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Clinical Practice Guideline for Preventing Falls in Geriatric Patients

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2022

Abstract

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MSN, Walden University 2019

BSN, University of Maryland Global Campus 2016

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Falls among geriatric patients within the acute care setting constitute significant threats to their physical and mental health and quality of life. Falls, with or without injuries, can prolong the length of stay at the hospital and cause early placement in an aged care institution. The etiology of falls is a multifactorial phenomenon involving cumulative risks shared by many adults. In answering the practice focused question, the purpose of this doctorate project was to develop an evidenced-based clinical practice guideline (CPG) to provide a standardized guide to provide ready access to the evidence-based interventions found to be most effective in fall prevention. Following Walden University's CPG manual and the AGREE II model, I developed a CPG based on peer reviewed articles and published clinical practice guidelines gathered from an in-depth literature search. The AGREE II instrument was used by the content panel to review and evaluate the newly developed CPG, and end users provided an evaluation for content and useability. Content experts also provided a summative evaluation. The AGREE scores ranged from 78% to 97% with an overall score of 94%, and end users responded with positive feedback indicating a well-developed CPG, which both strongly recommended be implemented. In the summative evaluation, two of the reviewers misunderstood the instructions included in the evaluation; the third panelist commented on how effective the project was on providing relevant information on how to best prevent falls. The anticipated social change from reducing falls is an increase in the quality of life and well-being for older adults along with a reduced fear of falling, depression, and anxiety.

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Dedication

I dedicate this work to my late mother, who taught me that “education is the key”; to my brother who was supportive since day one of my English course; to my kids who witnessed all the sacrifices I made to keep them my priority; to my sisters who fed my children when I was preparing for a test; and to my nephews and nieces whose love and encouragement have given me strength to face any challenge.

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Section 1: Nature of the Project

Falls are considered one of the medical errors threatening the physical and mental health of geriatric patients (Kenny et al., 2016). Falls with or without injuries are associated with prolonged length of stay in the hospital and early placement in an aged care institution (Latt et al., 2016). Falls can be prevented if interventions are implemented (Lee et al., 2013); a clinical practice guideline (CPG) could provide a standardized guide to provide ready access to the evidence-based interventions found to be most effective in preventing falls. The purpose of this DNP project was to develop a CPG to address fall prevention in an acute care setting. The CPG implementation should lead to improve patient outcomes and quality of life. By reducing the falls occurrence, older adults will be more independent, less fearful from the traumatized idea of falling, and more active socially (Latt et al., 2016). For hospitals, decreasing the incidence of falls will decrease the non-reimbursable costs related to hospital acquired injuries.

Problem Statement

Thirty-seven falls have been reported over a 12-month period on the target medical-surgical (med-surg) unit at a rural hospital located in Eastern United States, with one patient suffering a hip fracture and complications related to the fall. These 37 falls factor out to approximately 2 to 2.5 per 1000 patients' days. In the United States, the rate of falls varies considerably by hospital and by unit, but in general falls rates range from 2.6 to 7 per 1000 patient days (Najafpour et al., 2019). While the incidence at the target facility was below the national average, it was still too many, especially since the target facility did not have standardized guidelines for the prevention of falls. Data from

incident reports indicated that orthostatic hypotension, gait malfunction, side effects of some medications, and shortage of staff constituted some risk factors for fall within the target hospital. A CPG could provide a standardized solution to reduce falls in geriatric patients through the implementation of evidence-based practice (Centers for Disease Control and Prevention [CDC], 2015). The development of an effective fall prevention program, such as an evidence-based CPG provided by this DNP project, will improve quality care and patient outcomes and therefore will be significant to nursing.

Purpose Statement

At the med-surg location where this project will be implemented, falls had been identified as a major health problem. The lack of a standardized guideline at this setting contributed to falls continuing to occur and highlighted the current gap in practice. With the identification of patients at high risk for falls, an evidence-based standardized guideline to reduce falls among elderly patients should bridge the current practice gap.

The practice focused questions that guided this project were: What evidence from the literature supported the need for evidenced-based standardized guidelines to decrease the occurrence of falls in older patients during their hospitalization? And what evidence from the literature was available for the development of a CPG to decrease falls in the elderly? The implementation of the newly developed CPG for fall prevention in the acute care setting should reduce the prevalence of falls within the geriatric patient population and address the existing clinical practice gap, thus improving patient outcomes.

Nature of the Doctoral Project

I conducted an in-depth literature review to identify interventions to prevent falls in a med-surg setting searching the following databases: Medline, CINAHL, and ProQuest with full text. I also reviewed recommendations from the CDC, World Health Organization, and the American Aging Association. Keywords included *teaching* AND *falls*, *falls* AND *risk factors, falls* AND *geriatric* OR *elderly* OR *old, falls* AND *tools*, and *falls* AND *evaluation* to find evidence-based articles published in the previous 8 years to discover the most current, evidence-based interventions related to reducing falls. Next, I developed a literature review matrix to organize the selected literature and graded the evidence using the grading criteria from Fineout-Overholt et al. (2010). Following Walden University's *Clinical Practice Guideline Manual* and the Appraisal of Guidelines for Research & Evaluation Instrument (AGREE II) tool (AGREE Next Steps Consortium, 2022) to guide this Fall in the Geriatric Population CPG project, I developed a CPG based on the highest quality, evidence-based literature available. Once the CPG was created, I selected a panel of experts to use the AGREE II scoring instrument for evaluation of the guideline (AGREE Next Steps Consortium, 2022).

The AGREE II tool consists of six domains with 23 items that were used to rate the quality of the practice guideline. Revisions were made based on the results of AGREE II tool. The revised, approved guideline was presented to a group of stakeholders (end users) to assess for content and usability. After consensus was reached, I presented the completed CPG to the facility's administration for consideration for adoption. The purpose of this project was to develop an evidence-based CPG to guide healthcare

professionals in the prevention of falls in the elderly population, decreasing injury and length of stay and improving patient outcomes, along with improving quality of life for the geriatric patients.

Significance

The stakeholders who will be impacted by the fall prevention program include the organization, patients, patients' family, and nursing staff. The organization will benefit from the implementation of the newly developed CPG by improved patient outcomes and reduced non-reimbursable costs due to the falls along with decreased hospital length of stays (see Chu, 2017). Patients should see a decrease in injuries and fear of falling and an increase in confidence (Liu et al., 2018). The fall prevention program should lead to a healthier older adult with less likelihood of becoming more dependent on their families and people around them (Honaker & Kretschmer, 2014). For families, fall prevention could decrease the burden of caring for a dependent older adult. Nurses are key in identifying the risks of falls and implementing strategic actions to prevent them (De La Cuesta-Benjumera et al., 2020). The nursing staff has increased their knowledge of effective fall prevention strategies and should see an increased confidence in their ability to assess patients for risk of falls and to implement a fall risk reduction plan with patients at high risk of falls (Mc Kenzie et al., 2017). This early intervention should improve patient care leading to increased job satisfaction because employees who are satisfied with their work are more likely to deliver high quality, patient centered care, and are essential for health care organizations (Mc Kenzie et al., 2017).

This project was an opportunity to add to the nursing literature about fall-prevention in the acute care setting where patients, especially those aged 65 and older, are at increased risk for falls and fall related injuries (King et al., 2018). The CPG is a guide for fall with individualized interventions to address fall risks (Spano-Szelkely et al., 2019), helping nurses to minimize falls and improve patient outcomes and increase patient satisfaction (Mulugeta et al., 2020). Fall prevention provides a safer hospital environment for patients.

Falls are a multifactorial phenomenon involving cumulative risks shared by many older adults (Montero-Odasso et al., 2021). Most elders present with either physiological risk factors such as sensory changes, cognitive deficits, and muscle weakness or environmental factors such as inadequate lighting and clutter (Porto et al., 2020). Since falls might have greater physical, emotional, physiological, and social impact upon older adults, it was very important to prevent them. The newly developed CPG could be transferable to any health care settings because risk factors for falls are the same for all geriatric patients, and with only minor adjustments the interventions, should be the same.

Older adults at risk of falls who are hospitalized in an acute setting should receive proper interventions to prevents falls (Moncada & Mire, 2017). The implementation of the newly developed CPG for falls prevention is an effective strategy to prevent falls in geriatric patients who are at risk for falls. The anticipated positive social change is an increase in the well-being and quality of life for older adults; reduced fear of falling, depression, and anxiety; and decreased caregiver burden (Pin & Spin, 2016). Preventing

falls in the elderly is of fundamental importance for the maintenance of independence especially among those who are still active in society (Porto et al., 2020).

Summary

Falls during hospitalization are one of the most common, but preventable, medical errors threatening the physical and mental health of geriatric patients (Kenny et al., 2016), and they continue to be a challenge within the target health care system. Falls with or without injuries are associated with mobility impairment, disability, dependency, social isolation, and psychosocial problems including anxiety and depression (Kenny et al., 2016).

The implementation of the CPG for fall prevention at the target hospital should reduce the rate of falls in the target med-surg unit, and with demonstrated success, shared with other units. By providing an evidence-based standardized guideline, I better prepared the staff to reduce the occurrence of falls and fall related injuries among elderly patients.

Section 2: Background and Context

Falls constitute a challenge within healthcare organizations and are a recognized complication for the geriatric population (Latt et al., 2016) causing injuries, hospital admissions for trauma, and related deaths (Ye et al., 2020). Falls are associated with prolonged length of stay in the hospital and early placement in an aged care institution (Latt et al., 2016). To address the practice-focused questions, what evidence from the literature supports the need for an evidenced-based standardized guideline to decrease the occurrence of falls in older patients during their hospitalization? And what evidence is available for the development of an evidence-based CPG to decrease the falls in the geriatric patient? The purpose of this DNP project was to develop a CPG to address fall prevention among elderly patients. In this section, I will describe the AGREE II model that I will use as a guide for the development of the CPG and the content experts will use as a tool to evaluate the CPG, discuss relevance of nursing practice, and describe the target site for this DNP project and my role as a DNP student.

Concepts, Models, and Theories

The AGREE II Instrument is a widely used standard for assessing the methodology and quality of practice guidelines (Brouwers et al., 2016), with the original AGREE Instrument published in 2003 by a group of international guideline developers and researchers. As with any new assessment tool, many strategies were identified to make the instrument more reliable and valid, and ongoing development was required to strengthen the measurement properties of the instrument and to ensure its usability among users. The result of these efforts was the AGREE II, a tool that can be applied to

guidelines in any disease area including those of health promotion, public health, screening, diagnosis, treatment, or intervention (AGREE trust. 2003). In response to identified weaknesses, the AGREE Next Step Consortium was established and undertook two studies. As part of the first study, the consortium introduced a new 7-point response scale and evaluated its performance and measurement properties, analyzed the usefulness of the AGREE items for decisions made by different stakeholders, and systematically elicited stakeholders' recommendations for changes to the AGREE items and domains. In the second study, the Consortium evaluated he construct validity of the tool and designed and evaluated new supporting documentation aimed at facilitating efficient and accurate use of the tool (Brouwers et al., 2010). The AGREE II is now both valid and reliable because it has been shown to assess the quality of guidelines, provide a methodological strategy for the development of guidelines, and inform what information and how information ought to be reported in guidelines (AGREE trust. 2003)

The AGREE II instrument includes 23 items organized into six quality domains to include scope and purpose, stakeholders' involvement, rigor of development, clarity of presentation, applicability, and editorial independence used to assess the methodological rigor and transparency with which a guideline is developed (AGREE trust. 2003). The items in each domain are rated, by a group of three to five content experts, on a 7-point scale ("strongly disagree" to "strongly agree"). In addition, the AGREE II Instrument includes two global rating items (overall assessments). In the first global assessment, the overall guideline quality is rated on a 7-point scale, from "lowest possible quality" to "highest possible quality." In the second global assessment, a decision is made on

whether to recommend use the guideline (Hoffman-Eβer et al., 2018). In this project, the AGREE II instrument was used by a group of content experts to assess the newly developed guideline assessing for valid, reliable, and useful information (AGREE trust, 2003) in the newly developed CPG.

Dijkers et al. (2020) evaluated a group of CPGs related to rehabilitation using the AGREE II Instrument and found deficits in terms of applicability, suggesting more work needs to be done by guideline developers to make it easier for the average rehabilitation organization and clinicians to implement the CPGs in daily practice. Dijkers et al. (2020) also assisted clinicians and other stakeholders in vetting available CPGs of interest in terms of the quality of their development process and the usefulness of the recommendations.

The National Comprehensive Cancer Network (NCCN) has a policy to update their CPGs at least annually to highlight the urgent need for clear reporting of current and future best practices related to oncology (Wayant et al., 2018). The NCCN guidelines scored high on Domains 4 (clear, precise recommendation) and 6 (handling of conflicts of interest of the AGREE II Instrument) but lowest on Domain 2 (inclusion of all relevant stakeholders), demonstrating notable strengths and weaknesses with respect to the reporting of keys items essential to CPGs.

Relevance to Nursing Practice

The term “never event” was introduced in 2001 in reference to particularly shocking medical errors that should never occur (Agency for Healthcare Research and Quality, 2019). Over time, the term use has expanded to signify adverse events that are

unambiguous, serious, and usually preventable. The Centers for Medicare and Medicaid Services (CMS) stopped reimbursing hospitals for costs related to patient falls, which have been identified by CMS as one of eight "never events," in October 2008 (Matties & Webster, 2008). In hospitals, falls can be consistently and effectively prevented through the application of evidence-based guidelines, because unlike other non-reimbursable CMS "never events" that are unequivocally medical errors, falls may occur because of a lack of preventive measures (Menendez et al., 2017). In people aged 65 and older, falls are the most frequent type of accidents and the number one cause of injury-related hospitalizations.

Falls are associated with disability, loss of independence, and increased mortality, and they can cause older adults to become fearful of falling, with consequent restrictions on daily activities and functional decline (Gale et al., 2016). Previous studies have found factors such as falls in the previous year, age, gender, ethnicity, chronic diseases, depression, pain, and physical and visual impairment associated with falls (Pirrie et al., 2020). Inadequate patient assessment; absence of awareness of the individual patient's risk factors of falls (Tucker et al., 2019); lack of engaging patients in fall prevention; hourly rounding to address patient positioning, personal needs, pain, and placement; and failure to assess the function of call lights (Kiyoshi-Teo et al., 2017) have been identified as main gaps in practice increasing the prevalence of falls in hospitalized patients. To overcome those gaps, the development and implementation of a CPG should provide evidence-based guidelines to reduce the occurrence of falls, improve patient outcomes,

and decrease costs for the health care system due to fall related injuries (Pirrie et al., 2020).

Falls Prevention Measures

Many measures have been introduced in the attempt to reduce falls in hospitalized patients, especially the elderly. Hourly rounding with the assessment of pain, toileting needs, and other concerns showed a significant reduction in call light use and a decrease of falls as well as an increase in patient satisfaction (Saleh et al., 2017). In a patient-centered initiative to assess patient needs during hourly rounding, a significant drop in fall rates, from 3.9 to 1.3 falls per 1000 patient days, was noted on two medical-surgical units in an East Coast health care system (Goldsack et al., 2015). A falls prevention toolkit, including a yellow wristband, socks, and magnet at the door, was another method of communicating with staff about a patient at risk of falls. The use of the falls toolkit and hourly rounding resulted in a significant reduction in call light use, a decrease in the incidence of falls, and a 7.5 % increase in patient satisfaction scores (Chu, 2017). In addition, the use of a three-mode bed exit alarm in a medical-surgical inpatient unit at Versa Care Hospital between 2009 and 2015 showed a 20% reduction in falls during the intervention period (Cuttler et al., 2017).

Assessing the patient and identifying risk factors for falls is fundamental to plan effective prevention strategies. Hence, using specific tools to identify individuals at high risk for falling can lead the staff to target appropriate interventions to those with the highest risks (Pasa et al., 2017). Tools such as the Morse Fall Scale (MFS), a tool used for the initial assessment of fall risk in clinical settings, can prevent the occurrence of

falls. Based on several validation studies, such as the one done by Lim and Yam (2016) in a private hospital in Selangor, Malaysia to determine the nurses' level of knowledge and competency in the use of MFS, registered nurses have a moderate level of knowledge and competency in using the MFS. A similar study by Franco Tarro Gena as reported by Tiedeman et al. (2019) in cardiac rehabilitation for older adults in 2019 demonstrated that the implementation of the scale reduced falls from 30±21 to 25±17; $p<.05$. The positive results from the use of the MFS indicate this tool is recommended for the identification of high fall risk patients. Regardless of the positive results, the predictive values of the MFS are not stable; they vary in different clinical conditions due to numerous factors such as history of falling in the last 3 months, secondary diagnosis, ambulatory aids, intravenous therapy, gait, and mental status (Bóriková et al., 2016).

Tucker et al. (2019) conducted a longitudinal study that showed the prevalence of falls was higher in women (29.1%) than in men (23.5%). Additionally, pain and the presence of chronic diseases in both sexes were associated with increased likelihood of falls. Finally, because some risk factors such as incontinence and frailty in women and depressive symptoms and poor balance in men, a design of fall prevention strategies should take gender into account (Gale et al., 2016).

Falls among hospitalized geriatric patients are common and costly. In hospitals, falls increase morbidity and mortality and are deemed highly preventable by the CMS (Menendez et al., 2017). The nonpayment policy for serious adverse events such as falls will not allow hospitals to receive reimbursement for inpatient services related to never events which increase the hospital loss. Despite growing efforts in fall prevention, falls

continue to happen because of gaps in standardized fall prevention methods (Menendez et al., 2017). The CPG developed in this DNP project should decrease the event of falls, increase patients' satisfaction, and decrease morbidity and mortality among hospitalized elders as well as decrease lost funds from the facility in caring for non-reimbursable injuries.

Local Background and Context

The site where this DNP project will be implemented is a med-surg unit in a 201-bed hospital in a rural area in the Eastern United States. Staff on the med-surg unit include six to eight registered nurses, a respiratory therapist, a physical therapist, an occupational therapist, a charge nurse, and a nurse manager. The nurse patient ratio is five to one, and patients are aged 18 and above with most 65 and older. These older patients are mostly retired and receiving government aid, including Medicare and Medicaid, and predominantly of an Afro-American cultural background. The med-surg unit reported 37 falls during a 12-month period from December 2019 to December 2020 with one of these falls resulting in a patient with a hip fracture. This acute care hospital uses the MFS (Tiedeman et al., 2019) as a method of assessing patients' fall risks upon admission and at the beginning of each shift, hourly rounding, and bed and chair alarms; however, falls continued to occur causing disability, loss of independence, depression, anxiety, fear of falling, and even increased mortality. Since falls are considered a "never event" and deemed highly preventable, the CMS will not reimburse the hospital for injuries incurred from a fall and the patient will not be billed for the additional care needed to address the never event, to include falls, causing financial loss for the facility

(Matties & Webster, 2008). The facility is losing money caring for these patients after a fall.

Role of the DNP Student

I am a registered nurse working at the target hospital. The target med-surg unit did not have a guideline to prevent falls. As the project's leader, I completed an exhaustive literature search, graded the literature, and developed a CPG based on current, best evidenced-based practices. I invited a group of content experts to use the AGREE II Instrument (Brouwers et al., 2020) to evaluate the CPG in the AGREE website and make needed revisions before having a group of end-users evaluate the newly developed CPG for content and usability. Once consensus was reached, I presented the CPG to administration for consideration for implementation.

Falls are a serious problem for older adults at the project site and cause financial loss for the facility. Hospitalized patients 65 and older are at highest risk of falling; data from Ruggieri et al. (2017) showed that 30% of people older than 65 and 50% of people older than 80 fall at least once a year. This CPG project reflected my role as a patient advocate and provided me an opportunity to reduce the occurrence of falls which increased patient disabilities and decreased elder's independence.

I had no identified biases related to the topic of my DNP project and I used only peer reviewed, evidence-based interventions in the development of the CPG to avoid potential biases. By implementation of the CPG, I will assist the med-surg unit in reducing falls and fall related injuries within the hospitalized patients and reduce financial loss to the facility by decreasing non-reimbursable injuries.

Summary

Falls and fall related injuries are considered "never events" by the CMS and are preventable. There are an extensive number of evidenced-based articles on falls and fall prevention interventions in the acute care setting (Waters et al., 2015); however, gaps in practice existed within the target med-surg unit at a hospital in the Eastern United States where I was working as a registered nurse, resulting in numerous preventable falls. It was urgent that a standardized fall prevention guideline be developed and implemented so that patients could experience improved quality of life and health outcomes. Once the evidence-based CPG for fall preventions was developed, a group of content experts evaluated it for rigor and transparency using the AGREE II Instrument, a group of end users reviewed it for content and usability, and I presented it to administration for consideration for implementation. In the next section, I will outline the evidence collection methods, participants, and ethical protection of the participants, along with the systems used to track data.

Section 3: Collection and Analysis of Evidence

Falls are common among elderly inpatients and may result in morbidity and mortality. Injuries caused by falls can lead to complications resulting in prolonged hospital stays and /or early placement in an aged care institution (Latt et al., 2016). Due to the high rate of inpatient falls at the target med-surg unit, the purpose of this project was to develop an evidence-based CPG to reduce the number of falls in patients 65 or older, improve nursing practice within the med-surg unit, and decrease fear from falling.

In this section, I outline the evidence collection methods, participants, and ethical protection of the participants, along with the systems used to track data. Also, I address the practice-focused question; falls within the geriatric patients in med-surg unit; and described how the CPG provided through this DNP project should reduce the occurrence of falls, improve patient outcomes, and reduce the cost of managing patient falls on med-surg unit. The sources of evidence used in the project and plans for analyzing the evidence gathered throughout the project will also be addressed.

Practice-Focused Questions

In the past 2 years, the med-surg unit has experienced an increase in the number of falls within geriatric patients. The increased rate of falls was related to lack of an evidence-based standardized guideline for fall. The aim of this DNP project was to develop a CPG for fall prevention that will decrease the fall rate and improve patient outcomes and satisfaction.

The practice-focused questions that were answered with this CPG project were what evidence from the literature supports the need for an evidence-based standardized

guideline to decrease the occurrence of falls in older patients during their hospitalization? and what evidence is available for the development of an evidence-based CPG to decrease the fall in geriatric patient? By answering the practice -focused questions, I fulfilled the purpose of this DNP project by developing a CPG so staff will have a standardize fall prevention program to reduce the number of falls of elderly inpatients in the med-surg unit.

Sources of Evidence

An in-depth literature review, described in Section 2, was conducted to identify interventions to prevent falls in hospitalized patients. I also reviewed recommendations from the Centers of Disease Control and Prevention, World Health Organization, and the American Aging Association. The selected literature was organized in a literature matrix (see Appendix A) and graded using Fineout-Overholt et al.'s (2010; see Appendix B) criteria. This current, peer-reviewed literature was used to develop the CPG. Other sources of evidence generated for the project included the AGREE II scores provided by the content experts; the content experts' summary evaluation of the project, process, and my leadership; and the evaluation by the end-users. The evidence supported the validity and usability of the newly developed CPG based on current, peer reviewed, evidence-based literature.

Participants

The content expert panel, including the manager of the med-surg unit, the geriatric NP, and a nurse educator, were asked to review and evaluate the newly developed CPG using the AGREE II instrument. Each of the content experts has a

master's degree in nursing, an average of 5 years working with geriatric patients, and a certification in adult-gerontology. This experience has provided them with extensive knowledge regarding geriatric patients, falls and fall risk factors and complications, as well as fall prevention measures within the geriatric patient population. The newly developed guideline was revised based on the experts' recommendations, and then a second set of participants, a group of end users who will implement the guideline from the med-surg unit, evaluated the newly developed CPG for content and usability.

Procedures

After an extensive literature search, I arranged the pertinent articles in a literature matrix and graded the evidence using criteria from Fineout-Overholt (2010). I developed an evidence-based CPG based on the most up to date, peer reviewed literature found during my search, and I emailed this newly developed CPG, along with the literature matrix, the AGREE II tool, and the AGREE II tool scoring sheet, along with a link to the AGREE site to the content experts, asking them to evaluate the newly developed CPG for validity and quality using the AGREE II tool (AGREE Next Steps Consortium, 2022) within 2 weeks. Once the evaluations were completed, I sent a summative evaluation to the content experts, asking them to evaluate the project, process, and my leadership. Once the AGREE instrument was completed, an average of the scores was done through the website and the results were emailed to me. After reviewing the results, I made revisions based on the AGREE II evaluations, and I shared the revised CPG with end users to review for content and usability. Once the content experts and end users reached consensus, I shared the newly developed CPG with administration in hopes of having the

facility implement the guideline. After graduation, with agreement from administration, I will present the new guideline to the nurses on the unit for use on a daily basis.

Protections

Approval from Walden University's Institutional Review Board and the facility were obtained once the proposal was accepted. No identifying information was collected on the AGREE II scoring tools, thus the reviews were anonymous. All electronic files will be maintained on a password protected computer that only I have access to for 5 years and then deleted; paper reports will be maintained in a locked drawer that only I have access to and shredded after 5 years. The site name was masked to maintain anonymity.

Analysis and Synthesis

The literature matrix I created was used as a method for organizing the literature needed to develop the CPG. To record, track, organize, and analyze the results developed through the project, the AGREE website (www.agreetrust.org) was used. The panelists were instructed to enter their scores through the website where the website conducted the statistical analysis and developed a final report which was sent to me. I reviewed the findings and made revisions as needed. I reviewed the end users' evaluations noting any areas needing clarification or revisions. I reviewed the summative evaluations completed by the content experts and summarized my findings using a thematic analysis.

Summary

The high fall rate of geriatric patients at the target med surg unit constituted an older patient during their hospitalization. An expert panel evaluated the quality and

validity of the newly developed CPG using the AGREE II instrument after which a group of end users reviewed the revised CPG for content and usability. A standardized guideline should reduce the incidence of falls, improving patient outcomes and reducing financial loss for the facility. In Section 4, I address the findings, implications, and recommendations for the DNP project, developing a CPG for fall prevention within the geriatric patients.

Section 4: Findings and Recommendations

Each year, 3 million older people are treated in emergency departments for fall injuries, and over 800,000 patients are hospitalized because of head injury or hip fracture annually (CDC, 2015). Falls are the leading cause of injury in adults aged 65 years and older; fall prevention programs are important within the acute care setting because of the increased incidents of falls among geriatric patients. A serious fall can result in decreased functional independence and quality of life (Jin, 2018) as well as being a significant cause of anxiety, depression, and even death. Some of the risk factors for falls include chronic diseases, dementia, gait dysfunction, and vision and/or hearing impairment. The CPG I developed for this DNP project presents an approach to address falls in an acute care setting, answering the practice focused questions: What evidence from the literature supports the need for evidenced-based standardized guidelines to decrease the occurrence of falls in older patients during their hospitalization? and What evidence from the literature is available for the development of a CPG to decrease falls in the elderly? and filling the gap in practice. The CPG development fulfills the purpose of providing a standardized guideline to identify patient at high risk for falls, and to reduce falls among elderly patients.

Evidence for the CPG development was gathered through an in-depth literature search; other sources of evidence developed during the project included the content experts' scores in the AGREE II website, the end users' reviews, and the summative evaluation. The AGREE website analyzed the scores of the content experts, providing an average for each of the 23 items. I conducted a thematic analysis on the end users'

reviews and summative evaluation. In Section 4, I will provide a review of the findings. These findings are presented in tables and graphs which allow for an easy analysis.

Findings and Implications

During this project, the three expert panelists rated their level of agreement independently on each of the 23 items within the six domains using the Likert scale of 1 (strongly disagree) to 7 (strongly agree). Domain scores were calculated through the AGREE website. Once the appraisers completed the scoring, they were requested to assess the overall quality of CPG. Finally, the appraisers were required to indicate if they recommend the CPG for implementation as is, with modifications, or not at all. The following sections outline the findings of the CPGFP for each domain.

Domain 1: Scope and Purpose

A high score (96%) was given for Domain 1, scope and purpose. All three appraisers agreed that the overall objective of the guideline was specifically described, the goal of the CPGFP was to reduce the incidence of falls (see Table 1).

Table 1

Scope and Purpose Scores

	Item 1	Item 2	Item 3	Total
A1	6	7	7	**20**
A2	6	7	7	**20**
A3	7	7	7	**21**
Total	**19**	**21**	**21**	**61**

The health questions covered by the guideline and the population to whom the guideline applied were acknowledged as being specifically described as well. Two reviewers commented that the objectives were specific to the problem and the expected benefits were clearly defined and the target population, population interventions, and expected outcomes were clearly defined

Domain 2: Stakeholder Involvement

Domain 2 (stakeholder involvement) received an average score of 93%. The three appraisers gave a high score for level of agreement acknowledging that all relevant professional groups were included in the project, the view of the target population was included, and finally, the target users of the guideline were clearly defined (see Table 2).

Table 2

Stakeholder Involvement Scores

	Item 4	Item 5	Item 6	Total
A1	6	6	6	**18**
A2	6	7	7	**20**
A3	7	7	7	**21**
Total	**19**	**20**	**20**	**59**

Domain 3: Rigor of Development

Domain 3, rigor of development, was scored at 93% (see Table 3).

Table 3

Rigor of Development

	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Total
A1	6	6	6	6	6	6	6	6	**48**
A2	7	7	6	7	7	7	6	7	**54**
A3	7	7	7	7	7	7	7	7	**56**
Total	**20**	**20**	**19**	**20**	**20**	**20**	**19**	**20**	**158**

The reviewers agreed the outcomes of the study were well defined and the context was clear and concise with one appraiser commenting on the various tools and literature to gather evidence/information to support the relevance of the guideline. A score 89% was given on the Items 9 and 13 about using strengths and limitations of the supporting evidence and the external review by the experts prior to the guideline publication. Strengths and limitations are beyond the scope of the CPG but were addressed in this paper. The content experts' reviews were in the AGREE website prior to publication, fulfilling Item 13.

Domain 4: Clarity of Presentation

Domain 4, clarity of presentation, received a score of 97%. All appraisers agreed that the key recommendations were appropriately selected, and those recommendations answered the main questions; yes, the literature supports the need for evidenced-based

standardized guidelines to decrease the occurrence of falls in older patients during their hospitalization, peer reviewed literature is available for the development of a CPG to decrease falls in the elderly (see Table 4).

Table 4

Clarity of Presentation

	Item 15	Item 16	Item 17	Total
A1	6	6	7	**19**
A2	7	7	7	**21**
A3	7	7	7	**21**
Total	**20**	**20**	**21**	**61**

One appraiser commented on the fact that the guideline could provide a standardized solution to reduce falls in the target population

Domain 5: Applicability

Domain 5 received a score of 96%, suggesting that the guideline provided specific tools for its implementation, was easy to follow, and contained directions on how the user can access tools and resources (see Table 5).

Table 5

Applicability

	Item 18	Item 19	Item 20	Item 21	Total
A1	6	7	7	7	**27**
A2	7	7	6	7	**27**
A3	7	7	6	7	**27**
Total	**20**	**21**	**19**	**21**	**81**

All appraisers agreed that the guideline described facilitators and barriers to its application, and potential resource implications of applying the recommendation were considered.

Domain 6: Editorial Independence

Domain 6, editorial independence, was scored at 78% (see Table 6).

Table 6

Editorial Independence

	Item 22	Item 23	Total
A1	7	6	**13**
A2	7	6	**13**
A3	7	1	**8**
Total	**21**	**13**	**34**

Item 23 (competing interests of guideline development group members have been recorder and addressed) received the lowest score, 1 (strongly disagree), because the

reviewers did not see a statement to address competing interests; as reported in the CPG, no funds were requested or received. As I was the sole developer, there were no competing interests to influence the CPG development.

Overall Guideline Assessment

The overall guideline assessment score was 94% with the recommendation the CPG be implemented without modifications (see Table 7).

Table 7

Overall Guideline Assessment

	Overall guideline rating	
	Rate the overall quality of this guideline	**Recommendation for use:** Yes, Yes with modification, No
A1	7	Yes
A2	6	Yes
A3	7	Yes

The appraisers recommended the CPG be implemented in the unit. However, staff nurses should receive more education on how to use the CPG. Lastly leaders should be working on ways to adopt the guideline to fit other patients and be applicable within the other units in the acute care setting. End-users reviewed the CPG for content and usability providing positive feedback reporting that the content was congruent with the hospital mission that focuses on improving patient outcome and safety. Also, end-users agreed that the CPG will be easy to implement because the context was clear and concise. In the summative evaluation, two panelists misunderstood the instructions included in the

evaluation; one of them focused on the implementation rather than the development of the CPG, and the other one commented that he had no involvement in the development or approval of the CPGFP even though he was a member of the expert panel group that graded the guideline. The third panelist commented that the project was effective and its implementation will positively affect patient safety and the patient fall rate; my leadership helped by providing updates on relevant information in a timely manner and I kept the team aware of my plans for the project. As a leader, I involved the educators and supported the team members in meeting the project goals by emailing information, providing handouts, meeting face to face, and doing follow-up phone calls to ensure everyone had mutual understanding of the project. The same panelist felt honored in taking part in this project. The panelist who focused on the implementation stated that before implementation of the project, the manager's approval would be needed. After graduation, I will present the CPG to administration for consideration for implementation.

Recommendations

Based on the results supporting the guideline's quality score of 92%, I recommend this CPG be implemented at the med-surg unit. The CPGFP provides a solution to a serious problem that threatens the physical and mental health of geriatric patients within the med-surg unit. I will organize a staff meeting to educate nursing staff, nurse leaders, and educators about the newly developed guideline for fall prevention. After 6 months of implementation of the CPG, a follow up should be done to collect fall rate data and compare it to the data collected during the 6-month period before

implementing the guideline. The results will help to decide if revisions to the CPG are needed or if the CPG is ready for implementation throughout the hospital.

Strengths and Limitations of the Project

One of the strengths of this DNP project was the availability of peer reviewed literature that identified interventions for fall prevention in a hospital setting. Another strength is that the newly developed CPG provides a quality guideline based on the most current evidenced-based practices to provide a standardized solution to reduce falls within the target unit. Also, the CPGFP, which was designed for the acute care setting, can be applied in long term facilities because residents face the same health issues and risks leading to falls and fall related injuries (CDC, 2019). Finally, the content experts and their contribution of evaluating the newly developed CPG using the AGREE II tools provided a positive step toward the implementation of the CPGF; expert opinion and approval adds credibility to the guideline (AGREE trust, 2003).

One limitation of the project was that it was limited to a single med-surg unit; the CPG should be available to other units. Another limitation was the time needed for the experts to complete the appraisal; the registration process took more time than the appraisal itself. Consistent reminders to complete the appraisal were a time consuming and stressful situation, as I was getting very close to the anticipated deadline. Another challenge I encountered was the summative evaluation. When no one responded with to the initial email asking them to complete the evaluation of the project, process, and my leadership, I failed to follow up. By the time I resent the request, one of the panelists went on vacation, and another one was not responding to my phone calls or emails

requesting them to complete the evaluation. When the summative evaluation was completed, results showed one of the reviewers focused on the implementation phase of the CPG rather than answering specific questions related to the project within the summative evaluation, and the second panelist did not answer most of the questions, stating he was not involved with the evaluation. This led me to understand the importance of clear instructions and follow through. However, this was a good experience, and the CPG is a template for addressing other issues at the target hospital such as the pressure ulcers within geriatric patients. The knowledge and the expertise I gained through this project will guide me in developing other standardized guidelines to address issues in the setting in the future.

Section 5: Dissemination Plan

Well-designed dissemination strategies can improve access to a guideline and lead to improvement in health outcomes. Dissemination of findings will potentially reduce the gap between research and practice (McDavitt et al., 2016) because effective dissemination can improve knowledge and clinical practice. After presenting the project to the administration, the next step will be to share the findings with healthcare leaders and nursing staff and review the CPG so they can implement it. I will present the findings by providing a Power Point presentation, including graphs with results. The results, along with their interpretation and areas of usability, will be placed on the unit's educational board to increase awareness and offer opportunity for questions and clarification. This activity will help nursing staff to increase their knowledge of effective fall prevention strategies. The implementation of the CPG will be the next step, and nursing staff will have a standardized guideline to identify patients at risk for falling and help prevent falls before injuries and a decline in well-being occur. The prevention of falls in the elderly will lead to an improved quality of life for geriatric patients. The integration of the CPG into routine practice within the med-surg unit will give nursing staff the confidence required to care for older adults at risk for falling and/or with history of fall.

The dissemination of the project will give a broader opportunity to the nursing profession to decrease falls and create a safer environment for geriatric patients as more healthcare sites implement the CPG. My long-term plan will be to extend the availability of the CPG to other units in the target hospital. I will organize in-services for nursing staff to introduce the newly developed CPG and answer all questions related to the CPG.

I will query the *American Journal of Nursing* on possible publication, as it is the most read journal by healthcare professionals (Kennedy et al., 2017). As more nurses are aware of evidence-based practices to prevent falls, injuries should decrease leading to improved quality of care and patient outcomes (see Kennedy et al., 2017). The problem of patient falls is serious and requires major actions to improve patient outcomes in target populations.

Analysis of Self

The DNP project afforded me the opportunity to grow both educationally and professionally. Before the project, I was always amazed by the way researchers develop a study, analyze the results, and discuss them in a scholarly paper. This DNP project put my knowledge into practice, and I was able to develop a CPG that, when implemented within the target unit, will be beneficial to many geriatric patients at high risk for falling and/or to those who have a history of falls. The project gave me an opportunity to increase my confidence and strength in clinical practice. The DNP helped me to make long term professional goals because when I developed the CPG, I realized that my journey will not stop with the CPG; I will continue to search for other health care problems and develop other guidelines that will help not only the nursing staff but also the target population.

As a Leader

Nurses are considered the foundation for any healthcare organization; effective nurse leadership is critical for strengthening integration of safe, effective, high-quality care (Morganelli, 2021**).** Beside leading, delegating, and serving as a role model to team

members, carrying out the project was an opportunity for me to learn effective communication skills and serve as a patient advocate. By being the project leader, I have gained confidence in communicating and coordinating every step of the development of the CPG to reduce the occurrence of fall within our elderly patients in the hospital.

As a Practitioner

During my journey toward the development of the CPG, I found my skills progressively improving from a registered nurse (RN) with daily practice to an advanced practice nurse, able to observe, analyze, and discuss results; improve clinical skills; and understand the concept of using evidence-based guidelines in order to improve patient outcomes. As a practitioner, my role will continue by advocating for my patients by searching for more gaps to fill with more evidence-based guidelines to provide a safer environment for the patients.

As a Scholar

The DNP project was an opportunity for me to learn more about evidenced-based-practice during my academic journey and apply what I learned into expertise in the nursing field. During this project, I came to understand better the concept of evidenced-based practice and how to apply it in the clinical setting. By conducting an exhaustive literature search and developing a CPG based on current EBP, I was successful in presenting my project with a high level of scholarship. As a DNP student, I learned how to implement evidence-based practice at the clinical site; however, my journey was not simple nor easy. I encountered many challenges, most of the time due to the COVID-19 pandemic and the closing of most clinical sites, which delayed the progress of my project.

But in general, the knowledge I acquired during my DNP program allowed me to lead, teach, and communicate what I learned to other nurses to ensure that patients have quality care and improved outcomes. I have acquired the necessary educational tools to enable me to search, analyze, and implement evidenced-based practices to assist nurses to be more confident in fall prevention. This project was an opportunity for me to set and actively work toward goals that increased my feeling of happiness and accomplishment. My scholarly journey has helped enhance my research and interpretation of data and results. These skills are necessary to become an active project manager and an effective leader to address gaps in practice using evidence-based guidelines to improve patient outcomes.

Summary

Falls continue to threaten the safety of our geriatric patients. Falls, with or without injuries, have long term effects on the physical and mental well-being of older adults. At the target hospital located in Eastern United States, the med-surg unit had 37 falls within a 12-month period. As a nurse, leader, and project manager, I developed an evidenced-based CPG to prevent falls. When implemented, the CPG will improve the outcomes of the geriatric patients, reduce many injuries related to falls, and be a standardized guide be ready to use not only within the med surg unit but also in many units facing falls within geriatric patients thus improving quality of care and patient outcomes as well as reducing non-reimbursable costs.

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Appendix A: Literature Review Matrix

Melnyk, Bernadette Mazurek, and Ellen Fineout-Overholt's tool
Falls within the Geriatric Population

Reference	Framework-theory or concepts	Research Question(s)/ Hypotheses	Research Methodology	Analysis & Results	Conclusions / Recommendations for future researches	Grading the evidence
Bóriková, I., Tomagová, M., Miertová, M., & Žiaková, K. (2017). Predictive value of the Morse Fall Scale. *Central European Journal of Nursing and Midwifery, 8*(1), 588- 48 595. https://cejnm.osu.cz/pdfs/cjn/2017/01/06.pdf	None	Can the analysis of the literature review help be testing the predictive value of the Morse Fall Scale (MFS)?	Search for full text research studies in Web of science, Scopus, ScienceDirect, and Summon discovery tool based on pre-established criteria, and key words, from 1989 to 2016.	Sensitivity value ranged from 31% to 98%, and specificity values from 8% to 97% in 14 analyzed studies. The predictive value of the tool in validation studies varies depending on the tested cut-off value, the type of clinical ward, the frequency of assessment, the size and the age of the sample, and the length of the hospitalization.	The predictive values of the Morse Fall Scale (MFS) are not stable; they vary in clinical conditions according to various factors. When implementing the tool for a specific clinical ward , an optimum cut-off score must be established to ensure that preventive strategies do not require unnecessary effort on the part of the staff , and do not increase hospital costs.	II
Centers for Disease Control and Prevention (CDC). 2015. Preventing	None	What is the most appropriate effective evidenced-	Hospitalized patient, elderly with dementia can benefit	By offering the fall program prevention, falls and	Understanding fall risk factors can decrease the occurrence	VI

falls: A guide to implanting effective community-based fall prevention programs. (2ed edition). *U. S. Department of Health & Human Services*, 1-9.		based fall prevention programs?	from multiple fall prevention intervention	fall related injuries can be reduced.	of fall among elders	
Chu, R. Z. (2017). Preventing in-patient falls. The nurse's pivotal role. *Nursing, 47*(3), 24-30. https://pubmed.ncbi.nlm.nih.gov/28187015/	None	Are nurse's education and fall prevention program are enough to prevent falls?	This is a quantitative study done in 577 hospitals	In this quantitative study within 577 hospitals, 77% of falls weren't witnessed and 85% of falls weren't associated with injuries .	The hospitals and staff-related factors that can affect the risk of fall can be the call light misuse, bed and chair alarm turned off, and inadequate nurse -to-patient ratio	I
Gale, C. R., Cooper, C., & Sayer, A. A. (2016). Prevalence and risk factors for falls in older men and women: The English longitudinal study of aging. *Age and Aging, 45(*6*),* 789-794. https://pubmed.ncbi.nlm.nih.gov/27496938	None	Does prevalence of falls differ between the sexes?	Longitudinal e study used 4301 men and women aged 60 and over as participants who had taken part in the 2012-13 survey of the English longitudinal study of Ageing. The survey includes information about sociodemographic, lifestyle, and behavioral	In a multivariable logistic regression models, severe pain and diagnostic of at least one chronic disease were independently associated with falls in both sexes ,	Even thought there is some homogeneity between the sexes in the risk factors that were associated with falls , the existence of several sex-specific risk factors suggests that gender should be taken into consideration into	II

			and medical factors, had on their physical and cognitive function, also included question about if the participant had fallen in the last two years.		account in designing fall prevention strategies.	
Goldsack, J., Bergey, M., Mascioli, S., & Cunningham, J. (2015). Hourly rounding and patient falls: What factors boost success? *Nursing, 45*(2), 25-30. pubmed.ncbi.nlm.nih.gov/25585219/	None	Is implementing patient - centered proactive hourly rounding can reduce the prevalence of falls in the acute care setting?	30-day prospective pilot study conducted in two units with pre- and postimplementation evaluation to determine the impact of patient-centered proactive hourly rounding on patient falls .	The pilot period fall rate decreased on the unit where staff and leadership were engaged in the project from the outset. However in unit 2 where no run-in period , no significant decrease from the baseline was noted.	Engaging an interdisciplinary team, including leadership and unit champions, and implementation of patient-centered proactive hourly rounding program was associated with a significant reduction in the fall in unit one. The implementation of the same program in the unit 2 without engaging leadership did not impact fall rate.	II
Pasa, T. S., Magnago, T. S., Urbanetto, J. S., Bittencout, H.	None	Does MORSE fall scale (MFS) help in	Methodological longitudinal study with	The best estimate to predict the fall was to	The results showed that the MSF can	II

R., Franz, F., & Rosa, V. P. (2017). Analysis of risk prediction capability and validity of Morse Fall Scale Brazilian version. *Gaucho Magazine of Sickness, 37*(4): e62200. https://doi.org/10.1590/1983-1447.2016.04.62200		predicting falls?	1487 adult patients of 2 universities hospitals of Rio Grande de Sul, Brazil conducted from November 2013 to March 2014. The MFS was used to assess the risk of falls	cut off point 44.78 of the average of MFS with a sensitivity of 95.2 % and a specificity of 64%.	appropriately predict the risk of falls at a cut off point for the high-risk classification, according to the original classification. The MFS had adequate validation test results	
Pirrie, M., Saini, G., Angeles, R., Marzanek, F., Parascandola, J., & Agarwal, G. (2020). Risk of falls and fear of falling in older adults residing in public housing in Ontario, Canada: Findings from a multisite observational study. *BioMed Central Geriatrics ,20*(11), 1-8. https://pubmed.ncbi.nlm.nih.gov/31918674	None	Do older adults living in public housing have a unique risk factor or multiple?	Sociodemographic and health-related data was collected as part of a community - based health assessment program with older adults in public housing.	Within 95 participants the prevalence of falls in the past year was 34.5%, 20.2% seeking medical attention for falls, and 38.8 with fear of falling.	Older aults residing in public housing have unique risk factors associated with social determinant of health, such as low fruit and vegetable consumption, which may increase their risk of falls. The funding of this study can be used to inform falls interventions for this population and identify areas for further research	II
Saleh, M., & Jeannes, R. B. (2017). Elderly fall detection	None	Does automatic fall detection for	Wearable fall detectors are responsible	Experimental results on a large open database	There was a challenging problem of designing an	II

using wearable sensors: A low cost highly accurate algorithm. *The Institute of Electrical and Electronic Engineering, 19(*8), 3156-3164. https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8603837		the elderly can be used as a tool to prevent fall?	for sending an alarm to some authorized team as soon as a fall is detected. The geographical position of the elderly is sent as well. In this study a low -cost highly accurate machine learning-based fall detection algorithm is proposed.	show that the accuracy of the proposed algorithm exceeds 99.9% with a computational cost of less than 500 floating point operations per second.	accurate low-power consumption wearable fall detector for indoor and outdoor environments	

Note. Evidence graded using the hierarchy of evidence model from "Evidence-based Practice Step by Step: Critical appraisal of the evidence: Part I," by E. Fineout-Overholt, B. M. Melnyk, S. B Stillwell, and K. M Williamson, 2010, *American Journal of Nursing, 110*(7), p.47-60.

Appendix B: Fineholt Grading the Evidence

Hierarchy of Evidence for Intervention Studies

Type of evidence	Level of evidence	description
Systematic review or meta-analysis	I	A synthesis of evidence from all relevant randomized controlled trials.
Randomized controlled trial	II	An experiment in which subjects are randomized to a treatment group or control group.
Controlled trial with-out randomization	III	An experiment in which subjects are nonrandomly assigned to a treatment group or control group
Case-control or cohort study	IV	with those who don't have the condition (control) to determine characteristics that might predict the condition. Cohort study: an observation of a group(s) (cohort[s]) to determine the development of an outcome(s) such as a disease.
Systematic review of qualitative or descriptive studies	V	A synthesis of evidence from qualitative or descriptive studies to answer a clinical question.
Qualitative or de-scriptive study	VI	Qualitative study: gathers data on human behavior to understand why and how decisions are made. Descriptive study: provides background information on the what, where, and when of a topic of interest
Expert opinion or consensus	VII	Authoritative opinion of expert committee

Adapted with permission from Melnyk BM, Fineout-Overholt E, editors. Evidence-based practice in nursing and healthcare: a guide to best practice [forthcoming]. 2nd ed. Philadelphia: Wolters Kluwer Health/Lippincott Williams and Wilkins

Appendix C: Clinical Practice Guideline for Fall Prevention (CPGFP) in Geriatric Patients

Procedure

- The fall assessment will be performed for older adults 65 of age and older at the bedside upon admission by the admitting nurse.
- If the patient is alert and oriented and answers yes to any of the risk assessment questions
    - The CPGFP will be initiated, addressing all the identified interventions.
- If the patient is not alert or is confused
    - The CPGFP will be automatically initiated
- The fall assessment will be repeated when the patient:
    - Has a change in mental status
        - Cerebrovascular accident
        - Altered mental status
        - Extubation
        - Any condition that was not present on admission
    - Has had a recent fall during his /her hospitalization and/or home

Question

- What interventions can a nurse do to best prevent the occurrence of falls?

Population

- The CPGFP will be initiated for:
    - patients who are 65 years of age and older AND patients with high risk of falling
        - With or without previous history of fall, and /or
        - At high risk of falling
        - Decreased level of consciousness
        - Altered mental status
        - Confusion
        - Dementia
        - History of stroke with residual effects
        - Gait dysfunction
        - Incontinence
        - Syncopal episodes during or prior to admission
        - Visual and/or auditory impairment
        - Polypharmacy including sedative and/or psychotropic medications
    - (Centers for Disease Control and Prevention (CDC), 2015)

Recommendations

There is no protocol in place for falls prevention although the literature shows the use of strategies for in-hospital preventive interventions regarding falls such as Morse fall scale

(MFS; Bóriková et al., 2017), situation awareness, team work, and hourly rounding (Goldsack et al., 2015) can reduce the frequency of falls and fall injuries.

* Falls constitute a major concern for hospitalized patients
    - Especially those who are 65 of age and older
* Falls increase length of stay, reduce quality of life (Chu, 2017)
* Nurses can assist in the prevention of falls by assessing patients during the admission process to identify those who are at risk for falls and initiate preventive measures
* Thirty-seven falls have been reported over a 12-month period on the target medical-surgical (med- surg) unit
*The occurrence of falls can be prevented through an effective fall prevention program
*The CPG could provide a standardized solution to reduce falls in geriatric patients through the implementation of evidence-based practice (CDC, 2015)

Key Evidence

- Using specific tools to identify individuals at high risk for falling can lead the staff to target appropriate interventions to those with the highest risks (Pasa et al., 2017).
- Tools such as the Morse Fall Scale (MFS), a tool used for the initial assessment of fall risk in clinical settings, can prevent the occurrence of falls.
- Hourly rounding with the assessment of pain, toileting needs, and other concerns showed a significant reduction in call light use and a decrease of falls as well as an increase in patient satisfaction (Saleh et al., 2017).
- A falls toolkit, including a yellow wristband, socks, and magnet at the door, was another method of communicating with staff about a patient at risk of falls (Chu, 2017).
- The development and implementation of a CPG should provide evidence-based guidelines to reduce the occurrence of falls, improve patient outcomes, and decrease costs for the health care system due to fall related injuries (Pirrie et al.,2020).

Guideline Monitoring

The guideline should be reviewed every 3 years or whenever new literature or guidelines related to falls reduction are identified.

Barriers to the application of this guideline should be addressed as they arise by the practitioner and before implementation.

No funding was requested or received throughout the Clinical Practice Guideline for Fall Prevention among Geriatric Patients Project as I developed this CPG.

Fall Risk Assessment

- **(Please answer yes or no to the question related to the patient's current and/or past condition)**
    - **If one or more of the answers is yes, initiate CPGFP**

Altered mental status, confusion, presence of cognitive deficit (dementia)
Depression symptoms
Taking sedative, narcotic, psychotropic medications
History of a fall
History of cerebrovascular accident with residual effects (side weakness /paralysis, facial drooping
Orthostatic hypotension
Visual, hearing impairment
Urinary problems such as incontinence, urgency
Poor balance
Frailty
Presence of pain, chronic diseases
Ambulatory aids (cane, walker…)
Intravenous therapy
Indwelling foley catheter

Adopted from: CDC (2015)

Fall Preventive Protocol

(Use this protocol if one or more of the questions to the fall risk assessment is "yes")

Place signage at the door and over the head of bed identifying patient as high risk for falls
Educate patient/family on different fall prevention strategies such as: the use of the call bell keep bed at lowest position keep room clutter free
Keep the bed at lowest position except when delivering care
Keep wheels locked when not moving the bed
Keep upper bedrails up
Keep room clutter free
Apply yellow socks and yellow wristband
Keep frequently used items within reach call bell telephone eyeglasses hearing aids table cane/walker
Hourly rounding to assess pain toileting *** remain with the patient while toileting positioning personnel needs
Bed/chair alarm on alert the nursing staff if the patient is trying to get out of the bed /chair.
For patients with dementia, decrease lightning and stimulation such as noise
For patients with advanced dementia, consider a sitter at the bed side

Adapted from: MedstarHealth. (n.d.). *Fall Prevention and Safety message.*
(https://www.medstarhealth.org/-
/media/project/mho/medstar/locations/fall_prevention_education_flyer.pdf)

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Appendix D: AGREE II Score Sheet

Domain	Item	AGREE II Rating						
		1 *Strongly Disagree*	**2**	**3**	**4**	**5**	**6**	**7** *Strongly Agree*
Scope and purpose	1. The overall objective(s) of the guideline is (are) specifically described.							
	2. The health question(s) covered by the guideline is (are) specifically described.							
	3. The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described.							
Stakeholder involvement	4. The guideline development group includes individuals from all the relevant professional groups.							
	5. The views and preferences of the target population (patients, public, etc.) have been sought.							
	6. The target users of the guideline are clearly defined.							
Rigor of development	7. Systematic methods were used to search for evidence.							
	8. The criteria for selecting the evidence are clearly described.							
	9. The strengths and limitations of the body of evidence are clearly described.							
	10. The methods for formulating the recommendations are clearly described.							
	11. The health benefits, side effects and risks have been considered in formulating the recommendations.							
	12. There is an explicit link between the recommendations and the supporting evidence.							
	13. The guideline has been externally reviewed by experts prior to its publication.							
	14. A procedure for updating the guideline is provided.							
Clarity of presentation	15. The recommendations are specific and unambiguous.							
	16. The different options for management of the condition or health issue are clearly presented.							
	17. Key recommendations are easily identifiable.							
Applicability	18. The guideline describes facilitators and barriers to its application.							

Domain	Item	AGREE II Rating						
		1 *Strongly Disagree*	**2**	**3**	**4**	**5**	**6**	**7** *Strongly Agree*
	19. The guideline provides advice and/or tools on how the recommendations can be put into practice.							
	20. The potential resource implications of applying the recommendations have been considered.							
	21. The guideline presents monitoring and/ or auditing criteria.							
Editorial independence	22. The views of the funding body have not influenced the content of the guideline.							
	23. Competing interests of guideline development group members have been recorded and addressed.							
Overall Guideline Assessment	1. Rate the overall quality of this guideline.	**1** *Lowest possible quality*	**2**	**3**	**4**	**5**	**6**	**7** *Highest possible quality*
Overall Guideline Assessment	2. I would recommend this guideline for use.	*Yes*	*Yes, with modifications*		*No*			