

# PREVENTING PRESSURE DAMAGE IN PATIENTS WITH MENTAL HEALTH PROBLEMS

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Pressure ulcers are defined as ‘localised injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear’ (European Pressure Ulcer Advisory Panel [EPUAP]/ National Pressure Ulcer Advisory Panel [NPUAP], 2009), with friction also known to contribute to their development (National Institute for Health and Clinical Excellence [NICE], 2003).

A number of intrinsic risk factors have been identified that place individuals at greater risk of sustaining pressure damage, including poor nutrition and mobility and comorbidities such as diabetes and incontinence (NICE, 2005a).

It is well documented that people with severe mental health problems have a higher incidence of poor physical health (Allen et al, 2004; Hippisley-Cox and Pringle, 2005; SANE, 2005), in particular, statistically higher incidences of diabetes, obesity and smoking. It is believed that this could be attributed in some part to the antipsychotic medications prescribed for this patient group, although poor

<b>Catatonia</b>	A stuporous state with muscle rigidity and a lack of response to external stimuli. In this state a person will sit in the same position for long periods of time and may adopt bizarre postures
<b>Direct pressure</b>	A perpendicular load or force exerted to on an area such as the sacrum or heels. This load will compress the tissue leading to an occlusion of blood flow
<b>Friction</b>	Occurs when two surfaces move across one another, e.g.: when a patient uses their heels to push themselves up the bed because they are slipping down
<b>Ligature</b>	Something (e.g. a cord) that can be placed around a part of the body resulting in constriction that may cause harm
<b>Pressure-redistributing equipment</b>	Equipment that is used to redistribute pressure across a larger surface area, e.g. high specification foam mattresses
<b>Pressure-relieving equipment</b>	Equipment that is used to relieve pressure, e.g. alternating pressure mattresses that have cylindrical cells that inflate and deflate over a set period, applying and removing pressure
<b>Shear</b>	Shear forces are initiated when the underlying body structures try to move but the surface of the skin remains attached to a support surface, e.g. a person sitting up in bed with the back rest elevated – their deep tissue and skeletal structure is pulled down with gravitational forces but their skin surface remains attached to the mattress cover. This results in a distortion of the skin structures, which can cause the blood vessels to break
<b>Extrinsic</b>	External influences (outside of the body) which can lead to skin distortion
<b>Stupor</b>	A condition of apparent mental inactivity and reduced ability to respond to stimulation

dietary intake and reduced exercise levels may also be contributory factors (Allen et al, 2004).

Urinary incontinence rates are higher in those with mental health problems (Murjan et al, 2003), although the overall

under-reporting of both urinary and faecal incontinence in adults of working age within the general population is acknowledged (Foxley, 2007; Murphy et al, 2008). With these being recognised as risk factors in the development of pressure ulcers, it could be argued that

having a mental health problem does not preclude people to pressure damage but could, in fact, increase their risk.

This article will aim to explore some of the complexities associated with the prevention of pressure ulceration in adults with enduring mental health problems, where their mental health condition is the overriding concern on admission to an inpatient setting. By outlining a patient scenario, the prevalent issues will be highlighted and discussed.

## BACKGROUND

Within the author's trust, pressure ulcer risk assessments are carried out routinely on all new adult inpatients within seven days of admission. The Waterlow Pressure Ulcer Prevention/Treatment Policy (Waterlow, 2005) forms part of the trust's Physical Health Assessment Form and trust policy allows the flexibility of completion within seven days in acknowledgement of the complexities associated with caring for patients with mental health problems.

While best practice states that a thorough assessment of a patient's skin integrity and risk status is carried out on initial admission to a care setting (NICE, 2003), formal assessments within six hours of admission may not always be possible or appropriate within a mental health environment where issues such as risks of aggression and an individual's capacity to consent must be considered foremost.

## RISK ASSOCIATED WITH BEHAVIOUR

Under the Mental Health Act (MHA) 1983, a person can be admitted into hospital, detained and treated involuntarily for their mental health problems if it is deemed in the interest of their own health and safety or that of other people. This is described as a formal admission where the person is detained under a section of the MHA.

**Lack of capacity, which can be temporary or permanent, must be determined prior to any intervention.**

When a person is admitted in this way onto a mental health unit, they may become agitated and exhibit behaviours that could place them, healthcare professionals and other patients at risk. Importantly, it should be noted that there is no provision under the powers of the MHA for the treatment of physical health conditions without consent.

In such circumstances, the appropriateness of examining intimate areas such as the groin or sacrum of an agitated patient on admission may be questioned; if so a risk assessment must be carried out and its outcomes clearly documented and communicated to the multidisciplinary team.

Where a formal pressure ulcer risk assessment may not be possible, an informal assessment should be carried out on admission by someone with the knowledge and skills to identify risk status (NICE,

2005a). In this way, the healthcare team can continue to gather more information as and when possible, while starting immediately to put adequate systems in place in order to reduce the effects of the risks already known.

## CONSENT

Consent must be given voluntarily by someone who has the capacity to consent to the specific intervention in question (Department of Health [DH], 2009). While many patients will have the capacity to consent to examination or treatment, they may choose not to.

Without the consent of a person known to have capacity, skin integrity assessments cannot be carried out. In this instance, healthcare professionals must give the patient a clear rationale and explanations of the assessment required to ensure that they are fully informed. This process should be clearly documented and must include any ensuing refusals or subsequent assessment reattempts made.

If an informal assessment highlights that a patient is at risk but they continue to refuse formal assessment, a care plan must be written to highlight the systems already put in place to manage this risk in light of the situation.

Conversely, there will be a number of patients admitted into a mental health unit who may not have the capacity to consent to treatment or examination. Therefore, all interventions must be made with their best interests in mind.

The Mental Capacity Act 2005 states that ‘...a person lacks capacity in relation to a matter if at that material time he is unable to make a decision for himself in relation to the matter because of an impairment of, or disturbance in the functioning of, the mind or brain’.

Lack of capacity, which can be temporary or permanent, must be determined prior to any intervention. If it is considered temporary, it may be appropriate to withhold intimate examinations until capacity is regained as long as it doesn't place the patient at undue risk (Sharp and Baxter, 2002). However, if permanent, best interests would be paramount.

Determining a patient's capacity is a complex area that requires multidisciplinary team involvement and agreement following a formal assessment by a healthcare professional involved in their care. If the patient is assessed as not having capacity, best interests will be assessed alongside consultation with other healthcare professionals, family and carers (where appropriate).

Independent Mental Capacity Advocates (IMCA) should be consulted to safeguard the patient in situations where there are no family or carers available to consult (DH/Office of the Public Guardian [OPG], 2009).

## HOLISTIC CARE

A comprehensive and holistic assessment will enable the healthcare practitioner to implement an appropriate course of treatment which

will take into account the specific needs of the patient. Depending on the mental health condition of the patient, certain dressings or regimens may need to be avoided to reduce the likelihood of harm.

Any risk assessments that are carried out should be documented and used to inform clinical decision-making. Clinical risk assessment is about weighing up the potentially beneficial and harmful outcomes of a situation/intervention and accounting for their likelihood (Green and Tracey, 2009).

### When agitated, Mr J crawled around on the floor and tampered with furniture, accessible objects and hospital equipment.

In healthcare settings it is important to remember that risks can fluctuate and are dependent on a number of changeable factors such as the nature of a patient's condition and environment.

The following scenario will be used to highlight a number of issues that must be considered when planning an individualised pressure area care regimen for a patient who has mental health problems.

## CASE REPORT

Mr J is a 45-year-old man who is an inpatient on an acute mental health unit. His mental state fluctuates, leading him to display behaviours that range between agitation and catatonia (a very rare mental health condition, often

characterised by a rigid, immobile position that is held by the affected person for a considerable length of time) (Table 1).

At the time of this case report, on the whole, Mr J appeared to be unaware of his surroundings and unit staff were reporting that he went through periods of not responding to verbal communication.

When agitated, Mr J crawled around on the floor and tampered with furniture, accessible objects and hospital equipment. He removed items of clothing as well as any protective dressings applied prophylactically on bony prominences.

During the times where Mr J was catatonic, he had episodes of stupor where he would sit for long periods of time, seemingly unaware of his own comfort. He demonstrated signs of muscle rigidity making mobilisation both difficult and unsafe.

Mr J was incontinent of both urine and faeces. Staff had been finding it very difficult to motivate Mr J to eat and they had recently noticed a degree of weight loss. While he did not have any pressure ulcers at this time, his most recent pressure ulcer risk assessment identified that he was at very high risk of developing them.

The potential for Mr J to develop pressure ulcers associated with friction, shear and direct pressure was high. During episodes of agitation, Mr J crawled and dragged himself

around on the floor, removing clothing and subjecting his unprotected skin to shear and friction damage from the hard floor surfaces.

On removing his clothes, Mr J became increasingly aware of any protective dressings applied onto high risk areas such as his knees, elbows and ankles, often resulting in their removal. Due to these activities, the application of padded dressings may assist in the protection of vulnerable areas, although careful consideration must be given to how these dressings are secured.

Aderma® Dermal Pads (FPD Medical) are made of a polymer gel, which is similar to fatty tissue and can be used to redistribute pressure and frictional forces away from the skin. It was decided that their use in Mr J's case may be beneficial, as they can be washed in soap and water for multiple single-patient use which is advantageous in situations where patients are likely to tamper with their dressings.

However, while this is a positive attribute where their use is prophylactic, they can only be used in this way if the skin is intact. Once the skin is broken, a patient's wounds must be assessed and an appropriate dressing applied.

If dermal pads are considered appropriate, consideration will need to be given to how the pads will be secured in place. The use of crepe or tubular bandages to secure them had to be risk-assessed, as there

**Table 2.**

Pressure area care (frequency is dependent on individual patient need)

Action	Rationale
Repositioning	Regular repositioning will reduce the effects of extrinsic factors (pressure, shear and friction). Pillows may be used to support the patient off their pressure areas and to separate areas of bony prominence e.g.: place between the knees and ankles
Monitoring pressure areas	Sites prone to pressure damage should be checked on a regular basis, dependent on the condition of the patient. However, best practice would be to check the pressure areas of an at-risk patient at least once daily. In this way, pressure damage can be identified and managed at an early stage
Skin care	Personal care needs must be met in a timely fashion to reduce the damaging effects of incontinence/excessive moisture on the skin
Observation of dressings	Dressings can crease, causing damage to intact skin or increase the amount of pressure exerted onto bony prominence. Close observation will ensure that dressings remain therapeutic
Observation of dressings	The patient's environment should be checked at each episode of care. Issues such as creased bed linen, objects in the bed/chair or body parts pressing on hard surfaces such as bed frames, can increase the pressure exerted on vulnerable areas

was the potential for Mr J to remove these and cause himself or others harm by using them as a ligature.

**When agitated, Mr J was prone to removing the pads and using them inappropriately.**

Hydrocolloid or film dressings are an alternative dressing choice where the skin remains intact or has only sustained superficial damage. The benefits of using these dressings in Mr J's situation were:

- ▶▶ At-risk areas can still be visualised and monitored through the dressing, thus requiring less manipulation by nursing staff
- ▶▶ They are less bulky and visible to the patient, therefore there is an

increased likelihood of their being left in place for longer

- ▶▶ They are also known to reduce the effects of friction and shearing forces (EPUAP/NPUAP, 2009; Riordan and Voegeli, 2009).

In Mr J's case, a combination of dressing choices were used, depending on his mental state at the time. While he was catatonic and had limited mobility, the dermal pads proved useful in protecting his bony prominences. However, when agitated, Mr J was prone to removing the pads and using them inappropriately.

Therefore, it was decided that, at these times, it was best to replace the dermal pads with film dressings. Due to these dressings being thin and transparent, Mr J was less aware of them and left them

undisturbed for a longer period of time, allowing for visual monitoring of the areas at risk of friction/shear damage.

### Equipment selection

As with dressing choice, the decision to provide pressure-relieving equipment for a particular patient must follow a full risk assessment and any equipment selection should be based on suitability for the patient and their environment (Fletcher, 2006). The most clinically indicated choice may not be the safest or most practical choice for the patient in all instances.

On the whole, alternating pressure or low air loss systems have pumps and cables attached as standard. For an agitated patient such as Mr J, these attachments may pose a great risk as they can be pulled apart, used to cause damage or the cables could be used as ligatures.

While national guidelines may indicate the provision of pressure-relieving devices for a patient at very high risk of pressure damage (NICE, 2003), ultimately the needs and safety of the individual and other patients must be considered. In order to manage the risks associated with this equipment, the team could consider the following options:

- ▶ To nurse Mr J on a high specification foam mattress — although the heightened need to closely monitor Mr J's pressure areas would have to be clearly documented and actioned
- ▶ To provide the clinically

indicated equipment but place Mr J under the constant observation of at least one nurse to deter him from tampering with it.

However, the risks associated with the development of pressure ulcers and the risks of harm had to be weighed up in order to reach the correct decision.

Low nursing beds can be provided for patients who are likely to fall or attempt to climb out of bed. It was felt by the team that Mr J would benefit from a bed that lowers directly to the floor so that his movements were not restricted. This would reduce his risk of falling from even a small height.

**It is known that exposure to excessive moisture can lead to a reduction in the skin barrier function.**

However, once again, low nursing beds are usually electric and have the same risks associated with their use as the pressure-relieving equipment previously described.

If the multidisciplinary team deemed that the benefits of providing these pieces of equipment outweighed the risks, then managing the situation by nursing Mr J on a one-to-one basis was an option (Peate and McGrory, 2009).

Mr J also experienced episodes of restricted movement and muscle rigidity, placing him at increased risk of direct pressure damage associated with reduced mobility and

movement. The areas of the body potentially affected were those subject to loading pressures such as the sacrum, heels and spine.

In these cases, dressing choice may be more dependent on clinical need than the likelihood of Mr J removing the dressings.

Aderma Dermal Pads will redistribute pressure and friction forces away from vulnerable areas and protect any bony prominences, but good pressure area care remains vitally important (*Table 2*).

Sitting times should be minimised to reduce the likelihood of further damage (NICE 2005b, EPUAP/NPUAP 2009), but close consideration had to be given to the potential for social isolation if Mr J was unable to sit out in communal areas for long periods of time.

Ultimately, in Mr J's case, the decision was made to nurse him on a profiling bed with a high specification pressure-redistributing foam mattress. Due to his fluctuations in mental state, it was felt that an alternating pressure mattress may place Mr J at greater risk of injury.

However, in order to manage the risks associated with the equipment choices, Mr J was placed on one-to-one nursing care to ensure that he did not come to any harm through tampering with the equipment while agitated and had regular pressure area care during periods of stupor. This was an effective strategy that allowed the team to closely monitor

Mr J's needs and respond accordingly.

The provision of pressure-relieving devices must follow a thorough risk assessment. Yet, with the extreme behaviour that Mr J was exhibiting, to ensure the use of equipment that was both safe and clinically appropriate was challenging.

While an alternating pressure mattress and profiling bed may have been required to provide pressure area care when Mr J was in a state of stupor, a thorough risk assessment identified that it was not a safe or appropriate option for the times when he was agitated'.

Care planning for the monitoring of pressure areas needed to take into account Mr J's extreme behaviour, and required the accurate identification of his individual behaviours. The most appropriate time to monitor intimate areas for pressure damage were dependent on his condition at the time and his activities throughout the day/night.

It is unlikely that the assessment of these pressure areas would have been possible at set intervals during the day when he was agitated, therefore nursing staff had to build assessment into other activities, i.e. when assisting Mr J to the toilet. More accessible pressure areas, such as heels and elbows, were able to be monitored more readily during the day.

### Contenance

Mr J is incontinent of both urine and faeces. It is known that

exposure to excessive moisture leads to a reduction in the skin barrier function (Bale et al, 2006), with a combination of faecal and urinary incontinence placing the patient at an even greater risk of developing pressure ulcers (Waterlow, 2005).

When faeces and urine are mixed together, bacteria in the faeces convert urea in the urine to ammonia, which makes the skin more alkaline and thus more susceptible to damage (Rees and Pagnamenta, 2009).

The provision of personal care is therefore vitally important, and the use of a barrier cream may go some way to reducing the level of moisture in direct contact with the skin.

### Unintentional weight loss and dehydration are known risk factors for pressure ulcer development.

It is useful to note, however, that there is some evidence to suggest that their use in combination with continence pads can affect urine absorbency rates (Le Lievre, 2001). The use of incontinence management products such as a penile sheath were considered, however, there was the possibility that when agitated, Mr J may have tampered with the product and potentially caused tissue damage.

With a bed-bound patient, it is common practice to limit the type and layers of clothing worn to ensure comfort and easy access for prompt personal care. However, when an agitated patient is removing

their clothing and crawling along the floor in communal areas, maintaining their dignity is a priority. This aspect of care must be considered and included in any care planning.

In order to reduce the likelihood of social isolation, Mr J was assisted to participate in ward activities and groups whenever possible, dependent on his mental state.

As he was being cared for on a one-to-one basis, it was at any time possible for the accompanying nurses to escort Mr J back to his room if they felt that his dignity was being compromised (i.e. when he began to remove clothing).

During periods of severe agitation, Mr J would be cared for in isolation in his room in order to maintain his dignity.

However, at these times, it was felt to be important that staff continued to engage with him as much as possible and this was clearly documented as part of Mr J's care plan.

Activities such as drawing and painting were encouraged in his room when it was felt inappropriate for him to attend group sessions.

However, it was acknowledged that his participation in group activities would be ultimately beneficial.

### Nutrition

A compromised nutritional status, such as unintentional weight loss and dehydration are known risk factors for pressure

ulcer development (Dorner et al, 2009). Nursing staff had noticed that Mr J had shown evidence of recent weight loss, which immediately highlighted a cause for concern.

Mr J required assistance meeting his dietary needs, however, in light of his fluctuation between agitation and stupor, it could be difficult to impress upon him the importance of eating and drinking — therefore, he was often not able to engage in planned meal times.

Nursing staff felt it was necessary to make food available outside of scheduled mealtimes to ensure that Mr J received adequate nutritional intake.

By closely monitoring his dietary and fluid intake using nutrition charts, the nursing staff was able to discuss an individualised meal plan with the dietician to ensure that Mr J consumed a nutritionally balanced diet.

Within this scenario, the multidisciplinary team worked hard to manage a number of risks associated with Mr J's care, which ultimately prevented him from developing any pressure ulcers.

By adopting a flexible approach, the team were able to provide a safe environment that responded to the changing needs of the patient, with the clear documentation of decision-making processes highlighting the rationale for the care provided.

Over time and with further psychiatric interventions, Mr J's mental state improved and the fluctuations in his behaviour ceased. At the same time, Mr J became more responsive, started engaging in mealtimes and received physiotherapy to improve his mobility levels.

When combined, these improvements in his health reduced his risk of developing pressure ulcers.

**Planning care in this group of patients involves balancing of the risk of harm and the patient's best interests.**

## CONCLUSION

It is hoped that this case report has highlighted the complexities of managing pressure damage risk in patients with overriding mental health conditions.

Planning care in this group of patients involves balancing of the risk of harm and the patient's best interests.

In order to maintain patient dignity, nursing staff may have felt it was more beneficial to care for Mr J in his room, however, the detrimental effects of social isolation must not be ignored with a clear plan of action being written to address this issue.

To ensure that patients with mental health problems like Mr J receive the best possible care, healthcare professionals need to

play a pivotal role in managing and treating both their mental and physical needs. **WE**

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### Key points

- ▶ Many patients with severe mental illnesses have complex needs which, if left unmanaged, can place them at very high risk of developing pressure ulcers.
- ▶ A mental health practitioner must use a combination of risk assessment and the best research evidence available on pressure ulcer prevention to make sound clinical judgements on behalf of their patients.
- ▶ Pressure ulcers are defined as 'localised injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear'.
- ▶ A number of intrinsic risk factors have been identified that place individuals at greater risk of sustaining pressure damage including poor nutrition and mobility and comorbidities such as diabetes and incontinence.
- ▶ This article explores some of the complexities associated with the prevention of pressure ulceration in adults with enduring mental illness, where their mental health condition is the overriding concern on admission to an inpatient setting.

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