#### Navigating the Medication Maze for Older Adults: A Nurse's Guide

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Marcia Y. Shade, BS, PhD, RN

**Assistant Professor UNMC College of Nursing** 

Founder & CEO



#### This issue is critical.

Medication use can facilitate

life or mortality for an older adult.



#### Objectives

- · Changes with Aging
- Common Medication-Related Problems
- Safe Medication Management Principles
- Strategies & Case Study
- Innovation Possibilities

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#### Physiologic Changes in Older Adults

#### **Pharmacokinetic**

Absorption Distribution

Metabolism Excretion

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#### Pharmacodynamic

Increased Sensitivity
Decreased Response

Drug Concentration Receptor Sensitivity

# Common Medication-Related Problems in Older Adults

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### Adverse drug reactions (ADR)

Types: A-F

Recognition: Naranjo Scale

Table 1	Classifications of a	dverse drug reactions			
Type of reaction	Type of effect	Characteristics	Frequency	Examples	Management
A	Augmented	Dose related Low mortality Predictable	Common	Orthostatic hypotension with anti- hypertensive medications Respiratory depression with opioids Bleeding with warfarin; serotonin Syndrome with SSRIs Digoxin toxicity Anticholinergic effects of tricyclic antidepressants	Dose reduction Withdrawal drug if necessary Evaluation of effects of concomitant therapy and drugs' interaction
В	Bizarre	Non-dose related High mortality Unpredictable	Uncommon	Hypersensitivity reactions such as anaphylaxis to penicillin Idiosyncratic reactions such as malignant hyperthermia with anaesthetics	Mandatory withdrawal of the drug Avoidance of that same drug in the future
С	Chronic	Cumulative Dose related Time related	Uncommon	Hypothalamic-pituitary-adrenal axis suppression by corticos- teroids	Dose reduction Withdrawal drug if necessary, often for a prolonged period of time
D	Delayed	Often dose related Time related + +	Uncommon	Tardive dyskinesia Teratogenesis Carcinogenesis	Often non-treatable
Е	End-of-treatment	Related to withdrawal time	Uncommon	Myocardial ischaemia after β-blocker discontinuation; Withdrawal syndrome with opiates or benzodiazepines	Slow withdrawal Reintroduction of the drug
F	Unexpected failure of therapy	Dose related Drugs' interactions related	Common	Resistance to antimicrobial agents Inadequate dosage of an oral contraceptive if used with an enzyme inducer	Increase of dosage Evaluation of effects of concomitant therapy and drugs' interaction

Question	Yes	No	Do Not Know	Score
Are there previous <i>conclusive</i> reports on this reaction?	+1	0	0	
2. Did the adverse event appear after the suspected drug was administered?	+2	-1	0	
3. Did the adverse reaction improve when the drug was discontinued or a specific antagonist was administered?	+1	0	0	
4. Did the adverse event reappear when the drug was re-administered?	+2	-1	0	
5. Are there alternative causes (other than the drug) that could on their own have caused the reaction?	-1	+2	0	
6. Did the reaction reappear when a placebo was given?	-1	+1	0	
7. Was the drug detected in blood (or other fluids) in concentrations known to be toxic?	+1	0	0	
8. Was the reaction more severe when the dose was increased or less severe when the dose was decreased?	+1	0	0	
9. Did the patient have a similar reaction to the same or similar drugs in any previous exposure?	+1	0	0	
10. Was the adverse event confirmed by any objective evidence?	+1	0	0	
	TOTA	L SCO	RE:	

#### Polypharmacy

Defined as

Prevalence is 65% in those 65 years of age and older.

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#### **Drug Interactions**

Pharmacokinetic

Pharmacodynamic

Identify

Inform and help manage

#### Principles of Safe Medication Management in the Nursing Care of Older Adults

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#### **Principles**

Start LOW and Go SLOW



Comorbidities & Contraindicated Meds

Monitor for Adverse Drug Reactions

**Review Medications** 

Review Medications ©

## Strategies for Medication Safety in Older Adults

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#### **Strategies**

Medication reconciliation, optimization with deprescribing: Beers Criteria.

Patient Education and Consistent Assessment

Interdisciplinary Collaborations a team approach

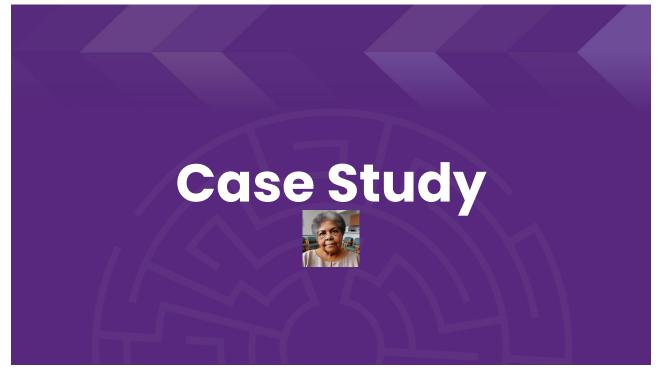




#### Other resources

US Pain Foundation
American Society for Pain Management Nursing
US Association for the Study of Pain
American Geriatrics Society
Gerontological Society of America

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- 82 y.o.
- Admitted for hip Fx
- Hx HTN, breast CA, chronic pain, insomnia, anxiety
- Persistent pain (8/10), difficulty falling & staying asleep, daytime grogginess & disorientation

Miriam Thomas

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#### **The Future**

Surveillance of Medications

**Enhanced Clinical Decision Support** 

**Tools for Patient Education** 

#### Conclusion

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