International Journal of Nursing Studies 50 (2013) 495–507

Contents lists available at SciVerse ScienceDirect

International Journal of Nursing Studies

journal homepage: www.elsevier.com/ijns

Feasibility of implementing a practice guideline for fall prevention on geriatric wards: A multicentre study

Koen Milisen [a,b,*], Joke Coussement [a,c], Hanne Arnout [a], Virginie Vanlerberghe [a], Leen De Paepe [a], Didier Schoevaerdts [d], Margareta Lambert [e], Nele Van Den Noortgate [f], Kim Delbaere [g,h,i], Steven Boonen [b,j], Eddy Dejaeger [b]

[a] Center for Health Services and Nursing Research, KU Leuven, Kapucijnenvoer 35, 4th Floor, 3000 Leuven, Belgium
[b] Department of Internal Medicine, Division of Geriatric Medicine, Leuven University Hospital, Herestraat 49, 3000 Leuven, Belgium
[c] Non-profit Organization of Nursing Homes from the Sisters from Berlaar "Vzw Rusthuizen Zusters van Berlaar", Gasthuisstraat 10, 2560 Kessel, Belgium
[d] Department of Internal Medicine, Division of Geriatric Medicine, UCL University Clinics of Mont-Godinne, Avenue G. Thérasse 1, 5530 Yvoir, Belgium
[e] Department of Geriatrics, St. Jan's Hospital, Ruddershove 10, 8000 Bruges, Belgium
[f] Department of Internal Medicine, Division of Geriatric Medicine, Ghent University Hospital, De Pintelaan 185, 9000 Ghent, Belgium
[g] Falls and Balance Research Group, Prince of Wales Medical Research Institute, University of New South Wales, PO Box 1165, Randwick NSW 2031, Sydney, Australia
[h] Department of Experimental-Clinical and Health Psychology, Faculty of Psychology and Educational Sciences, Ghent University, De Pintelaan 185, 9000 Ghent, Belgium
[i] Department of Rehabilitation Sciences and Physiotherapy, Faculty of Medicine and Health Sciences, Ghent University, De Pintelaan 185, 9000 Ghent, Belgium
[j] Center for Metabolic Bone Diseases, KU Leuven, Herestraat 49, 3000 Leuven, Belgium

ARTICLE INFO

Article history:
Received 23 February 2012
Received in revised form 18 September 2012
Accepted 30 September 2012

Keywords:
Accidental falls
Feasibility studies
Geriatrics
Guidelines
Hospitals
Prevention and control
Standards and practice guideline

ABSTRACT

Background: About 40% of all adverse events in hospital are falls, but only about one in three Belgian hospitals have a fall prevention policy in place. The implementation of a national practice guideline is urgently needed.
Objective and design: This multicentre study aimed to determine the feasibility of a previously developed guideline.
Setting, participants and method: Seventeen geriatric wards, selected at random out of 40 Belgian hospitals who agreed to take part in the study, evaluated the fall prevention guideline. After the one-month test period, 49 healthcare workers completed a questionnaire on the feasibility of the guideline.
Results: At the end of the study, 512 geriatric patients had been assessed using the practice guideline. The average time spent per patient on case finding, multifactorial assessment and initiating a treatment plan was 5.1, 76.1 and 30.6 min, respectively. For most risk assessments and risk modifications, several disciplines considered themselves as being responsible and capable. The majority (more than 69%) of the respondents judged the practice guideline as useful, but only a small majority (62.3%) believed that the guideline could be successfully integrated into their daily practice over a longer period of time. Barriers for implementation included a large time investment (81.1%), lack of communication between the different disciplines (35.8%), lack of motivation of the patient (34.0%), lack of multidisciplinary teamwork (28.3%), and lack of interest from the hospital management (15.4%).
Conclusion: Overall, the guideline was found useful, and for each risk factor (except for visual impairment), at least one discipline felt responsible and capable. Towards future implementation of the guideline, following steps should be considered: division of the risk-factor assessment duties and interventions among different healthcare workers; patient education; appointment of a fall prevention coordinator; development of a fall prevention policy with support from the management of the hospital.

* Corresponding author at: KU Leuven, Center for Health Services and Nursing Research, Kapucijnenvoer 35, 4th Floor, 3000 Leuven, Belgium. Tel.: +32 16 336975; fax: +32 16 336970.
E-mail address: koen.milisen@med.kuleuven.be (K. Milisen).

0020-7489/$ – see front matter © 2012 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.ijnurstu.2012.09.020

What is already known about the topic?

- About 40% of all adverse events in hospital are falls.
- Only about one in three Belgian hospitals have a fall prevention policy.
- No European study has determined if a multidisciplinary fall-prevention practice guideline for inpatient falls is feasible and useful in daily practice on geriatric hospital wards.

What this paper adds

- The fall prevention guideline was found useful, and for each risk factor (except for visual impairment), at least one discipline felt responsible and capable.
- Towards future implementation of the guideline, following steps should be considered: division of the risk-factor assessment duties and interventions among different healthcare workers; patient education; appointment of a fall prevention coordinator; development of a fall prevention policy with support from the management of the hospital.

1. Introduction

Falls represent a major health issue in hospitalised patients (Halfon et al., 2001), representing about 40% of all adverse events in hospitals (Halfon et al., 2001; Morgan et al., 1985; Schwendimann et al., 2008). Around 2–17% of all inpatients fall while they are hospitalised (Nakai et al., 2006; Nyberg et al., 1997; Schwendimann et al., 2006). Fall rates range between 1.4 and 17.9 per 1000 patient bed days, with the highest rates in geriatric wards (Milisen et al., 2007; Nyberg et al., 1997; Schwendimann et al., 2006). Approximately 30% of these falls lead to minor injuries such as scrapes or bruises, and up to 15% lead to serious injuries such as fractures, brain injuries, and even death (Kannus et al., 2005). Other fall-related consequences may include fear of falling, social isolation, anxiety and depression, loss of confidence, and decreased mobility (Delbaere et al., 2004; Vellas et al., 1997; Yardley and Smith, 2002). Falls are also associated with an increased length of hospital stay and substantial costs (Bates et al., 1995; Gannon et al., 2008; Haentjens et al., 2005). In addition, inpatient falls may elicit guilt among staff and complaints (including litigation) from patients or their families (Fiesta, 1998; Liddle and Gilleard, 1994). Staff may, therefore, be more likely to use restrictive means to attempt to prevent falls, thus adding to deconditioning and other untoward outcomes (Coussement et al., 2009; Evans et al., 2003; Gentleman and Malozemoff, 2001).

Falls in hospital inpatients can be caused by intrinsic factors (e.g. impaired gait, altered mental state, urge incontinence and culprit drug use), but also by environmental factors (e.g. use of restraints or high gloss floors) (Chang et al., 2004; Oliver et al., 2004). A multi-component standardised approach is necessary to ensure that the most important fall risk factors are assessed (Akyol, 2007; Cameron et al., 2010; Hayes, 2004). A recent survey found that less than one third of the Belgian hospitals has a structural and formal fall prevention policy (Coussement et al., 2009). The implementation of a national practice guideline to prevent inpatient falls on geriatric wards is urgently needed. The College for Geriatrics, a body funded by the Belgian Government to set up quality improvement initiatives in geriatric wards, developed a national practice guideline for fall prevention.

However, passive dissemination of a guideline is usually insufficient to change clinical practice (Grimshaw et al., 1995). Successful implementation requires a multifaceted strategy that meets the local needs and barriers (Grol, 1997; Grol and Grimshaw, 1999; Koh et al., 2008). Few previous studies in an acute hospital setting have assessed barriers to and facilitators of the implementation of a fall prevention guideline (Koh et al., 2008; Van der Helm et al., 2006; Baker et al., 2005; Fortinsky et al., 2004; Stenberg and Wann-Hansson, 2011). According to Grol and Grimshaw (2003), barriers and facilitators can potentially be identified at six different levels: (1) the innovation (e.g. feasibility, accessibility of the guideline), (2) individual professional (e.g. knowledge, skills and motivation), (3) patient (e.g. motivation, compliance), (4) social context (e.g. interest of colleagues and authorities, teamwork), (5) organisational context (e.g. management support, staff-support, staffing and tools), and (6) economic and political context (e.g. financial regulations, health insurance). A number of studies have evaluated specific fall prevention programmes in specific countries, including the United States (Baker et al., 2005; Fortinsky et al., 2004), the Netherlands (Van der Helm et al., 2006), Singapore (Koh et al., 2008), and Sweden (Stenberg and Wann-Hansson, 2011). No study had been done in Belgium. We conducted this study to assess barriers and facilitators as well as the overall feasibility of implementing our practice guideline for fall prevention in 'Belgian' geriatric wards. We hope that this information may help the College for Geriatrics (and similar bodies in other countries) to identify useful implementation strategies.

2. Methods

2.1. Design

A descriptive multicentre study to study the feasibility of a practice guideline on falls in Belgian geriatric hospital wards.

2.2. Development of the practice guideline

The practice guideline was developed by a multidisciplinary panel of researchers and clinicians (i.e. nurses, geriatricians, physiotherapists and occupational therapists) from July to December 2007. The development was based on international guidelines, literature, and expert opinion (ACSQHC, 2009; Haines, 2005; NVKG, 2004). The guideline includes four consecutive parts: (A) case finding, i.e. identification of persons at risk for falling, (B) in-depth multifactorial assessment of risk factors, (C) targeted interventions and (D) transfer of information at discharge.

A patient was classified at risk for falling when he was hospitalised because of a fall, experienced a fall in the past 6 months or experienced a fall during hospitalisation