

Sleep Posture Manifesto

Our Vision is to raise awareness and understanding of the impact of sleep posture management on health and social care outcomes and to ensure that sleep posture management is included in National Guidance for management of health conditions, standard care pathways, and education of professionals, carers and individuals.

We believe that appropriate postural management in bed and during sleep may improve health and social care outcomes, enhance treatment pathways as the treatment window is extended from daytime to full 24 hours, improve sleep quality, reduce manual handling demands and reduce the burden of pressure injuries and improve quality of life.

We believe that this will contribute to a more sustainable healthcare system through reduction in healthcare demand and hospital visits as well as less waste from dressings for pressure injuries.

Who are we?

The focus group was brought together by Levitex Chief Executive Officer and founder James Leinhardt. The purpose of the group was to develop a manifesto that captured the call to action to bring sleep posture to the attention of health and social care workers, academics, policy makers, influencers, and the general public. Everyone on the group has given their time freely without charge to develop an open-source document available to all that will in no way promote a single company including Levitex. The document and associated activities has been passed to Pragmatic People Limited – a not for profit company – who will host the manifesto and campaign activities on a dedicated website which will not limit use, but will serve to bring together actions to turn the principles into a reality. Any updates to the document will be posted via this site.

The focus group is made up of clinicians and patient and carer representatives with significant experience in posture, manual handling, and/or pressure management or lived experience.

Farah Ayyub – Patient representative

Vicki Beevers - CEO & Founder, The Sleep Charity

Dr Ambreen Chohan - Senior Research Fellow (Health, Innovation & Wellbeing), University of Central Lancashire

Chris Curtis - CEO, H&N Cancer Survivor and World Cancer Advocate, The Swallows Head and Neck Cancer Support Group Charity

Katie Leek – Lead for Tissue Viability and Continence

James Leinhardt - CEO, Levitex Posture Care and project initiator

Ayesha Marshall - Patient Safety Lead Nurse, South Tyneside and Sunderland NHS Foundation Trust

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Background

Postural Management is a well-established concept in the domain of complex disability used with a range of paediatric and adult movement disorders where there is a significant risk of contracture, body shape deformity, and pressure injury. The primary aim of postural management interventions is to achieve a posture that maintains muscle length and joint integrity without jeopardising skin integrity through pressure injury and that is sustainable to the individual.

In current pathways, postural management in bed is often overlooked although there is some consideration for seating posture. Pressure Management guidelines provide in depth evaluation of sleep surface and positioning of the patient but offer no insight into the postural impact on the patient although they recognise that 'encouraging patient to move themselves' is one of the key principles for prevention of pressure injuries. Postural care is a way of preserving and re-establishing body shape for people with movement difficulties. The principles of posture care are about ensuring that everybody with movement difficulties has their body shape protected over a 24-hour period, in all settings, to maintain or regain good body shape and reduce the risk of further deterioration and secondary complications. Royal College of General Practitioners (3)p50-51

Sleep is recognised as a vital element of wellbeing. Posture is an essential component of health and safety within manual handling and working conditions and yet is not included within holistic patient assessments as standard. The Sleep Charity has created a Manifesto to raise awareness of sleep inequalities, this Manifesto is a focus on the sleep posture component of sleep.

What is Sleep Posture?

A concept to describe the positions we adopt while we sleep and movement in and around the bed within any health or social care care plan or self-management programme.

It describes the ability to move into and achieve sleep positions that are not harmful, facilitate less sleep disturbance, and support independent function. It includes sleep posture management and interventions. We have defined the qualities of good sleep posture:

It will not increase risk of or make pressure injuries worse

It will not cause or increase pain

It will not make injuries worse

It will avoid postures that may make affect the protection of body shape

It will not create morning symptoms of pain and stiffness or make existing symptoms worse

It will enable independent mobility within and in/out of bed

It will reduce sleep disturbance caused by waking to reposition or due to discomfort

It will support the individual to achieve movement goals

It will be an informed choice and as much as possible include a variety of positions

There is now clinical research using the term 'provocative posture' to capture potentially harmful positions that are to be avoided. There is some research suggesting the positions to be avoided for neck and back pain, at an individual level this may be a pain inducing posture, a pressure risk management posture, or an adjustment due to a requirement after surgery.

What is sleep posture intervention?

Assessment of the preferred sleeping posture of an individual - a description of the sleeping posture the individual settles into when going to sleep, the waking posture, and any observations of changes in posture through the night. This may include self-reported information, observations from carers, or the use of IR video to capture sleep postures throughout the night (Carey et al 2019).

Identification of provocative postures - Carey et al define 2 provocative postures in relation to waking back and neck pain. Provocative side lying is described as lying on your side with the upper knee crossed over the lower knee and resting on the mattress, and lying on your front known as 'prone'. For people with known movement difficulties, injuries, or special requirements post-surgery there may be specific postures that need to be avoided - eg lying flat for people with acid reflux or lying on the side with a shoulder injury

Identification of bed mobility issues - a description of difficulties changing position in the bed in particular looking at rolling (an essential component for pressure relief) and lying to sitting and sitting to lying to enable getting in and out of bed. Outcome measures can be used including Bed Mobility Assessment Tool (BMAT) or there are disease specific measures Posture Assessment Scale for Stroke patients (PASS) or Lindop Parkinson's Assessment Scale for Parkinson's Disease. It is important to consider if these difficulties are reversible or not as this may warrant a referral to rehabilitation services for further support or Manual Handling assistance as appropriate.

Identification of optimal sleep postures to enable independence and achieve treatment goals - agree the best position with the individual that avoids the provocative postures and helps them be as independent as possible in bed and support therapy goals -eg sleeping with some knee bend may make it easier for someone to move their legs in the middle of the night

Identification of optimal sleep surface and bed position - work with the Multi-Disciplinary Team to understand pressure management requirements of the mattress and balance these with the postural requirements of the individual to facilitate independent movement wherever possible and make best use of devices to achieve good pressure management and good posture

Advice and guidance on effective strategies for moving in bed including carers where involved - work with the patient and carer to find the optimum strategy for them. This should follow 'shared decision making' where the clinician/practitioner lays out the benefits and risks for each option and the patient/carer can then choose the best one for them. In the domiciliary setting this is absolutely vital as there is little or no monitoring on an ongoing basis and so individuals will revert back to potentially harmful behaviours unless they are fully engaged and agree with the optimal approach.

Rehabilitation to train the individual on how to move effectively - when there is a lack of movement, or a movement difficulty, we adapt what we do to achieve our goal. However, if the difficulty prevents the achievement of the goal, it may be that either the movement difficulty needs to be addressed or alternative movement strategies taught to compensate for the difficulty. Rehabilitation is the opportunity to identify the specific movement difficulty, define and treat any reversible factors, develop an alternative strategy to achieve the goal, and enable repetition and practice to achieve independence or minimise assistance. Aids will be introduced to support this rehabilitation process not just applied if the treatment fails to deliver expected outcomes, optimisation of external factors is part of this process.

Advice on best posture for the individual - posture is a very individual choice and there is no single best posture. However, it is recognised that symmetry and avoiding rotation in the spine is preferable to avoid tissue damage and pain. The best posture is one that enables function, can be maintained with minimal effort, and avoids provocative postures.

Advice shared with carers to optimise their own sleep posture - carers often prioritise the needs of the caree over their own needs. There are a range of carer support networks available, but general advice on sleep posture is a simple brief intervention that can be delivered to patient and carer at the same time. Every contact counts and should be optimised. (Caring as a determinant for health paper 2021)

Provision of pillows, mattresses, aids to enable decent posture and avoid provocative postures that comply with infection control policies and pressure risk management - in residential or healthcare settings postural support should be considered alongside existing policies. At the very least pillows and mattresses should enable an individual to achieve a neutral spine in a lying position and facilitate avoidance of provocative postures during treatment or to manage conditions.

Consideration of sleep surface and optimisation of bed controls - when providing a bed the individual needs training in the use of bed controls and making best use of them to support

posture. The mattress supplied needs to consider their ability to move and their posture as well as the pressure and hygiene risks.

Provision of bed mobility aids and postural supports - Assessments for aids should include the consideration of posture, pressure, ease of use, infection control, and safety.

Application of pressure management and injury prevention strategies - continued support for research into the most effective strategies, shared decision making with the patient to find the most effective posture to achieve pressure relief without exacerbating other conditions such as Musculoskeletal pain, appropriate and proportionate use of pressure relieving devices in line with National Institute for Clinical Excellence guidance.

Assessment of perceived sleep quality - Record hours of sleep, ability to get to sleep, normal amount of disturbance during sleep, cause of sleep disturbance, satisfaction with sleep, and presence of any morning Musculoskeletal symptoms

Why does this matter?

Sleep is a vital component of our physical, mental and emotional wellbeing. Sleep is the process the body uses to repair and restore physical, mental and emotional function each day. Sleep is when we have the least conscious control over movement and the postures we adopt. This manifesto sits alongside the Sleep charity manifesto and builds on the principles they set out.

A healthy cycle consists of four distinct sleep stages of which in the fourth stage (REM) there is a loss of muscle tone and so this is a state of temporary paralysis. As we sleep our conscious control over muscles is reduced, gravity wins and body parts will fall into whatever support is available. For healthy individuals a pain inducing posture will often disturb sleep and they will adjust their position, but for anyone with health conditions this can become more challenging. A Sleep Council Survey in 2018 listed that 26% of people listed discomfort in bed as the main reason they were struggling to sleep.

Our ability to move from one posture to another is fundamental to independence, where this is not possible, aids can be used but ultimately this will result in the help from another human. Our ability to move is affected by the surface we are on, our muscle/joint control, our sensory perception and our cognition. If any of these are sub-optimal, we have to adapt the way we move and this increases effort and efficiency at best with failure to achieve the movement goal at worst. 570 million people have back pain according to the World Health Organisation 2022, and 1 in 6 of us experience significant disability.

Failure to move in bed results in pressure injuries which can only be reduced by the use of pressure reducing surfaces. It is widely recognised that repositioning in bed is the most important tool in the prevention of pressure injuries and NICE state that “where a person is able to reposition themselves, they should be encouraged to do so, as this was likely to be more acceptable to the individual and require fewer resources” (NICE Guideline PU prevention 2014). Nowhere in the guidance does it recommend that people should be trained in how to move in bed or the impact of the surface on movement in bed. There remains no clear evidence on the most effective turning regime in terms of position or timing and this remains a high research priority. In the UK over 700,000 people are affected by

pressure ulcers each year with over 60% of pressure ulcers occurring in people over 70 years of age.

Factors that may affect natural posture adjustment (not an exhaustive list):

Habit – any posture adopted over a period of time becomes normalised by the brain and body and this becomes a learned pattern. This may include postures that are potentially unhelpful but become comfortable and so accepted.

Body shape - the alignment of our limbs will affect the biomechanics of movement and posture and when significantly disrupted may lead to issues with function.

Medication – any medication that affects sleep cycle or increases drowsiness may affect the normal response to discomfort and so a pain inducing posture is maintained for longer. Some medications are associated with particular sleep symptoms including vivid dreams or night terrors.

Musculoskeletal disorders – limited joint range or pain in joints and muscles will affect the position you sleep in and may increase the risk of pressure injuries and increase night disturbance.

Neurological disorders – abnormal muscle tone and limitations to movement including significant muscle contractures or spasms, tremor, rigidity. There may also be issues with the nervous system driving the automatic systems including sleep centres, breathing control, temperature regulation, or blood pressure.

Cognitive disorders – lack of appropriate decision making, limited movements, disturbed night/day routine.

Long Term Conditions – requirement to adjust sleep position to accommodate symptom control including breathlessness, sleep apnoea, overnight feeding

Acute Illness/health conditions – temperature regulation, menopause, pain, external fixings and treatments, monitoring equipment

Pressure injuries – restrict options and require regular disruption for turning in line with current recommendations from NICE - a minimum of 6 hourly with a suggestion of more frequent within the cited research - and clinical practice which may prescribe 2 hourly turns.

Sleep surface – profiling bed, pillows, support devices available will affect the range of positions available.

Continence - people with bladder or bowel issues may experience an increase in night disturbance which may affect sleep posture.

Principles of Sleep Posture

1. Sleep is a fundamental component to health and wellbeing and should be accessible to all patients and those who care for them.
2. Sleep provides the ideal opportunity for postural interventions to compliment daytime postural goals.
3. Sleep posture interventions should be multi-disciplinary.
4. Sleep posture interventions should be evidence informed and should be prioritised for research to build an evidence base.
5. Sleep posture interventions should be person centred not diagnosis centred and be an informed choice via Shared Decision making within the clinical journey.
6. Sleep and sleep posture interventions should be a core component of healthcare education.
7. People should have the right to access optimal sleep postures and bed mobility
8. A person's lying surface needs to fulfil 3 essential functional specifications:
 - a. It must possess optimum immersion and envelopment properties (for High Specification Foam only - prescribed Dynamic Air Mattresses are excluded from this requirement)
 - b. the patient/person must be able to change position if able AND
 - c. it must be easy for the patient to change position or for the nursing staff/caregiver to move the patient
9. Individual, families and carers must be provided with educational materials to support self-management of sleep posture and bed mobility including lying surfaces and manual handling information alongside sleep quality advice
10. Postural management should be considered for all people at any stage in their health and social care journey

Our recommendation and Call to Action:

1. There must be a greater understanding about the impact of sleep posture and bed mobility on sleep quality, health outcomes, and carer demands
2. Those with health and social care needs should have access to sleep posture assessment and interventions as part of standard health and social care pathways
3. High quality support on sleep posture should be available to everyone with consistent messaging underpinned by research, trusted opinion, and government policy

Glossary of Terms

Independent Function - the ability to carry out daily tasks without assistance includes personal tasks such as washing and dressing.

Sleep posture - a term used to describe any position adopted for going to sleep and throughout the night

Provocative Posture - a term used to describe any position that may make a symptom worse or create pain

Pressure risk position - a position that could make a pressure injury worse or create a point of pressure that may cause a breakdown in the skin

BMAT - Bed Mobility Assessment Tool - a measure used by nurses to determine the level of independence and safety of a patient moving in and out of bed and guide them on help required

PASS - Posture Assessment Scale for Stroke Patients - a clinical measurement tool used to describe an individual posture designed for use after a stroke