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Best Practices in Nursing Care to Older Adults

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Fall Risk Assessment for Older Adults: The Hendrich II Fall Risk Model

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WHY: Falls among older adults, unlike other ages tend to occur from multifactorial etiology such as acute[1,2,3] and chronic[4] illness, medications,[5] as a prodrome to other diseases,[6] or as idiopathic phenomena. Because the rate of falling increases proportionally with increased number of pre-existing conditions and risk factors,[7] fall risk assessment is a useful guideline for practitioners. One must also determine the underlying etiology of "why" a fall occurred with a comprehensive post-fall assessment.[8] Fall risk assessment and post-fall assessment are two interrelated, but distinct approaches to fall evaluation, both recommended by national professional organizations.[9]

BEST PRACTICE APPROACH: In acute care, a best practice approach incorporates use of the Hendrich II Fall Risk Model which is quick to administer and provides a determination of risk for falling based on gender, mental and emotional status, symptoms of dizziness, and known categories of medications increasing risk.[10] This tool screens for primary prevention of falls and is integral in a post-fall assessment for the secondary prevention of falls.

TARGET POPULATION: The Hendrich II Fall Risk Model is intended to be used in the acute care setting to identify adults at risk for falls. The Model is being validated for further application of the specific risk factors in pediatrics and obstetrical populations.

VALIDITY AND RELIABILITY: The Hendrich II Fall Risk Model was validated in a large case control study in an acute care tertiary facility with skilled nursing and rehabilitation populations. The risk factors in the model had a statistically significant relationship with patient falls (Odds Ratio 10.12-1.00, .01 > p <.0001). Content validity was established through an exhaustive literature review, use of accepted nursing nomenclature and the extensive experience of the principal investigators in this area.[11] The instrument is sensitive (74.9%), specific (73.9%) with interrater reliability measuring 100% agreement.

STRENGTHS AND LIMITATIONS: The major strengths of the Hendrich II Fall Risk Model are its brevity, the inclusion of "risky" medication categories, and its focus on interventions for specific areas of risk rather than on a single, summed general risk score. Categories of medications increasing fall risk as well as adverse side effects from medications leading to falls are built into this tool. Further, with permission, the Model can be inserted into existing documentation forms or used as a single document. It has been built into electronic health records with targeted interventions that prompt and alert the caregiver to modify and/or reduce specific risk factors present.[11]

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Best practice information on care of older adults: www.ConsultGeriRN.org.

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CASE EXAMPLE: FALL RISK ASSESSMENT WITH PRIOR FALLS HISTORY
An 80 year old woman with new onset confusion, anxiety and urinary incontinence who has fallen repeatedly at home in the past 2 months is hospitalized for further observation and possible long-term care placement. On admission she is anxious and confused, and unable to move. Medications include Haldol 0.5 mg PO BID and Ativan 0.5 mg PO BID both started 1 week prior to admission. Admission laboratory work shows a normal CBC and SMA-12. The urinalysis has 50 WBC per high power field and +2 Bacteria. The Hendrich II fall risk score was 9. A comprehensive post-fall evaluation and review of the high risk parameters led to a presumptive diagnosis of the underlying cause of the fall: acute confusion due to urinary tract infection. Haldol and Ativan were stopped and Bactrim DS BID was started. Two weeks later, the urinary incontinence, confusion and anxiety lessened and the falling stopped. She was discharged home to live with her daughter.

CASE DISCUSSION: This woman possesses several "red flag" areas of a dynamic nature, e.g., falls occurring on an acute, potentially reversible basis, acute urinary incontinence, urinary tract infection, poly-pharmacy and delirium. Falling is related to these dynamic events and once the underlying causes of the fall were identified and managed, the falling stopped. Note that the review of fall related risk factors surfaced no past or static events associated with falls, such as dementia or Parkinson's disease, but use of the Hendrich II Fall Risk Model captured significant risk factors including confusion (4 points), administered benzodiazepines (1 point) and inability to rise (4 points). These risks elicited from the Hendrich II Fall Risk Model along with information from a comprehensive post-fall assessment informed the nursing interventions and overall plan of care.

Hendrich II Fall Risk Model™

Confusion Disorientation Impulsivity		4	
Symptomatic Depression		2	
Altered Elimination		1	
Dizziness Vertigo		1	
Male Gender		1	
Any Administered Antiepileptics		2	
Any Administered Benzodiazepines		1	
Get Up & Go Test			
Able to rise in a single movement – No loss of balance with steps		0	
Pushes up, successful in one attempt		1	
Multiple attempts, but successful		3	
Unable to rise without assistance during test (OR if a medical order states the same and/or complete bed rest is ordered) * If unable to assess, document this on the patient chart with the date and time		4	
A Score of 5 or Greater = High Risk		**Total Score**	

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