them from supporting their own health, whether it be by following the guidance of a medical practitioner or by being active in their healthcare decisions generally (Morelli and Sidani, 2011). This then can make patient centred care difficult for those providing care for the elderly patient, as patient choice/preference is compromised and indication of pain, which is usually expressed verbally via description or recommended pain scales such as ' Braden' or ' Waterlow', may not also be provided by the patient (Nice, 2014 and Benbow, 2012). Therefore, the patient's involvement in managing the pressure ulcer is vital.

Pain management is difficult in Pressure ulcer management if the elderly individual has an altered perception of pain due to a spinal cord injury or other related nerve damage injuries. This may prevent the patient from recognizing that they have an ulcer developing, hence delaying the treatment of the ulcer (MNT, 2014). Therefore, it is good practice if the elderly individual is a patient in hospital to routinely ask the patient if they have seen any abnormalities on their skin and also recommend them to change positions regularly.

Alongside the detailed risk assessment, a pressure ulcer assessment/skin assessment should be done on recognition of a pressure ulcer developing. This is not only to manage the Pressure ulcer but also to be aware of those individuals who may have difficulty, as mentioned above, in detecting changes in their skin or possibly even possess a disability. Complaints of pain

from the patient should be considered in the skin assessment, followed by a categorization of the ulcer as a stage 1, 2, 3 or 4 Pressure ulcer (NICE, 2014). This will include assessing discolouration, variations in heat, firmness and skin moisture. The categorization of the Pressure ulcer is extremely important because it allows suitable preventative measures to be put within the individual's care planning, to try to maintain the skin's integrity and to support healing (NHS, 2014).

The overall patient assessment will directly impact decisions on the frequency of positioning for the patient and the suitability of the support surface on which the patient is sitting or lying (Benbow, 2012). These changes are vital to pressure removal and hence, managing the development of the Pressure ulcer better because they will be included in a repositioning timetable that health and social care professionals will work to as part of the care plan. The frequency of positioning varies based on the risk, patient's physical ability/state and also their acceptance to be regularly repositioned; for example, a patient in a wheelchair may need to be repositioned every 15 minutes due to the pressure of sitting in the same position for long periods of time. Elderly patients who are bedridden should be repositioned every couple of hours, depending on the need determined in the risk assessment (NICE, 2014). A physiotherapist can often advise on repositioning that will be safe and that will also allow pressure release. Equipment can also support pressure removal. Cushions on wheelchairs not only provide comfort but they can also lessen the pressure on the hip and upper leg area of the body. However, some specialists advise that air, water or foam filled support devices are better than traditional cushions (Benbow,

2012). Small pillows/foam pads can also support areas of the body from touching each other, such as between the knees or ankles. These can also be used for comfort and support when laying in different angled positions; for example, when a patient is lying on their side, their legs may need further support (Benbow, 2012). Reclining chairs/automated chairs can also be set at different positions to support pressure removal. Patients, relatives and supporting professionals need to ensure that the skin of the patient is regularly checked, as repositioning regularly can also cause skin damage due to the skin of an elderly individual being thinner.

Specialised mattresses can also reduce pressure in comparison to standard mattresses. Furthermore, some specialist mattresses can be connected to an air flow system which can automatically regulate the pressure, hence making the care and management of pressure ulcers in bedridden patients easier for health professionals or carers/relatives. This may be a change that medical/health professionals recommend to elderly patients at home or even for patients in long term care/rehabilitation; however, research is still lacking on how much contribution mattress change actually has on directly lessening the risk of pressure ulcer development (Vanderwee et al, 2008 and UCSF, 2011) in comparison to other cost effective changes.

Depending on the wound of the ulcer and the skin damage, often dressings and ointments are used to manage the pressure ulcer and to manage infection. Antibiotics may be prescribed, but not often, as usually antiseptic creams can be applied directly on the wound to prevent the spread of infection to connecting tissues. Ointments and creams may also be used to prevent or treat skin damage such as incontinence-associated dermatitis.

The skin assessment should be able to identify those at risk of developing such dermatitis, as these patients often have one or more of the following conditions: incontinence, oedema or dry skin (NICE, 2014). Dressings which have been specially designed to promote wound healing and cell regrowth should be used on a pressure ulcer wound. Examples of suitable dressings include hydrocolloid dressings and aliginate dressings (NHS, 2014). These dressings also can support the regulation of skin moisture, which is important to manage the Pressure ulcer. Research and development into wound repair technology is advancing and specially designed dressings give less trauma to the patient upon removal. Therefore, the correct dressing is vital as unsuitable dressings may cause further skin breakdown. As briefly mentioned earlier in this paper, the patient's diet may need altering to ensure that the elderly patient is taking nutrients which will support wound healing. Hydration is also important to maintain skin moisture and avoid flaky skin (Convatec, 2012). Hydrotherapy can also be used to keep skin clean, with possible natural removal of dead cells.

In some cases, the wound healing process may be compromised due to necrotic tissue and this dead tissue will need to be removed via a debridement method. Debridement methods vary depending on the clinical situation. Larvae therapy can be used as an alternative method to debridement; this therapy consists of putting maggots on the wound for a few days via a dressing and gauze. Maggots can also promote healing due to the release of a substance that kills bacteria. Sometimes when grade 3 or 4 Pressure Ulcer wounds do not heal or they become complicated cases,

surgery is needed. This is usually either surgery which directly closes the wound or flap reconstruction.

To conclude, this paper has attempted to cover the overall management of pressure ulcers in elderly patients. Despite, the treatments and clinical practice carried out by medical/health professionals being similar to younger patients, the risks of pressure ulcer development and healing due to the ageing process are different. Also, co-morbidity is more identifiable in elderly patients and skin structure/composition differs due to the thinning of the skin. There are clear guidelines on managing pressure ulcers by NICE; however, further research needs to be done to optimize the management of pressure ulcers in elderly patients (Cullum, 2013).

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