Fall Prevention Clinical Practice Guideline to be Considered by
The Army Nursing Practice Council (AN PC)

Guideline Title

Fall Prevention Clinical Practice Guideline *(For Adult & Pediatric: Inpatients of Military Medical Treatment Facilities)*

Focus

All inpatients of military medical treatment facilities (MTFs) have the right to a safe environment free from the risks associated with falls. This Clinical Practice Guideline (CPG) establishes policy and procedures for military MTF staff who care for inpatients at risk for falls and/or who fall. A comprehensive review of fall prevention interventions has been conducted in the development of this CPG.

Developers

This CPG was updated and modified by nurses from the Center for Nursing Science and Clinical Inquiry, Madigan Healthcare System, to reflect evidence-based nursing practices related to fall prevention. The effort was part of a TriService Nursing Research Program grant, "Evaluating Evidence-Based Interventions to Prevent Falls and Pressure Ulcers, PI: Gowenlock (#N08-C03)[1]. Developers of this guideline include: Nancy Hodge, MSN, RN, ACNS-BC, MAJ Linda Gowenlock AN, MSN, ACNS-BC, Lori Loan, PhD, RNC-NIC, Mary McCarthy, PhD, RN and Susan Chambers, BSN, RNC-NIC. Individuals with expertise in evidence-based practice were responsible for rating the evidence and include: Lori Loan PhD, RNC-NIC and Mary McCarthy, PhD, RN. The development and evaluation team was comprised of nurses, to include staff nurses, actively contributing to fall risk assessment and prevention practice in pediatric and adult populations in the inpatient setting. All developers and evaluators have completed evidence-based practice integration training through the University of Iowa Advanced Practice Institute. All developers report no conflict of interest related to the CPG.

Sponsors

TriService Nursing Research Program(TSNRP) provided salary support for an experienced contract professional to coordinate and assist in CPG development and modification as part of "Evaluating Evidence-Based Interventions to Prevent Falls and Pressure Ulcers, PI: Gowenlock (#N08-C03)[1]. The mission of TSNRP is to facilitate nursing research to optimize the health of military members and their beneficiaries. TSNRP has no conflict of interest related to this CPG and has not influenced these final recommendations. There are no additional sponsors.

External Reviewers

The CPG has been evaluated using the AGREE Instrument[2] under the coordination and supervision of the following expert reviewers:
LTC Laura Feider AN, PhD, Institute of Surgical Research, Fort Sam Houston, Texas; LTC Lori Trego AN, PhD, CNM, Tripler Army Medical Center, Honolulu, Hawaii; LTC Nancy Steele AN, PhD, CNM, Landstuhl Regional Medical Center, Landstuhl, Germany.

The external reviewers were not involved in the development of this CPG and were selected based on demonstrated expertise in evidence-based practice, the methodologic instrument, and experience with diverse patient populations in a variety of military MTFs.

Objectives

1) The purpose of this guideline is to prevent falls and serious injury of inpatients in our military medical treatment facilities.
2) Recognize multifactorial risks that cause falls by using evidence-based patient risk assessment tools, developmental considerations and environmental risk assessment.
3) Recommend evidence-based patient-centered care consistent with current evidence-based practice interventions, clinical practice guidelines, and standards of care across all military MTFs to reduce falls.

Users and Settings

This guideline is intended for use by all military medical treatment facility staff members and contains specific guidance for Department Chiefs, Education Chiefs, Patient Safety Managers, Service/Section Chiefs, Clinical Nurse OICs, NCOICs, Nursing Staff, Housekeeping, and all military MTF staff.

Target Population

This CPG applies to all adult and pediatric inpatients at military medical treatment facilities.

Evidence Collection Method

The literature search focused on locating systematic reviews and meta-analyses, randomized trials, controlled before-and-after studies, and cohort studies using a combination of subject heading and free text searches. The workgroup made extensive use of high-quality recent review articles and bibliographies, as well as contact with subject matter experts in the military services. New searches concentrated on areas of importance to the guideline development process for which existing systematic reviews were unable to provide valid or up-to-date information. In additional, military-unique sources of evidence were queried to support recommendations where appropriate (e.g. position descriptions, Department of Army pamphlets, regulations, and policies, and institutional patient safety and clinical policies). The expert knowledge and experience of workgroup members also reinforced the search strategy. Every effort was made to use only the most current and classic papers; therefore, the guideline is based on articles that were available to the workgroup through January 2011. Articles represent the best sources of evidence from 1993 through 2010.

Development of a search strategy to locate best evidence began by selecting appropriate databases, followed by vocabulary terms that would best capture the interventions of interest. According to experts, the three major databases for finding the best primary evidence for clinical nursing questions are the Cochrane Database of Systematic Reviews, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Medline or PubMed. Sources of evidence were also identified by faculty from the University of Iowa Advanced Practice Institute using grant sponsored publications such as *the Evidence-Based Practice Guideline for Fall Prevention for Older Adults (2004)*[3]; their assistance was invaluable during the EBP training workshop.

Synthesis sources such as UpToDate®, and abstract journals, such as *Evidence Based Nursing,* supplemented the original searches. In addition, websites such as Institute for Healthcare Improvement, American Nurses Association/National Database of Nursing Quality Indicators, Robert Wood Johnson Foundation, Centers for Disease Control and Prevention, Veterans Health Administration, and National Guidelines Clearinghouse were queried for relevant research reports and publications. Results from the initial search using terms such as "fall prevention", "fall prevention programs", "fall prevention protocols", "inpatient falls", "patient outcomes", "nurse-sensitive outcome measures", "falls in hospitalized adults", "inpatient falls", "pediatric falls", "falls in hospitalized children", "fall rates", "nursing care and falls", "fall prevention interventions", and "fall risk assessment", "fall assessment", "fall assessment tools", and "fall definition" led the team to other cited articles, prompting new ideas for expanding or narrowing the literature search with related terms in the article abstract. Filters were applied to select publications written only in the English language and addressing hospital-based interventions. Papers were also screened for incompatible cultural considerations. It was important that the role of nurses, specifically, was described in the protocol and care was congruent with U.S. nursing practice.

A literature search conducted by researchers from the Center for Nursing Science & Clinical Inquiry in the Madigan Healthcare System for the purpose of identifying evidence to support the Joint Commission 2009 Patient Safety Goal related to prevention of falls while preparing the TSNRP grant proposal[1] provided the initial set of articles reviewed for the guideline. Articles chosen for review included meta-analyses and systematic literature reviews, randomized controlled trials, nonrandomized clinical trials, case control studies, and cohort studies in which outcomes involved data related to fall risk or fall prevention, as well as articles that may have offered epidemiological, cost effectiveness, or other background information. For each article, tested interventions were extracted. Reference lists of included publications were scanned for any additional relevant studies, and when identified, these were obtained for review.

Recommendations and Grading Criteria

The Evidence-Based Practice Workgroup decided that when rating the level of supporting evidence for a practice recommendation made in the guideline, the following two rating systems would be used in order to incorporate strength and quality:

1. **<u>Strength</u> of Evidence Rating System for the Hierarchy of Evidence**
   (Modified by Melnyk & Fineout-Overholt [4], from Guyatt & Rennie [5]).

   Level I: Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials (RCTs) or evidence-based clinical practice guidelines based on systematic reviews of RCTs.

   Level II: Evidence obtained from at least one well-designed RCT.

   Level III: Evidence obtained from well-designed controlled trials without randomization.

   Level IV: Evidence from well-designed case-control and cohort studies.

   Level V: Evidence from systematic reviews of descriptive and qualitative studies.

Level VI: Evidence from a single descriptive or qualitative study.

Level VII: Evidence from the opinion of authorities or reports of expert committees.

2. **Quality of Evidence Rating**

(Johns Hopkins Nursing Quality of Evidence Appraisal[6]

Grade	Nomenclature	Definition For Research Evidence	For Non-Research Evidence
A	High	Consistent results, sufficient sample size, adequate control, and definitive conclusions; consistent recommendations based on extensive literature review that includes thoughtful reference to scientific evidence	Expertise is clearly evident
B	Good	Reasonably consistent results, sufficient sample size, some control, and fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence.	Expertise appears to be credible
C	Low/Major Flaw	Little evidence with inconsistent results, insufficient sample size, conclusions cannot be drawn	Expertise is not discernible or is dubious

Method for Synthesizing Evidence

The EBP Workgroup[7] identified and synthesized relevant published evidence to allow recommendations to be evidence-based, whenever possible, using the grading criteria in the following section. The grading criteria describe both the strength of the scientific evidence by type of investigation (randomized controlled trial, case-control, manufacturer's recommendations), and the quality of the evidence (low, good, or high). As happens with most expert review panels a group consensus was used at times when the evidence was not comprehensive enough to fully support an intervention, but was the best evidence available. Inevitably this is a subjective process at times. A table was created that listed all the references, the strength and quality of each one, and the fall prevention interventions tested, along with the effect on primary and secondary outcomes. This information was then used to generate the recommendations put forth in this clinical practice guideline. No attempt was made to verify reported statistical calculations or to contact authors for additional information.

Prerelease Review

Historically, fall prevention policies and procedures have been utilized in military MTFs to prevent inpatient and outpatient falls. A previous evidence-based fall prevention CPG, developed as part of "Evaluating Evidence-Based Interventions to Prevent Falls and Pressure Ulcers"[1] addressing Joint Commission Patient Safety Goal 9 (2009), has been in place within the Madigan Healthcare System since 2009. This CPG provides evidence-based patient centered

interventions to reduce inpatient falls but does not include all of the current tools. The John Hopkins Hospital Fall Risk Assessment Tool was tested in two separate studies in adult populations with favorable reports of feasibility and outcomes.[8, 9] The Humpty Dumpty Fall Scale (HDFS) and the pediatric falls prevention interventions outlined in this CPG were evaluated at Children's Hospital Central California and an additional pediatric teaching facility with favorable reports of feasibility and outcomes. [10] [11]

Definitions

a. Fall. A sudden unplanned event, witnessed or unwitnessed, that results in the patient descending or coming to rest unintentionally on the ground/floor (or extension of the floor, e.g., trash can or other equipment) with or without injury. The descent begins from a standing, sitting or horizontal position to include slipping from a chair to the floor. All types of falls are included, whether they result from physiological or environmental reasons. [12]

b. Developmental Pediatric Fall. Non-injurious fall that is common to infant and toddlers as they are learning to walk, pivot and run. [12]

c. Accidental Fall. Fall that results from a person slipping, tripping, or having some other mishap. This type of fall is often caused by environmental factors such as water or urine on the floor. [13]

d. Anticipated Physiological Fall. Fall that occurs to a patient identified at risk for falls. Factors including complicated patients such as those with multiple diagnoses, history of a previous fall, weak or impaired gait, IV/saline lock, and an ambulation aid may designate a patient at a higher risk for falling. [13]

e. Unanticipated Physiological Fall. Fall that cannot be predicted. Examples of this type of fall include seizures, drug reaction or side effect, fainting, or pathologic fracture. [13]

f. Near Miss Fall. An event or situation that could have resulted in an accidental, anticipated or unanticipated fall, but did not, either by chance or through timely intervention. Or, where a patient is assisted to the floor/lower surface by another individual without injury to the patient. [12]

g. Patient-Centered Bedside Rounds. Deliberate, planned bedside interaction between a nursing staff member and a patient at prescribed intervals using a standardized checklist to individualize patient-centered interventions. [7]

h. Agency for Healthcare Research and Quality (AHRQ) Harm Scale – Degree of Harm [14](assigned by Patient Safety Manager)

1) No Harm - Event reached patient, but no harm was evident

2) Emotional Distress or Inconvenience

a) Mild and transient anxiety or pain or physical discomfort, but without the need for additional treatment other than monitoring (such as by observation; physical examination; laboratory testing, including phlebotomy; and/or imaging studies).

b) Distress/inconvenience since discovery, and/or expected in the future as a direct result of event.

3) Additional Treatment

a) Injury limited to additional intervention during admission or encounter and/or increased length of stay, but no other injury.

b) Treatment since discovery, and/or expected treatment in future as a direct result of event

4) Temporary Harm - Bodily or psychological injury, but likely not permanent. Prognosis at the time of assessment.

5) Permanent Harm - Lifelong bodily or psychological injury or increased susceptibility to disease. Prognosis at the time of assessment.

6) Severe Permanent Harm - Severe lifelong bodily or psychological injury or disfigurement that interferes significantly with the functional ability or quality of life. Prognosis at the time of assessment.

7) Death - Death at the time of the assessment.

Recommendations and Rationale

Practice Recommendations	**Level of Evidence (Strength & Quality)**	**References**
6. Fall Prevention Procedures		
a. Inpatients-Adults.		
(1) Fall Risk Assessment		
(a) Utilizing the Johns Hopkins Hospital (JHH) Fall Assessment Tool, licensed nursing staff will assess all patients regarding their risk for falling	**Level VI, A** **Level V, B**	**Poe et al. , *JNCQ* (2007)** **Poe et al., *JNCQ* (2005)**
(b) Fall Risk Assessment Frequency:		
1. Within 4 hours of admission and every shift.	**Level VII, A**	**VHA, NPCST (2004)**
2. When there is a change in the patient's status (i.e. surgery, an invasive procedure, actual fall, changes in mental status, significant change in therapeutic regimens or medications, etc.).	**Level VII, A**	**IHI (2008); Lancaster et al., (2007);VHA, NCPST (2004)**
3. Upon transfer to another unit.	**Level VII, A**	**VHA, NCPST (2004)**

Practice Recommendations	Level of Evidence (Strength & Quality)	References
4. PRN (e.g. change in caregiver).	**Level VII, B**	**EBPW (2010)**
(2) Standard fall prevention interventions will be provided to all adult patients by clinical staff regardless of risk assessment score. These include:	**Level VII, A**	**The Joint Commission (2009)**
(a) maintaining a safe unit environment including: 1. removing excess equipment/supplies from rooms and hallways. 2. coiling and securing excess electrical and telephone wires. 3. cleaning spills in patient room or in hallway immediately. 4. placing signage to indicate wet floor danger. 5. restrict window openings.	**Level V, B** **Level VII, A** **Level VII, B** **Level VII, B**	**Poe et al., *JNCQ* (2005)** **IHI (2008); VHA, NCPST (2004)** **MEDCOM Clinical OIC(1997)/NCOIC (2003) position description** **DA PAM 385-80 (2007)**
(b) basic patient safety interventions including:	**Level V, B**	**Poe et al., *JNCQ* (2005)**
1. Orient patients to their room and bathroom. Show them how to use the call bell and ensure the call bell is within easy reach.	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **VHA, NCPST (2004)**
2. Educate the patient and his/her family and visitors regarding fall risk and prevention activities (consider "Teach Back" method).	**Level IV, B** **Level I, A** **Level VII, A**	**Wood, *INRC:EBP* (2006)** **Oliver, *JAGS* (2000** **VHA, NCPST (2004); IHI (2008)**
3. Encourage patients/families to call for assistance when needed.	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **VHA, NCPST (2004)**

Practice Recommendations	Level of Evidence (Strength & Quality)	References
4. Place beds in the lowest position with the wheels locked.	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **VHA, NCPST (2004); IHI (2008)**
5. Lock all wheels on wheelchairs and cardiac/geriatric chairs when in a stationary position.	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **VHA, NCPST (2004)**
6. Place side rails in an upright position as needed. Evidence indicates use of all 4-bed rails has been linked to patient injury. *(Placing all bed rails in the up position may be considered a restraint depending on your hospital restraint policy.)*	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **VHA, NCPST (2004)**
7. Ensure patients wear snug fitting, non-slip footwear while ambulating.	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **VHA, NCPST (2004)**
8. Ensure hallways and floors remain dry and clear of any obstacles, especially items that slide or roll.	**Level VII, A**	**VHA, NCPST (2004)**
9. Clearly identify/remove any hazardous areas or obstacles upon which the patient might trip (i.e., trashcans, laundry containers, computer terminal stands and cords, patient's personal items, etc).	**Level VII, A**	**VHA, NCPST (2004)**
10. Ensure bedside tables with personal items (e.g. eyeglasses) and any ambulatory devices (walkers, canes, etc) are within easy reach of the patient at all times.	**Level V, B** **Level VII, A**	**Poe, et al., *JNCQ* (2005)** **VHA, NCPST (2004)**
11. If a patient becomes disoriented, attempt reorientation, and reinforce education regarding fall prevention.	**Level VII, A**	**Ryu et al., *JNCQ* (2009)**

Practice Recommendations	Level of Evidence (Strength & Quality)	References
12. Ensure proper lighting is available, especially at night.	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **VHA, NCPST (2004)**
13. When transporting a patient in a wheelchair or on a litter, ensure the safety strap is in place and/or siderails are up.	**Level VII, A**	**EBPW (2010)**
(3) In addition to the standard fall prevention interventions, patients determined to be at **moderate risk for falling**, with a score of 6-13 on the JHH Fall Assessment Tool, will have moderate risk fall prevention interventions initiated which include:	**Level V, B**	**Poe et al., JNCQ (2005)**
(a) Identify patients at risk for falling with visual cues (e.g. colored socks, blankets, and/or wrist bands; posters in/outside room).	**Level V, B** **Level V, B** **Level VII, A**	**IHI, (2008)** **Poe et al., *JNCQ* (2005)** **Lancaster et al. *JCJQPS* (2007); VHA, NCPST (2004)**
1. Post an at-risk indicator (Falling Star sign, Appendix C) in a visible area within the patient's room and on the census board to alert staff that fall prevention precautions are in effect.	**Level V, B** **Level V, B** **Level VII, A**	**IHI, (2008)** **Poe et al., *JNCQ* (2005)** **VHA, NCPST (2004)**
2. Place the yellow Falls Risk ID Band on the patient's wrist and yellow non-skid socks on the patient.	**Level VI, B** **Level VII, A** **Level VII, A**	**Bemis-Dougherty, *PT*, (2008)** **Lancaster et al., *JCJQP* (2007); VHA, NCPST (2004)** **Meddaugh et al., 1996**
(b) During nursing shift reports, identify and discuss all patients deemed at risk for falling.	**Level VII, A**	**IHI (2008)**
(c) Educate the patient and his/her family and visitors regarding falls risk and prevention activities (Consider "Teach Back" method).	**Level VII, A**	**IHI (2008); VHA, NCPST (2004)**

Practice Recommendations	Level of Evidence (Strength & Quality)	References
(d) Conduct patient-centered rounding at least every 2 hours. Check patient for the 4 Ps: pain, positioning, pottying, possessions and environmental hazards. Ensure the bedside commode or urinal is readily accessible and empty.	**Level III, B** **Level VII, A**	**Meade et al., AJN (2006)** **IHI (2008); VHA, NCPST (2004)**
(e) Supervise and/or assist bedside sitting, personal hygiene, and toileting as appropriate.	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **IHI (2008); VHA, NCPST (2004)**
(f) Reorient all patients as necessary, but confused patients in particular.	**Level VII, A**	**Lancaster et al., JCJQPS (2007)**
(g) Establish an elimination schedule, when appropriate, incorporate use of bedside commode.	**Level I, A** **Level V, B** **Level VII, A**	**Coussement, *JAGC*, (2008)** **Poe et al., *JNCQ* (2005)** **VHA, NCPST (2004)**
(h) Consider consult to Physical/Occupational Therapy if patient has a history of fall and/or mobility impairment.	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **IHI (2008); VHA, NCPST (2004)**
(i) Consider using a bed exit or personal alarm for all patients scoring 1 or greater on cognition in the JHH Fall Assessment Tool.	**Level VII, A**	**VHA, NCPST (2004)**
1. Ensure that the alarm works and is audible at the time it is initiated and each time a new nurse assumes care.	**Level VII, A**	**IHI (2008)**
2. Respond rapidly to the alarm when it is activated.	**Level VII, B**	**EBPW (2010)**
(j) Communicate to Licensed Independent Provider (LIP) factors influencing the patient's risk so that orders written by the LIP support activities that will reduce falls risk or falls occurrence.	**Level VII, A**	**Lancaster et al., *JCJQPS* (2007)**
(4) In addition to the standard and moderate risk fall prevention interventions, patients determined to be at **high risk for falling**, with a score of greater than 13 on the JHH Fall	**Level V, B** **Level II, A**	**Poe et al., *JNCQ* (2005)** **Dykes et al., *JAMA* (2010)**

Practice Recommendations	Level of Evidence (Strength & Quality)	References
Assessment Tool, will have individualized high risk fall prevention interventions initiated which include:		
(a) Remain with the patient while toileting.	**Level V, B**	**Poe et al., *JNCQ* (2005)**
(b) Conduct patient-centered rounding every hour.	**Level III, B** **Level V, B**	**Meade et al., *AJN* (2006)** **Poe et al., *JNCQ* (2005)**
(c) Move the patient to a room with direct line of sight to the nursing station to facilitate frequent and closer observation.	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **IHI (2008); VHA, NCPST (2004)**
(d) Transport off unit with assistance of staff or trained caregivers. Notify receiving area of high fall risk.	**Level V, B**	**Poe et al., *JNCQ* (2005)**
(e) Encourage family to stay with the patient or consider using a sitter.	**Level V, B** **Level VII, A**	**Poe et al., *JNCQ* (2005)** **IHI (2008); VHA, NCPST (2004)**
(f) Provide diversion therapy such as TV, activity aprons, lacing cards, or a volunteer reader for confused patients.	**Level VII, A**	**Lancaster et al., *JCJQPS* (2007)**
b. Inpatient-Pediatrics.		
(1) Fall Risk Assessment		**The Joint Commission (2009)**
(a) Utilizing the Humpty Dumpty Fall Scale (HDFS) fall risk assessment tool licensed nursing staff member will assess all pediatric patients regarding their risk of falling.	**Level IV, B** **Level VII, A**	**Wood, *INRC:EBP* (2006)** **CHCA, *PN*, (2009)**

Practice Recommendations	Level of Evidence (Strength & Quality)	References
(b) Normal developmental falls in infants, toddlers, and preschoolers are related to learning to stand, walk, run and pivot. The licensed nurse will consider the infant/child's development, family involvement and environment in regards to fall risk.	**Level VII, A** **Level V, A**	**CHCA, *PN*, (2009)** **Cooper & Nolt, *JNCQ* (2007)**
(c) Fall-Risk Assessment Frequency		
1. Within 4 hours of admission and every shift.	**Level VII, A**	**VHA, NPCST (2004)**
2. When there is a change in the patient's status (i.e. surgery, an invasive procedure, actual fall, changes in mental status, significant change in therapeutic regimens or medications, etc.).	**Level VII, A**	**IHI (2008);** **Lancaster et al., *JCJQPS* (2007);** **VHA, NCPST (2004)**
3. Upon transfer to another unit.	**Level VII, A**	**VHA, NCPST (2004)**
4. PRN (e.g. with change in caregiver).	**Level VII, A**	**EBPW (2010)**
(2) All pediatric patients are considered at risk for falling. Standard fall prevention interventions will be provided to all pediatric patients by clinical staff regardless of risk assessment score. These include:	**Level V, A**	**Cooper & Nolt, *JNCQ*, (2007)**
(a) Keep hand contact with infants, young children, developmentally delayed or cognitively impaired children on treatment tables or scales to prevent a fall.	**Level VII, A**	**CHCA, *PN*, (2009)**
(b) Children four and under will occupy cribs, bassinets, warmers or incubators. If all sides of these devices are not in the upright locked	**Level V, A**	**Cooper & Nolt, *JNCQ*, 2007**

Practice Recommendations	Level of Evidence (Strength & Quality)	References
position, keep hand contact at all times. Do not augment the height of the support surface unless orther fall prevention interventions are implemented.	**Level IV, B**	**Levene & Bonfield, *ADC*, 1991**
(c) Children under 10 will occupy youth beds. A child under four may occupy a youth bed if a parent is in attendance at all times.	**Level V, A** **Level IV, B**	**Cooper & Nolt, *JNCQ*, 2007** **Levene & Bonfield, *ADC*, 1991**
(d) Use an enclosed crib (e.g. bubbletop) if the child is at risk for climbing over the rails.	**Level V, A** **Level IV, B**	**Cooper & Nolt, *JNCQ*, 2007** **Levene & Bonfield, *ADC*, 1991**
(e) Use non-skid footwear for ambulating patients, use appropriate size clothing to prevent risk of tripping.	**Level V, A** **Level VII, A**	**Cooper & Nolt, *JNCQ*, 2007** **CHCA, *PN*, (2009)**
(f) Keep the environment clear of unused equipment, furniture in place and clear of hazards.	**Level VII, A**	**DA Pam 385-80 (2007)**
(g) Ensure adequate lighting, leave nightlight on.	**Level V, B**	**Poe et al., *JNCQ* (2005)**
(h) Educate patient and/or parents regarding fall risk and prevention activities.	**Level IV, B** **Level VII, A**	**Levene & Bonfield, *ADC*, 1991** **CHCA, *PN*, (2009)**
(i) Consistently enforce safety rules and activity limitations.	**Level VII, A**	**CHCA, *PN* (2009)**
(j) Maintain surveillance of children in bathtub/shower.	**Level IV, B** **Level VII, A**	**Levene & Bonfield, *ADC*, 1991** **CHCA, *PN* (2009)**

Practice Recommendations	Level of Evidence (Strength & Quality)	References
(k) Keep crib sides up and securely fastened. For children less than 10, the top side rails are always up; all 4 side rails are up while the child is sleeping.	**Level VII, A** **Level VII, B**	**CHCA, *PN* (2009)** **MHS, SOP Pediatrics Unit, dtd November 2010**
(l) Lock bed and crib wheels.	**Level VII, A**	**CHCA, *PN*, (2009)**
(m) Always keep bed in lowest position.	**Level IV, B** **Level VII, A**	**Levene & Bonfield, *ADC* (1991)** **CHCA, *PN* (2009)**
(n) Keep call light/bell within patient reach.	**Level VII, A**	**CHCA, *PN* (2009)**
(o) Maintain hand contact while caring for a child in a crib with side rails down.	**Level V, A**	**Cooper & Nolt, *JNCQ* (2007)**
(p) Transport infants and children appropriately. Position with proper support when transported by crib. Fasten safety belt when transporting on a gurney or wheelchair. The patient's nurse will determine appropriate mode of transportation.	**Level V, A**	**Cooper & Nolt, *JNCQ* (2007)**
(q) Fasten safety belts on high chairs and swings.	**Level VII, A**	**CHCA, *PN* (2009)**
(3) In addition to the standard fall prevention interventions, pediatric patients determined to be at high risk for falling, with a score of 12 or greater on the HDFS, will have high risk fall prevention interventions initiated which include:		
(a) Identify patients at risk for falling with visual cues.	**Level VII, A** **Level V, B** **Level V, B**	**Lancaster, *JCJQPS* (2007)** **IHI (2008)** **Poe et al., *JNCQ* (2005)**

Practice Recommendations	Level of Evidence (Strength & Quality)	References
1. Post an at-risk indicator (Falling Star sign, Appendix C) in a visible area within the patient's room and on the census board to alert staff that fall prevention precautions are in effect.	**Level VII, A** **Level V, B** **Level V, B**	**Lancaster, *JCJQPS* (2007)** **IHI (2008)** **Poe et al., *JNCQ* (2005)**
2. Place the yellow Falls Risk ID Band on the patient's wrist and yellow non-skid socks on the patient.	**Level VI, B** **Level V, A**	**Bemis-Dougherty, *PT* (2008)** **Lancaster, *JCJQPS* (2007)**
(b) During nursing shift reports, identify and discuss all patients deemed at risk for falling.	**Level VII, A**	**IHI (2008)**
(c) Conduct patient-centered rounding every hour.	**Level III, B** **Level V, B**	**Meade, AJN (2006)** **Poe et al., *JNCQ* (2005)**
(d) Accompany patient with ambulation		
(e) Move the patient to a room with direct line of sight from the nursing station to facilitate frequent and closer observation. Keep room door open at all times unless patient is directly attended.	**Level V, B**	**Poe et al., *JNCQ* (2005)**
(f) Encourage parent to stay with the patient or consider using a sitter.	**Level V, B**	**Poe et al., *JNCQ* (2005)**
(g) Provide diversional activity such as an age-appropriate toy, TV, or volunteer reader.	**Level VII, A**	**Lancaster et al., JCJQPS (2007)**
(i) As appropriate, establish an elimination schedule and remain with the patient while toileting.	**Level I, A** **Level V, B**	**Coussement, *JAGC*, (2008)** **Poe, *JNCQ* (2005)**
7. Care of the inpatient who falls. If a patient falls, nursing staff will:		

Practice Recommendations	Level of Evidence (Strength & Quality)	References
a. Immediately assess the patient for injury and stabilize as necessary.		**MEDCOM Reg 40-41**
b. Notify the patient's LIP.		**MEDCOM Reg 40-41**
c. Initiate orders as written.		**MEDCOM Reg 40-41**
d. Initiate the **High Risk** Fall Prevention Protocol if not already in place.	**Level V, A**	**Cooper & Nolt, *JNCQ*, 2007**
e. Document the fall, circumstances, description of injury, fall-related interventions, and outcomes in a clinical note. (Do not document in the medical record that a patient safety report was initiated).	**Level V, A**	**Cooper & Nolt, *JNCQ*, 2007**
f. Conduct a debrief with the nursing team.	**Level VI, B**	**Quigley et al., *JNCQ* (2009)**
g. Discuss the fall and review safety precautions with the patient and family.	**Level VII, A**	**Lancaster et al., *JCJQPS* (2007)**
h. Inform the staff of the increased fall risk for the patient and communicate the incident at the nursing shift report.	**Level V, A** **Level VII, A**	**Cooper & Nolt, *JNCQ*, 2007** **CHCA, PN, 2009**
i. Submit a patient safety report using the on-line Patient Safety Reporting (PSR) System. Annotate information on the 24-hour nursing report sheet.	**Level V, A**	**Cooper & Nolt, *JNCQ*, 2007** **MEDCOM Reg 40-41**
j. Assess staffing requirements and contact the supervisor if additional staff is required.	**Level VII, A**	**EBPW (2010)**

Patient Preferences

Patients were offered an opportunity to review the Clinical Practice Guideline and provide suggestions for improvement or request clarification. Their comments have been incorporated

into the document. In addition, patient preferences were obtained through verbal and written feedback initiated by patients and solicited using patient satisfaction surveys from Sept 2009 to Jan 2011. Dialog with patients during patient-centered rounding on adult inpatient units indicated that many patients perceived they were "well-cared for", "cared about", "felt safe" and the nursing staff was "attentive". Patients verbalized they appreciated the "special care" and "frequent attention" they received from the nursing staff. Patient satisfaction surveys reported an overall high rate of satisfaction with the nursing care they received.

Potential Benefits and Harms

Benefits

1. Standardizing a single fall prevention CPG will decrease practice variance across units, military MTFs and regions and will make it easier for all types of staff to learn and become experts on the prevention and treatment of falls wherever they are assigned.
2. Implementing an evidence-based fall prevention CPG allows all inpatients cared for in any AMEDD facility to receive the same high-level of 'best practice'.
3. Currently every military MTF must develop and implement a fall prevention program. Consolidating the fall prevention CPG development work among one group of content and research experts decreases the system burden of CPG development and increases the caliber of the product.
4. While having a standardized and evidence-based fall prevention CPG will not decrease inpatient falls and fall-related costs, it does increase the odds of such a protocol being successfully implemented. Implementation of an evidence-based fall prevention CPG has been proven to result in both of these positive outcomes.

Harm – No empirical evidence supporting harm from instituting a standardized and evidence-based fall prevention CPG was found.

Algorithm

See Appendix B.

Implementation Considerations

1. Information regarding the hospital fall prevention policy should be incorporated into the new employee orientation curriculum to maintain staff knowledge base related to fall prevention in the face of frequent employee turnover.
2. Annual skill competency fairs may be used to educate staff in an ongoing manner with appropriate documentation of attendance in their competency folder.
3. Toolkits, careplans, and other fall prevention posters, and pamphlets should be available as paper and electronic versions to support implementation of the CPG at all levels of the MTF.
4. The use of health information technology to support fall prevention initiatives has enhanced success resulting in fewer falls (Dykes et al., 2010; McCarter-Bayer, et al., 2005). When available standardized fall prevention nursing order sets, fall risk assessments, and past history of falling should be added to AHLTA and Essentris.

5. The Falling Star at risk visual cue should be printed in color and laminated with several bedside and census board copies available on each unit.
6. Unit champions at MTFs will need to be identified to continually educate staff on the tools, smooth paper-to-electronic transitions, ensure complete implementation of the CPG, and answer questions to assure proper use of tools.
7. Facilities should monitor falls and fall prevention CPG implementation processes at the unit level at least quarterly. Be aware that initial reporting may reflect an increased fall rate using these new definitions.

Outcome Review Criteria

Metrics to evaluate implementation of this CPG should be measured at the unit, section and hospital levels for inpatients and at the clinic or location and MTF levels for outpatients and visitors:

1. % of patients with fall risk assessments
2. % of at risk patients with an implemented prevention protocol
3. Rate of inpatient falls per 1000 patient days
4. Rate of inpatient falls with harm per 1000 patient days

Update Plan

As this CPG was modified and submitted by Madigan CNSCI, it is recommended that Nancy Hodge , MSN, RN, ACNS-BC be designated POC for the CPG. Our recommendation is that the POC update the Fall Prevention Clinical Practice Guideline (CPG) at least every 4 years and when new evidence warrants immediate practice change.

References

See below.

Submitted by Center for Nursing Science and Clinical Inquiry, Madigan Army Healthcare System through:

Consultant ___Dr. Lori Loan, PhD, RNC-NIC_____

AN PC Member Sponsor ___Dr. Mary McCarthy, PhD, RN_____

Appendix A

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Appendix B
Inpatient Adult Fall Prevention Program

Appendix B
Inpatient Pediatric Fall Prevention Program