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REVIEW ARTICLE

PATIENT SAFETY IN ELDERLY CARE

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ABSTRACT

Patient safety is the foundation of good patient care. Elder population is growing worldwide. Consequently, the population of hospitalized patients is aging as well. The care of geriatric patients must differ from the care of younger adults. Elderly patients are vulnerable to medical errors. Common medical errors in the elderly, such as falls, medication errors, can contribute to the prolonged hospital stay, readmission, nursing home placement and compromise return to independent living in the community. Many recommendations for effective safety practices have been suggestedby the Institute of Medicine, the Agency for Healthcare Research and Quality, The National Institute for Health and Care Excellence, and World Health Organization .These recommendations can be applied to geriatrics. These recommendations include detecting and reporting of medical errors in the elderly, identifying system failures when medical errors occur, improving the continuity of care. As a result, there is a strong link between patient safety and geriatrics. Safe geriatric care can be achieved by implementing safety recommendations. Health professionals should realize that patient safety is critical for improving the quality of geriatric care.

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INTRODUCTION

Patient safety is the foundation of good patient care. Elder population is growing worldwide. Consequently, the population of hospitalized patients is aging as well. The care of geriatric patients must differ from the care of younger adults. Older patients are at risk for medical errors. In a medical record review study that evaluated 7917 patient records, adverse events and preventable events occur significantly more often in older patients. It has been determined that in one study in which patient safety indicators were assessed, the adverse event rates that threatened patient safety were highest in the 65-74 age group. Unwanted events can lead to loss of autonomy in the patient, frequent and long-term hospitalizations, and death. The most common medical errors in the older patients are falls and medication administration errors (LePogam *et al*. 2017, Merten *et al* 2013, Miller *et al* 2001).

Falls

One-third of the population aged 65 or older falls once a year. The most frequent type of injuries over the age of 65 were falls. 5-10% of falls result in a serious injury such as major head trauma, fractures and etc.

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Falls are not an inevitable result of aging. With conscious preventive approaches, these rates can be reduced by 30-40% (Kirag&Ercan 2017, Cakmakcı 2017, Çinarli&Koc 2015, Milos *et al* 2014, Uymaz&Nahcivan 2013). The evaluation of the patient's previous falls and the risk of fall is important in preventing falls. To be more than 70 years old, use of more than 7 medications, and psychotropic, hypnotic, sedative, benzodiazepine, antihypertensive, anticholinergic drugs, limited movement and dependency of the individual, use of auxiliary devices such as the walker, walking stick, hearing aids, and glasses increases the risk of falling. Individuals need to be aware of the medications they use and the use of multiple medications should be reduced. Walking aids should be non-slip materials, sturdy and can be placed in the palm of your hand. How to use this tool should be explained. The glasses should not be scratched, broken or dirty, the glasses and the hearing aid should be placed properly on the ear. While falling rates are similar between women and men at younger ages, women in later ages fall more often than men (Kobayashi *et al* 2017, Macri *et al* 2017, Reuben *et al* 2017, Turner *et al* 2017, Phelan *et al* 2016, Zia *et al* 2016, Matarese andIvziku 2016, Shimbo *et al* 2016, Jung *et al* 2014, Edelman *et al* 2012). Diseases that can increase falls are listed as follows: anemia, incontinence, chronic diseases, visual impairment, cerebral ınfarctıon, psychological and acute disorders, vertigo, dizziness, and postural hypotension, impaired muscle strength, walking, and balance status, severe cognitive disorders such as

dementia, confusion, and postoperative delirium. Balance, endurance and walking training is important to reduce falls at the level of A evidence. Management of foot and foot problems (ulcers, calluses, finger deformities) is important to reduce falls at the level of B evidence. It should be recommended to wear a hard base, non-slippery slipper or shoes suitable for the elderly's feet. It should be avoided wearing shoes with high heels, laces and thick footbeds, avoiding walking with bare feet or socks. (Kobayashi *et al.,* 2017, McKenzie *et al.,* 2017, Phelan *et al.,* 2016, Jung *et al.,* 2014, Edelman *et al.,* 2012). Environmental factors such as slippery and wet floors, insufficient lighting, very high beds and beds without side rail can also cause falls. Non-slippery floor coverings should be used. The electric knobs should be accessible; also they should be phosphorous if possible. Internet and phone cables should be fixed to the wall. Furniture should be placed to allow for easily move for elder, unused excess material in the room should be removed. Serum hangers, catheters should be organized. Elder should not be left alone. There are more positive patient outcomes for elderly care and treatment if it is given in the environment tailored to elders needs. So it is important to have geriatric units. (Kobayashi *et al.,* 2017, Phelan *et al.,* 2016, Jung *et al.,* 2014, Edelman *et al.,* 2012).

Falls usually occurs in bathroom and next to the bed at during night shifts and shift changes. To prevent falls, it is suggested that there are stick bars in bathrooms and toilets, that the bed is not too high, and that there are bed rails. Also, patient lockers should not be too high. The fact that the number of staircases is not too much, the presence of electric knobs at the beginning and end of the stairs are effective to prevent falls (Weil 2015, Con *et al*. 2014, Menendez *et al*., 2013).

Medication errors

90% of individuals over the age of 65 have at least 1 medication, 44% of men 65 years and older, 57% of women have 5 or more 12% of individuals over the age of 65 use 10 or more medications. Women use more medications than men. Most frequently used medications are cardiovascular system medications and analgesics. Adverse medication errors are one of the most common causes of admission to the hospital and can be observed at the hospital stay, too (Hernandez 2017, Naples *et al.,* 2016, Kerry, 2015, Crenstil *et al.,* 2014, Cakir *et al.,* 2014, Demirbag, 2012). The most common medication errors are as follows: Giving the wrong medication, wrong dose of medication, wrong time of medication, wrong way of medication, wrong patient for medication and forgetting to give medication. Polypharmacy in the elderly is one of the most important factors in the development of medication errors. Other causes of medication errors in the elderly include: elderly living alone, the carelessness of the relatives who live with elder, deterioration of patient compliance, insufficient information about medications by health staff, medication use without indication, the old patient goes to different physicians and so get a large number of prescriptions, physicians' tendency to stop old medication and start a new one, elderly patients' tendency to use medications they took from family members and friends, low socio-economic level (Hernandez *et al*., 2017, Fisun *et al.,* 2014, Wang *et al.,* 2013).To prevent the use of multiple medicines, awareness of healthcare professionals should be increased and developing situations should be reported. The treatment plan should be reviewed regularly and unnecessary medications should be removed from treatment. Elderly and family members should be notified of the medication dose, hours, time, side effects,interactions of medications with other medications and herbal products, and what needs to be done at home by verbally and in writing. Written material must be readable and it should be written with big type size. The reason to use medication should be understood by the patient and treatment plan should be easily applicable such as prefer single dose medications. Side effects of medications should be asked to the patient at each control appointment and it also should be asked to bring the boxes of all medications that are used (Modig *et al.,* 2016, Metsala 2014). Many recommendations for effective safety practices have been proposed by the Institute of Medicine (IOM), the Agency for Healthcare Research and Quality (AHQR), The National Institute for Health and Care Excellence (NICE), and World Health Organization (WHO). These recommendations can be applied to geriatrics. These recommendations include detecting and reporting of medical errors in the elderly, identifying system failures when medical errors occur, improving the continuity of care. Patient safety culture is important for the detection and reporting of medical errors in an effective manner. If there is a blame culture in the institution, the reporting rate of medical errors reduce. So we should change blame culture to patient safety culture but cultural change in institution takes a long time. When adverse events occur these incidents are rarely the result of a single error with direct consequences rather patient harm is often the consequence of multiple failures at many levels of the system. We should organize hospital system such as management systems, equipment, and facilities, environment, work process to prevent medical errors. Effective teamwork also has been identified as critical to enhancing patient safety, improving continuity of care and is increasingly coming under the spotlight (Lear *et al* 2017, Keller *et al*., 2014; Hull *et al*, 2012; Russ *et al*., 2013; Vincent 2010, Tsilimingras 2003). As a result, there is a strong link between patient safety and geriatrics. Safe geriatric care can be achieved by adopting and implementing safety recommendations such as the ones mentioned here to reduce the occurrence of medical errors. Health professionals should realize that patient safety is critical for improving the quality of geriatric care.

REFERENCES

Cakir YT, Sonbahar M, Can H, *et al.* 2014. Drug usage habits and multiple drug usage of elderly individuals in nursing homes. *Turkish Journal of Geriatrics*, 17(2): 172-179.

Cakmakçı M.2017. Surgical infections. *2nd International & 10th National Congress Book.*

Cınarlı T, Koç Z.2015. Effect of risk and fear of falling on quality of life and daily living activities in elderly over 65. *Gümüşhane University Journal of Health Sciences,* 4(4): 660-679.

Con J, Friese RS, Long DM, *et al.* 2014. Falls from ladders: age matters more than height. *Journal of Surgical Research*, 191(2): 262-267. doi: 10.1016/j.jss.2014.05.072.

Crentsil V, Lee J, Jackson, A. 2014. Quantitative drug benefit-risk assessment: utility of modeling and simulation to optimize drug safety in older adults. *Annals of Pharmacotherapy*, 48(3): 306-313. doi: 10.1177/1060028013514376.

Demirbağ BC, Timur M. 2012.The Knowledge, attıtude and behavıor related to using drugs reflected by the group of elderly. *Ankara Journal of Health Services,*1(11).

Edelman M, Ficorelli CT. 2012. Keeping older adults safe at home. *Nursing 2012*: 42(1); 65-66. doi: 10.1097/0 1.NURSE.00 00408481.20951.e8.

Fisun V, Seval Ç, Birol V. 2014. Common medication errors and drug safety.*Acıbadem University Journal of Health Sciences*, 5(4); 271-275.

Hernandez J. 2017. Medication management in the older adult: A narrative exploration. Journal of the American Association of Nurse Practitioners, 29(4): 186-194. doi: 10.1002/2327-6924.12427.

Hull L, Arora S, Aggarwal R, *et al.* 2012. The impact of nontechnical skills on technical performance in surgery: A systematic review. Journal of the American College of Surgeons; 214:214-230.doi: 10.1016/j.jamcollsurg .2011. 10.016

Jung D, Shin S, Kim H. 2014. A fall prevention guideline for older adults living in long-term care facilities. *International Nursing Review,* 61(4): 525-533. doi: 10.1111/inr.12131.

Keller A, Ashrafi A, & Ali A. 2014. Causes of elective surgery cancellation and theatre throughput efficiency in an Australian urology unit. *F1000Research*, 19(3): 197.doi: 10.12688/f1000research.4824.1

Kerry Z. 2015. Rational drug use in elderly. *Ege Journal of Medicine,*54(10); 62-73.

Kırağ N, Ercan M. 2017. Determination of the fall prevention behaviours among elderly and associated factors,*Sted,*26 (3): 113-121.

Kobayashi K, Imagama S, Ando K, *et al.*2017. Analysis of falls that caused serious events in hospitalized patients. *Geriatrics & Gerontology International.*doi: 10.1111/ ggi.13085

Le Pogam MA, Quantin C, Reich O, *et al.*2017. Geriatric patient safety indicators based on linked administrative health data to assess anticoagulant-related thromboembolic and hemorrhagic adverse events in older inpatients: A Study Proposal. *JMIR Research Protocols,* 6(5). doi: 10.2196/resprot.7562.

Lear R, Godfrey AD, Riga C, Norton C, Vincent C, & Bicknell CD. 2017. The impact of system factors on quality and safety in arterial surgery: a systematic review. *European Journal of Vascular and Endovascular Surgery, 54:79-93.* doi: 10.1016/j.ejvs.2017.03.014

Macri JC, Iaboni A, Kirkham JG, *et al.*2017.Association between antidepressants and fall-related injuries among long-term care residents. *The American Journal of Geriatric Psychiatry*, 25 (12): 1326-1336. doi: 10.1016/j.jagp.2017.08.014.

Matarese M, Ivziku D. 2016. Falls risk assessment in older patients in hospital. *Nursing Standard,* 30(48): 53-63. doi: 10.7748/ns.2016.e10345.

McKenzie G, Lasater K, Delander GE,*et al.* 2017. Falls prevention education: Interprofessional training to enhance collaborative practice. *Gerontology & Geriatrics Education,* 38(2): 232-243. doi: 10.1080/02701960 .2015.1127809.

Menéndez MD, Alonso J, Miñana JC, *et al*. 2013.Characteristics and associated factors in patient falls, and effectiveness of the lower height of beds for the prevention of bed falls in an acute geriatric hospital.*Revista de CalidadAsistencial,* 28(5): 277-284. doi: 10.1016/j.cali.2013.01.007.

Merten H, Zegers M, De Bruijne MC, *et al.* 2013. Scale, nature, preventability and causes of adverse events in hospitalised older patients. *Age and Ageing,* 42(1): 87-93. doi: 10.1093/ageing/afs153. Epub 2012 Oct 19.

Metsälä E, Vaherkoski U. 2014. Medication errors in elderly acute care–a systematic review. *Scandinavian Journal of Caring Sciences*, 28(1): 12-28. doi: 10.1111/scs.12034.

Miller MR, Elixhauser A, Zhan C, *et al.* 2001. Patient safety indicators: using administrative data to identify potential patient safety concerns. *Health services research,*36 (6 Pt 2): 110.

Milos V, Bondesson Å, Magnusson M, *et al.* 2014. Fall risk-increasing drugs and falls: a cross-sectional study among elderly patients in primary care. *BMC Geriatrics,* 14(1); 40. doi: 10.1186/1471-2318-14-40.

Modig S, Lenander C, Viberg N, *et al.* 2016. Safer drug use in primary care - a pilot intervention study to identify improvement needs and make agreements for change in five Swedish primary care units. *BMC Family Practice,* 17: 140. doi:10.1186/s12875-016-0542-8.

Naples JG, Hanlon JT, Schmader KE, *et al.* 2016.Recent literature on medication errors and adverse drug events in older adults. *Journal of the American Geriatrics Society*, 64(2): 401-408. doi: 10.1111/jgs.13922.

Phelan EA, Aerts S, Dowler D, *et al.* 2016. Adoption of evidence-based fall prevention practices in primary care for older adults with a history of falls. *Frontiers in Public Health*, 4. doi: 10.3389/fpubh.2016.00190.

Reuben DB, Gazarian P, Alexander N, *et al.*2017. The strategies to reduce injuries and develop confidence in elders intervention: Falls risk factor assessment and management, patient engagement, and nurse co-management. *Journal of the American Geriatrics Society.*doi: 10.1111/jgs.15121.

Russ S, Arora S, Wharton R, *et al.* 2013. Measuring safety and efficiency in the operating room: Development and validation of a metric for evaluating task execution in the operating room. *Journal of the American College of Surgeons,* 216 (3): 472-480.doi: 10.1016/j.jamcollsu rg.2012.12.013

Shimbo D, Bowling CB, Levitan EB,*et al.*2016. Short-term risk of serious fall injuries in older adults initiating and intensifying treatment with antihypertensive medication. *Circulation Cardiovascular Quality and Outcomes,*9(3): 222-9. doi: 10.1161/CIRCOUTCOMES.115.002524.

Tsilimingras D, Rosen AK, &Berlowitz DR. 2003. Patient safety in geriatrics: a call for action. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 58(9): M813-M819.doi: 10.1093/ gerona/ 58.9.M813.

Turner JP, Tervonen HE, Shakib S, *et al.* 2017. Factors associated with use of falls risk–increasing drugs among patients of a geriatric oncology outpatient clinic in Australia: a cross-sectional study. Journal of Evaluation in Clinical Practice, 23(2): 361-368. doi: 10.1111/jep.12624

Uymaz PE, Nahcivan N. 2013. Reliability and validity of fall behavioral scale for older people. *Florence Nightingale Journal of Nursing*, 21(1): 22-32.

Vincent, C. 2010. Patient Safety. 2nd Edition. Great Britain : BMJ Books. Wiley-Blackwell.

Wang CJ, Fetzer SJ, Yang YC, *et al.* 2013. The impacts of using community health volunteers to coach medication safety behaviors among rural elders with chronic illnesses. *Geriatric Nursing*, 34(2): 138-145. doi:10.1016/j.gerinurse.2012.12.013

Weil TP. 2015. Patient falls in hospitals: An increasing problem. *Geriatric Nursing,* 36(5): 342-347. doi: 10.101 6/j.geri nurse.2015.07.004.

Zia A, Kamaruzzaman SB, Tan MP. 2015. Polypharmacy and falls in older people: balancing evidence-based medicine against falls risk. *Postgraduate Medicine,* 127(3): 330-337. doi: 10.1080/00325481.2014.996112.

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