

Tony Michalski, PharmD, BCPS

Clinical Pharmacist





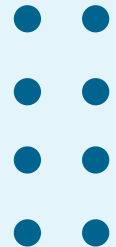
Enhancing Safety and Quality of Life Through Medication Management in Older Adults

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Welcome

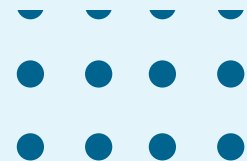
- Tony Michalski Pharm D., BCPS
- Practicing RPH for over 20 years
- Currently at UW Health
- Both Mother and Mother-in-law are nurses.





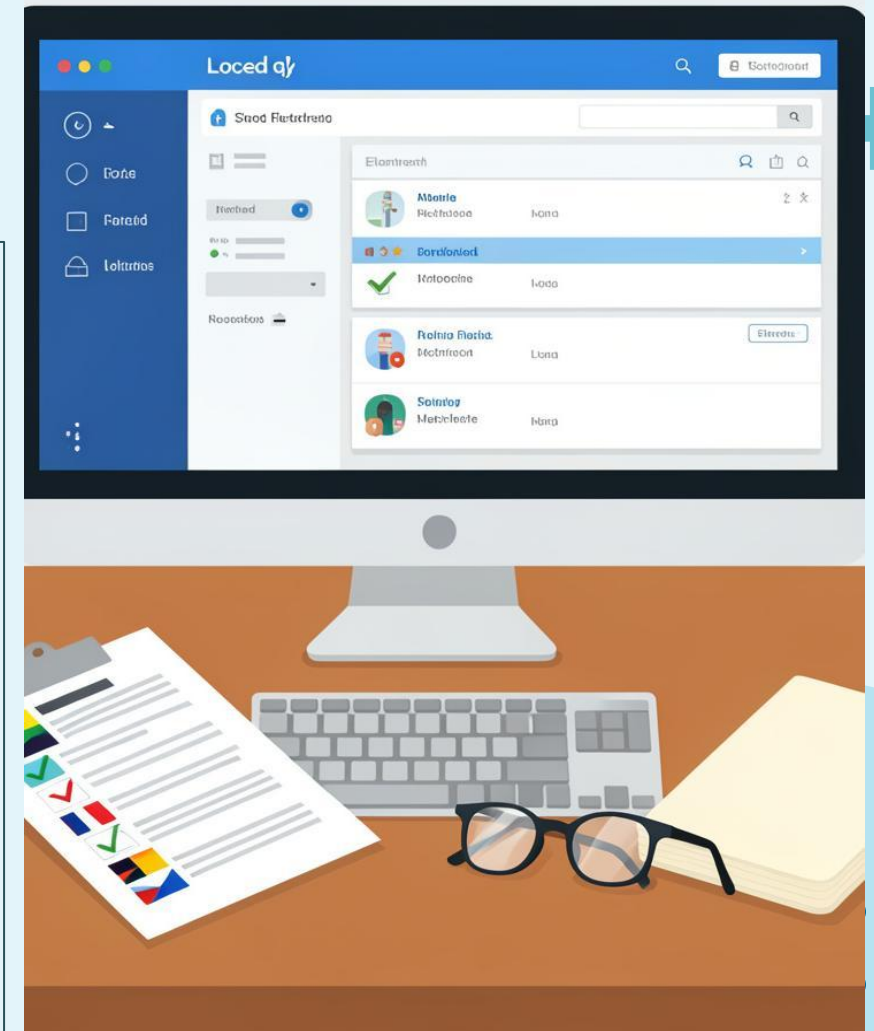
Objectives

1. *Be able to describe results of nurses and pharmacists working together*
2. *Be able to discuss how pharmacists can help the medical team*
3. *Be able to explain the most common pharmacist questions for the medical team.*



Nursing Expectations

- Survey conducted in Poland in 2021¹²
- 85% Expected the pharmacist to be the pharmacology specialist and educate patients.
- 58.9% Expected community pharmacists to monitor patients' treatment response and alert if problems
- 39.5% Expected community pharmacists to solve their patients' medication problems





Nurse and Pharmacist Collaboration

Nurse and Pharmacist Collaboration Studies

Chronic pain improvement²

- *Conducted at pain clinic in England in 2005*
- *65 referrals to a nurse and pharmacist team*
- *Pain scores decreased from an average of 8 to 6*

Blood pressure improvement in diabetic patients⁷

- *Conducted in Canada between 2005-2006*
- *227 total patients randomized to either standard physician care with written information or follow up visits with nurses and pharmacists*
- *Systolic blood pressure results (mm Hg)*
 - *Control arm 5.0 decrease*
 - *Intervention arm 10.1 decrease*
 - *Difference in patients with highest initial blood pressures was 24.1*

Inappropriate Medication

2012 Study involving nurse practitioner and pharmacist reducing inappropriate medication use⁵

- *Conducted in rural area near Ottawa, Canada*
- *Pharmacist and nurse practitioner conducted a comprehensive medication review*
 - *Baseline – 27.2% of all meds were inappropriate and found in 77.7% of patients*
 - *Study end – reduction to 8.9% of meds in 38.6% of patients*
- *Reasons for being inappropriate included missing medication, poor compliance, no indication, dosing, and drug interactions*
- *Most common in older patients over age 80 --- 5 times more likely than under 60*

AGS Beers Criteria¹³



- *American Geriatrics Society*
- *Developed by Dr. Mark Beers*
- *Started in 1991*
- *Medications to be used with caution in the geriatric population*
 - *Problematic side effects*
 - *Anticholinergic*
 - *Drowsiness*
 - *Pharmacokinetic problems*
 - *Nitrofurantoin*
 - *Digoxin*
 - *Drug interactions*



LK
70-year-old
female

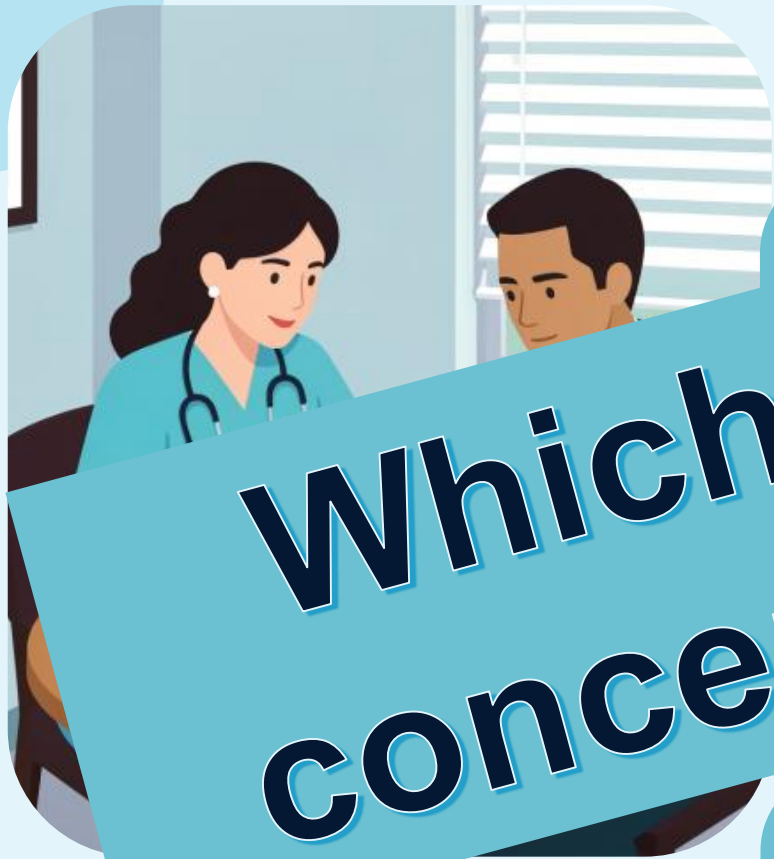
Medical conditions

- *Hypertension*
- *Diabetes*
- *Depression*
- *Pain*

Medications include

- *Acetaminophen*
- *Paroxetine*
- *Cyclobenzaprine*
- *Tramadol*
- *Glyburide*
- *Metformin*
- *Propranolol*





Which meds concern you?

LK
70-year-old
female

*Medications
include*

- *Hypertension*
- *Diabetes*
- *Depression*
- *Pain*

- *Acetaminophen*
- *Paroxetine*
- *Cyclobenzaprine*
- *Tramadol*
- *Glyburide*
- *Metformin*
- *Propranolol*





LK
70-year-old
female

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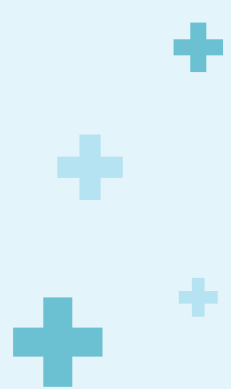
Transitions Of Care

Studying effectiveness of pharmacist / nurse interventions to resolve med errors in transitions from hospital to home in 2009 -Spokane, WA⁸

- *Age 50 plus and have CHF, MI, CAD, arrhythmia, CVA, COPD, diabetes, PVD, major orthopedic surgery, or fracture*
- *220 patients in 2 groups*
- *490 discrepancies between groups*
- *Intervention group*
 - *13% better resolution of discrepancies*
 - *Trend toward fewer post hospital doctor visits and rehospitalizations*
- *Nearly 20% of patients have adverse drug reaction during transition*
- *Discontinuation errors*
 - *Eliquis*
 - *Psych meds*
- *Dose changes*
- *Initiation errors*
 - *Sent to wrong pharmacy*
 - *Requires PA / not covered*
- *Formulary changes*
 - *PPIs*
 - *Statins*

Actual Discharge Lists

| | |
|--|--|
| | |
|--|--|



Actual Discharge Lists

- *Mirtazapine 30mg qhs*
- *Trazodone 200mg qhs prn*
- *Fluoxetine 20mg daily*
- *Escitalopram 10mg daily*
- *Variety of other blood pressure, cholesterol, and miscellaneous medications*

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- *Invega Sustenna 156mg q4 weeks*
- *Abilify Maintena 400mg q 4 weeks*
- *Hydroxyzine pamoate 50mg bid*
- *Hydroxyzine hydrochloride 50mg bid prn*
- *Variety of other blood pressure, cholesterol, and miscellaneous medications*

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Patient was only taking Abilify and prn hydroxyzine

Where can a pharmacist help?

2024 Literature review found several areas where pharmacist intervention could be integrated into medical care⁴

- *Pharmacist medical record review*
 - *Simplifying medication regimens*
 - *Reducing errors*
 - *Improving access*
- *Professional referral*
- *Patient request*

- *Integrated collaboration*
 - *Pharmacist works under provider*
 - *Provider / pharmacist discussions*
- *Parallel processes*
 - *Collaborative practice agreements*
- *Pharmacist services*
 - *Information & recommendations*
 - *Dosing*
 - *Medication error resolutions*
 - *Insurance assistance*

Demonstrating Pharmacist Value

2019 Oncology Literature Review⁸

Clinical Care

- Improved supportive care medication access and overall med adherence
- Improved venous thromboembolism prophylaxis compliance
- Reduced number and duration of delays

Reduced Medication Related Problems - Up To 45%

- Identified and resolved inappropriate medications and administration
- Improved monitoring parameters
- Increased adverse event monitoring

Patient Education

- Improved patient satisfaction
- Increased patient understanding

Informatics

- Helped improve order sets
- Assisted in keeping the medical record up to date

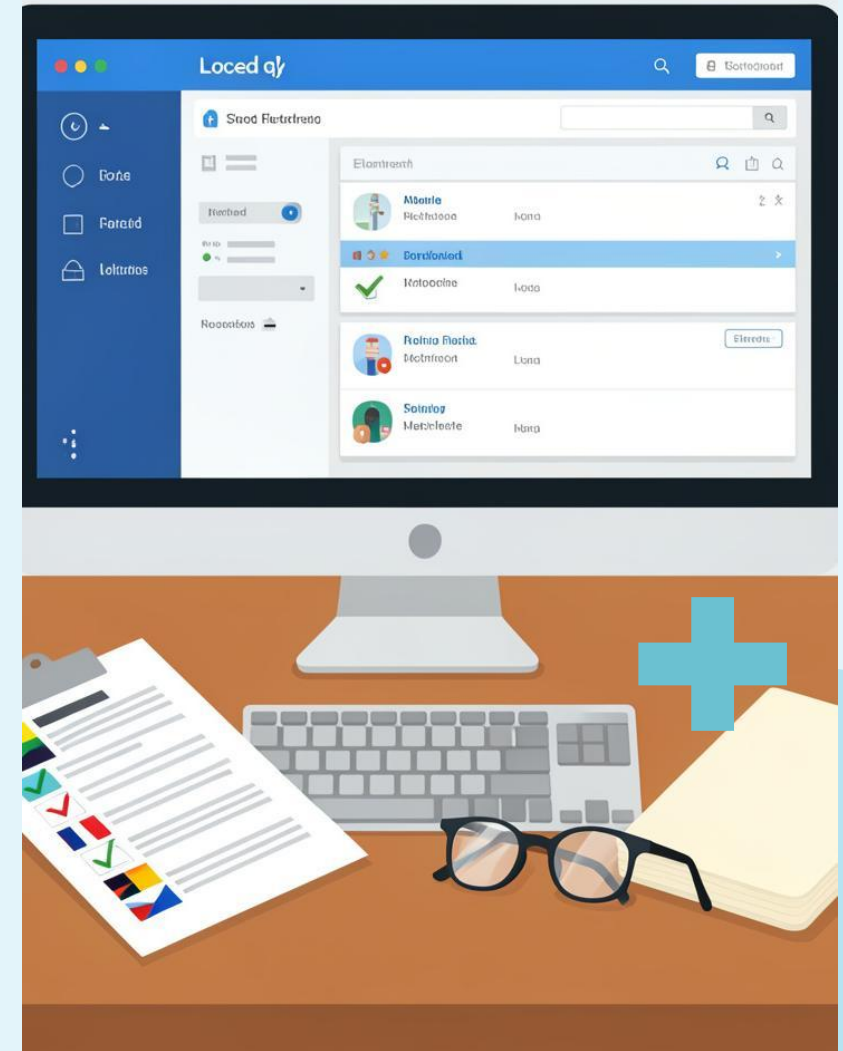
Economic Benefits

- Cost avoidance of \$282,741 & increased revenue \$1.42 -> \$2.84 million per year
- Reduced physician time
- Improved patient access to medication



Medication Therapy Management³

- *First time RPHs paid for knowledge*
- *Comprehensive Medication Review*
 - *Medication therapy review*
 - *Personal medication record*
 - *Action plan*
 - *Interventions*
 - *Documentation and follow up*
- *TIPS*
- *2010 analysis in NC*
 - *516 recommendations in 88 people with about 1 in 2 accepted by provider*
 - *\$107 per patient per year savings*
- *2015 study showed 13% decrease in rehospitalizations*



Comprehensive Medication Reviews

- *Is there an indication for every medication?*
- *Is every medication effective?*
- *Are there any missing medications?*
- *How is patient compliance?*
- *Can I discontinue any medication?*
- *Is there a way to save money or time?*
- *What is the patient's health literacy?*
- *Are there significant drug interactions?*



CMR Male aged 75

| <i>Drug name</i> | <i>Qty</i> | <i>Ref</i> | <i>Written</i> |
|-------------------|------------|------------|------------------|
| <i>Directions</i> | | | <i>Last Fill</i> |
| Advair 250/50mg | 60 | 12 | 11/25/25 |
| 1 bid | | | 12/30/25 |
| Albuterol inhaler | 18 | 12 | 11/25/25 |
| 2 q 4-6h prn | | | 05/25/26 |
| Carvedilol 25mg | 180 | 4 | 11/25/25 |
| 1bid | | | 05/25/26 |
| Furosemide 40mg | 90 | 4 | 11/25/25 |

| <i>Drug name</i> | <i>Qty</i> | <i>Ref</i> | <i>Written</i> |
|---------------------|------------|------------|------------------|
| <i>Directions</i> | | | <i>Last Fill</i> |
| Metformin ER 1000mg | 180 | 4 | 11/25/25 |
| 1 bid | | | 4/25/26 |
| Simvastatin 80mg | 90 | 4 | 11/25/25 |
| 1qhs | | | 05/25/26 |
| Pioglitazone 45mg | 90 | 4 | 11/25/25 |
| 1qd | | | 05/25/26 |
| Fluoxetine 20mg | 270 | 4 | 11/25/25 |

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| <u>Carvedilol 25mg</u> | 180 | 4 | 11/25/25 |
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| <i>Directions</i> **Change to ER 500 for cost?* | | | <i>Last Fill</i> |
| <u>Metformin ER 1000mg</u> | 180 | 4 | 11/25/25 |
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| Simvastatin 80mg | 90 | 4 | 11/25/25 |
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| <u>Metformin ER 1000mg</u> | 180 | 4 | 11/25/25 |
| **Muscle aches? Change?** | | | |
| 1 bid | | | 4/25/26 |
| <u>Simvastatin 80mg</u> | 90 | 4 | 11/25/25 |
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| 1 bid | | | 4/25/26 |
| <u>Simvastatin 80mg</u> | 90 | 4 | 11/25/25 |
| **CHF? Change to SGLT-2?** | | | |
| 1qhs | | | 05/25/26 |
| <u>Pioglitazone 45mg</u> | 90 | 4 | 11/25/25 |
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Accessing Medication





Accessing Medication

It doesn't matter how good the medication is.

If the patient can't get it, the medication might as well **NOT** exist!

Accessing Medication



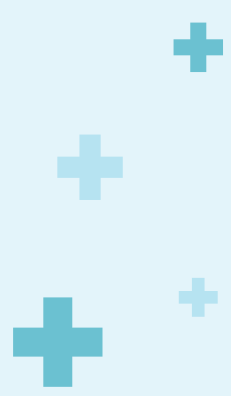
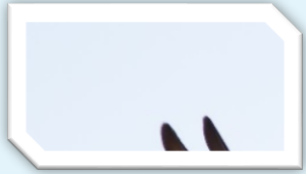
- Healthcare Marketplace
- Manufacturer coupons
- Discount cards (with caution)
- Medicaid
- For seniors specifically
 - Medicare Extra Help
 - Call 1 800-772-1213
 - <https://www.ssa.gov/medicare/part-d-extra-help>
 - Seniorcare - \$30 per year
 - Local Aging and Disability Resource Center (ADRC)



Preventing RPH Phone Calls

1. Use the notes field!!!
 - Especially if something is unusual
 - Ordering cephalosporin but patient has a penicillin allergy
 - There is a change
 - Date: Dose change
 - Date: now prn / scheduled
2. Help reduce audit risk
 - “Unspecified” quantity/item
 - Must determine days supply
 - Max daily dose on insulin
 - Not “1 as needed”
 - What is the area affected with topical meds – both arms etc

Community Pharmacy

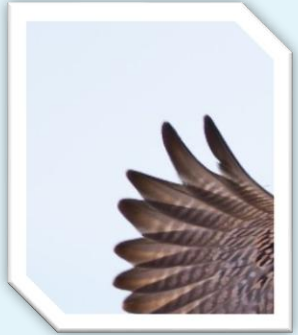


Community Pharmacy

- Your patient is currently taking duloxetine 60mg daily.
- New order for duloxetine 30mg from a different provider comes in.
 - Dose increase?
 - Dose decrease?
 - Duplication?

Community Pharmacy



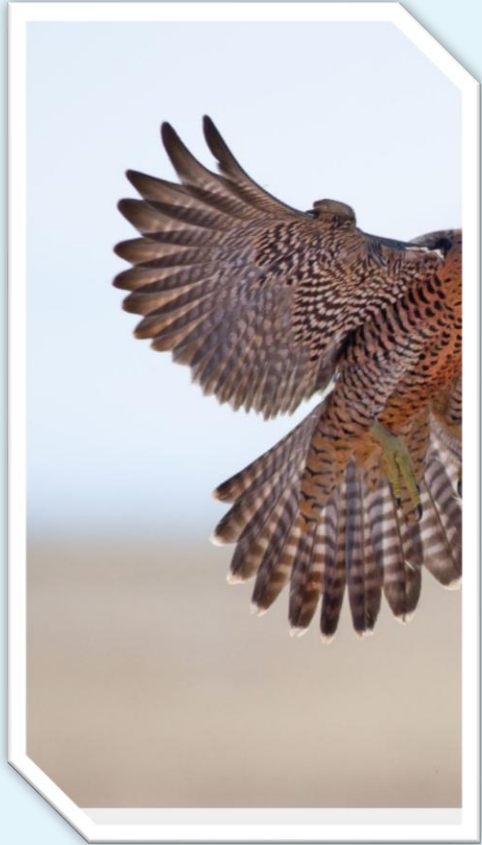


Community Pharmacy

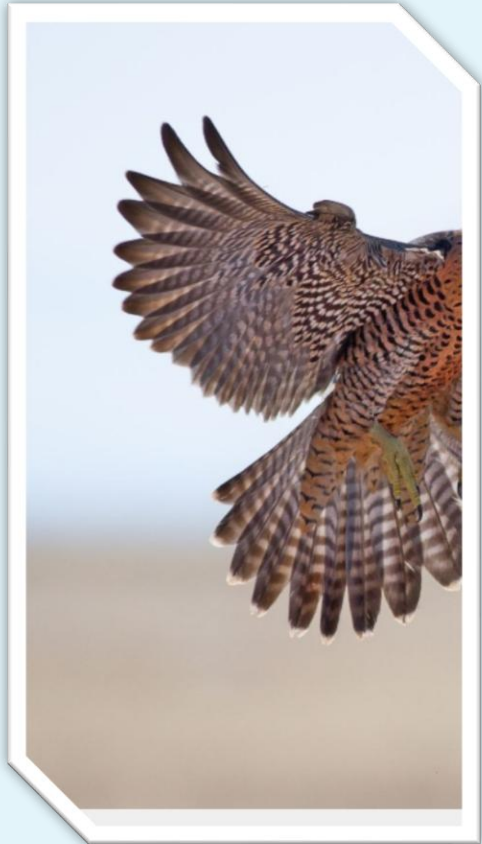
- Your patient is currently taking duloxetine 60mg daily.
- New order for fluoxetine 20mg from the same provider comes in.
 - Continue duloxetine?
 - Change?
 - Error?



Community Pharmacy



Community Pharmacy



- Your patient is currently taking duloxetine 60mg daily.
- New order for fluoxetine 20mg from the same provider comes in with a note saying “change.”
 - What is the transition plan?
 - Does patient know?



Community Pharmacy



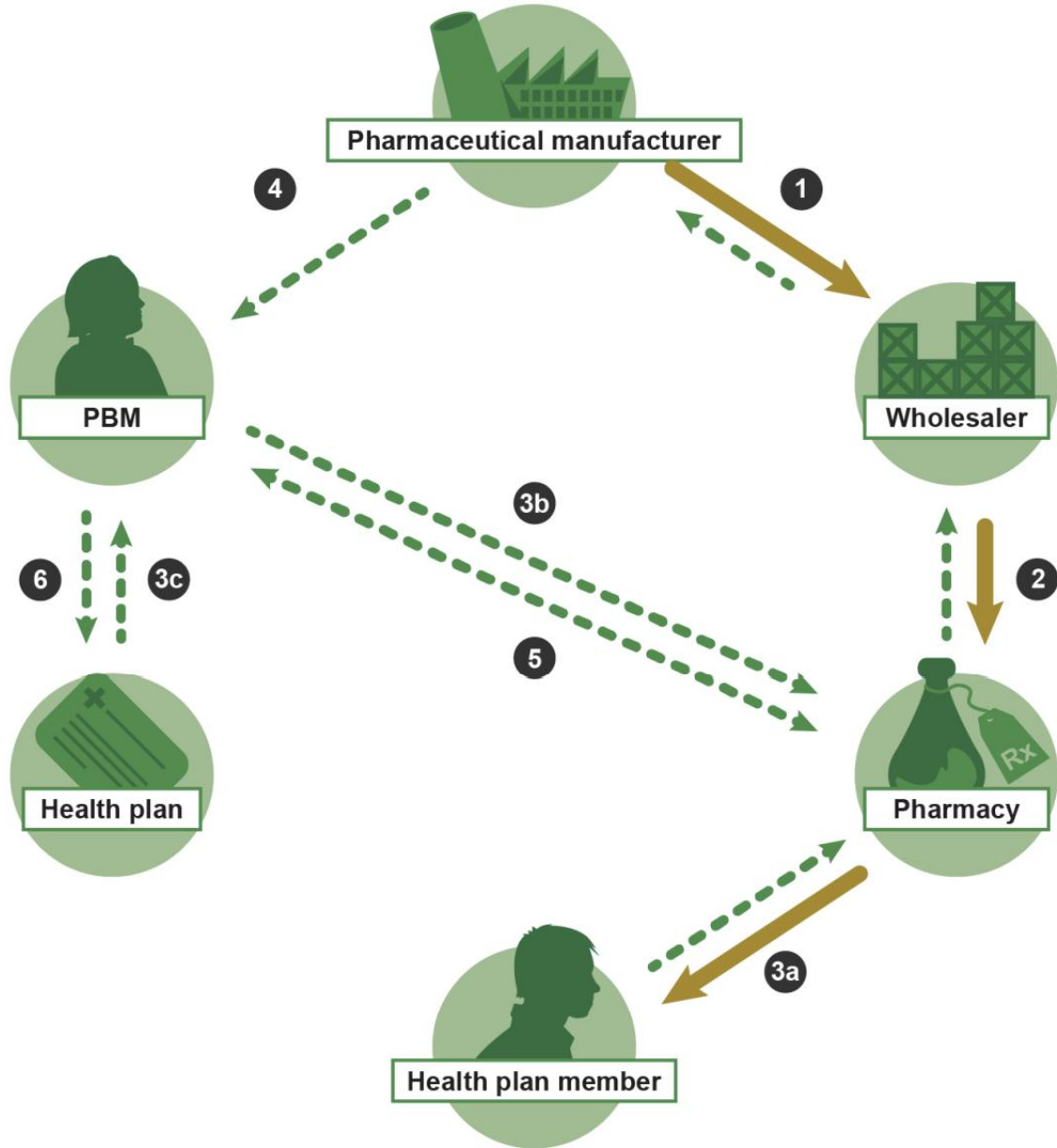
Community Pharmacy



- Your patient is currently taking duloxetine 60mg daily.
- New order for fluoxetine 40mg comes in with full cross taper instructions



Where Does The Money Flow?



- 1** Wholesaler purchases drugs from manufacturer.
- 2** Manufacturer publishes list price for drugs sold to pharmacies, called the average wholesale price. Pharmacy purchases drug from wholesaler.
- 3a** Health plan member receives drug from pharmacy and pays cost-sharing.
- 3b** PBM pays pharmacy for the remaining cost of the drug.
- 3c** Health plan pays PBM for the drug.
- 4** PBM receives negotiated rebate from manufacturer.
- 5** Pharmacy may pay fees to or receive payments from PBM based on factors such as the pharmacy's performance relating to certain metrics.
- 6** PBM may pass on a portion of the rebates from manufacturers to the health plan.



— Flow of prescription drugs
 - - - - Flow of funds

Audit Risk Mitigation

- Wisconsin has Statute 632.865 dealing entirely with pharmacy benefit managers
 - Audit limited to 250 separate prescriptions
 - Limited audit to not older than 2 years
 - Cannot pay auditor based on percentage of amount recovered in audit.
- Audits are not random; insurance companies look for prescriptions with the high cost and easy clerical mistakes
- Audits increased by 17% 2022-2023
- Reasons for insurance recoupment
 - Patient uses middle name; insurance had first and middle.
 - Nurse filled out written order, physician just signed it.
 - Doctor stamped DEA number on a blank, insurance wanted it handwritten
 - Name misspelled on prescription

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Thank you!

What questions can I answer?



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