# Addressing The Problem of Immobility and Falls

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In the medical field the problem of immobility is present in many different patients including elderly, post-surgical patients and any other patients suffering from debilitating injuries. As this problem is so prevalent in medical care, it is important to understand the effects that immobility may have on the different body systems and how to prevent them.

## Effects of Immobility on Body Systems

Although this problem can influence almost every body system, one of the most prevalent issues that arise from immobility is skin breakdown and pressure ulcers. A study on the comorbidities and development of pressure ulcers by Efraim et al. (2018) showed the immobility and diseases related to immobility have a direct causal effect on pressure ulcer development. The study also made clear that geriatric patients suffer from pressure ulcers at an even higher rate, and because of the growing elderly population, this problem continues to become more prevalent.

Although the problem of pressure ulcers and breakdown of skin integrity seems to be one of the most prevalent issues related to immobility, other body systems are affected as well. The musculoskeletal system in particular is directly affected by immobility. Parry and Puthucheary (2015) conducted a study on the impact of bed rest on the musculoskeletal system and found that immobility can cause reductions in both muscle mass and bone mineral density. These effects are more prominent in patients with chronic or debilitating illnesses (Parry & Puthucheary, 2015). Therefore, the importance of early prevention and therapy to prevent these issues become increasingly important as the condition of the patient gets worse.

Another body system affected by the issue of immobility is the neurological system. Bed rest can have a negative impact on patients psychologically sometimes causing aggression or insomnia (Knight et al., 2018). It also affects the brain physiologically causing a decrease in grey matter and in some cases a decrease in major neurotransmitters such as serotonin and dopamine. (Knight Et al., 2018). Additionally, prolonged bedrest seems to have a sort of blunting affect on the baroreceptor response, causing an increase in orthostatic hypotension which may lead to a higher fall risk.

Finally, another major concern with the problem of immobility is the effect it has on the gastrointestinal system. An article from Knight et al. (2018) supports this by stating that patients who are confined to bed rest are at higher risk of developing gastric reflux or ulceration, constipation, and even a decrease in appetite. These issues if exacerbated can lead to even more serious problems such as diverticulitis or atrophy of the colon. With all of these things in mind, the importance of getting patients out of bed cannot be stressed enough, but patient limitations and safety must always be considered.

## Safe Patient Movement

Providing safe care to patients who have impaired mobility or are at a high risk for falls is of the utmost importance. Part of this care is using tried and tested techniques to safely move, transfer, or ambulate a patient. Not only does this help nurses to provide the best possible care for the patient, but it also helps prevent musculoskeletal disorders and injuries on themselves. Dewitt et al. (2019) established some effective ways to help patients safely maintain ambulation programs and implement them into their care plan. The study showed that by assessing the patient's mobility, doing a modified sit to stand assessment, and by having patients participate in physical or occupational therapies, the length of stay for patients with reduced mobility could be

reduced. Another way to increase patient safety when transferring is to use a walking belt with pulling technique. This technique begins by wrapping and securing a gait belt around the patient, pulling them up into a standing position, and walking behind them while holding the belt and supporting them from behind. Research from Tang et al. (2018) found that by using this technique, biomechanical stress on the nurse was significantly reduced and patients reported feeling more comfortable and safer during transfers. Finally, patients can be safely transferred from bed to wheelchair using a slide board. According to Sun et al. (2018), using a slide board to assist with transferring a patient is ergonomically easier for the nurse and safe for the patient because it requires less effort from them. Using a slide board can be done by assisting a patient into a sitting position, placing the wheelchair up against the bed at a ninety-degree angle, sliding the slide board under the patient, and assisting the patient to move across the board into the wheelchair.

## Fall Prevention

Falls are an ever-present issue in the healthcare setting because of many conditions that affect mobility and because of the increasing elderly population. Many serious injuries can occur because of mechanical falls so strategies to prevent falls from occurring are extremely important. LeLaurin and Shorr (2019) outline some ways that may help to prevent falls in hospitals. First, and maybe the most important, is educating the patient on risk factors for falls. Research from LeLaurin and Shorr (2019) found that cognitively intact patients who received proper education showed a 50% reduction in fall rates. One thing that is important to note is that education may not be as effective for patients who have cognitive impairment. A second intervention for preventing falls is environmental modifications such as sufficient lighting, signs or other visual cues, and bed modifications such as guard rails. Finally, a third intervention for the prevention of

falls is fall risk identification and assessment. Scales such as the Morse Fall Scale are commonly used to assess for fall risk and although this assessment may not directly affect the probability of falls, it does help to tailor interventions for each individual patient based on their risk level (Lelaurin & Shorr, 2019). If all of these strategies are implemented, the occurrence of falls in the hospital setting can be reduced.

## Conclusion

Immobility in the healthcare setting is a very serious issue and can have a negative affect on many different body systems including integumentary, musculoskeletal, gastrointestinal, and even neurological. These complications can be prevented by using safe and tested techniques to provide ambulation and movement for patients such as using a walking belt, a slide board, and physical or occupational therapy. Finally, although falls are an increasingly common issue in the medical field, they can be prevented by using proper assessment techniques, environmental modifications, and proper patient education.

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