

# Home Health Keys For Success



## **Medication Management, Simplification, & the Older Adult:**

### **Putting the Problem Into Perspective**

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## Objectives

- I. Describe two problems related to medication use in older adults.
  
- II. Identify one reason why medication simplification is important in the care of older adults.




## Medication Management, Simplification, & the Older Adult

### Outline

- Adverse Drug Reactions
  - Drug-drug
  - Drug-disease
- Polypharmacy
- Compliance
- Home Health Implications
- Home Health Solutions





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### Aging and Disabled Population


- 7–10 times more common untoward effects of drugs
- Tend to be on more medications
- Tend to be more compliant
- Tend to have more diagnoses
- Decreasing kidney and liver function
- Multiple providers




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### Case #1

- 69-year-old female patient on furosemide and lisinopril for congestive heart failure (CHF)
- Begins having increased shortness of breath and weight gain
- Blood pressure is 205/135 and referred to the emergency room
- Worsening symptoms began 3 days after starting a new medication




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### Case #1

- New Medications
  - Multiple providers—Who's in charge?
  - OTC products
- Tend to be on more medications
- Decreased clearance
- Warning signs?






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### Adverse Drug Reactions (ADRs)

- Untoward Drug Reactions
  - Side effect—predictable, dose dependent
  - Allergy—predictable, not dose dependent
  - Idiopathic—not predictable, not dose dependent



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**Adverse Drug Reactions (ADRs)**

- The greater the number of medications, the greater the risk of clinically serious drug-drug interactions (drug-drug reactions)
- ADRs from medications up to 7 times more common in those 70–79 than in those 20–29
- Drug-disease reactions
- ADRs experienced by the elderly often are more severe




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**Case # 2**

- 79-year-old female patient complains of decreased vision and constipation
- Medications
  - Percocet 1 q hs prn headache
  - Rutuss 1 po BID for sinus symptoms
  - NTG SR TID for angina
  - Tylenol TID for arthritis
  - Verapamil SR q day for hypertension
  - Tagamet BID for dyspepsia





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### Polypharmacy


- Chance of an interaction is about 20% for two drugs (100% for 5 drugs)
- Compliance decreases with increased number of medications
- Symptoms due to medications
- Cost/Expense




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### Case # 3

- 83-year-old male is recently unable to participate in physical therapy because he is sleepy
- Medications
  - Benadryl for anxiety up to TID
  - Elavil for chronic pain at night
  - Ativan for insomnia at bedtime
- After 5 days in the hospital he is fully alert





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## Iatrogenic Disease

- 30%–50% of hospital admissions are believed to be due to drug-related problems or ADRs
- ADRs are associated with depression, constipation, falls, immobility, confusion, and hip fractures




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## Iatrogenic Disease

- 80% of ADRs believed to be due to prescription medications—20% of ADRs believed to be due to OTC medications
- Most symptoms related to drug use and not disease

(Atkins & Sherfield, 1995; Chutka, Takahashi & Hoel, 2004; Fick, Cooper, Wade et al., 2003; Lazarou, Pomeranz & Corey, 1998)





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### Compliance


- At the end of one year, half of patients with hypertension are not taking their medications at all
- Another 25% are taking their medications incorrectly
- Medications make the patients feel bad
- Concerned about side effects and long-term effects




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### Compliance

- Study patients that seem to be taking medications
- Confidence in clinical team (physician)
- Understanding and confidence in the treatment
- Dosing schedules
- Cost
- Physical issues





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## Home Health Assessment


- Identify patients at risk for ADRs
  - Multiple diseases
  - Multiple providers
- Assess compliance
- Assess cognitive function
- Assess support
- Other barriers to compliance
- Nutrition
- Gastrointestinal function




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## Assessment of Compliance

- Drug regimen  
(number of medications and dosing schedules)
- OTC and other medications
- Physical barriers  
(arthritis, pain, fine motor, low-vision)
- Cognitive barriers
- Support issues
- Language and culture





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**Problem—Polypharmacy**

- Older adults often take many medications that may increase the risk of ADRs and increase the risk of hospitalization
- The number of medications often influences the patient or caregiver's ability to manage medications accurately and independently




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**Problem—Polypharmacy**

Best Practice Statement

- For all patients taking more than X medications, the assessing nurse or therapist will implement the Medication Simplification Protocol.





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**Problem—Disease Management**


- CHF
  - Beta-blockers
  - ACE inhibitors (ARBs)
  - Diuretics
  - Digitalis (EF<25%, dose)
- Non-pharmacological treatment (DC planning)
  - Daily weights, contact plan
  - Diet/Fluids




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**Problem—Disease Management**

- Drugs to Avoid
  - NSAIDs
  - Calcium Entry Blockers (Verapamil, Nifedapine)





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**Problem—Drug Disease Interaction**

- Older adults often have multiple diseases
- Look for multiple drugs in the same category or with similar side effects
- Develop lists of drugs, not certain diseases




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**Problem—Drug Disease Interaction**

**Best Practice Statement**

- For disease-specific interventions like CHF, compare drug regimen to list of drugs that can exacerbate disease. Make recommendations to the primary care provider when potential interactions are found.



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**Problem—Over Medication**

- Older adults often can be toxic on medications at therapeutic doses
- Multiple medications that cause sedation or sleepiness can interact to produce profound mental status decline



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**Problem—Over Medication**

Best Practice Statement

- Compare patient's drug regimen to Beers Criteria for Potentially Inappropriate Medication Use in Older Adults and make recommendations to the patient's primary provider when potential interactions are found.




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### Problem—Anticholinergics

- Anticholinergic Medications
  - Antihistamines (OTC)
  - Anti-nausea drugs
  - Tricyclic antidepressants (TCAs)
  - Phenothiazines
  - ‘Side effect’ medications






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### Problem—Anticholinergics

- Anticholinergic Symptoms
  - Dry mouth and eyes
  - Urinary retention
  - Sedation, sleep problems
  - Palpitations



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**Problem—ACE Inhibitors**

- Lisinopril, Benazepril, Quinopril, Captopril
- Mainstay for heart failure (healing)
- Prevent diabetic nephropathy
- On more than one?
- Renal impairment
- NSAIDs interactions
- Volume depletion




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**Problem—Beta-Blockers**

- Propranolol, Atenolol, Metoprolol
- On more than one?
- Mainstay of CHF treatment
- Initial therapy has side effects (2 weeks)
  - Tiredness, low energy
  - Confusion




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**Problem—Beta-Blockers**

- Lots of potential interactions with diseases
  - Diabetes
  - Depression
  - COPD/Asthma
- Live 10 years longer






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**Problem—Compliance**

- Older adults will take medications when they understand why they are on them and they trust the recommendation of the clinical team
- Patients with good support systems tend to take medications correctly




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## Problem—Compliance

Best Practice Statement


- Coordinate with other clinicians to explain the rationale of all medication therapy to patients and their caregivers.




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## General Medication Management

- Pay attention to doses and dosing regimens
- Look for medications with similar effects and side effects
- Compare diseases to medications
- Look for high-end doses of medications
- Remove physical barriers to medication compliance




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## General Medication Management

- Support decreased understanding with recruitment
- Use medication aids
- Throw away old medications
- Identify and communicate with patient's primary provider



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## Medication Simplification: Summary

- Very challenging area for the home care clinician
  - Confidence with medication simplification will grow as your knowledge and experience expands
- Use resources both within your agency (experts such as advanced practice nurses, supervisors, medical director) and in the community for assistance (e.g., patient's retail pharmacist)






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## Medication Simplification: Summary


- You can make a difference for your patients!
  - Less risk of ADRs and potential rehospitalization
  - Improved ability to self-manage medication administration



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## Medication Simplification: Summary

Questions?



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## Thank You!

### Medication Management, Simplification, & the Older Adult: Putting the Problem Into Perspective

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