

# “The road to hell is paved with good intentions” – the cognitive bias of immobility in in-patients at risk of falling

Cassiano Teixeira<sup>1,2\*</sup> 

Patient falls are one of the most common adverse events reported in hospitals<sup>1</sup>. Although preventable hospital falls have been decreasing over the past years, approximately 1 in 10 falls results in serious injury<sup>2</sup>. Besides, inpatient falls can result in significant physical and economic burdens to the patients (increased injury and mortality rates and decreased quality of life) and to medical organizations (increased length of stay, medical care costs, and litigation)<sup>1,2</sup>.

Consistent concerns aimed at reducing this problem have led hospitals to adopt very heterogeneous guidelines for fall prevention<sup>3</sup>. These guidelines usually include (1) identification of patients who are at high risk of falling and (2) decisions to which attitude of fall prevention strategies to use to reduce fall risk<sup>1,2</sup>. However, this approach may have led to a confused “correct approach” to fall prevention in specific settings, since the lack of clarity of prevention guidelines may add to the cognitive burden of patient care and potentially increase in-hospital patient risk.

First, the use of fall risk prediction tools is widespread, but their value in hospital fall prevention interventions is questionable<sup>4</sup>. In this context, it is important to distinguish between fall risk assessments and fall prediction or screening tools. Risk assessments usually consist of a checklist of risk factors for falls but do not provide a score or value for the patient’s fall risk<sup>1</sup>. The lack of evidence supporting the use of predictive tools led *National Institute for Health and Care Excellence* and *the Agency for Healthcare Research and Quality* to recommend a caution in the routine use of fall prediction tools<sup>1</sup>. Despite this, fall risk screening tools are frequently used to identify patients for intervention and are recommended and required by Healthcare International Quality Agencies<sup>5</sup>.

Second, falls in hospitals are different from falls in general, community-dwelling adult populations<sup>3</sup>. Inconsistencies in risk factors for falls have been identified between hospitalized

and nonhospitalized older adult populations<sup>1</sup>. The hospitalized patients are in unfamiliar environments and routines; present pain; are commonly under the influence of psychotropic drugs, anesthetics, or opioid analgesics; are connected to drains, tubes, or venous catheters; and have a loss of locus of control in performance of personal activities and a physical dependency on staff. In this context, a recent meta-analysis identifies 11 risk factors for falls in hospitalized patients with cancer, including age, history of falls, opiates, benzodiazepines, steroids, antipsychotics, sedatives, radiation therapy, chemotherapy, the use of an assistive device, and length of hospitalization<sup>6</sup>. Another problem is that the trials have not preferentially evaluated hospitalized patients<sup>1,3</sup>. When evaluated only hospitalized patients, there were no significant reduction of risk of falls and combined clinic-level quality improvement strategies, patient-level quality improvement strategies, and multifactorial assessment and treatment relative to usual care (OR 0.78 [95%CI 0.33–1.81]) or with combined patient-level quality improvement strategies and exercise relative to exercise alone (OR 1.12 [95%CI 0.38–3.25])<sup>7</sup>.

Third, interventions that prevent falls may not prevent injurious falls<sup>3</sup>. Injurious falls, particularly those requiring provision of additional healthcare services, have been found to be the key driver of overall “cost per fall” estimates. As injurious falls occur at a lower frequency than total falls, individual studies are rarely powered adequately to identify an effect on this outcome. However, one could argue that if falls are reduced, injurious falls should also reduce by a similar magnitude; thus, a reduction in falls would be seen as beneficial.

Finally, the identification of a patient at risk of falling cognitively leads the hospital staff to mobilize less the patients. Falls also lead to anxiety and distress among caregivers and relatives who perhaps believe that “something should have been done” in an apparent place of safety to prevent the falls and that “someone

<sup>1</sup>Universidade Federal de Ciências da Saúde de Porto Alegre, Medical School, Internal Medicine and Rehabilitation Department – Porto Alegre (RS), Brazil.

<sup>2</sup>Hospital de Clínicas de Porto Alegre, Intensive Care Unit – Porto Alegre (RS), Brazil.

\*Corresponding author: cassiano.rush@gmail.com

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must be to blame” and, therefore, are frequently cited in both complaints and litigation. This concern is partly caused by fear of complaint or litigation or inquests, and because staff may feel guilty that they could have done more to prevent the fall and are aware that they are constantly balancing the autonomy and rehabilitation of individual patients versus the duty of care to all of those they look after. Added to that, a fall is generally poorly tolerated by managers generating punishments (need to attend root-cause meetings or to start a continuing education course) for professionals participating in the event.

The smaller number of employees available at the hospital, their lower fees, and their high turnover reduce the ability to obtain these certificates. In addition, the need to obtain and disseminate care indicators monthly forces employees to move away from patient care at the bedside. This is a key point of the problem—the patients are less mobilized. Immobility contributes to development of delirium, and the delirium contributes for greater use of physical restraints. Patients who require restraints suffer a loss of dignity and autonomy, thereby causing

agitation, delirium, pressure ulcers, deconditioning, and death<sup>1</sup>. Furthermore, a recent meta-analysis (including 54 randomized controlled trials, 41,596 participants aged 65 years and older, 39 interventions plus usual care) showed that exercise (OR, 0.51 [95%CI 0.33–0.79]; absolute risk difference, -0.67 [95%CI -1.10 to -0.24]) was associated with a lower risk of injurious falls<sup>7</sup>.

In summary, hospital patients have a myriad of acute and chronic illnesses that limit judgment and mobility, and they must navigate a new and unfamiliar environment. Furthermore, staffing and even unit design considerations may play into fall risk. Assessing the risk of falling in hospitalized patients could generate an unmeasured risk of immobility. In this context, when we “correctly” label the patient at risk of falling, we usually “incorrectly” immobilize them, to “correctly” follow the guidelines that we can certainly comply with “incorrectly.” The unique organizational culture and leadership structures of hospitals require specific implementation of strategies. Thus, it is imperative to reexamine fall prevention intervention strategies specific to the hospital setting.

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