

Your Pharmacy, the Forgotten Friend

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Objectives

- Pharmacist led CMR/MTM
 - What is it?
 - Benefit?
- Barriers to taking medication
- Beers List
- What can my pharmacy do for my health
- Case Example

CMR

- Comprehensive Medication Review
 - Collection patient-specific information
 - Assessing medication therapies to identify medication-related problems
 - Develop a prioritized list of medication-related problems
 - Create a plan to solve them with the patient, caregiver and/or prescriber

CMR Conclusion

- Goals
 - Patient/Caregiver Goals
 - Provider Goals
 - Pharmacist Goals
- How to Take Action
 - Create an action plan that outlines what was discussed
 - Follow up with patients/caregivers

Benefit of CMR

- Improved knowledge of patients prescription, over-the-counter (OTC) medications, herbal therapies and dietary supplements
- Identify and address problems or concerns that patients may have
- Empower patients/caregivers to manage their medications and health conditions

Barriers to Taking Medications

- Forgetting
- ADR
- Cost
- Fear
- “What is this for?”

Barriers to Taking Medications

- Memory
 - Missing doses
- Timing of the day
 - ie: I don't wake up until 9am, but I am supposed to take my thyroid medication 1 hour before or 2 hours after a meal or other medications
 - Can medication schedules be altered?

Barriers to Taking Medications?

- Misconceptions
 - "My stomach hurt when I took that pill"
 - "My sister said that made her sick"
- Adverse Drug Reaction
 - Is it the medication causing the side effect?
 - Are there other alternatives for the medication?

Barriers to Taking Medications?

- Other factors
 - Size of the tablet
 - Can it be crushed?
 - Can it be split in half
 - Can it be dissolve
 - Is there another manufacturer that is smaller
 - Is there a liquid form

Adverse Effects of Cognitive Enhancers

Adverse Event	Donepezil	Rivastigmine	Galantamine	Memantine
Nausea	11 -12%	47% (patch = 7%)	24%	<2%
Vomiting	5 – 9%	31% (patch = 6%)	13%	3%
Diarrhea	8 – 10%	19% (patch = 6%)	9%	10%
Headache	4 – 10%	17% (patch = 3%)	8%	6%
Dizziness	5 – 8%	21% (patch = 2%)	9%	7%
Anorexia	4 – 5%	17% (patch = 3%)	9%	<2%
Weight loss	3 – 5%	3% (patch = 3%)	7%	<2%
Somnolence	2%	5% (patch = 2%)	4%	3%
Insomnia	3 – 9%	9% (patch = 1%)	5%	10%

What Interacts with my Medication?



Drug Interactions

- Over the Counter Medications and Prescription Medications
 - Histamine-2 Receptor Antagonist (Zantac - ranitidine) + Antibiotics
- Prescription medications
 - Warfarin (Coumadin) + Ciprofloxacin (Cipro), Clarithromycin (Biaxin), Erythromycin, metronidazole (Flagyl), or trimethoprim-sulfamethoxazole (Bactrim)
- Herbal Medications and Prescription Medications
 - Ginko Biloba and aspirin or other blood thinners (Warfarin)
- Food Interactions with Prescription Medications
 - Calcium rich dairy food + Antibiotics

Medication – Related Problems

- Indication
 - Unnecessary drug therapy
 - Addition drug therapy needed
- Effectiveness
 - Wrong drug
 - Inappropriate dosage
- Safety
 - Adverse drug effect
 - Inappropriate dosage
- Adherence
 - Inappropriate adherence

Beers List

- “The AGS Beers Criteria® aims to guide older people and health professionals away from potentially harmful medications while also helping health systems recognize such decisions when assessing care quality. The AGS Beers Criteria® should never solely dictate how medications are prescribed, nor should it serve as a justification for restricting health coverage.”

Beers List

- A list of medications potentially to avoid or consider with caution because they often present an unfavorable balance of benefits and harm for older individuals
- Based on an extensive review of more than 1,400 studies, the 2019 AGS Beers Criteria[®] includes five lists of nearly 100 medications or medication classes to avoid or use with caution for some or all older adults.

Beers List

- Breaks down medications to be described 1 of 5 ways
 - Avoided by most older people (outside of hospice and palliative care settings);
 - Avoided by older people with specific health conditions;
 - Avoided in combination with other treatments because of the risk for harmful “drug-drug” interactions;
 - Used with caution because of the potential for harmful side effects; or
 - Dosed differently or avoided among people with reduced kidney function, which impacts how the body processes medicine.

Beers List Example

Disease or Syndrome	Drugs	Rationale	Recommendation	Quality of Evidence	Strength of Recommendation
Dementia and cognitive impairment	Anticholinergics, Benzodiazepines, H2-receptor antagonists, Zolpidem, Antipsychotics (chronic and as-needed use)	<p>Avoid due to adverse CNS effects.</p> <p>Avoid antipsychotics for behavioral problems of dementia unless non-pharmacologic options have failed and patient is a threat to themselves or others.</p> <p>Antipsychotics are associated increased risk of cerebrovascular accident (stroke) and mortality in persons with dementia</p>	Avoid	High	Strong



Pharmacy = Better Health Outcomes

- Do your medications get picked up or delivered?
 - Pharmacies that deliver medications can be a key step in helping elderly individuals maintain their independence
 - Is **Transportation** an issue?

Pharmacy = Better Health Outcomes

- **Polypharmacy**

- Nearly 50% of adults are taking 1 more medication that are not clinically needed
- Numerous studies have shown that polypharmacy increases the risk for unnecessary drug usage, drug interactions, adverse drug events, and non-compliance
- Polypharmacy has been associated with functional decline in elderly adults
 - Increased prescription medication use was associated with diminished ability to perform instrumental activities of daily living (IADLs) and decreased physical functioning
- Falls and Cognitive Impairment
 - Cognitive impairment, seen in both dementia and delirium are associated with polypharmacy
 - Falls are associated with increased morbidity and mortality in elderly adults

Pharmacy = Better Health Outcomes

- Is **Cost** an Issue?
 - Patient Assistance Network
 - Drug Manufacturer Programs
 - Is the Medicare drug plan you are on right for you?
 - Will I hit the dreaded “Donut Hole”?
 - Apply for Extra-Help for Medications

Pharmacy = Better Health Outcomes

- Studies have shown patients receiving **MTM/CMR** led by pharmacist have improved clinical outcomes and lower health expenditures
 - In person at the store, At home, or over the phone
- Influenza causes approximately 100,000 hospitalizations and 36,000 deaths annually in the USA, which occur mainly in persons over the age 65 years
 - **Pharmacy Vaccinations**
 - Can't make it to the pharmacy... we will come to you

Pharmacy = Better Health Outcomes

- Studies have shown **Compliance Packaging** leads to better medication adherence and improved health outcomes
 - What works best for you may not work best for everyone
 - Bottle versus Blister Packs versus pill box
 - Weekly? Monthly? Every 2 weeks?
 - Compliance Packaging allows patients and caregivers a way to monitor medication consumption
 - Are there commonalities between what doses are missed?
 - I.e: Patient is missing most of her bedtime medications
 - Pharmacy Intervention: Move meds from bedtime to dinner

Pharmacy = Better Health Outcomes

- **Medication Synchronization**

- Studies have shown that medication synchronization increases adherence and has a positive effect on health outcomes
- Why come to the pharmacy 10 times a month when it could just be 1
- Help monitor your compliance with Med Sync

Case Study

Brenda presents to clinic with her mother, Norma Dale. Brenda explains that she lives an hour away in Salisbury and is worried about her mother's health. She states that her mother has been forgetting to take her medications and on 2 occasions she has ended up in the hospital because she put the wrong medication in her pill box. She lives on her own but Brenda is considering moving her to a nursing home.

Norma Dale is 74 years old who was diagnosed with Alzheimer's Disease 6 years ago. Initial symptoms included forgetting times and dates easily, misplacing and losing items, repeating questions and current events.

Case Study

Past Medical History:

- osteoarthritis in hands and hip x 6 years
- hypertension x 15 years
- dyslipidemia x 6 years
- Alzheimer's disease x 6 years
- urinary incontinence x 6 months

Medications:

- Donepezil 10mg PO at bedtime
- Memantine 5mg PO once daily in the morning
- Vitamin E 400 IU PO once daily
- Lisinopril 10 mg PO once daily
- Simvastatin 20 mg PO every evening
- Aspirin 81 mg daily
- Oxybutynin 5 mg PO BID (x 2 months)
- Acetaminophen PRN
- Ensure drinks PRN



Case Study

- Pharmacist Led Medication Reconciliation and MTM
 - I went to the patient's home with the daughter and found all of her medications in shoe boxes
 - Disposed of all old medications
 - Lets try a fresh start
 - Limit risk of taking old doses or discontinued medications
 - Help with compliance
 - Contacted the patients Doctor's office to get each of her Doctor's medication list for the patient
 - Compared all list together and matched each drug to a disease state
 - Checked for duplicate therapies, drug-drug interactions
 - Medication for each diagnosis

Case Study

- Pharmacist Led Medication Reconciliation and MTM Findings
 - Patient was sub-optimal dose of Memantine
 - Contacted Provider and increased dose to 10mg twice daily over a few weeks
- Patient and Daughter Care Goals
 - Help Norma Jane maintain her independence and stay at home
 - Daughter needs medications to be delivered to Norma Jane
 - Wants to feel safe that her mother gets her medications when needed and they are compliance packaged

Case Study

- Pharmacist Led Action Plan
 - Package medications according to how they are supposed to be taken
 - Set up patient on Medication Synchronization and Delivery
 - Start delivering medications monthly
 - Follow up monthly with Med Sync call

Case Study

- Pharmacist Follow Up
 - 1 month follow up: Norma Jane is so happy! She loves the pharmacy delivery service and the blister packs are helping her manager her medications
 - 6 month follow up: Over the course of 6 months Norma Jane has forgotten to take her medications on multiple days. She now has multiple packs remaining and is getting confused on which ones to take

Case Study

- Pharmacy Intervention: After speaking with her daughter, we agree that sending weekly packs to her every Monday morning and following up weekly would be more helpful
- End Result: Norma Jane was able to stay at home for another 1 and ½ years with the help of her pharmacy and healthcare team

Objectives Recap

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References

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