

Paramedic – Evidence Based Medicine (P-EBP) Program

Paramedic CAT (Critically Appraised Topic) Worksheet

Title: Risk of Falls in LTC secondary to Medications

Report By: Peter Rose

2nd Party Appraiser:

Clinical Scenario:

Paramedics are call to a Long Term Care Facility to manage care of a patient who is experiencing increased frequency of falls in the evening. They note that these falls are approx. 2hr post med admin.

PICO (Population – Intervention – Comparison – Outcome) Question:
In Geriatric Patients in Long Term Care does the use of Psychotropic Medication increase the frequency of falls compared to those without medication.

Search Strategy:

(Elderly or geriatric or aged)- (Nursing Home or Long Term Care)-
(Psychotropic or Antipsychotic Medications)- (Falls or Injury)

Search Outcome: 60 results

Relevant Papers:

AUTHOR, DATE	POPULATION: SAMPLE CHARACTERISTICS	DESIGN (LOE)	OUTCOMES	RESULTS	STRENGTHS/WEAKNESSES
Thapa, P October 1994	Geriatric Dementia pt in LTC using Psychotropic Medication	Prospective Cohort	Increased fall frequency with psychopharmacotherapy, but can be managed with proper dosing.	After management of other medical factors, those on psychotropic medications have twice the occurrence of falls compared to those not on the medications	-Hard to Manage Variables -Difficult to measure outcomes. -Additional Education for staff may not represent other facilities.

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Thapa, P March 1996	Non ambulatory Nursing Home Residents	Prospective Cohort with 1 yr follow-up	111 first falls resulting in serious injuries. Most of these are while transitioning from bed to chair or returning.	Incidence of fall is less than half of those ambulatory 87% of the time involving equipment	+Strong suggestions as how to improve care and limit injuries.
Ruthazer,R	Elderly People in LTC on Antidepressants	Prospective	-No significant impact on male population. -Significant increase in falls in female population	Antidepressant Medication in institutional female pts is predictive of falls.	+Strength-Compares medications and male/female impact.

Comments:

Most Patients experience increased falls with poorly managed psychotropic medication. With increased training and close monitoring of this, the risks can be diminished. With the development of policies and procedures surrounding patient transitions fall risks can be managed or reduced.

Consider: *Why would you NOT change practice, based on this article?*

Referencing the initial question, I found little research about time of day med administration and falls. The evidence found was surrounding falls and psychotropic medications in general. I cannot offer any change to present treatment protocols but do support close evaluation of continued falls and their potential link to medications. This may warrant a detailed study of medication administration timing.

Clinical Bottom Line:

Though the research shows an increase in falls and injuries with this type of medication an improved plan of care is multi-faceted. The complexity of the needs of each individual makes it difficult to prevent all falls and withholding this form of medication is potentially unsafe.

References:

Purushottam B Thapa., Patricia Gideon., Randy L. Fought, Wayne a. Ray.
[1994] Psychotropic Drugs and Risks of Recurrent Falls in Ambulatory Nursing Home Residents. *Am J Epidemiol* 1995; 142:202-11

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Purushottam B Thapa, Kelly G. Brockman, Patricia Gideon, Randy L. Frought, Wayne A. Ray. [1996] Injurious Falls in Nonambulatory Nursing Home Residents: A Comparative Study of Circumstances, Incidence, and Risk Factors.

Robin Ruthazer, Lewis A. Lipsitz. [1993] Antidepressants and Falls among Elderly People in Long-Term Care. Am J Public Health 1993; 83:746-749