

What Can We Do About **MEDICATIONS** and **Falling?**

Teri Round MS, BSN, RN, NE-BC
The University of Oklahoma Health Sciences Center
Fran & Earl Ziegler College of Nursing



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

Program Objectives

- Learn what medications have to do with falling
- Describe what medications may affect the older adult and contribute to a fall
- Achieve the goal of systematic change that will benefit nursing home Residents through routine medication review



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

From the AGE and AGEING Journal:

Medication Reviews and Deprescribing as a Single Intervention in Falls Prevention: A Systematic Review and Meta-Analysis

“In a frail subgroup of older persons, medication review might be effective even as a single intervention.”

Seppala, Lotta J, et al

Age and Ageing, Volume 51, Issue 9, September 2022,
afac191, <https://doi.org/10.1093/ageing/afac191>

Published: 23 September 2022



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

Fall Statistics

- Falls are the leading cause of fatal and non-fatal injuries in adults 65 years and older-8 million fall injuries per year in the US **OK death rates are higher than the national rate**
- **Fall death rates** among adults age 65 and older **increased** about **30%** from 2009 to 2018-Deaths per year in the US=648,000
OK fall percentages are higher than national average
- In Oklahoma, falls result in the hospitalization of around 7,000 older adults and the death of more than 450 each year



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

Falling has become just a normal occurrence that is associated with advanced age.

We must change this thought process

What MATTERS to your residents concerning falls?



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

Fundamental Characteristics of an Age Friendly Health System

- Leadership committed to addressing ageism
- Reliable use of evidence-based care
- Staff trained and proficient in care of older adults
- High performing teams focused on measurable outcomes
- Systematic approach for:
 - Coordinating care with other organizations
 - Engaging with patients and their caregivers
 - Process for eliciting and using patient goals and priorities

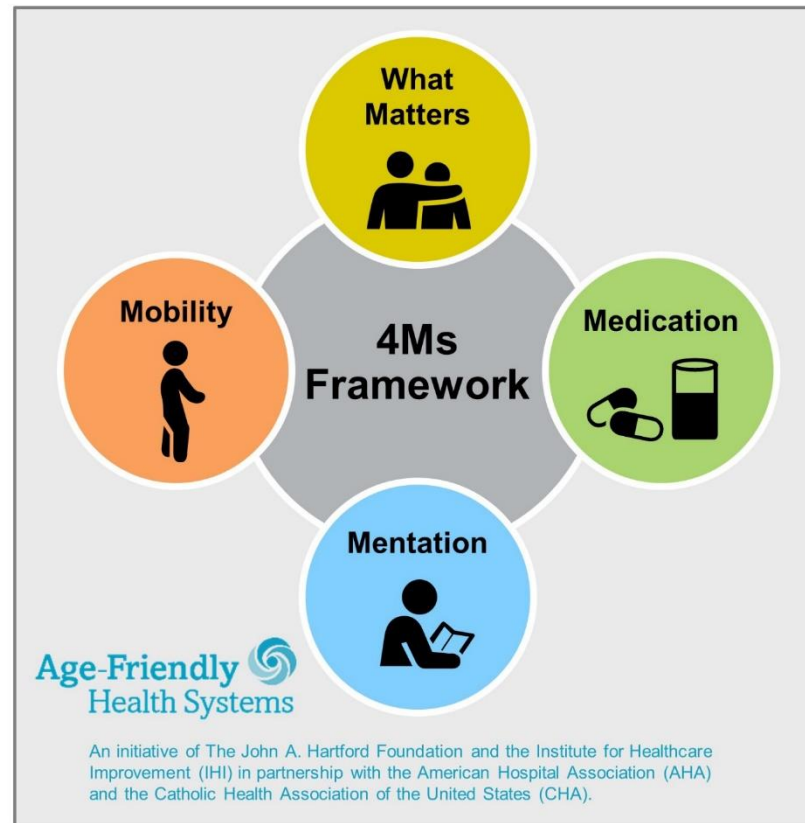


FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

Age-Friendly Health Systems & The 4Ms



For related work, this graphic may be used in its entirety without requesting permission.
Graphic files and guidance at ihi.org/AgeFriendly



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

Medications Are Consistently Associated With the Risk of Falls

- Side Affects Affecting Falls
 - ✓ **Sedation**
 - ✓ **Cognitive Impairment**
 - ✓ **Impaired Balance, Coordination, and Reactions**
 - ✓ **Orthostatic hypotension**
 - ✓ **Dehydration and Dizziness**
 - ✓ **Psychomotor Impairment**
 - ✓ **Hypoglycemia**
 - ✓ **Confusion**



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

Which of the following medication categories are on the patient's current medication list?

If the patient is taking more than one medication in the diuretic category, the point value should be calculated by points x number of medications in that category.
Each category may receive no more than 3 points.

Category		Points per medication	Number of medications	Total points*
Antidepressants	(AD)	3		
Antipsychotics	(AP)	3		
Anticonvulsants	(AC)	3		
Benzodiazepines	(BZ)	3		
Sedatives and hypnotics	(SH)	3		
Narcotics	(NA)	3		
Antihypertensives	(AH)	2		
Analgesics (non-opiate)	(NO)	2		
Antiarrhythmics/Cardiac Drugs	(CD)	2		
Diuretics	(DI)	1		
Receiving 4 or more different medications daily		3		
Any medication dose changed in the last 3 days		3		
Any medication added in the last 3 days		3		
		Total		
*No more than 3 points per category				
Total score 6 or more = high risk for falls				

Adapted from: CDC Falls in Nursing Homes. <http://www.cdc.gov/homeandrecreationalafety/falls/nursing.html>. Accessed on March 25, 2016, AHRQ: Preventing Falls in Hospitals. <http://www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/fallpxtk-tool3i.html>. Accessed on March 25, 2016. Drug-Related Falls in Older patients: implicated drugs, consequences, and possible prevention strategies. DeJong MR, Van der Elst M, Hartholt KA. Therapeutic advances in Drug Safety. 2013, 4(4): 147-154

CAUTION

Be especially aware of your **Resident's Medications** and the need for **Medication Reconciliation** and **Assessment/Re-assessment** at the following times:

- **Admission**
- Return from a visit to the **ER**
- Admittance after a **Hospital Visit**
- Any change from one **level of care** to another (SNF, LTACH, Independent living)



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

REDUCE MEDICATION RELATED FALLS IN YOUR NURSING HOME

DON'T WAIT FOR A FALL TO GET YOUR PHARMACIST INVOLVED!

- ❖ Interprofessional Teams working together reduce fall risk and contribute to sustained improvements according to
EVIDENCE



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

Medications (Prescriptions, OTCs, supplements)

Side effects from medications can increase your Residents chance of falling

ASK YOURSELF:

- Does the **Resident** have a **history** of falls?
- Is the **Resident** on **four or more** medications of any type taken daily?
- Is the **Resident** currently on **Psychotropic** drugs?
- Is the **Resident** on other High Risk for Falls medications?
- Has the **Resident** started any **new medications** of any type in the past two weeks?
- Does your **Resident** use medications as a **SLEEP AIDE**?
- Have you noticed that any of the **current medications** the **Resident** is taking is causing drowsiness, dizziness or weakness?



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

MEDICATIONS-What can We Do?



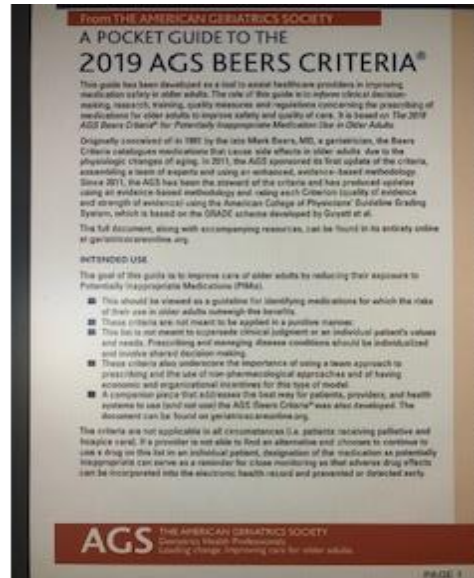
- Review the individuals Med List for high-risk medications and document them on a regular basis (BEERS List)
- Identify the indication to dose adjust, or deprescribe high-risk medications, and document and communicate potential changes
- Get help from the Care Provider or Pharmacist as needed to make necessary changes
- Assist Pharmacist in prioritization of medications to discontinue, substitute or minimize
- Evaluate effectiveness of the intervention



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER



<https://geriatricscareonline.org/ProductAbstract/2019-ags-beers-criteria-pocketcard/PC007>



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

WHAT ELSE CAN I DO AS THE NURSE?

- CARRY YOUR **BEERS POCKET GUIDE** FOR USE ANYTIME and conduct Medication Assessments using Beers criteria on a prescribed basis
- **USE** a **FALL RISK DRUG PHARMACY FORM** according to your policies

AND

- Inform CNAs and CMAs which residents have been given a “water pill”
- Let them know about new meds or changes in meds and potential side effects
- Use a Fall Prevention Medication Review Checklist
- Add to the individualized **CARE PLAN**



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

Example: Fall Prevention Medication Review Checklist

Fall Prevention Medication Review Checklist

Patient Name: _____ Review Date: _____

Number of medications patient was taking: _____

Please indicate which of the following recommendations were made/actions taken when reviewing the above patient's medication intake.

Decrease number of medications, if possible (especially if taking more than four medications).

Notes:

Investigate lower dosages of medications, especially psychotropic drugs, diuretics and Cardiovascular drugs.

Notes:

Consider withdrawal of digoxin:

- In patients with stable CHF
- If CHF is due to valvular disease or hypertension
- If there is no response to digoxin after one month with decreased heart size, or increased exercise capacity.

Notes:

Stop or decrease number of psychotropic medications

- Neuroleptics (i.e., Phenothiazines, Butyrophenones)
- Sedative/hypnotics (i.e., Barbiturates, Hydroxyzine)
 - Antidepressants (i.e., Tricyclic Antidepressants, Selective Serotonin Uptake Inhibitors (SSRIs)
 - Benzodiazepines

Notes:

Avoid combination of certain drugs

- Narcotics with psychotropics
- More than one psychotropic

Notes:



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

WHAT CAN WE DO CONSISTENTLY CONCERNING Medications?

- Develop a FALLS TEAM with a continuous process policy and procedure
- Review Resident Medications on a regular basis using the BEERs List
- Get assistance from your Pharmacist for deprescribing

• **EDUCATE THE RESIDENT AND STAFF!**



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

QUESTIONS?



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER

Thank You!

Teri Round

teri-round@ouhsc.edu



FRAN AND EARL ZIEGLER

COLLEGE OF NURSING

The UNIVERSITY of OKLAHOMA HEALTH SCIENCES CENTER