

Special Article - Falls Prevention Elderly People

Gravity for the Elderly People: In Order to Prevent their Fall...

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Editorial

Day-to-day accidents are the main cause of fall among the elderly [1]. Their multifactorial causes have been identified for many years and explained precisely in the scientific literature [2,3]. Their consequences and repercussions are significant for both medical and psychological health, both social and economic perspective, both short and long term [4]: the deaths following a fall are highly underestimated [5]. In the context of the world's aging population, society and public authorities, scientific communities and health professionals should be brought together to work in teams and develop new ways to deliver healthcare services: falls prevention also represents a considerable challenge for our elderly in terms of autonomy, dependence and quality of life.

It's essential to continue both sides of fall prevention to develop programs to prevent the various fall risk factors and to use innovative collaborative models to grow healthcare professionals and social workers («field teams»).

For several years now, a great deal of research showed that there are over four hundred fall risk factors [2,3]. They are divided into four main categories: intrinsic predisposing, intrinsic precipitating, extrinsic and behavioral risk factors. From there, fall prevention could be built around three lines.

- The first prevention device must be primary. It targets healthy autonomous seniors without physical disabilities. An educational program allows displaying essential information about the extent of the problem, the physiological and pathophysiological processes involved to the ageing and the measures to be taken to identify a particular situation and to reduce various fall risk factors. The concrete impact of this strategy plays a significant part and even a key role, as it allows the identification of older people in order to offer them tailored and original ways out [6,7].

- The secondary line is one very important device that needs to be set up. It covers the seniors who unfortunately start to fall. The aim is to limit and to delay a further fall. Recent scientific studies have confirmed the significance of individualized multifaceted intervention on the various fall risk factors with a multidisciplinary team in the home (geriatricians and other healthcare professionals) [8-10]. It's

essential to maintain physical and psychological independence: it's one of the major challenge to permit an elderly person to stay at home [11-13]. In order to reduce the falls at home, we will be particularly attentive to the risk factors such as orthopedic problems, sensory impairments, depression and anxiety, overuse self-medication and polypharmacy (associated or not with psychotropic medications), chronic malnutrition, sedentary lifestyle, home environment hazards, frailty,... are critically important. However, the improvement of muscular strength, balance and walking are as relevant as the maintenance of social relationships [14-16]. All these actions taken together will help to reduce emergency room visits, hospitalizations and deaths but also to prevent the occurrence of post-fall syndrome [17] and psychomotor disadaptation syndrome [17].

- The tertiary prevention fall line is about the recurrent falls (at home or nursing home) [13,19]. This is often both frailty syndrome and recurrent falls with loss of functional reserve capacity, which often makes the elderly persons in very weak and vulnerable situations [20]. It must be able to rely on multidisciplinary strategy for improving the overall health status but also to minimize the high fall risk and maintain an optimal quality of life within an «ecological» environment.

The other side of fall prevention concerns the training of healthcare professionals and « field teams », in the city as well as in the country. Hospital consultations such as fall risk prevention have substantially increased over the past twenty years. Mobile geriatric interdisciplinary teams have been created precisely to take care of the senior's falls at home. Various fall prevention programs are offered in workshops and weekly meetings. For example, «PIED» program in Québec [21] or «EQUILIBREIZH» in France (Bretagne) [22], hold weekly meeting to achieve goals of education and to offer suitable exercises programs. Many healthcare professionals and social workers were made aware and trained to tackle this human, societal and economic problem. Specific university trainings are provided for health professionals, in particular occupational therapist, physiotherapist, sports instructors and nurse [23,24]. All education programs (licence and master level degrees) include the physiologic ageing, the fall and frailty prevention. All content can be updated using Evidence-Based Medicine: they are rigorous but at the same time pragmatic and realistic teaching. These skilled professionals build local and national links and may exchange such information on their own projects and initiatives. The organization, performance and quality of the training provide a credible alternative for health coverage and can reduce the risk of hospital admissions. It was also involved in improving the highly necessary synergy between city and hospital because those two components are essential so that the professionals can carry out their missions.

The current knowledge is sufficient to conduct pragmatic and efficient fall prevention. The training of healthcare professionals is

equal to the challenges. The distribution of key prevention devices must and will continue with the local and national competent authorities: this process must intensify communication between the concerned public and the nations. This societal and economic challenge all over the world requires perseverance and strong commitment in order to keep our seniors autonomy and quality of life.

References

- Sherrington C, Withney JC, Lord SR, Herbert RD, Cumming RG, Close JC. Effective exercise for the prevention of falls: a systematic review and meta-analysis. *J Am Geriatr Soc.* 2008; 56: 2234-2243.
- Oliver D, Britton M, Seed P, Martin FC, Hopper AH. Development and evaluation of evidence based risk assessment tool (STRAFITY) to predict which elderly inpatients will fall: case-control and cohort studies. *BMJ.* 1997; 315: 1049-1053.
- Skelton DA, Dinan SM. Exercise for falls management: rationale for an exercise programme aimed at reducing postural instability. *Physiological Theory and Practice.* 1999; 15: 105-120.
- Stevens JA, Corso PS, Finkelstein EA, Miller TR. The costs of fatal and non-fatal falls among older adults. *Injury Prev.* 2006; 12: 290-295.
- Huang JW, Lin YY, Wu NY, Chen YC. Rural older people had lower mortality after accidental falls than non-rural older people. *Clin Interv Aging.* 2017; 6: 97-102.
- American Geriatrics Society, British Geriatrics Society, American Academy of Orthopaedic Surgeons Panel on Falls Prevention. Guidelines for the prevention of falls in older persons. *J Am Geriatr Soc.* 2001; 49: 664-672.
- Yardley L, Donovan-Hall M, Francis K, Todd C. Older people's views about falls prevention: a qualitative study. *Health Educ Res.* 2006; 21: 508-517.
- Campbell AJ, Robertson MC. Rethinking individual and community fall prevention strategies: a meta-regression comparing single and multifactorial interventions. *Age Ageing.* 2007; 36: 656-662.
- Yardley L, Beyer N, Hauer K, McKee K, Ballinger C, Todd C. Recommendations for promoting the engagement of older people in activities to prevent falls. *Qual. Saf Health Care.* 2007; 16: 230-234.
- Tinetti ME, Baker DI, McAvay G, Claus EB, Garrett P, Gottschalk M, et al. A multifactorial intervention to reduce the risk of falling among elderly people living in the community. *N Engl J Med.* 1994; 331: 821-827.
- Gillespie LD, Gillespie WJ, Robertson MC, Lamb SE, Cumming RG, Rowe BH. Interventions for preventing falls in elderly people. In *Cochrane Library*. Issue 1. Oxford: Update Software. 2003.
- Skelton DA, Todd CJ. Prevention of falls Network Europe: a thematic network aimed at introducing good practice in effective falls prevention across Europe. *J Musculoskelet Neuronal Interact.* 2007; 7: 273-278.
- Tinetti ME. Clinical practice: preventing falls in elderly persons. *N Engl J Med.* 2003; 348: 42-49.
- Chang JT, Morton SC, Rubenstein LZ, Mojica WA, Maglione M, Suttorp MJ, et al. Interventions for the prevention of falls in older adults: systematic review and meta-analysis of randomized clinical trials. *BMJ.* 2004; 328: 680.
- Gillespie LD, Robertson MC, Gillespie WJ, Lamb SE, Cumming RG, Rowe BH. Interventions for preventing falls in older people living in the community. *Cochrane Database Syst Rev.* 2009; 12: CD007146.
- Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, et al. Interventions for preventing falls in older people living in the community. *Cochrane Database Syst Rev.* 2012; 12: CD007146.
- Murphy J, Issacs B. The post-fall syndrome. A study of 36 elderly patients. *Gerontology.* 1982; 15: 265-270.
- Mankoundia P, Souingui EN, Taversnier-Vidal B, Mourey F. Psychomotor disadaptation syndrome. *Geriatr Psychol Neuropsychiatr Vieil.* 2014; 12: 94-100.
- Pluijm SM, Smit JH, Tromp EA, Stel VS, Deag DJ, Bouter LM, et al. A risk profile for identifying community-dwelling elderly with a high risk of recurrent falling: results of a 3-year prospective study. *Osteoporos Int.* 2006; 17: 417-425.
- Davison J, Bond J, Davison P, Steen IN, Kenny RA. Patients with recurrent falls attending Accident & Emergency benefit from multifactorial intervention - a randomised controlled trial. *Age Ageing.* 2005; 34: 162-168.
- Robitaille Y, Laforest S, Fournier M, Gauvin L, Parisien M, Corriveau H, et al. Moving forward in fall prevention: an intervention to improve balance among older adults in real-world setting. *Am J public Health.* 2005; 95: 2049-2056.
- Faure K. Un programme régional de prévention des chutes des personnes âgées en Bretagne: le programme Equilibreizh®. *NPG.* 2013; 13: 4-9.
- Dickinson A, Horton K, Machen I, Bunn F, Cove J, Jain D, et al. The role of health professionals in promoting the uptake of fall prevention interventions: a qualitative study of older people's views. *Age Ageing.* 2011; 40: 724-730.
- Lam J, Liamputtong P, Hill K. Falls, falls prevention and role of physiotherapy and exercise: perception and interpretations of Italian-born and Australian-born older persons living in Australia. *J Cross Cult Gerontol.* 2015; 30: 233-249.