Supporting Elderly Patients at Risk in Hospital Environments

Janine Gronewold* and Dirk M Hermann
Department of Neurology, University Hospital Essen, Essen, Germany

Consistently low birth rates and higher life expectancy lead towards an older population structure in Western countries. In Europe, the proportion of people 65 years and older increased from 16.6% in 2005 to 18.9% in 2015, with Germany, Italy and Greece having the highest share of people 65 years and older in the total population. The median age of the total population also increased by about 4 years from 2005 to 2015 so that the proportion of older people will increase strongly in the future. Especially the proportion of very old people 80 years and older is rising due to better living standards, lifestyles and education, as well as rapid progress in healthcare and medicine so that it is expected to more than double from 5.3% in 2015 to 10.9% in 2050 [1].

Consequently, hospitals are confronted with an increasing number of older patients, which have been shown to exhibit an increased risk of adverse outcomes during and after the hospital stay compared to younger patients [2,3]. An important factor contributing to this increased risk of adverse outcomes is that many old patients suffer from multimorbidity, defined as the coexistence of 2 or more chronic disease conditions. Worldwide, the prevalence of multimorbidity in elderly patients ranges from 13% to 83% with a median of 63% and increasing prevalence rates with increasing age [4]. When split by physical and mental comorbidities, about 18% of patients between 65 and 84 years had physical and mental health comorbidity which again increased with age with patients ≥ 85 years already demonstrating combined physical and mental comorbidity of 31% [5].

Dementia is an important aspect of multimorbidity, since about 95% of dementia patients exhibit multimorbidity with hypertension and depression being among the most important comorbidities [6]. The number of people with dementia worldwide will increase from 44 million in 2013 to 76 million in 2030 and 135 million by 2050 with aging being the main driver of dementia [7]. Dementia patients have an increased risk of in-hospital complications and need specific structures and treatment for optimized care [8,9]. However, routine care in hospitals today is mostly designed for young or middle-aged patients and focusses on the primary illness of interest, comorbid conditions like dementia which do not fall in the specialty are often not detected [10] but can lead to serious complications [8]. Consequently, early identification of patients at increased risk of adverse outcomes becomes more and more important.

Several instruments like the Triage Risk Stratification Tool (TRST), Hospital Admission Risk Profile (HARP), Score Hospitalier d’Evaluation du Risque de Perte d’Autonomie (SHERPA) and Identification of Seniors at Risk (ISAR) have been developed to identify such patients [11], of which the ISAR [12] is the most frequently used screening tool which has been validated in different cohorts and reached the highest level of evidence [13]. Although the development and validation of ISAR was only observed for wards, not for mobile teams. Reasons for this effect could be that working in close proximity on a ward facilitates more efficient and effective multidisciplinary working with exchange of knowledge and that mobile teams experience difficulties to put through interventions. In a meta-analysis of 22 randomised controlled trials including geriatricians, neurologists, psychiatrists, psychologists, physio- and ergotherapists, social workers and trained nursing staff [8].

Different studies have already shown that outcomes of older patients can be improved by comprehensive geriatric assessment and intervention. In a meta-analysis of 22 randomised controlled trials of comprehensive geriatric assessment, delivered by mobile teams or in designated wards, compared with usual care (including 10,315 participants in six countries), death or deterioration of functional ability and decline in cognitive function at 1 year follow-up was less likely in patients receiving comprehensive geriatric assessment compared with those receiving general medical care. For the outcome of living at home at follow-up, the beneficial effect of comprehensive geriatric assessment was only observed for wards, not for mobile teams. Reasons for this effect could be that working in close proximity on a ward facilitates more efficient and effective multidisciplinary working with exchange of knowledge and that mobile teams experience difficulties to put through recommendations due to lower proximity and less presence on the ward. From the economical view, often a reduction in costs by comprehensive geriatric assessment is noted, especially when nursing home costs are taken into account [18].

*Corresponding author: Janine Gronewold, Department of Neurology, University Hospital Essen, Essen, Germany, Tel: 00492017231892; E-mail: janine.gronewold@uk-essen.de

Received April 20, 2017; Accepted May 02, 2017; Published May 09, 2017

Citation: Gronewold J, Hermann DM (2017) Supporting Elderly Patients at Risk in Hospital Environments. J Alzheimer’s Dis Parkinsonism 7: 322. doi: 10.4172/2161-0460.1000322

Copyright: © 2017 Gronewold J, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.
To conclude, the worldwide ageing of the society is challenging our health care system. Identification of elderly patients at high risk for negative outcomes and adaption of routine patient care to meet the specific needs of elderly multimorbid patients with reduced functional reserve by interdisciplinary team work is urgently needed since multiple studies already demonstrated benefits by these approaches [8,9,18,19]. The feasibility and cost-effectiveness of such approaches in different settings still has to be evaluated as well as the effect on comprehensive patient outcomes after the hospital visit such as mortality, rehospitalization, institutionalization, use of home healthcare services and quality of life including psychological and social aspects.

References

1. Eurostat (2016) Population structure and ageing.
2. Sager MA, Franke T, Inouye SK, Landefeld CS, Morgan TM, et al. (1996) Functional outcomes of acute medical illness and hospitalization in older persons. Arch Intern Med 156: 645-652.
3. Creditor MC (1993) Hazards of hospitalization of the elderly. Ann Intern Med 118: 219-223.
4. Salive ME (2013) Multimorbidity in older adults. Epidemiol Rev 35: 75-83.
5. Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, et al. (2012) Epidemiology of multimorbidity and implications for health care, research and medical education: a cross-sectional study. Lancet 380: 37-43.
6. Guthrie B, Payne K, Alderson P, McMurdo ME, Mercer SW (2012) Adapting clinical guidelines to take account of multimorbidity. BMJ 345: e6341.
7. Alzheimer’s Disease International (2013) The global impact of dementia 2013-2050.
8. Hermann DM, Muck S, Nehen HG (2015) Supporting dementia patients in hospital environments: Health-related risks, needs and dedicated structures for patient care. Eur J Neurol 22: 239-245.
9. Nehen HG, Hermann DM (2015) Supporting dementia patients and their caregivers in daily life challenges: Review of physical, cognitive and psychosocial intervention studies. Eur J Neurol 22: 246-252.
10. Banerjee S (2015) Multimorbidity—older adults need health care that can count past one. Lancet 385: 587-589.
11. Wanner RM, van Rossum E, van Velthuijsen E, Mulder WJ, Schols JM, et al. (2016) Validity, reliability and feasibility of tools to identify frail older patients in inpatient hospital care: A systematic review. J Nutr Health Aging 20: 218-230.
12. Warburton RN, Parke B, Church W, McCusker J (2004) Identification of seniors at risk: Process evaluation of a screening and referral program for patients aged ≥75 in a community hospital emergency department. Int J Health Care Qual Assur Inc Leadersh Health Serv 17: 339-348.
13. Beaton K, Grimmer K (2013) Tools that assess functional decline: Systematic literature review update. Clin Interv Aging 8: 485-494.
14. Conroy S, Nickel CH, Jónsdóttir AB, Fernandez M, Banerjee J, et al. (2016) The development of a European curriculum in geriatric emergency medicine. Eur Geriatr Med 7: 315-321.
15. Thiem U, Greuel HW, Reingräber A, Koch-Gwinner P, Püllen R, et al. (2012) Consensus for the identification of geriatric patients in the emergency care setting in Germany. Z Gerontol Geriatr 45: 310-314.
16. Gronewold J, Dahlmann C, Jaeger M, Hermann DM (2017) Identification of hospitalized elderly patients at risk for adverse in-hospital outcomes in a university orthopedics and trauma surgery environment. PLoS ONE: Submitted.
17. Sutton M, Grimmer-Somers K, Jeffries L (2008) Screening tools to identify hospitalised elderly patients at risk of functional decline: A systematic review. Int J Clin Pract 62: 1900-1909.
18. Ellis G, Whitehead MA, Robinson D, O’Neill D, Langhorne P (2011) Comprehensive geriatric assessment for older adults admitted to hospital: Meta-analysis of randomised controlled trials. BMJ 343: d6553.
19. McCusker J, Verdun J, Tousignant P, de Courval LP, Dendukuri N, et al. (2001) Rapid emergency department intervention for older people reduces risk of functional decline: Results of a multicenter randomized trial. J Am Geriatr Soc 49:1272-1281.