

ACT (Academia-CPESN Transformation)
Pharmacy Collaborative



Patient Case Challenge 2020

Case Report Template

Case Developers

College/School of Pharmacy: The XXX School of Pharmacy

Faculty Member(s): Jane Doe, PharmD, Assistant Professor

Student Pharmacist(s): John Doe, Class of 2021

Community Pharmacist(s) (optional):

Setting Description

State: Pennsylvania

Community Type (highlight one): Rural Suburban Urban

Prescription Volume per Week: 1,200

Enhances Services Offered: Medication reconciliation, Comprehensive Medication Review, Medication synchronization, Adherence packaging, Blood pressure monitoring, Diabetes Prevention Program, Delivery service, Home Visits, Immunizations, Long-Acting Injections, Tobacco Cessation Program

CPESN Member Pharmacy? (highlight one) YES NO

If yes, which CPESN Network(s)? Pennsylvania Pharmacists Care Network

Patient Case Summary

Brief Summary

Patient was identified in need of adherence packaging and came into pharmacy for first med adherence packaging fill. RPh took BP, was 194/84 mmHg. RPh called all providers (PCP, cardiologist, urologist) to inform and get up-to-date med list. RPh discovered that all providers had different med lists and thought the patient was on different BP regimens. Med list was reconciled by RPh with all providers, and patient was started on new BP med. RPh had regular touch points with the patient over the month following this initial visit to assess BP. One month later, at this visit, the RPh was able to see that the patient's BP is now within goal. Patient is also now better adherent due to med adherence packaging.

Value Expression Explanation

Return on Investment: In this instance, the patient did not qualify for an active payor contract in the state. However, based on available cost data the pharmacist generated an approximate \$10,000 in cost savings through a prevented hospitalization, and could generate an approximate \$5,824 in cost savings over the span of the year with continued monitoring and maintenance of adherence.

Personal value to patients/caregivers: The pharmacist provided invaluable support to the patient in this case. For someone who is on several medications and seeing multiple providers, confusion and resultant poor outcomes are all too possible. The pharmacist in this case was able to keep the patient at home and out of the hospital, both through adherence packaging and through initiation of a new medication to control the patient's blood pressure.

Key Learnings for Community Pharmacy Practice from this Case Report

This patient became more closely involved with the pharmacist and with their healthcare initially because the pharmacist identified this patient as someone to monitor blood pressure through the Flip the Pharmacy program. Turning our attention intentionally to the patient for things like blood pressure monitoring, diabetes management, immunizations, etc. can open our eyes to the impact that pharmacists can have on the health and wellbeing of patients.

Patient Description

Title of Patient Case: Susan Derpressure
(can be creative patient name or topic)

Age: 68

Race: Caucasian

Gender: Woman

Sex: Female

Occupation: Retired

Living Arrangements/Family: Lives alone in a ranch home

Health Insurance (coverage type and any issues): Medicare

Date of encounter: 2/1/2020

Encounter Type (Initial or Follow up): Follow up (390906007)

Encounter Class (In person or Telephone encounter): In person encounter (453701000124103)

Encounter Reason (See Summary for codes document): Medication synchronization (415693003)

History of Present Illness

Patient was identified 1/2/2020 as needing medication adherence packaging to help with adherence. Assessed patient's BP on this date and discovered it was 194/84. After conferring with the patient's physicians, patient was initiated on irbesartan 150 mg once daily. Patient is doing well on medication adherence packaging and with new blood pressure regimen. She presents today for continued monitoring of her blood pressure and to pick up her synced medications.

Active Prescription Medications

Drug	Strength	Indication	Directions	Start Date	Prescriber
Hydrochlorothiazide	25 mg	Hypertension	1 tab by mouth once daily	1/2018	Cardiologist
Atorvastatin	40 mg	Hyperlipidemia	1 tab by mouth every evening	6/2018	Cardiologist
Metformin	500 mg	Type 2 Diabetes	2 tabs by mouth twice daily	10/2018	PCP
Oxybutnin ER	10 mg	Overactive Bladder	1 tab by mouth once daily	3/2019	Urologist
Fluoxetine	20 mg	Depression	1 cap by mouth once daily	7/2019	PCP
Irbesartan	150 mg	Hypertension	1 tab by mouth once daily	1/2020	Cardiologist

Active Non-Prescription Medications

Drug	Strength	Indication	Directions	Start Date	Prescriber
Acetaminophen	650 mg	Osteoarthritis	2 tabs by mouth every 8 hours as needed for pain	2015	N/A

Allergies and Alerts

Medication Allergies (drug, timing, reaction): Penicillin - patient reports reaction as child, unaware of timing or reaction

Adverse reactions to drugs in the past: Lisinopril - patient developed dry cough

Other Alerts/Health Aids/Special Needs (sight, hearing, mobility, literacy, disability):
Patient is hearing-impaired and has hearing aids in both ears.

Immunization History (relevant to patient age and health status)

Immunization	Date(s) Administered
Pevnar	03/2017
Pneumovax	04/2018
Shingrix	01/2019, 04/2019
Influenza	10/2018, 12/2019

Current Medical History/Problem List (list current medical conditions)

Medical Condition	Date/Year of Diagnosis
Osteoarthritis	2015
Hypertension	2017
Hyperlipidemia	2018
Type 2 Diabetes Mellitus	2018
Overactive Bladder	2019
Depression	2019

Prescription Fill History

Medications synchronized (highlight one)? YES NO

If yes, last sync fill date: 1/31/2020 (picked up today, 2/1/2020)

Pertinent gaps in refill history: Prior to enrollment in medication adherence packaging program, patient was frequently filling chronic medications more than 7 days after refills were due. Patient reported sometimes waiting until all medications were filled in order to only have to coordinate transportation to the pharmacy once for all prescriptions.

Past Medications

Drug	Indication	Start Date	Stop Date	Reason for Discontinuation
Lisinopril	Hypertension	11/2017	02/2018	Adverse reaction - dry cough

Past Medical History (relevant illness, hospitalization, procedures, etc.)

Medical condition or recent hospitalization	Date
Hospitalized for Community Acquired Pneumonia	02/2019

Social History

Tobacco Use: Former smoker - 1 PPD (quit in 2012)

Alcohol Consumption: reports 1-2 alcoholic drinks per week

Caffeine Consumption: reports 1 cup of caffeinated tea every morning

Recreational Drug Use: denies any recreational drug use

Describe Diet: Patient reports a varying diet, but describes some common meals. For breakfast she typically eats cereal or oatmeal with a glass of orange juice and a cup of tea. Occasionally, she will eat eggs and toast or a bagel. For lunch, she reports eating sandwiches (ham, turkey, tuna salad) or soup (chicken noodle, tomato). Dinner typically consists of protein (chicken, beef), carbs (potatoes, pasta), and a canned vegetable. The patient reports snacking on things like chips and cookies occasionally in the evening. She typically drinks only water with lunch and dinner, with the exception of a glass of wine a couple of nights per week.

Describe Exercise: Patient reports walking about 1.5 miles around her neighborhood at least three times weekly.

Relevant Social Determinants of Health: Patient reports that because she lives alone and does not drive, she sometimes has difficulty getting transportation to the grocery store, pharmacy, and doctors' appointments. Pain associated with osteoarthritis also makes it difficult for patient to move around, adding to her mobility issues.

Vital Signs/Physical Assessment/Labs

	Results	Date
Height	63 inches	04/2019
Weight	152 lbs	01/2020
Blood Pressure	194/84 mmHg 172/82 mmHg 150/78 mmHg 138/80 mmHg 130/78 mmHg	01/02/2020 01/10/2020 01/16/2020 01/22/2020 02/01/2020
Heart Rate	90 bpm	01/02/2020

	85 bpm	01/10/2020
	78 bpm	01/16/2020
	75 bpm	01/22/2020
	75 bpm	02/01/2020
Respirations	N/A	
Temperature	N/A	
Other	N/A	

Patient Encounter Assessment:

Patient's blood pressure is now controlled following the addition of irbesartan to her medication regimen and improved medication adherence with use of med sync and medication adherence packaging services. BP today is 130/78 mm Hg, which is below the goal of < 130/90 mmHg.

Medication Related Problems (MRPs) and Interventions

(For all MRP and Intervention Descriptions/Codes and Statuses, see the Summary for codes document and CPESN SNOMED Code Guide. **Please use FHIR Status options for MRP Status and Intervention Status: active, recurrence, relapse, inactive, remission, or resolved)

MRP Date	MRP Description/Code	MRP Note	MRP Status
01/02/2020	Noncompliance with medication regimen (129834002)	Patient often fills chronic medications at least 7 days after they are due to be refilled. Patient reports sometimes waiting to come pick up medications until they are all filled due to transportation issues.	Active
Intervention Date	Intervention Description/Code	Intervention Note	Intervention Status
01/02/2020	Synchronization of repeat medication (415693003)	Patient has been enrolled in med sync and medication adherence packaging services to assist her in getting refills on time and remembering to take chronic medications.	Active

MRP Date	MRP Description/Code	MRP Note	MRP Status
01/02/2020	Under care of multiple providers (209100124100)	Patient's medications are prescribed by PCP, cardiologist,	Resolved

		and urologist. Medication lists at these offices are inconsistent.	
Intervention Date	Intervention Description/Code	Intervention Note	Intervention Status
01/02/2020	Medication reconciliation with all providers (430193006)	Resolved discrepancies on various medication lists and provided all providers with current list.	Resolved

MRP Date	MRP Description/Code	MRP Note	MRP Status
01/02/2020	Additional medication therapy required (42898100124101)	Patient has been on only HCTZ for blood pressure since 2018. Addition of another antihypertensive is required given her consistently elevated BP (194/84 mm Hg).	Resolved
Intervention Date	Intervention Description/Code	Intervention Note	Intervention Status
01/3/2020	Recommendation to start prescription medication (428821000124109)	Recommended addition of ARB to cardiologist given history of intolerance to lisinopril. Cardiologist sent prescription for irbesartan on 1/6.	Resolved

MRP Date	MRP Description/Code	MRP Note	MRP Status
01/02/2020	Deficient knowledge of disease process (129864005)	Patient states that she does not know her BP goal or potential complications of HTN. Patient does not check BP at home.	Active
Intervention Date	Intervention Description/Code	Intervention Note	Intervention Status
01/02/2020	Recommendation to monitor physiologic parameters (432371000124100)	Patient is willing to take her BP at home every day and record in a log. BP will be monitored at pharmacy at least monthly when receiving adherence packaging.	Active
1/10/2020; 1/16/2020; 1/22/2020; 2/1/2020	Blood pressure taking (46973005)	Blood pressure remained above goal for nearly 1 month following initiation of irbesartan.	Active

		On 2/1/20, BP was at goal (130/78 mm Hg) of < 130/90.	
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Patient-Centered Goals

Goal Date	Goal Note	Goal Status
02/01/2020	Avoid complications associated with high blood pressure by maintaining goal BP < 130/00 mm Hg	Active
02/01/2020	Check blood pressure at home daily and keep log	Active
02/01/2020	Take medications as prescribed by physicians to improve medication adherence and overall wellbeing	Active

Patient Encounter Plan:

Patient requires continued follow-up to ensure blood pressure remains at goal and adherence to medication regimen is maintained. Continue to call patient prior to each fill of medication adherence packaging for medication reconciliation and to address any potential medication-related problems. Assess blood pressure monthly when patient picks up medications. Encourage patient to continue checking blood pressure at home daily and keeping a BP log.

References:

1. Cipolle RJ, Strand LM, Morley PC. Pharmaceutical care practice: the patient centered approach to medication management. 3rd ed. New York: McGraw-Hill; 2012.
2. Flip the Pharmacy. Change Package January 2020. www.flipthepharmacy.com/change-packages (accessed Feb 5, 2020).
3. Joint Commission of Pharmacy Practitioners. Pharmacists' Patient Care Process. May 29, 2014. Available at: <https://jcphp.net/wp-content/uploads/2016/03/PatientCareProcess-with-supporting-organizations.pdf>.

Learn more about the ACT Pharmacy Collaborative at: www.actforpharmacy.com



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