Chapter 15
Falls in Elderly: A Hospital Reality Integrative Review

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ABSTRACT
The objective of this chapter is to identify the risk factors and preponderant causes of falls in the hospital elderly inpatients. A survey on the search engines B-on, EBSCO, and Pubmed, followed by an analysis of the title and abstract is done. Afterwards, the authors analyze all the articles with full text available in Portuguese, Spanish, and English. The most common risk factor for falls in the analyzed articles was being aged above 65 years old. More than half of the articles also mentioned intrinsic factors such as mental disorder, mobility disorder, and use of medication. As for extrinsic factors associated with risk of falls, most of the articles mentioned the characteristics of bed/chair and the obstacles associated with the physical/environmental infrastructures. The prevention strategies for this phenomenon must consider each country and care unit specifically as well as the specific characteristics of its patients, aiming to promote the care quality.

INTRODUCTION
The rise of the average life expectancy of the population is a current and global phenomenon. In Portugal, the average life expectancy at birth is estimated to be 80.24 years (INE, 2014). This reality motivates the discussion of strategies related to health and quality of life, and requires changes in the approach of the health services to address it.

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One of the characteristics of aging is the progressive loss of natural and physiological functional capacity. Aging affects every human being and it is irreversible. It contributes to the occurrence of chronic degenerative diseases and consequently to the rise of dependence (Gonçalves, 2013). In this context, the occurrence of falls in the elderly is noteworthy.

A fall “is defined as an event which results in a person coming to rest inadvertently on the ground or floor or other lower level” (WHO, 2018). Other authors have defined fall as “an unintentional movement of a body to a level below the initial position, which cannot be corrected in a timely manner” (Almeida, Abreu & Mendes, 2010, p.164).

Falls are accidents that happen at any age group, however, their prevalence occurs in the extreme age groups (under 5 and over 65 years), thus this is considered a “geriatric syndrome” (Abreu, Mendes, Monteiro & Santos, 2012). According to WHO (2007), between 28% and 35% of the elderly population (people over 65 years of age) falls every year. This rate increases its prevalence from 32% to 42% in the population over 70 years of age.

The occurrence of falls in the elderly occurs in numerous situations and environments. It is difficult to restrict the falling event to a single cause, since it results from a sum of risk factors. Fall risk factors are often classified as intrinsic and extrinsic. Intrinsic factors result from the pathophysiological changes of the individual - decrease in auditory and / or visual acuity, vestibular and musculoskeletal disorders, gait dysfunction, sedentary lifestyles, pathological conditions, and reactions to drug use. Extrinsic factors emerge from the context and surrounding environmental conditions in which the individual lives in - lack of structures to support mobility, adequate lighting, among others (Abreu et al, 2012). The more risk factors a person presents, the greater the risk of falling (Gonçalves, 2013). According to the dispatch n.º 1400-A/2015, Nº 28 of February, 10th 2015, the risk of falling increases 27% in the presence of one risk factor but it rises 78% in the presence of four or more associated factors.

Falls cause restrictions on physical activity and independence of the individuals, and this reflects on their physical, psychological and social well-being (Almeida, Abreu & Mendes (2010). Thus, this phenomenon – the occurrence of falls – has a significant impact on the morbidity and mortality of the elderly. Falls are one of the main causes of hospitalisation and the second cause of accidental death in the world (WHO, 2007).

Several studies show that institutionalised elderly people, either in a hospital or in long-term institutions, fall more frequently than those who live in their homes (Abreu et al, 2015). When the occurrence of the fall is in a hospital setting, there is an increase in the individual’s dependence and, consequently, an increase in the length of the hospital stay, which results in considerable personal, family, social and economic impacts (dispatch n.º 1400-A/2015, Nº 28 of February, 10th 2015). In fact, falls are the most frequent adverse effect in healthcare services, thus appearing as an important indicator of quality. Nonetheless, this occurrence represents a safety incident in health care (Almeida, Abreu & Mendes, 2010). And it is within this framework that the prevention of falls arises as one of the focus of the National Plan for Patient Safety 2015-2020, which aims to reinforce the continuous improvement of quality and safety of health care.

Prevention-based intervention strategies require in-depth assessment of the risk factors associated with falls in their particular context, so that the situation may be identified (Abreu et al, 2012). The correct identification of the situation allows the development of specific and customised strategies that may decrease the probability of fall occurrence and, consequently, reduce morbidity rates and the excessive costs of fall related health complications treatments.