

Improving Safety After Hospitalization in Older Persons on High-Risk Medications



A Toolkit to Guide Clinical Pharmacists Home Visits with Patients

**Focus on High-Risk Medications
(Anti-Diabetics, Anticoagulants, Opioids)
in Older Adults Post-Hospital Discharge**

This toolkit was created by researchers at the Meyers Primary Care Institute.

The toolkit was developed as a resource from the Improving Safety After Hospitalization in Older Persons on High-Risk Medications (“ISAH”) Study (R18HS023774) funded by the Agency for Healthcare Research and Quality.

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Primary Care
Institute



Agency for Healthcare
Research and Quality

This toolkit was developed for the implementation of a clinical pharmacist home-based intervention that includes the following components:

- Home-based assessments of high-risk medications;
- Home-based patient medication education;
- Primary Care Provider communication;
- Follow-up: telephone patient assessment (and additional PCP communication as necessary).

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|--------------------------------|--------------------|---------------------|---------------------------|
| Medication Safety Tips | Antidiabetic Facts | Anticoagulant Facts | Opioid Facts |
| | Albiglutide | Apixaban | Codeine/Acetaminophen |
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Section 1: Clinical Pharmacist Training Materials

Clinical Pharmacist Training

Training Agenda

Training PowerPoint

Training Cases: Ms. Brown and Mr. Jones

Case Presentation

Pharmacist Recommendations to the Patient

EHR Communication to PCP

Training Agenda

Clinical Intervention Pharmacist Training 9:30am-4:00pm

| | |
|---------|---|
| 9:30am | Session 1: ISAH Study Background |
| 9:45am | Session 2: Preparation for Home Visit |
| 10:15am | Break |
| 10:30am | Session 3: In Home Activities |
| 11:30pm | Lunch |
| 12:30pm | Session 4: Post-Visit Documentation |
| 1:00pm | Session 5a: Home Visit Role Play |
| 2:30pm | Session 5b: Communication with the PCP Exercise |
| 3:00pm | Break |
| 3:15pm | Session 6a: Follow-up Phone Call |
| 3:30pm | Session 6b: Follow-up Phone Call Role Play |
| 3:45pm | Closing |



Improving Safety After Hospitalization in Older Persons on High-Risk Medications

Clinical Pharmacist Training

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The Meyers Primary Care Institute is a joint endeavor of the University of Massachusetts Medical School, Reliant Medical Group, and Fallon Health.

This training module was developed as part of a toolkit for the implementation of a clinical pharmacist home-based intervention that includes the following components:

- Home-based assessment of high-risk medications;
- Home-based patient medication education;
- Primary Care Provider communication;
- Follow-up: telephone patient assessment (and additional PCP communication as necessary).

The toolkit was developed as a resource from the Improving Safety After Hospitalization in Older Persons on High-Risk Medications (“ISAH”) Study (R18HS023774) funded by the Agency for Healthcare Research and Quality.

Training Objectives

- 1. Provide background information.
- 2. Understand the home visit protocol, including pre-visit, home visit, and post-visit workflow.
- 3. Provide information on the Primary Care Provider (PCP) communication.
- 4. Describe the follow-up (patient call and PCP communication).

Training Outline

- **Session 1:** Background (15 Minutes)
- **Session 2:** Preparation for Home Visit (30 Minutes)
- **Session 3:** In-Home Activities (60 Minutes)
- **Session 4:** Post-Visit Documentation (30 Minutes)
- **Session 5:** Home Visit Role Play and Documentation to PCP Exercise (90 Minutes)
- **Session 6:** Follow-up Phone Call Overview and Role Play (30 Minutes)

Session 1: Background

Background

- Nearly one in five older adults newly discharged from the hospital will experience an Adverse Drug Event (ADE)¹
 - An ADE is defined as an injury due to a medication
- Medication prescribing and monitoring errors are particularly common during this high-risk, post-hospital discharge period¹



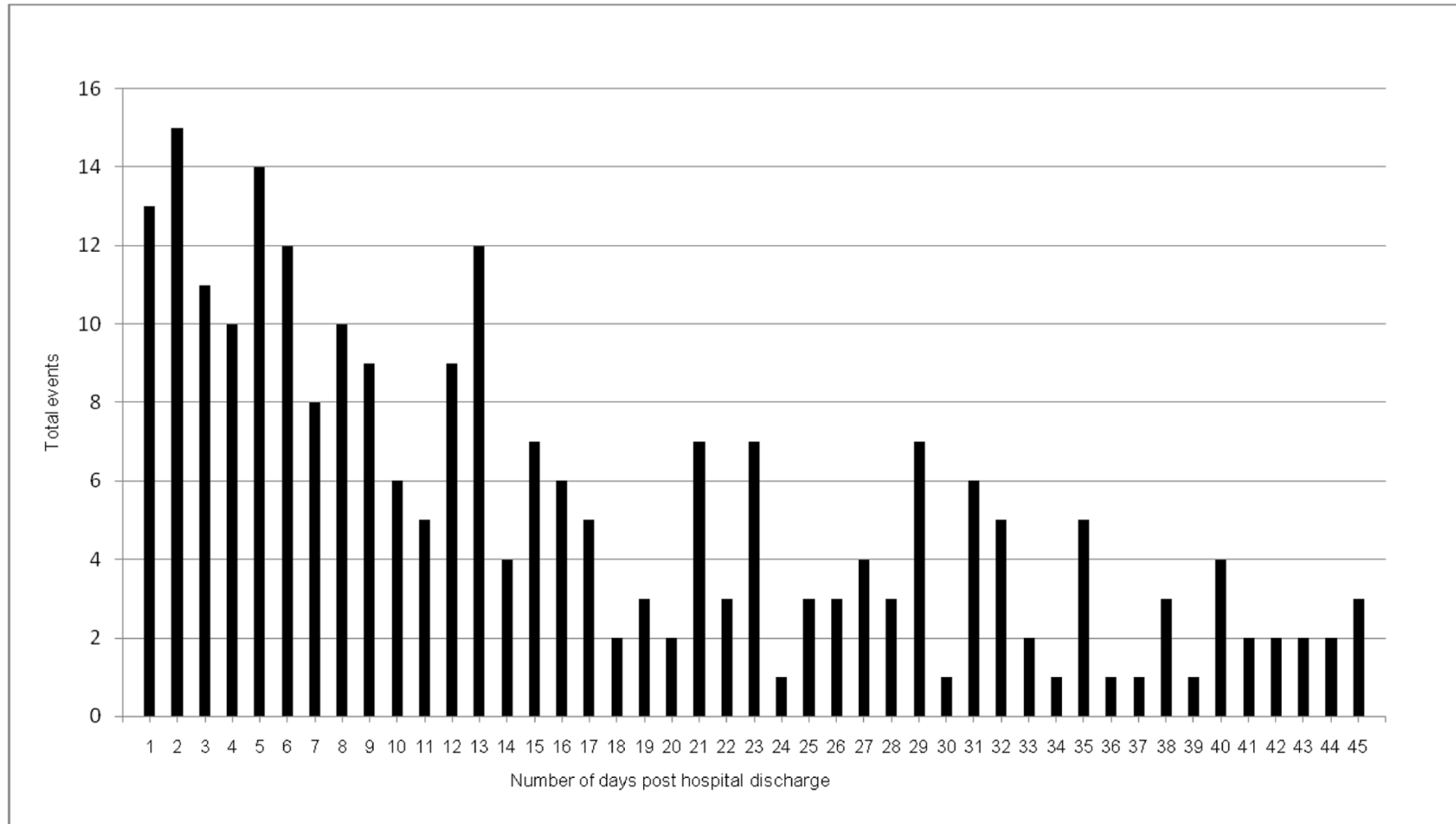
1. Kanaan AO, Donovan JL, Duchin NP, et al. Adverse drug events after hospital discharge in older adults: types, severity, and involvement of Beers criteria medications. *J Am Geriatr Soc.* 2013 Nov; 61(11):1894-9.

Background

- The National Action Plan for ADE Prevention targeted three high-risk drug classes²:
 - Anticoagulants
 - Anti-Diabetic Agents (insulin and oral agents)
 - Opioids
- These three medication classes accounted for the greatest number of measurable drug-related harms to patients³⁻⁵

2. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2014). National action plan for adverse drug event prevention. Washington, DC. <http://www.health.gov/hai/pdfs/ADE-Action-Plan-508c.pdf> (accessed January 12, 2015).
3. Budnitz DS, Pollock DA, Weidenbach KN, Mendelsohn AB, Schroeder TJ, Annet JL. National surveillance of emergency department visits for outpatient adverse drug events. JAMA. 2006; 296:1858-66.
4. Budnitz DS, Lovegrove MD, Shehab N, Richards CL. Emergency hospitalizations for adverse drug events in older Americans. N Engl J Med. 2011; 365:2002-2012.
5. Budnitz DS, Shehab N, Kegler SR, Richards CL. Medication use leading to emergency department visits for adverse drug events in older adults. Ann Intern Med. 2007; 147:755-765.

Number of Days Post-Discharge to First ADE¹



1. Kanaan AO, Donovan JL, Duchin NP, et al. Adverse drug events after hospital discharge in older adults: types, severity, and involvement of Beers criteria medications. *J Am Geriatr Soc.* 2013 Nov; 61(11):1894-9.

Goals of the Intervention

- Identify patients at a higher-risk of experiencing an ADE following hospital discharge
- Intervene *immediately* following hospital discharge
 - Within 3-4 days
- Provide a home-based intervention to:
 - Identify potential medication-related problems
 - Educate patients on safe medication use
 - Communicate with the patient's Primary Care Provider team
 - Findings from the home visit medication assessment
- Improve outcomes!

Accomplishing the Intervention

- Engaging with patients after hospital discharge can be challenging
 - Difficult to reach patients by telephone
 - Patients don't feel well
- Recommend making the intervention a standard of practice scheduled at discharge
 - Schedule the home visit as part of the hospital discharge process!



Questions

Session 2: Preparation for Home Visit

Prepare Home Visit Kit

- ❑ A printed copy of the *Pre-Visit Checklist*, *Home Visit Checklist*, and *Home Visit Worksheet*
- ❑ Two (2) copies of the printed **educational leaflets**, specific to patient's high-risk medications
 - Back-up copies of all printed **educational leaflets** (2 copies of each)
 - 2 copies: 1 for the patient, 1 for a caregiver (if applicable)
- ❑ Pill organizer & pill cutter
- ❑ Pen, highlighter & hard writing surface/clipboard
- ❑ Address and directions to the home
- ❑ Patient/caregiver's phone number

Pharmacist Preparation: Before the Home Visit

- ❑ Review patient's electronic health record (EHR)
 - Review discharge summary and hospital medication list
 - Review outpatient medication list

- ❑ Review all medications with particular attention paid to high-risk medications
 - Check for discrepancies between medication lists
 - Check for clinically significant drug-drug interactions
 - Check for high-risk drug combinations

- ❑ Begin assessment with EHR data utilizing the *Home Visit Worksheet*

Pharmacist Preparation

- ❑ Familiarize yourself with **health literacy** and **medication adherence** principles



Health Literacy: Non-Verbal & Environment

- Establish rapport with the patient/caregiver
- Sit down; make eye contact with the patient/caregiver
- Make it comfortable for patients/caregivers to voice questions, doubts and concerns
- Be conscious of any hearing impairment
 - If the patient cannot hear well:
 - Inquire about a preferred side to sit on
 - Inquire about the need to put hearing aids in
 - Minimize background noise, if possible



Health Literacy: Verbal Communication

- Speak clearly and slowly
- Use plain language
- Explain any medical terms that the patient should know
- Break your information into chunks
 - Start each “chunk” with an orienting sentence
 - For example: “Now let’s talk about what might be causing this. It could be due to your blood pressure medication.”
- Be explicit about what is important and why

Health Literacy: Written Communication

- Put the most important points in writing
- Add to or highlight the written **educational leaflets**
 - Highlights what is most important
 - Serves as a memory aid
 - Facilitates communication with family and caregivers who help the patient manage his/her health

Health Literacy: Assessing Comprehension

- Check for understanding using the “teach back” method
 - Have patients repeat back information in their own words
- Ask open-ended questions
- Ask “What questions do you have?”
 - Avoid using the phrase “Any questions?”



Medication Adherence

- **Factors that contribute to non-adherence⁶**
 - **Healthcare system related:**
 - Patient-provider relationship
 - **Condition related:**
 - Lack of symptoms
 - **Therapy related:**
 - Complexity
 - Adverse side effects
 - **Social & Economic related:**
 - Cost
 - Low health literacy
 - Limited support; elder abuse



⁶ http://www.champ-program.org/static/ImprovingMedAdherenceOlderAdultsIyer_final_508C.pdf

Medication Adherence: Assessing Barriers

- If the patient is not taking a medication, politely try to find out what the barriers are.
- Is it...
 - a side effect?
 - the cost of the prescription?
 - an inability to see units on a syringe?
 - a transportation (to the pharmacy) issue?

Medication Adherence: Assessing Barriers

Opioid Use in Older Adults:

- Older adults may underreport pain
- It is important to inform them of the difference between dependence, tolerance, and addiction
 - Educate them on safe use, including storage and disposal
 - Utilize appropriate opioid **educational leaflet**
 - Discuss the importance of constipation management
 - Is there an alternative therapy that is likely to have an equivalent or better therapeutic index for pain control in this patient?
 - Does the patient have medical problems that might increase risk of opioid – related side effects?
 - Is the patient (or caregiver) likely to manage the opioid therapy responsibly?

Medication Adherence: Finding Solutions

- Attempt to find a solution to barriers:
 - Inform their PCP that the patient could benefit from a social work or care coordinator consultation due to socioeconomic issues, if applicable
 - Is there a once-a-day formulation of the medication?
 - Is there a pharmacy that delivers?
 - Is there a pharmacy that pre-packages medications?

Questions

Session 3: In-Home Activities

In-Home Protocols: Overview

- **Identify/confirm who you'll be communicating with**
 - Patient, caregiver, or other person
- **Identify medication discrepancies**
- **Identify clinically significant interactions**
 - Drug interactions that require a dosage adjustment or consist of a drug combination that is contraindicated due to its high potential for clinical adverse effects
- **Identify high-risk medication combinations**

Conduct visit with health literacy principles in mind

In-Home Protocols: Overview (Cont.)

- Focus on high-risk medications first
- Ask patient to identify each medication
- Query patient's understanding of each medication
- Ask about any potential side effects
- Assess barriers to medication adherence

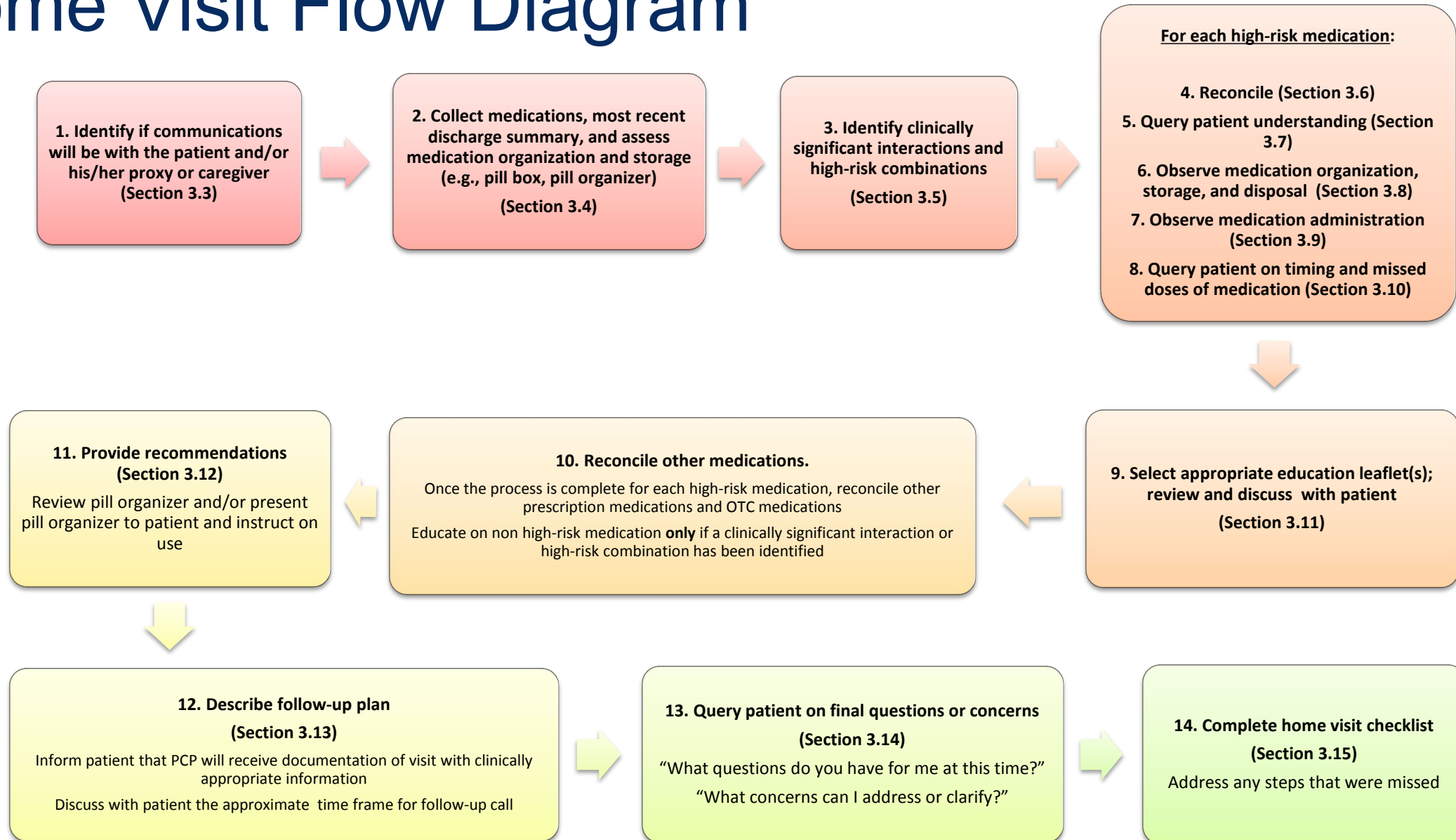
In-Home Protocols: Overview (Cont.)

- Observe medication
 - Organization
 - Administration
 - Discuss timing and missed doses
 - Storage
 - Disposal (when applicable)

In-Home Protocols: Overview (Cont.)

- Review relevant **educational leaflets**
- Provide individualized recommendations
- Describe the follow-up plan
- Ask what questions or concerns they have
- Complete documentation

Home Visit Flow Diagram



Home Visit Introduction

- Introduce yourself to the patient/ caregiver
- Ask patient to produce the following:
 - All medications (bottles)
 - Including OTCs, herbals and supplements
 - Most recent hospital discharge summary
 - Patient may not have this, be prepared
 - Pill organizer
 - Or whatever they use for medication storage



Medication Reconciliation



- Begin medication reconciliation using discharge summary/hospital medication list, outpatient medication list, and what patient is actually taking:



- Focus on high-risk medications first
- Record discrepancies on the *Home Visit Worksheet*
- Once a medication has been reconciled, turn the prescription bottle on its cap to keep organized

Medication Education



- Query patient/caregiver's understanding (and provide education) on the following:
 - Dietary restrictions
 - Side effects
 - Administration & timing
 - Missed doses
 - Organization, storage and disposal
 - Refills
 - Review pill organizer with patient if patient/proxy desires



Patient-Specific Recommendations

- Utilize **educational leaflets** for high-risk medications
 - Utilize *Pharmacist Notes* section to customize for the patient
- Describe the follow-up plan to the patient:
 - Inform the patient that their PCP will receive documentation of the home visit with clinically appropriate information
 - Discuss with patient approximate time frame of follow-up call
 - Within 14 days
 - Consider scheduling before leaving the home visit

Wrapping Up

- Address any patient concerns or questions
 - “What concerns can I address or clarify?”
 - “What questions do you have for me at this time?”
- Complete *Home Visit Checklist*
 - Address any steps which were missed **before** ending visit



Alternate Telephone Intervention

- Confirm with whom the telephone visit will be conducted
- Confirm patient's date of birth
- Ask patient/caregiver to gather all prescription bottles including over-the-counter medications, as-needed medications, and herbal and other supplements
- Ask patient/caregiver to retrieve their most recent discharge summary
 - Pharmacist to have discharge summary open in EHR

Alternate Telephone Intervention (Cont.)

For each **high-risk medication**:

- Reconcile medication with discharge and outpatient medication lists, and document any issues on the *Home Visit Worksheet*
- Query patient's understanding
- Provide education and recommendations

Alternate Telephone Intervention (Cont.)

For each **non-high-risk medication, supplement, or over-the-counter-medication**, reconcile and document any issues:

- Provide education and recommendations only if a high-risk combination or clinically significant interaction is identified
- Education and recommendations take place at the end of call
- Describe the follow-up plan and inform the patient/caregiver that their PCP will receive documentation of the phone call with clinically appropriate information
- Query the patient on any final questions or concerns

Questions

Session 4: Post-Visit Documentation

Post-Visit Documentation

- Complete the *Post-Visit Checklist*
- Document home-visit in EHR
 - Via an encounter
 - Within 24 hours of the home-visit
- Shred or securely file *paper documentation* once home-visit EHR documentation is complete

Post-Visit PCP Communication

- Complete within 24 hours of home visit
 - Sooner if possible
- Document in the Electronic Health Record (EHR)
 - Inform PCP of concerns relevant to the use of high-risk medications, as well as other urgent medication safety concerns
 - Make concise recommendations/observations
 - 3-5 “bullet points”

Communication to PCP Template

Open *EHR Communication Template* For Review

EHR Communication Template

- Title: High-Risk Medication Assessment
- [Home Visit Summary] [Patient's high-risk medications listed here]
- **High-Risk Medication Recommendations for PCP:**
- Other Medication Observations/Plans:
- Medication Discrepancies:
- Clinically Significant Interactions/High-Risk Medication Combinations:
- Complaints and Potential Side-Effects:

EHR Communication Template (Cont.)

- Medication Management
 - Identification:
 - Organization:
 - Administration and Timing:
 - Storage:
 - Understanding:

EHR Communication SMARTtext

- Medication Discrepancies:
 - 1. No concerns were identified.
 - 2. Patient is **taking** additional **medication(s) not included on discharge list**, but included on outpatient list.
 - 3. Patient is **taking** additional **medication(s) not included on outpatient list**, but included on discharge list.
 - 4. Patient is **taking** additional **medication(s) not included on discharge list or outpatient lists**.
 - 5. Patient is **not taking medication(s) included on discharge list**.
 - 6. Patient is **not taking medication(s) included on outpatient list** and should not be discontinued.
 - 7. Patient is **not taking medication(s) in one of the high-risk medication categories**.
 - 8. Patient is **taking the wrong medication(s) [drug, dose and/or frequency] in one of the high-risk medication categories**.
- [add details as appropriate]

EHR Communication SMARTtext (Cont.)

- Clinically Significant Interactions/High-Risk Medication Combinations:
 - 1. No clinically significant interactions or high-risk medication combinations were identified.
 - 2. Clinically significant interactions and/or high-risk medication combinations were identified and addressed with the patient/caregiver. [add details]
 - 3. Clinically significant interactions and/or high-risk medication combinations were identified and will be conveyed to the PCP. [add details]

- Complaints and Potential Side-Effects:
 - 1. No complaints or side effects were reported by patient/caregiver.
 - 2. Complaints and/or side effects identified; pharmacist addressed with the patient/caregiver. [add details]
 - 3. Complaints and/or side effects identified and will be conveyed to the PCP. [add details]

EHR Communication SMARTtext (Cont.)

- Medication Management

- ◻ Identification:

- 1. The patient/caregiver can identify all medications correctly.
- 2. The patient/caregiver cannot identify all medications correctly. [add details]

- ◻ Organization:

- 1. The patient/caregiver organizes medications appropriately.
- 2. The patient/caregiver does not organize medications appropriately. [add details]

- ◻ Administration and Timing:

- 1. The patient/caregiver administers medication correctly.
- 2. The patient/caregiver administers medication incorrectly. [add details]

- ◻ Storage:

- 1. The patient/caregiver stores medication correctly.
- 2. The patient/caregiver stores medication incorrectly. [add details]

- ◻ Understanding:

- 1. The patient/caregiver has adequate understanding of the indications for medications.
- 2. The patient/caregiver has inadequate understanding of the indications for medications. [add details]

EHR Instructions

- **Progress Notes**
 - Enter pharmacist name as “Provider”
 - Utilize *EHR Communication Template* & SMARTtext
- **Routing**
 - Route EHR note to PCP with normal priority
 - If communication is high priority, place a call to the PCP’s office with issues/concerns
- **Send note to PCP**

Questions

Session 5: Home Visit Role Play and Documentation to PCP Exercise

Home Visit Role Play

Role play the home visit workflow/wording

PCP Communication Exercise

Case 1: Anticoagulant/Opioid (Ms. Brown)

Case 2: Medications for Diabetes (Mr. Jones)

Case 1: Anticoagulant/Opioid

- Ms. Brown is an 83-year-old female discharged yesterday from the hospital for a DVT and is receiving anticoagulant therapy with warfarin. She is also being treated with trimethoprim/sulfamethoxazole (Bactrim) for a symptomatic UTI which was found during hospitalization. Ms. Brown was discharged home where she lives alone. It is now 3 days post-discharge and she has not seen nor spoken with her PCP since returning home. She is not aware of when her INR should be checked next.
- EXPAND DETAILS OF CASE AS DESIRED

Case 1: Model EHR Communication to PCP

- Title: High-Risk Medication Assessment
- A home visit was performed on 7/6/2016 with Ms. Brown by [Pharmacist Name, Credentials]. Discharge from the hospital took place on 7/2/2016. Ms. Brown was prescribed the following high-risk medications: warfarin, oxycodone-acetaminophen.
- **High-Risk Medication Recommendations for PCP:**
 - **Monitor INR closely due to concurrent Bactrim therapy.**
- Other Medication Observations/Plans:
 - I observed the patient's medication organization and found that she mixes her pills together in single bottle. Pill organizer provided and instructed in use.
 - Follow-up – I plan to call patient in 3 days to ensure INR monitoring has occurred.
- Medication Discrepancies:
 - *Patient is taking additional medication(s) not included on discharge list, but included on outpatient list.*
 - Patient is taking both lisinopril and valsartan. Discharge medication list indicated lisinopril only. Review concurrent administration of both an ACE inhibitor and an ARB since both is not recommended due to increased risk of renal dysfunction.

Case 1: Model EHR Communication to PCP

- Clinically Significant Interactions/High-Risk Medication Combinations:
 - Bactrim-warfarin: Monitor INR closely since Bactrim can increase risk of bleeding with warfarin.
 - Aspirin-warfarin: Monitor for bleeding complications.
 - Lisinopril-Valsartan: Increased risk of renal dysfunction (see medication discrepancies above).
- Complaints and Potential Side-Effects:
 - *Complaints and/or side effects were identified and will be conveyed to the PCP.*
 - Metformin: Diarrhea

Case 1: Model EHR Communication to PCP

- Medication Management
- Identification:
 - *The patient/caregiver can identify all medications correctly.*
- Organization:
 - *The patient/caregiver does not organize medications appropriately.*
 - Patient mixes her pills together in single bottle; inappropriate organization. Pill organizer provided and instructed in use.
- Administration and Timing:
 - *The patient/caregiver administers medication correctly.*
- Storage:
 - *The patient/caregiver stores medication correctly.*
- Understanding:
 - *The patient/caregiver has adequate understanding of the indications for medications.*
 - Patient shows good level of understanding the purpose of the medications and how to take them. Provided warfarin and oxycodone-acetaminophen educational leaflets.

Case 1: Recommendations to the Patient

- Pharmacist Recommendations to the Patient During Home Visit
 - Informed patient to avoid OTC pain relievers like ibuprofen since they interacts with warfarin.
 - Educated patient that oxycodone-acetaminophen contains acetaminophen (Tylenol) and thus to ensure she is not taking too much acetaminophen since she also has acetaminophen as needed. Counsel patient on maximum amount of acetaminophen use per day and include on Pharmacist Notes section on educational leaflet for Percocet.

Case 2: Medications for Diabetes

- Mr. Jones was hospitalized for hypoglycemia resulting in a fall. He is a 74 year old diabetic with a history of congestive heart failure (CHF), chronic back pain, and falls. He lives at home with his daughter's family. Mr. Jones' daughter is his caregiver. His bedroom is on the second floor. He was discharged from the hospital yesterday.
- EXPAND DETAILS OF CASE AS DESIRED

Case 2: Model EHR Communication to PCP

- Title: High-Risk Medication Assessment
- A home visit, which focused on high-risk medications, was performed on 7/10/2016 with Mr. Jones by [Pharmacist Name, Credentials]. Discharge from the hospital took place on 7/9/2016. Mr. Jones was prescribed the following high-risk medications: metformin, insulin aspart, and insulin glargine.
- **High-Risk Medication Recommendations for PCP:**
 - Review rapid acting insulin regimen with patient since he is non adherent due number of daily injections and difficulty seeing units on syringe (see medication discrepancy and complaints below). Encouraged patient to follow discharge instructions on insulin aspart to minimize hypoglycemia.
 - Evaluate appropriate metformin dose with patient (see medication discrepancy below).
- **Other Medication Observations/Plans:**
 - Patient is non-adherent to furosemide dose due to increased urinary frequency- follow up with patient regarding possible alternate dosing.
 - Verify appropriate aspirin dose with patient. Patient is unsure why hospital increased aspirin dose.
 - Follow-up – I plan to call patient in 1 week to discuss insulin aspart use and metformin dose.

Case 2: Model EHR Communication to PCP

- Medication Discrepancies:
 - *Patient is taking the wrong medication(s) [drug, dose and/or frequency] in one of the three high-risk medication categories.*
 - Insulin aspart- discharge notes 4 units before each meal; patient takes 8 units before largest meal once a day to minimize # of injections.
 - *Patient is taking the wrong medication(s) [drug, dose and/or frequency] in one of the three high-risk medication categories.*
 - Metformin- discharge notes 500mg twice daily; patient has 850mg tablets and takes twice daily.
 - *Patient is taking the wrong medication(s) [drug, dose and/or frequency] in one of the three high-risk medication categories.*
 - Furosemide- discharge notes dose increase to 80mg in morning and 40 mg in afternoon; patient refuses to increase to 80mg in morning due to increased urinary frequency.
 - *Patient is taking the wrong medication(s) [drug, dose and/or frequency] in one of the three high-risk medication categories.*
 - Aspirin- discharge notes 325mg daily; patient takes 81mg daily.

Case 2: Model EHR Communication to PCP

- Clinically Significant Interactions/High-Risk Medication Combinations:
 - *No clinically significant interactions or high-risk medication combinations were identified.*
- Complaints and Potential Side-Effects:
 - *Complaints and/or side effects were identified and will be conveyed to the PCP.*
 - Patient strongly dislikes injections and thus only using insulin aspart once daily to minimize injections. Patient also notes 4 units is too hard to see and he is able to see the 8 unit mark more easily.
 - Patient refuses to take 80mg furosemide in morning due to increased urinary frequency.

Case 2: Model EHR Communication to PCP

- Medication Management
- Identification:
 - *The patient/caregiver can identify all medications correctly.*
- Organization:
 - *The patient/caregiver organizes medications appropriately.*
- Administration and Timing:
 - *The patient/caregiver administers medication incorrectly.*
 - *See Medication Discrepancies above. Not taking insulin at appropriate times.*
- Storage:
 - *The patient/caregiver stores medication correctly.*
- Understanding:
 - *The patient/caregiver has adequate understanding of the indications for medications.*

Case 2: Recommendations to the Patient

- Pharmacist Recommendations to the Patient During Home Visit
 - Discussed insulin injection technique.
 - Discussed hypoglycemia symptoms.

Questions

Session 6: Follow-Up Phone Call

Follow-Up Phone Call

- Pharmacist will call the patient and/or caregiver within 14 days of the home visit
 - Discuss any interim problems
 - Review/reinforce instruction provided during the home-visit
- Make call attempts on different days and different times to try to reach the patient/caregiver for the follow-up call
 - May be easiest to schedule the follow-up phone call prior to leaving the home visit

Follow-Up Phone Call Documentation

- Write follow-up communication to the PCP, as needed, in EHR
- Communication to the PCP can include any urgent medication-related issues that need to be immediately addressed that were identified during follow-up call
 - Follow-up call documentation will only be routed to PCP if there are actionable items

Follow-Up Phone Call Script

Open Follow-Up Phone Call Script

Follow-Up Phone Call Script

- Hello. May I please speak to [PATIENT'S NAME]?
- This is [NAME], the pharmacist from [organization's name]. I met with you on [DATE], and I am calling to follow-up on that home-visit. Do you have a few moments to speak with me now about how things have been going with your medication(s) since I last saw you?
 - If "YES", continue.
 - If "NO": Is there a better time for me to call? [SCHEDULE TIME]
- Great! First, I'd like to ask you if you've had any problems with your medications since [DATE OF HOME VISIT].
 - If "YES", discuss medication problems.
 - If "NO," continue.
- Okay, thanks for sharing that with me.

Follow-Up Phone Call Script

- When I met with you on [DATE OF HOME VISIT], we went over a few things that could help you safely take your medications. We talked about: [REVIEW INSTRUCTIONS; INSTRUCTIONS WILL BE RECORDED IN THE COMMUNICATION TO THE PCP].
- How are you doing with [INSTRUCTIONS]?
 - [DISCUSS AND REINFORCE INSTRUCTIONS].
- Do you have any questions about anything else related to your medications?
 - If “YES”, answer questions.
 - If “NO” continue.
- Okay. Thank you! We are all done. Please continue to follow-up with your primary care provider as you usually would. I appreciate your taking the time to talk with me and have a good day!
- [END PHONE CALL]

Follow-Up Phone Call Documentation Template

Open Template

Follow-Up EHR Communication Template

- Title: High-Risk Medication Assessment
- [Follow-up Call Summary]
- **High-Risk Medication Recommendations for PCP:**
- Other Medication Issues Identified During Call:
- Pharmacist Follow-up:
 - Options:
 - Encounter routed to PCP
 - Call was placed to PCP and encounter routed to PCP
 - No issues identified; no follow up necessary

Follow-Up EHR Communication Sample

- Title: High-Risk Medication Assessment
- A follow-up call was made to Jane Doe on 6/28/2016 by Bob Smith, PharmD. The home visit took place on 6/15/2016.
- **High-Risk Medication Recommendations for PCP:**
 - Patient has stopped taking metformin due to nausea. Patient did not inform PCP.
- Other Medication Issues Identified During Call:
 - Patient ran out of furosemide 2 days ago. No refills remain.
- Pharmacist Follow-up:
 - Call was placed to PCP and encounter routed to PCP for follow up with patient directly regarding these issues.
- Call was placed to PCP and encounter routed to PCP

Questions

Home Visit Resources

Resources

- Needle Disposal
 - Provide Patients Information on Safe Needle Disposal As Needed
 - <https://safeneedledisposal.org/>
- Pill Identifier
 - Mobile: Epocrates (free app)
 - Web-based: <https://online.epocrates.com/pill-search>

Resources (Cont.)

- Drug Resources
 - UpToDate
 - Mobile app
 - Web-based: <https://www.uptodate.com/home>
- Drug-drug Interaction Resources
 - UpToDate
 - Lexicomp: address DDI level D and X with PCP, if clinically significant
 - Epocrates



Thank You

Training Case 1: Anticoagulant/Opioid Ms. Brown

Case Presentation

Ms. Brown is an 83-year-old female discharged yesterday from the hospital for a DVT. She is also being treated for a symptomatic UTI which was found during hospitalization. Ms. Brown was discharged home where she lives alone. It is now 4 days post-discharge and she has not seen nor spoken with her PCP since returning home. She is not aware of when her INR should be checked next.

Electronic Health Record (EHR) Communication

Title: High-Risk Medication Assessment

A home visit was performed on 7/6/2016 with Ms. Brown by [Pharmacist Name, Credentials]. Discharge from the hospital took place on 7/2/2016.

Ms. Brown was prescribed the following high-risk medications: warfarin, oxycodone-acetaminophen.

High-Risk Medication Recommendations for PCP:

- Monitor INR closely due to concurrent Bactrim DS therapy.

Other Medication Observations/Plans:

- I observed the patient's medication organization and found that she mixes her pills together in single bottle. Pill organizer provided and instructed in use.
- Follow-up – I plan to call patient in 3 days to ensure INR monitoring has occurred.

Medication Discrepancies:

Patient is taking additional medication(s) not included on discharge list, but included on outpatient list.

- Patient is taking both lisinopril and valsartan. Discharge medication list indicated lisinopril only. Review concurrent administration of both an ACE inhibitor and an ARB since both is not recommended due to increased risk of renal dysfunction.

Clinically Significant Interactions/High-Risk Medication Combinations:

- Bactrim-warfarin: Monitor INR closely since Bactrim can increase risk of bleeding with warfarin.
- Aspirin-warfarin: Monitor for bleeding complications.
- Lisinopril-Valsartan: Increased risk of renal dysfunction (see medication discrepancies above).

Complaints and Potential Side-Effects:

Complaints and/or side effects were identified and will be conveyed to the PCP.

- Metformin: Diarrhea

Medication Management

Identification:

The patient/caregiver can identify all medications correctly.

Organization:

The patient/caregiver does not organize medications appropriately.

- Patient mixes her pills together in single bottle; inappropriate organization. Pill organizer provided and instructed in use.

Administration and Timing:

The patient/caregiver administers medication correctly.

Storage:

The patient/caregiver stores medication correctly.

Understanding:

The patient/caregiver has adequate understanding of the indications for medications.

- Patient shows good level of understanding the purpose of the medications and how to take them. Provided warfarin and oxycodone-acetaminophen educational leaflets.

Pharmacist Recommendations to the Patient During the Home Visit: (Not Included in PCP Documentation)

- Informed patient to avoid ibuprofen since it interacts with warfarin.
- Educated patient that oxycodone-acetaminophen contains acetaminophen (Tylenol) and thus to ensure she is not taking too much acetaminophen since she also has acetaminophen as needed. Counsel patient on maximum amount of acetaminophen use per day and include on Pharmacist Notes section on educational leaflet for Percocet.
- Informed patient to avoid Benadryl due to its adverse effects on older adults and to discuss further sleep aids with PCP.

Training Case 2: Antidiabetic Mr. Jones

Case Presentation

Mr. Jones was hospitalized for hypoglycemia resulting in a fall. He is a 74 year old diabetic with a history of congestive heart failure (CHF), chronic back pain, and falls. He lives at home with his daughter's family. Mr. Jones' daughter is his caregiver. His bedroom is on the second floor. He was discharged from the hospital yesterday.

Electronic Health Record (EHR) Communication

Title: High-Risk Medication Assessment

A home visit, which focused on high-risk medications, was performed on 7/10/2016 with Mr. Jones by [Pharmacist Name, Credentials]. Discharge from the hospital took place on 7/9/2016.

Mr. Jones was prescribed the following high-risk medications: metformin, insulin aspart, and insulin glargine.

High-Risk Medication Recommendations for PCP:

- Review rapid acting insulin regimen with patient since he is non adherent due number of daily injections and difficulty seeing units on syringe (see medication discrepancy and complaints below). Encouraged patient to follow discharge instructions on insulin aspart to minimize hypoglycemia.
- Evaluate appropriate metformin dose with patient (see medication discrepancy below).

Other Medication Observations/Plans:

- Patient is non-adherent to furosemide dose due to increased urinary frequency- follow up with patient regarding possible alternate dosing.
- Verify appropriate aspirin dose with patient. Patient is unsure why hospital increased aspirin dose.
- Follow-up – I plan to call patient in 1 week to discuss insulin aspart use and metformin dose.

Medication Discrepancies:

Patient is taking the wrong medication(s) [drug, dose and/or frequency] in one of the three high-risk medication categories.

- Insulin aspart- discharge notes 4 units before each meal; patient takes 8 units before largest meal once a day to minimize # of injections.

Patient is taking the wrong medication(s) [drug, dose and/or frequency] in one of the three high-risk medication categories.

- Metformin- discharge notes 500mg twice daily; patient has 850mg tablets and takes twice daily.

Patient is taking the wrong medication(s) [drug, dose and/or frequency] in one of the three high-risk medication categories.

- Furosemide- discharge notes dose increase to 80mg in morning and 40 mg in afternoon; patient refuses to increase to 80mg in morning due to increased urinary frequency.

Patient is taking the wrong medication(s) [drug, dose and/or frequency] in one of the three high-risk medication categories.

- Aspirin- discharge notes 325mg daily; patient takes 81mg daily.

Clinically Significant Interactions/High-Risk Medication Combinations:

No clinically significant interactions or high-risk medication combinations were identified.

Complaints and Potential Side-Effects:

Complaints and/or side effects were identified and will be conveyed to the PCP.

- Patient strongly dislikes injections and thus only using insulin aspart once daily to minimize injections. Patient also notes 4 units is too hard to see and he is able to see the 8 unit mark more easily.
- Patient refuses to take 80mg furosemide in morning due to increased urinary frequency.

Medication Management**Identification:**

The patient/caregiver can identify all medications correctly.

Organization:

The patient/caregiver organizes medications appropriately.

Administration and Timing:

The patient/caregiver administers medication incorrectly.

- See Medication Discrepancies above. Not taking insulin at appropriate times.

Storage:

The patient/caregiver stores medication correctly.

Understanding:

The patient/caregiver has adequate understanding of the indications for medications.

Pharmacist Recommendations to the Patient During the Home Visit: (Not Included in PCP Documentation)

- Discussed insulin injection technique.
- Discussed hypoglycemia symptoms.

Section 2: Clinical Pharmacist Reference Materials

Intervention Reference Manual
Medications List (Generic, Brand, Indication)



The **Meyers**
Primary Care
Institute

Improving Safety After Hospitalization in Older Persons on High-Risk Medications

Clinical Pharmacist Intervention Reference Manual

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Section 1. Overview

1.1 Background

Transition from Hospital to Home: Extraordinarily High-Risk for Older Patients.

Up to one fifth of older patients suffers an adverse event within weeks of leaving the hospital, and many of these events may be preventable.^{1,2} The risk for adverse drug events (ADEs), defined as injury due to a medication, is especially high for older patients as they transition from the inpatient to the outpatient setting.^{3,4}

The National Action Plan for Adverse Drug Event Prevention: Targeting High-Risk Drug Classes.

The National Action Plan for Adverse Drug Event Prevention identified three high-priority drug classes as key targets for reducing the risk of drug-related injuries: anticoagulants; diabetes agents (insulin and oral agents); and opioids.⁵ These medication classes were chosen because they account for the greatest number of measurable drug-related harms to patients, and a substantial proportion of ADEs associated with these medications are considered preventable.^{6,7,8} Insulins, opioid-containing analgesics, and warfarin are among the most common medications implicated in emergency department visits for outpatient adverse drug events,⁶ especially among patients aged 65 or older.⁸ These are also the most common medications implicated in emergency hospitalizations for ADEs in older adults.⁷

1.2 Description of the Clinical Pharmacist Home-Based Intervention

The intervention described in this manual was developed from the Improving Safety After Hospitalization in Older Persons on High-Risk Medications (“ISAH”) Study (R18HS023774) funded by the Agency for Healthcare Research and Quality. The intervention was developed to address the risks associated with older adults transitioning from the inpatient setting who are prescribed high-risk medications as described above.

As part of the ISAH Study, a clinical pharmacist home-based intervention was employed that was comprised of four key components: (1) in-home assessment of high-risk patients by a clinical pharmacist; (2) best-practice, evidence-based medication safety tools and resources targeted to high-risk patients and their caregivers; (3) communication with the primary care team via the electronic health record (EHR) regarding concerns relevant to the use of high-risk medications as well as other medication safety concerns; and (4) a follow-up phone call by the pharmacist to the patient and/or caregiver within 14 days of the home visit.

This reference manual describes this intervention in detail and was utilized by the intervention pharmacists who conducted the study home visits and implemented all intervention components.

¹Forster AJ, Murff HJ, Peterson JF, et al. The incidence and severity of adverse events affecting patients after discharge from the hospital. *Ann Intern Med.* 2003; 138(3):161-167.

²Forster AJ, Clark HD, Menard A, Dupuis N, Chernish R, Chandok N, et al. Adverse events among medical patients after discharge from hospital. *CMAJ.* 2004; 170:345-9.

³Coleman EA. Falling through the cracks: challenges and opportunities for improving transitional care for persons with continuous complex care needs. *J Am Geriatr Soc.* 2003 Apr; 51(4):549-55.

⁴Krumholz HM. Post-hospital syndrome – an acquired, transient condition of generalized risk. *N Engl J Med.* 2013 Jan 10; 368(2):100-2.

⁵U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2014). National action plan for adverse drug event prevention. Washington, DC. <http://www.health.gov/hai/pdfs/ADEAction-Plan-508c.pdf> (accessed January 12, 2015)

⁶Budnitz DS, Pollock DA, Weidenbach KN, Mendelsohn AB, Schroeder TJ, Annett JL. National surveillance of emergency department visits for outpatient adverse drug events. *JAMA.* 2006; 296:1858-66

⁷Budnitz DS, Lovegrove MD, Shehab N, Richards CL. Emergency hospitalizations for adverse drug events in older Americans. *N Engl J Med.* 2011; 365:2002-2012.

⁸Budnitz DS, Shehab N, Kegler SR, Richards CL. Medication use leading to emergency department visits for adverse drug events in older adults. *Ann Intern Med.* 2007; 147:755-765.

Section 2. Before the Home Visit

Purpose: The intervention pharmacist will prepare for the upcoming home visit.

Equipment: Home visit kit (see #3 under *Procedures* for kit contents).

Procedures:

1. Check the patient's EHR to obtain the hospital discharge summary, the discharge medication list, and the patient's most recent outpatient medication list.
2. Print the discharge medication and outpatient medication lists.
3. Prepare the home visit kit, including:
 - a. Patient discharge medication list
 - b. Outpatient medication list
 - c. A printed copy of the *Home Visit Checklist* and *Home Visit Worksheet* (Section 3 of Toolkit)
 - d. 2 copies of the printed **educational leaflets** (Section 4 of Toolkit), specific to patient's medications
 - e. Back-up copies of all printed **educational leaflets** (2 copies of each) (Section 4 of Toolkit)
 - o 2 copies: 1 for the patient, 1 for a caregiver, if necessary
 - f. A pill organizer
 - g. A pill cutter
 - h. Pen and highlighter
 - i. Hard writing surface/clipboard
 - j. Directions to the patient's home and patient/caregiver's phone number
4. Print the *Home Visit Worksheet* (Section 3 of Toolkit) and pre-fill out information relevant to the patient (e.g. demographic, medication data).
5. Review patient's medications, especially the high-risk medications.
6. Complete the *Pre-Visit Checklist* (Section 3 of Toolkit).

Section 3. Intervention Protocols

3.1 Health Literacy and Medication Adherence

Purpose: The intervention pharmacist will use universal health literacy precautions when conducting the home visit.

Definition: Health literacy universal precautions are the steps that health care providers take when they assume that all patients may have difficulty comprehending health information and accessing health services⁹.

Equipment: None.

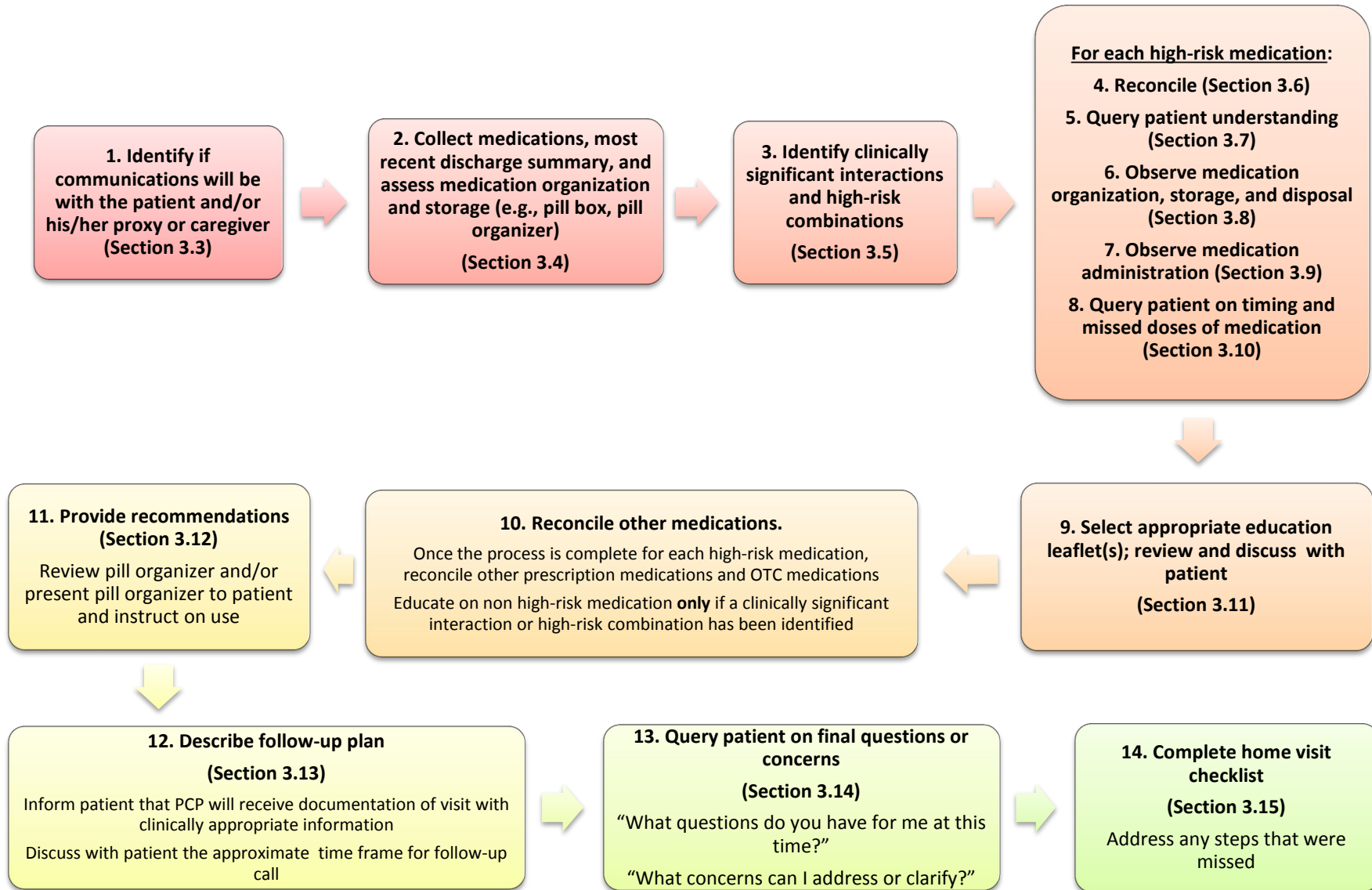
Procedures:

1. Establish rapport with the patient/caregiver.
 - Sit down; make eye contact with the patient/caregiver.
 - Make it comfortable for patients to voice questions, doubts and concerns.
 - Be conscious of any hearing impairment and seek to address appropriately.
 - For example, say: “Can you hear me all right?”
 - If the patient cannot hear well, inquire regarding a preferred side to sit on or the need to get and put in hearing aids.
 - Minimize background noise if possible.
2. Be attentive to verbal communication.
 - Speak clearly, slowly, and at a sufficient volume.
 - Use plain language.
 - Explain any medical terms that the patient should know.
 - Break your information into chunks.
 - Start each “chunk” with an orienting sentence.
 - For example: “Now let’s talk about what might be causing this. It could be due to your blood pressure medication.”
 - Be explicit about what is important and why.
3. Be attentive to written communication as well.
 - Put the most important points in writing (e.g., add to or highlight the educational leaflets).
Doing this helps in three ways:
 - Clarifies what is most important.
 - Serves as a memory aid.
 - Facilitates communication with family and caregivers who help the patient manage his or her health.
4. Assessing Comprehension.
 - Check for understanding. One way of doing this is to use “teach back” (i.e., ask the patient to put the information into their own words).

⁹ AHRQ Health Literacy Universal Precautions Toolkit. June 2016. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/index.html>

- Ask open-ended questions, not questions that can be answered with a “yes” or a “no”.
 - Simply saying, “Do you understand?” or “Ok?” is likely to elicit a “yes” whether or not the patient truly understands. Instead, try: “So, if you wanted to tell your wife what we decided on today, what would you tell her?”
 - Asking “What questions do you have?” is much more likely to encourage a patient to speak up than the shorthand phrase “Any questions?”
- 5. Assessing Medication Adherence.
 - Determine which medications the patient is taking and not taking.
 - If the patient is not taking a medication, politely try to identify what, if any, barriers exist.
- 6. Assessing Barriers to Medication Adherence.
 - There are many barriers to medication adherence. A few include:
 - Healthcare system related barriers
 - E.g., patient-provider relationship.
 - Condition related barriers
 - E.g., lack of symptoms.
 - Therapy related barriers
 - E.g., complexity, adverse side effects.
 - Social and economic related barriers
 - E.g., cost, low health literacy, limited support/elder abuse.
 - Other barriers to medication adherence may relate to specific classes of drugs. For instance, people prescribed opioids may be concerned about addiction and thus may underreport pain or not use enough of an opioid medication to manage their symptoms. In such cases, the following approaches may prove to be useful:
 - Explain the difference between dependence, tolerance, and addiction.
 - Educate the patient on safe opioid use, including storage and disposal (utilize the opioid **educational leaflets** (Section 4 of Toolkit) as appropriate).
 - Discuss the importance of constipation management.
- 7. Finding Solutions to Medication Non-Adherence.
 - Attempt to find solutions to the patient’s medication adherence barriers. Here are some examples of patient-centered solutions:
 - Inform the PCP that the patient could benefit from a social work consultation, especially if socio-economic barriers are identified.
 - Investigate whether a medication is available in a once-a-day formulation.
 - Identify whether there is a pharmacy that delivers medications.
 - Identify whether there is a pharmacy that pre-packages medications.

3.2 Home Visit Flow Diagram



3.3 Identifying if Communications Will Be with the Patient and/or His/Her Proxy or Caregiver

Purpose: Upon arrival to the home, the intervention pharmacist will identify if communication will be with the patient, a designated proxy, or a caregiver.

Definition: A designated proxy is a person who is cognitively intact, who can make healthcare decisions on behalf of an individual, and can assist in implementing the intervention, as needed. A caregiver is a family member, friend, or surrogate invested in the care of the patient.

Equipment: Information including patient name, designated proxy name and phone number, and/or caregiver name and phone number, if applicable.

Procedures:

1. If communications will be with the patient, confirm identity of patient by asking for name and date of birth. If patient is not at home, end home visit.
2. If communications will be with a caregiver/proxy, confirm that the caregiver/proxy is at the home and can participate in the home visit. If caregiver/proxy is not at the home:
 - a. Call caregiver/proxy to reschedule appointment, if possible.
 - b. End home visit.

3.4 Collecting Medications, Medication Storage Device, and Most Recent Medication Lists

Purpose: The intervention pharmacist will collect the patient's medication(s), most recent hospital discharge list (if a copy is available), and medication storage device(s).

Definition: Medication includes over-the-counter medications, herbs, supplements, and as-needed medication. A medication storage device is a pill organizer or whatever the patient uses to store and organize their medications.

Equipment: None.

Procedures:

1. Instruct the patient to produce all medications that he/she is taking at the time of the visit, his/her medication storage device(s), and most recent hospital discharge list.
 - a. Say: "Please bring me all medications that you are taking, what you use to store your medications, and a copy of your most recent hospital discharge list, if you have it."

3.5 Identifying Clinically Significant Interactions and High-Risk Combinations, with a Focus on the High-Risk Medications

Purpose: The intervention pharmacist will identify and address all clinically significant interactions and high-risk medication combinations.

Definition: Clinically significant drug interactions are defined as drug interactions that require a dosage adjustment or consist of a drug combination that is contraindicated due to its high potential for clinical adverse effects.

Equipment: Smartphone, resources for clinically significant drug interactions (e.g., Micromedex App), and **Home Visit Worksheet** (Section 3 of Toolkit).

Procedures:

1. Utilize resources to identify clinically significant drug interactions as well as high-risk combinations (e.g., dual antiplatelet therapy and concomitant anticoagulant use).
2. Priority should be given to interactions and high-risk combinations that can lead to bleeding, hypoglycemia, increased sedation, or altered mental status.
3. Account for prescription and non-prescription medications, especially the use of over-the-counter antiplatelet (aspirin), analgesic (acetaminophen), anticholinergic (diphenhydramine) medications, and those with high sugar content (syrups).
4. Identify drug interactions and determine whether these interactions can be addressed with targeted education (e.g., spacing the dosage interval of two drugs) or communication with the health care provider. Focus on high-risk medications.

Note any clinically significant interactions and high-risk medication combinations on the **Home Visit Worksheet** (Section 3 of Toolkit), under the *Clinically Significant Interactions and High-Risk Medication Combinations* heading.

3.6 Identifying Medication Discrepancies/Reconciling with Discharge and Outpatient Medication Lists, with a Focus on High-Risk Medications

Purpose: The intervention pharmacist will identify any medication discrepancies/reconcile with the discharge medication list and outpatient medication lists, with a focus on high-risk medications.

Definition: A medication discrepancy is defined as any difference between the discharge medication list and the medications a patient actually takes once at home.

Equipment: Patient medications, discharge medication list, outpatient medication list, and the *Home Visit Worksheet* (Section 3 of Toolkit).

Procedures:

1. Instruct patient to identify high-risk medications by saying “Can you show me which medication is [high-risk medication name]?”
2. Reconcile each high-risk medication that the patient produces at the visit with the discharge medication list and the outpatient medication list.
3. Identify any discrepancies, with a focus on high-risk medications (e.g., anticoagulants, antidiabetics and opioids).
4. Record medication discrepancies on the *Home Visit Worksheet* (Section 3 of Toolkit), under the *Medication Discrepancies* heading.
 - a. Medication discrepancies listed should include the high-risk medications first, followed by other prescription medication discrepancies and, lastly, clinically significant non-prescription medication discrepancies.

3.7 Querying Patient Understanding of Each High-Risk Medication: Purpose, Dietary Restrictions, Side Effects, Refills

Purpose: The intervention pharmacist will query the patient on their understanding of each high-risk medication, including its purpose, dietary restrictions, side effects, and refills.

Definition: Patient may use the following terms to describe their understanding of the purpose of their high-risk medications, potential side effects, dietary restrictions, and refill frequency:

| Medication Category | Potential Descriptive Terms | Potential Side Effects |
|-----------------------|--|--|
| Anticoagulants | Blood Heart Clot Thrombosis Embolus Embolism Stroke Cerebrovascular atrial fibrillation/arrhythmia Palpitations/heart pounding | Bruising Nosebleeds Bleeding gums Passing blood in urine Passing blood during bowel movements Vomiting or coughing up blood |
| Opioids | Pain | Sleepiness Constipation Confusion Dizziness Nausea/upset stomach Vomiting |
| Antidiabetics | Diabetes Sugar Glucose | Nausea/upset stomach Extreme hunger Paleness Fatigue Sweating Headache Rapid heart rate Numbness in mouth |

Equipment: *Home Visit Worksheet* (Section 3 of Toolkit).

Procedures:

1. For each high-risk medication, assess the patient’s understanding of purpose by asking:
 - a. “Why do you take this medication? What is it used for?”
 - b. If the patient says that he/she uses it to reduce pain, ask if it is for short- or long-term treatment.
2. Ask the patient to read and interpret all labels, including auxiliary labels, of high-risk medications.
3. Identify the patient’s understanding of side effects of high-risk medication by asking:
 - a. “What side effects would you expect from this medication”?

4. Assess whether the patient knows what to do if side effects are severe or bothersome by asking:
 - a. “What can you do if these side effects are severe or bothersome to you”?
5. Identify if side effects exist by asking:
 - a. “Have you ever had a reaction to this medication?”
 - b. “What was the reaction?”
 - c. “When was the last time it occurred?”
 - d. “Is your PCP aware of this previous reaction?”
6. Identify if there was a resolution to any side effects by asking:
 - a. “Did anything help to resolve it?”
7. Query patient about barriers to filling high-risk medication prescriptions (e.g., multiple pharmacies, cost barriers, waiting too long to obtain refills, etc.).
8. Note any complaints or potential side effects on the [Home Visit Worksheet](#) (Section 3 of Toolkit).
 - a. Determine whether side effects or reactions can be addressed with targeted education (e.g., decreasing dose and/or frequency of laxatives), or communication with the primary care provider.
9. Note the patient’s level of understanding on the [Home Visit Worksheet](#) (Section 3 of Toolkit), under the *Understanding* heading.

3.8 Observing High-Risk Medication Organization, Storage, and Disposal

Purpose: The intervention pharmacist will observe the patient’s high-risk medication organization, storage, and disposal.

Definition: Observation of the patient or care-givers’ organization, storage, and disposal of high-risk medications as a way to demonstrate their understanding of administration and handling of these medications.

Equipment: *Home Visit Worksheet* (Section 3 of Toolkit), electronic drug reference tool to check the pill code (e.g., Lexi Comp, Micromedex).

Procedures:

1. Observe the patient’s organization of medications.
 - a. If the patient is using a pill organizer and it has been recently filled, proficient organization is defined as the ability to identify which pill organizer slot would be used to place each medication into if the pill organizer were being filled. Pill codes may be verified by comparison with other pills in a pharmacy-dispensed bottle or by online search and verification.
 - b. If the patient is using a pill organizer and it has *not* been recently filled, proficient organization is defined as the ability to appropriately fill the pill organizer with medication. The intervention pharmacist can prompt the patient or caregiver by asking:
 - a. “Can you show me where the _____ pill goes in your pill organizer?”
 - c. If the patient is using a pill organizer, but does not have enough slots to accommodate multiple administrations per day (e.g., one-slot-per-day pill organizer but twice-a-day medication), prompt the patient by asking:
 - a. “How do you remember when each pill needs to be taken?”
2. Observe the patient’s storage of medications.
 - a. Assess storage/refrigeration of insulin.
3. Observe the patient’s disposal of medications/medication supplies (e.g., needles), if applicable. Have patient talk through disposal, as appropriate.
4. Observe for unsafe access to medications for patients with cognitive, physical, and/or visual impairment.

3.9 Observing Medication Administration for High-Risk Injectables and Medications

Purpose: The intervention pharmacist will observe the patient’s actual high-risk medication administration or a simulation of high-risk medication administration, if possible, depending on the timing of the home visit.

Definition:

| Type of Medication | Behavior (or Report of Behavior) Required |
|------------------------------|---|
| Tablet | Patient cuts tablet with pill cutter or knife in approximately equal proportions. |
| Injectable non-prefilled SC- | <ul style="list-style-type: none">✓ Patient draws up correct dose (+/- ½ unit insulin tolerated).✓ Patient injects at a 45-90° angle, unless otherwise specified in package insert or instructions.✓ Patient holds syringe in place for 5 seconds once insulin has been injected.✓ Patient mixes NPH or regular insulin, or combination of the two, by gently shaking or rolling in hand. |
| Injectable prefilled SC- | <ul style="list-style-type: none">✓ Patient dials correct dose (+/- ½ unit insulin tolerated).✓ Patient injects at a 45-90° angle, unless otherwise specified in package insert or instructions. <p><u>For insulin pen:</u></p> <ul style="list-style-type: none">✓ Patient pushes button and holds for 10 seconds before withdrawing, or reports verbally doing as much. <p><u>For low molecular weight heparin or fondaparinux:</u></p> <ul style="list-style-type: none">✓ Patient does not expel air bubble from enoxaparin. |

Equipment: Reconciled medication list; *Home Visit Worksheet* (Section 3 of Toolkit).

Procedures:

1. Observe medication administration, including pill cutting, if possible.
2. Ask the patient: “Can you show me how you take this?” for each high-risk medication. If timing is not appropriate to observe medication administration, have the patient talk through administration technique instead.
3. If the patient does not show or mention a required behavior, prompt the patient to show or talk through behavior (e.g., if the patient does not simulate injecting insulin pen for 10 seconds, pharmacist may ask: “Over how many seconds do you inject your insulin for?”). Other prompts may include the following questions:
 - a. “Is there a special administration instruction on how to take this medication (e.g., empty stomach, spaced out between other meds, evening administration)?”
 - b. “Are there any challenges when taking this medication (e.g., dexterity, vision, cognitive deficiencies)?”
 - c. “Does anyone help you take your medications (e.g. identifying the medication, preparing it, cutting the tablet)?”
4. Note any issues with administration technique (e.g., injectables) on the *Home Visit Worksheet* (Section 3 of Toolkit), under the *Medication Management* heading.

3.10 Querying Patient on Timing and Missed Doses of High-Risk Medications

Purpose: To assess the patient’s understanding of timing of medication administration and implications of missed doses of high-risk medications.

Definition: The intervention pharmacist will query the patient on the timing of the administration of his/her high-risk medications and any missed doses of high-risk medication.

Equipment: *Home Visit Worksheet* (Section 3 of Toolkit).

Procedures:

1. Assess the use of tools (timers, routines) to facilitate timing. Prompt the patient by asking: “What tools (e.g., pill organizers, calendars, timers, routines, etc.) do you use to help you remember to take your medication?”
2. Assess for duplicate or missing medications. Prompt the patient by asking: “How many times have you missed _____ (medication) in a 1-week period?” and/or: “How many times have you taken more than you were prescribed of _____ (medication) in a 1-week period?”
3. Assess knowledge of scheduled vs. “as-needed” medications and determine how much can/should be taken in a 24-hour time period. Prompt the patient by asking:
 - a. “What does as-needed mean to you?”
 - b. “Is there a certain amount of _____ (medication) that you should not exceed in a day?”
 - c. “What do you do when you realize that you missed a dose/exceed the prescribed dose of _____ (medication)?”
4. Assess the timing of insulin with meals, if applicable.
5. Document observations on the *Home Visit Worksheet* (Section 3 of Toolkit).
6. Educate the patient on the importance of adhering to the prescribed regimen. Rehearse with the patient subsequent timing of medication administration within the next day to week, depending on schedule.

3.11 Selecting Educational Tools and Customizing According to Patient's Needs

Purpose: To provide patients with written educational materials related to their high-risk medications.

Definition: The intervention pharmacist will select educational leaflets based on the high-risk medications that the patient is taking.

Equipment: **Educational leaflets** (Section 4 of Toolkit), a hard surface to write on, pen, and highlighter.

Procedures:

1. Select the appropriate **educational leaflet** (Section 4 of Toolkit) for all high-risk medications.
2. Review and discuss each **educational leaflet** (Section 4 of Toolkit) with the patient.
3. Highlight key information that is applicable to the patient.
 - a. For example, if the intervention pharmacist previously observed the patient taking acetaminophen on an as-needed basis without the approval of his/her doctor while also taking oxycodone/acetaminophen, then the following sentence should be highlighted and discussed with the patient: "Do not take over-the-counter pain medications (like Tylenol or acetaminophen) without talking to your doctor."
 - b. Another example might be to review and highlight potential side effects or key storage information (e.g., insulin).
 - c. For anticoagulants, stress the importance of getting a regular PT/INR test and stopping medications if the patient is having surgery or other invasive procedures (including dental).

3.12 Providing Recommendations

Purpose: The intervention pharmacist will provide the patient with recommendations regarding his/her complaints/potential side effects, organization, administration, storage, disposal, and understanding of their high-risk medications that arose during the home visit.

Definition: The intervention pharmacist will evaluate the patient during the home visit and provide recommendations on managing side effects, organization, administration, storage, disposal, and understanding of high-risk medications.

Equipment: Educational leaflets (Section 4 of Toolkit), pill organizer, pill cutter (if applicable), a hard surface to write on, pen, and highlighter.

Procedures:

1. Refer to section 3.11 *Selecting Educational Tools and Customizing According to Patient's Needs*, for directions on how to select and review key information with the patient.
2. Make recommendations for safe medication practices using the **educational leaflets** (Section 4 of Toolkit), as needed.
3. Note recommendations in the "Pharmacist's Notes" section of the **educational leaflets** (Section 4 of Toolkit). This section should be patient-specific and reinforce information discussed during the home visit.
 - a. An example of a Pharmacist's Note might read: "Remember to take Colace while you are taking oxycodone/acetaminophen," or: "Keep a quick form of sugar with you in case your blood sugar gets too low."
4. If the patient is not using a pill organizer, but would like to, supply the patient with a pill organizer and educate the patient on its use. Prompt the patient to show how he/she would fill one day's worth of medications.
5. If the patient is not using a pill organizer, ask if he/she has used one in the past and, if so, the reason he/she has stopped using one. Discuss the possibilities of using alternative organization tools, such as a calendar, to aid in medication adherence.

3.13 Describing Follow-Up Plan

Purpose: The intervention pharmacist will describe the follow-up plan to the patient.

Definition: The intervention pharmacist will describe the follow-up plan to the patient based on findings during the home visit. The follow-up plan may include a PCP office visit by the patient to assess his/her clinical response and/or confirmation by the pharmacist/patient through a follow-up phone call with the PCP's office.

Equipment: None.

Procedures:

1. Determine whether findings require communication with the PCP or if they can be addressed during the visit.
2. Review key findings with the patient. Only focus on findings that are relevant and can be understood by the patient.
3. Re-state recommendations to the patient. For example: "I have identified that you are taking _____ (medication) at different times every day. We have agreed that this medication should be taken at the same time every day."
4. Get a commitment from the patient to follow any medication plans/recommendations (E.g., take the medication at the same time every day).
5. Describe the follow-up plan in detail. For example: "I will communicate our plan with your doctor and will call you in 14 days to follow-up. During the follow-up call, we will talk about any problems with your medication(s) and review the recommendations I have given you today."
 - a. For serious findings that require attention from the PCP, say: "I am going to call your doctor to speak with them about today's visit. He/she will contact you with a plan."

3.14 Querying Patient on Any Final Questions or Concerns

Purpose: The intervention pharmacist will query the patient on any final questions or concerns.

Definition: The intervention pharmacist will use open-ended questions to address any concerns that the patient might have.

Equipment: None.

Procedures:

1. Say: "I know I shared a lot of information with you," and ask the following questions:
 - a. "What questions do you have for me at this time?"
 - b. "What concerns can I address or clarify?"
 - c. "What did we talk about today that remains unclear?"

3.15 Completing Home Visit Checklist

Purpose: The intervention pharmacist will complete the *Home Visit Checklist* (Section 3 of Toolkit).

Definition: The intervention pharmacist will complete the *Home Visit Checklist* (Section 3 of Toolkit) before ending the encounter to ensure that all steps have been completed.

Equipment: *Home Visit Checklist* (Section 3 of Toolkit), pen.

Procedures:

1. Review the *Home Visit Checklist*.
2. If any checklist items were missed during the home visit, ask the patient for a little more time to address missed steps.

Section 4. After the Home Visit

4.1 Immediately After the Home Visit: Communication to the PCP

Purpose: The intervention pharmacist will communicate with the PCP regarding any key findings from the home visit.

Definition: The communication to the PCP is documented as an in the Electronic Health Record (EHR), that the intervention pharmacist sends to the patient's PCP regarding concerns relevant to the use of high-risk medications, as well as other urgent medication safety concerns.

Equipment: *Home Visit Worksheet* (Section 3 of Toolkit), access to the EHR.

Procedures:

- a. Using the *Home Visit Worksheet* (Section 3 of Toolkit), write the communication to the PCP. This communication will go directly to the PCP as a telephone encounter. Use 3-5 bullets to convey observations/recommendations found during the home visit. An example of the communication to the PCP is included in Section 5 of Toolkit.
- b. Send communication to the PCP within 24 hours of completing the home visit.
- c. Complete the *Post-Visit Checklist* (Section 3 of Toolkit).

4.2 Two Weeks After the Home visit: Follow-Up Phone Call

Purpose: The intervention pharmacist will make a follow-up phone call within 14 days of the home visit.

Definition: The follow-up phone call will discuss any interim problems and review and reinforce instruction provided during the home visit.

Equipment: Patient phone number, home visit note, access to Epic.

Procedures:

1. Determine a date to make the follow-up phone call (within 14 days of home visit).
 - a. The target date of the follow-up phone call may be earlier than 14 days if there are urgent issues.
2. Review the communication to the PCP and patient's EHR.
3. Call the patient or proxy, as appropriate, using a phone-interview script (Section 6 of Toolkit).
4. Write the follow-up communication to the PCP, as needed. Communication to the PCP can include any urgent medication-related issues that need to be immediately addressed.
- d. Complete the "Follow-Up Phone Call Documentation" (Section 6 of Toolkit).

Medications List (Generic, Brand, Indication)

| Generic | Brand | Indication |
|-------------------------|--|---------------|
| Albiglutide | Tanzeum | Anti-Diabetic |
| Apixaban | Eliquis | Anticoagulant |
| Canagliflozin | Invokana, Invokamet | Anti-Diabetic |
| Codeine / APAP | Tylenol No. 3, Tylenol No. 4, Vopac | Opioid |
| Dabigatran | Pradaxa | Anticoagulant |
| Dapagliflozin | Farxiga | Anti-Diabetic |
| Dulaglutide | Trulicity | Anti-Diabetic |
| Enoxaparin | Lovenox | Anticoagulant |
| Fentanyl | Duragesic, Abstral, Subsys, Actiq, Fentora, Ionsys, Lazanda, Onsolis | Opioid |
| Fondaparinux | Arixtra | Anticoagulant |
| Glimepiride | Amaryl | Anti-Diabetic |
| Glipizide | Glucotrol, Glucotrol XL, Glipizide XL | Anti-Diabetic |
| Glyburide | Micronase, DiaBeta, Glynase | Anti-Diabetic |
| Hydrocodone/APAP | Vicodin, Norco, Lortab, Lorcet, Hycet, Maxidone, Stagesic, Verdrocet, Vicodin HP, Xodol, Zamicet, Zolvit, Zydone | Opioid |
| Hydromorphone | Dilaudid, Exalgo | Opioid |
| Insulin | Humalog, Humulin, Novolog, Apidra, Lantus, Levemir | Anti-Diabetic |
| Liraglutide | Victoza, Saxenda | Anti-Diabetic |
| Metformin | Fortamet, Glumetza, Riomet, Glucophage XR | Anti-Diabetic |
| Morphine | MScotin, Oramorph, Roxanol, Sevredol, AVINza, Kadian, Atramorph, Infumorph | Opioid |
| Oxycodone | Oxycontin, Roxicodone, Oxecta, Oxaydo | Opioid |
| Oxycodone/APAP | Percocet, Endocet, Roxicet, Primlev, Xartemis XR, Xolox | Opioid |
| Pioglitazone | Actos | Anti-Diabetic |
| Rivaroxaban | Xarelto | Anticoagulant |
| Saxagliptin | Onglyza | Anti-Diabetic |
| Sitagliptin | Januvia | Anti-Diabetic |
| Tramadol | Ultram, ConZip, Ryzolt, EnovaRX-Tramadol, Rybix ODT, Synapryn Fusepaq | Opioid |
| Warfarin | Coumadin, Jantoven | Anticoagulant |

Section 3: Home Visit Intervention Materials

Home Visit Checklists (3: Pre-Visit, Home Visit, Post-Visit)

Home Visit Worksheet

Pharmacist Introduction Card

Pre-Visit Checklist

- Confirm appointment time.
- Confirm who will be present at the time of the home-visit (patient, caregiver, both, etc.).
- Access patient's EHR; review the hospital discharge summary, discharge medication list, and outpatient medication list.
- Print the medication lists.
- Review medication lists to select relevant **educational materials (leaflets)**.
- Pre-fill **Home Visit Worksheet** specific to the patient. Note if patient has proxy/caregiver.
- Review the patient's medication lists (discharge and outpatient lists).
- Identify and highlight any clinically significant interactions and high-risk combinations on the patient's discharge medication list and outpatient medication list.
- Have access to electronic drug information resources that may help to identify clinically significant interactions, high-risk combinations, and pill identification once in the home.
- Prepare the Home-Visit Kit, including:
 - Patient Discharge Medication List
 - Outpatient Medication List
 - A printed copy of the **Home Visit Checklist, Home Visit Worksheet**
 - 2 copies of the printed **educational leaflets**, specific to patient's medications
 - Back-up copies of all printed educational leaflets (2 copies of each)
 - A pill organizer
 - A pill cutter
 - Pen and highlighter
 - Hard Writing Surface/Clipboard
 - Directions to the patient's home and patient/caregiver's phone number

Additional Notes:

Home Visit Checklist

Patient Name: _____

- Identify if communications will be with patient and/or his/her caregiver. Confirm patient name and date of birth or caregiver's name.
- Collect medications.
- Identify clinically significant interactions and high-risk medication combinations.
- Identify discrepancies/reconcile with discharge list (focus on high-risk medications).
- Query patient understanding of each high-risk medication: purpose, dietary restrictions, side effects, refills, etc.
- Observe high-risk medication organization, storage, and disposal (when applicable).
- Observe medication administration for high-risk injectables and medications (when applicable).
- Query patient on timing and missed doses of high-risk medications.
- Select educational tools and customize according to patient's needs.
- Provide recommendations.
- Describe follow-up plan.
- Query patient on any final questions or concerns.

Additional Notes:

Post-Visit Checklist

- Document home-visit in EHR within 24 hours of home visit.
- Shred/File *Home Visit Worksheet* once EHR documentation is complete.
- Place follow-up phone call to patient or caregiver within 14 days of home-visit.
- Document follow-up phone call in EHR, as needed.

Home Visit Worksheet

Patient Name: _____ Home Visit Date: _____
PCP Name: _____ PCP Telephone #: _____

Individuals Present During Home Visit and Level of Participation:

| | | | | |
|--------------|---|---|--|---|
| Patient: | Y | Role: <input type="checkbox"/> Observer | <input type="checkbox"/> Medication Assistance | <input type="checkbox"/> Information Assistance |
| Caregiver: | Y | Role: <input type="checkbox"/> Observer | <input type="checkbox"/> Medication Assistance | <input type="checkbox"/> Information Assistance |
| Other: _____ | Y | Role: <input type="checkbox"/> Observer | <input type="checkbox"/> Medication Assistance | <input type="checkbox"/> Information Assistance |

Patient Prescribed the Following High-Risk Medications:

| | |
|----------|----------|
| 1. _____ | 5. _____ |
| 2. _____ | 6. _____ |
| 3. _____ | 7. _____ |
| 4. _____ | 8. _____ |

High-Risk Medication Recommendations for PCP:

Medication Discrepancies:

Clinically Significant Interactions/High-Risk Medication Combinations:

Complaints/Potential Side Effects:

Other Medication Observations/Plans:

Medication Management

Identification:

Organization:

Administration and Timing:

Storage:

Understanding:

Medication Education and Materials Provided

Pill Organizer:

| | | | | | |
|--|---|---|--------------------------|---|---|
| Had pill organizer: | Y | N | Provided pill organizer: | Y | N |
| Filled by (relationship to patient): _____ | | | | | |

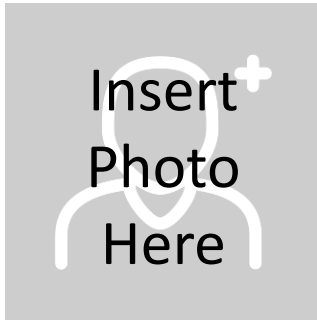
Pill Cutter:

| | | | | | |
|------------------|---|---|-----------------------|---|---|
| Had pill cutter: | Y | N | Provided pill cutter: | Y | N |
|------------------|---|---|-----------------------|---|---|

Medication Education Provided

[Insert company logo here]

[Insert title of study here]



[Insert pharmacist name, credentials here]

Why would I want a visit from a clinical pharmacist?

Clinical pharmacists specialize in how medications work in the body. During the home visit, I will sit with you and explain how to take your medications. I will also let you know what to expect from medications in a way that you can easily understand.

How is a clinical pharmacist different from the pharmacist who I talk to at the pharmacy?

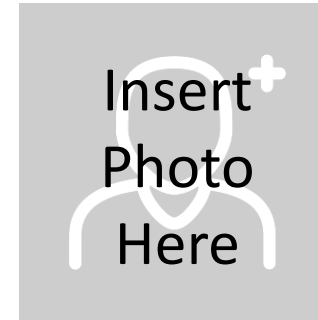
A clinical pharmacist is specially trained to work with patients and providers. Clinical pharmacists ensure that the medications you are taking are most appropriate for you specifically. As a clinical pharmacist, I use my in-depth medication knowledge to help you stay healthy.

What are your qualifications?

[Insert summary of qualifications here]

[Insert company logo here]

[Insert title of study here]



[Insert pharmacist name, credentials here]

Why would I want a visit from a clinical pharmacist?

Clinical pharmacists specialize in how medications work in the body. During the home visit, I will sit with you and explain how to take your medications. I will also let you know what to expect from medications in a way that you can easily understand.

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What are your qualifications?

[Insert summary of qualifications here]

Section 4: Educational Materials for Patients

General Medication Information

Medication Safety Tips

Medication Safety Tips

DO:

- ✓ Take your medications at the same time every day.
- ✓ Use a pill organizer, or calendar, to help you remember to take your medications.
- ✓ Refill your prescriptions before you run out of medications.
- ✓ Keep the original prescription bottle so you have access to key information such as expiration date, administration instruction, and refill number.
- ✓ Tell your doctor about all medications you take, including over-the-counter medications, supplements, and herbal remedies.
- ✓ Follow all of your doctor's recommendations on how to take your medications.
- ✓ Ask if you should avoid alcohol or other substances while taking your medications.
- ✓ Know the side effects of your medications.
- ✓ Call your doctor if you experience bothersome or serious side effects.
- ✓ Keep emergency phone numbers on hand and around the house.
- ✓ Know what to do in an emergency; call 911 if you need immediate medical attention.

DO NOT:

- ✓ Do not stop taking medications without talking to your doctor.
- ✓ Do not take more or less medications your doctor prescribes.
- ✓ Do not skip doses without talking to your doctor.
- ✓ Do not double up on doses, even if you miss a dose.
- ✓ Do not cut or split pills unless instructed by your pharmacist.
- ✓ Do not store medications in direct sunlight or heat.
- ✓ Do not store medications where there is a lot of moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.
- ✓ Do not store medications where children can get a hold of them.
- ✓ Do not share your medication with others.
- ✓ Do not take someone else's medications.

Pharmacist's Notes:

Section 4: Educational Materials for Patients

Medication Fact Sheets: Anti-Diabetics

Antidiabetic Facts

Albiglutide

Canagliflozin

Dapagliflozin

Dulaglutide

Glimepiride

Glipizide

Glyburide

Insulin

Liraglutide

Metformin

Pioglitazone

Saxagliptin

Sitagliptin

Antidiabetic Medication Facts

Antidiabetic medications help keep blood sugar levels normal. They also prevent and slow the progression of diabetes.

Diabetes

Diabetes is a metabolic disease where your body produces too little insulin, which causes an increase of glucose (sugar) in the blood. Diabetes symptoms include: thirst, frequent urination, weight loss, fatigue, blurry vision, and tingling, pain, or numbness in your hands or feet.

Special Risks: Low Blood Sugar (Hypoglycemia)

Low blood sugar can happen in people with diabetes who take medications that increase insulin levels in the body. Symptoms include: hunger, paleness, nausea, fatigue, sweating, and headache, rapid heart rate, numbness in the mouth, tingling in the fingers, tremors, muscle weakness, blurred vision, irritability, mental confusion, or shallow breathing. Very low blood sugar can lead to unconsciousness.

Always carry a quick a source of sugar with you in case you have any low blood sugar symptoms. Examples include hard sugar candy or glucose tablets. Make sure others know that they must get medical help for you at once if you have very low blood sugar.

Tips for Diabetes Management

- ✓ Be aware of your food choices. It is important for you to know how certain foods affect your blood sugar levels. Try to eat healthily and exercise regularly.
- ✓ Check your blood sugar levels as recommended by your doctor.
- ✓ Check your blood sugar levels more frequently when you are sick. Being sick can raise your blood sugar levels.
- ✓ Plan ahead. Refill your prescriptions before you run out.

Pharmacist's Notes:

Albiglutide Facts

Albiglutide helps control blood sugar in people with type 2 diabetes.

Another name for albiglutide is **Tanzeum**[®]

How should I take albiglutide?

- ✓ Inject under the skin of your upper leg (thigh), stomach area, or upper arm.
- ✓ Administer once every 7 days, at any time of day.
- ✓ If using this medication with insulin, inject this medication and the insulin separately. Do not mix them together. Do not give the injections right next to each other. Switch injection sites with each injection.
- ✓ Review the instructions that come with this medication.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you can within 3 days after the missed dose. Then take your next dose as usual.

If it has been more than 3 days since the missed dose, do not take the missed dose. Take the next dose as usual.

- ✓ **Do not** administer extra albiglutide to make up for missing a dose.

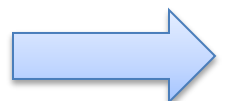
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can albiglutide cause?

- ✓ Diarrhea
- ✓ Constipation
- ✓ Heartburn
- ✓ Nausea
- ✓ Pain, redness, or irritation at injection site

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a calendar to help you remember to take your medication.
- ✓ Keep the original prescription label so you have key information such as expiration date, administration instructions, and refill number.
- ✓ Place your used pens in a special sharps container. Do not put them in the trash can.

How should I store this medication?

- ✓ Store in a refrigerator between 36°F and 46°F.
- ✓ Keep opened pens at a temperature between 59°F and 86°F or in a refrigerator.
- ✓ Do not freeze or use if the medication has been frozen.
- ✓ Store away from light and excessive heat.
- ✓ Store pens in the carton until use.
- ✓ Use the medication within 8 hours after mixing the powder with the liquid in the pen. Throw away any unused medication after the expiration date.

Pharmacist's Notes:

Canagliflozin Facts

Canagliflozin helps control blood sugar in people with type 2 diabetes.

Other names for canagliflozin are **Invokana**[®] and **Invokamet**[®]

How should I take canagliflozin?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it before breakfast or your first meal of the day.
- ✓ Take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember; take it with food.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra canagliflozin to make up for missing a dose.

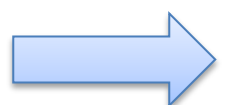
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can canagliflozin cause?

- ✓ Constipation
- ✓ Mild increase in urination
- ✓ Thirst

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Dapagliflozin Facts

Dapagliflozin helps control blood sugar in people with type 2 diabetes.

Another name for dapagliflozin is **Farxiga**®

How should I take dapagliflozin?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it in the morning with or without food.
- ✓ Take it at about the same time every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra dapagliflozin to make up for missing a dose.

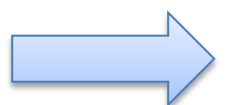
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can dapagliflozin cause?

- ✓ Constipation
- ✓ Mild increase in urination
- ✓ Thirst
- ✓ Sore throat
- ✓ Stuffy or runny nose
- ✓ Low blood pressure
- ✓ Dehydration
- ✓ Yeast infection

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Dulaglutide Facts

Dulaglutide helps control blood sugar in people with type 2 diabetes.

Another name for dulaglutide is **Trulicity**[®]

How should I take dulaglutide?

- ✓ Inject under the skin of your upper leg (thigh), stomach area, or upper arm.
- ✓ Administer once every 7 days, at any time of day on the same day of the week.
- ✓ If using this medication with insulin, inject this medication and the insulin separately. Do not mix them together. Do not give the injections right next to each other. Switch injection sites with each injection.
- ✓ Review the instructions that come with this medication.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you can, within 3 days after the missed dose. Then take your next dose as usual.

If it has been more than 3 days since the missed dose, do not take the missed dose. Take the next dose as usual.

- ✓ **Do not** administer extra dulaglutide to make up for missing a dose.

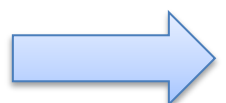
What should I avoid?

- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can dulaglutide cause?

- ✓ Diarrhea
- ✓ Decreased appetite
- ✓ Heartburn
- ✓ Nausea
- ✓ Fatigue

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a calendar to help you remember to take your medication.
- ✓ Keep the original prescription label so you have key information such as expiration date, administration instructions, and refill number.
- ✓ Place your used pens in a special sharps container. Do not put them in the trash can.

How should I store this medication?

- ✓ Store in a refrigerator between 36°F and 46°F.
- ✓ Keep opened pens at a temperature between 59°F and 86°F or in a refrigerator. Dulaglutide can be stored at room temperature for up to 14 days before use.
- ✓ Do not freeze or use if the medication has been frozen.
- ✓ Store away from light and excessive heat.
- ✓ Store pens in the carton until use.
- ✓ Throw away any unused medication after the expiration date.

Pharmacist's Notes:

Glimepiride Facts

Glimepiride helps control blood sugar in people with type 2 diabetes.

Another name for glimepiride is **Amaryl**[®]

How should I take glimepiride?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with breakfast or your first meal of the day.
- ✓ Take it at about the same time every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra glimepiride to make up for missing a dose.

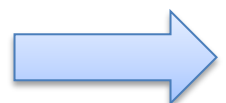
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can glimepiride cause?

- ✓ Diarrhea
- ✓ Constipation
- ✓ Dizziness
- ✓ Headache
- ✓ Heartburn
- ✓ Nausea
- ✓ Gas
- ✓ Indigestion

When should I call my doctor?

- ✓ If you develop a skin rash, as this could be a sign of an allergic reaction.
- ✓ If you are bothered by side effects.
- ✓ If you begin any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have access to key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Glipizide Facts

Glipizide helps control blood sugar in people with type 2 diabetes.

Another name for glipizide is **Glucotrol®**, **Glucotrol XL®**, and **Glipizide XL**

How should I take glipizide?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it 30 minutes before a meal, when your stomach is empty.
- ✓ Swallow glipizide extended-release tablets whole. **Do not** split, chew, or crush them.
- ✓ Take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra glipizide to make up for missing a dose.

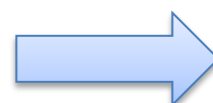
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can glipizide cause?

- ✓ Diarrhea
- ✓ Constipation
- ✓ Dizziness
- ✓ Headache
- ✓ Heartburn
- ✓ Nausea
- ✓ Gas
- ✓ Indigestion

When should I call my doctor?

- ✓ If you develop a skin rash, as this could be a sign of an allergic reaction.
- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, instructions on how to take the medication, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Glyburide Facts

Glyburide helps control blood sugar in people with type 2 diabetes.

Other names for glyburide are **Micronase[®]**, **DiaBeta[®]**, and **Glynase[®]**

How should I take glyburide?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with breakfast or your first meal of the day.
- ✓ Take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra glyburide to make up for missing a dose.

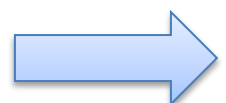
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar with you like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can glyburide cause?

- ✓ Digestive issues
- ✓ Nausea
- ✓ Heartburn
- ✓ Gas
- ✓ Indigestion
- ✓ Diarrhea
- ✓ Dizziness
- ✓ Skin rash

When should I call my doctor?

- ✓ If you develop a skin rash, as this could be a sign of an allergic reaction.
- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, instructions on how to take the medication, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Insulin Facts

Insulin helps control blood sugar in people with type 1 or 2 diabetes.

Other names for Insulin are **Humalog[®]**, **Humulin[®]**, **Novolog[®]**, **Apidra[®]**, **Lantus[®]**, and **Levemir[®]**

How should I take insulin?

- ✓ Inject under the skin.
- ✓ Administer as directed. The timing of the injection will depend on the type(s) of insulin used.
- ✓ **Do not** inject extra doses or skip doses.
- ✓ Review the instructions that come with this medication.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Discuss a plan for missed doses with your doctor or pharmacist
- ✓ Follow your pharmacist's plan if you miss a dose.
- ✓ **Do not** administer extra insulin to make up for missing a dose.

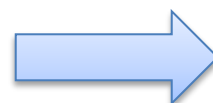
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can insulin cause?

- ✓ Increase or decrease in fatty tissue under the skin due to overuse of an injection site.
- ✓ Itching, burning, swelling, or rash at injection site.

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a calendar to help you remember to take your medication.
- ✓ Keep the original prescription label so you have key information such as expiration date, administration instruction, and refill number.
- ✓ Place your used needles, syringes, and pens in a special sharps container. Do not put them in the trash can.

How should I store insulin?

- ✓ Each type of insulin has a specific storage requirement. This information is found on the package insert.
- ✓ In general, store in a refrigerator between 36°F and 46°F. You can use unopened and refrigerated insulin vials until the expiration date printed on the vial.
- ✓ Do not freeze insulin or use if it has been frozen.
- ✓ You can use opened vials that are at room temperature (approximately 86°F or cooler) to decrease the amount of pain during injection. Check the package insert for expiration date of insulin stored at room temperature.
- ✓ For disposable pens and pen cartridges: once opened, store at room temperature. Do not store in the refrigerator. Throw away the cartridge or disposable pen after 28 days.
- ✓ Protect from light and excessive heat. Throw away any unused medication after the expiration date or after the specified time for room temperature storage has passed.

Pharmacist's Notes:

Liraglutide Facts

Liraglutide helps control blood sugar in people with type 2 diabetes.

Other names for liraglutide is **Victoza[®]** and **Saxenda[®]**

How should I take liraglutide?

- ✓ Inject under the skin of your upper leg (thigh), stomach area, or upper arm.
- ✓ Administer once every day.
- ✓ If using this medication with insulin, inject this medication and the insulin separately. Do not mix them together. Do not give the injections right next to each other. Switch injection sites with each injection.
- ✓ Give the injection at about the same time every day. **Do not** inject extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Administer your next dose as usual.
- ✓ **Do not** administer extra liraglutide to make up for missing a dose.

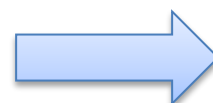
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can liraglutide cause?

- ✓ Diarrhea
- ✓ Constipation
- ✓ Fatigue
- ✓ Nausea
- ✓ Pain, redness, or irritation at injection site

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a calendar to help you remember to take your medication.
- ✓ Keep the original prescription label so you have key information such as expiration date, administration instruction, and refill number.
- ✓ Place your used pens in a special sharps container. Do not put them in the trash can.

How should I store this medication?

- ✓ Store unopened pens in a refrigerator between 36°F and 46°F.
- ✓ Do not freeze or use if the medication has been frozen.
- ✓ Store away from light and excessive heat.
- ✓ Keep opened pens at a temperature between 59°F and 86°F or in a refrigerator.
- ✓ Store pens in the carton until use.
- ✓ Throw away any unused medication after the expiration date.

Pharmacist's Notes:

Metformin Facts

Metformin helps control blood sugar in people with type 2 diabetes.

Other names for metformin are **Fortamet[®]**, **Glumetza[®]**, **Riomet[®]** and **Glucophage XR[®]**

How should I take metformin?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with a meal.
- ✓ Swallow metformin extended-release tablets whole. **Do not** split, chew, or crush them.
- ✓ Take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember; take it with food.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra metformin to make up for missing a dose.

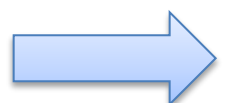
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What I should know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar with you in case you have any low blood sugar symptoms. Examples include hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can metformin cause?

- ✓ Diarrhea
- ✓ Bloating
- ✓ Stomach pain
- ✓ Gas
- ✓ Indigestion
- ✓ Constipation
- ✓ Unpleasant metallic taste in mouth
- ✓ Heartburn

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you plan to start taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a pill organizer, or calendar, to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Pioglitazone Facts

Pioglitazone helps control blood sugar in people with type 2 diabetes.

Another name for pioglitazone is **Actos**[®]

How should I take pioglitazone?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with or without food.
- ✓ Take it at about the same time every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra pioglitazone to make up for missing a dose.

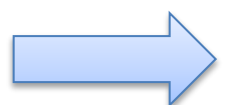
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can pioglitazone cause?

- ✓ Stuffy or runny nose
- ✓ Mild joint or muscle pain
- ✓ Headache
- ✓ Sore throat

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you experience unexplained nausea, vomiting, abdominal pain, fatigue, anorexia, or dark urine, as these symptoms may be due to liver disease.
- ✓ If you experience rapid weight gain, swelling in legs or shortness of breath, as these symptoms may be due to heart failure.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have access to key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Saxagliptin Facts

Saxagliptin helps control blood sugar in people with type 2 diabetes.

Another name for saxagliptin is **Onglyza**®

How should I take saxagliptin?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with or without food.
- ✓ Swallow saxagliptin tablets whole. **Do not** split, chew, or crush them.
- ✓ Take it at about the same time every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra saxagliptin to make up for missing a dose.

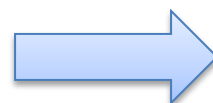
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can saxagliptin cause?

- ✓ Vomiting
- ✓ Stomach pain
- ✓ Headache
- ✓ Skin rash
- ✓ Swelling of the face, tongue or throat

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Sitagliptin Facts

Sitagliptin helps control blood sugar in people with type 2 diabetes.

Another name for sitagliptin is **Januvia**®

How should I take sitagliptin?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with or without food.
- ✓ Swallow sitagliptin tablets whole. **Do not** split, chew, or crush them.
- ✓ Take it at about the same time every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra sitagliptin to make up for missing a dose.

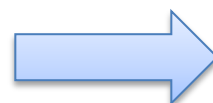
What should I avoid?

- ✓ Avoid skipping meals.
- ✓ Ask your doctor if you should avoid alcohol.
 - Check labels of cough and cold medicine before you take them. Many cough and cold medicines contain sugar or alcohol. These can affect blood sugar.

What should I know about low blood sugar?

Know the symptoms of low blood sugar. Having very low blood sugar can lead to unconsciousness. **Call your doctor if you have any of these symptoms:**

- | | |
|-------------------------|---------------------------|
| ✓ Nausea | ✓ Tingling in the fingers |
| ✓ Fatigue | ✓ Tremors |
| ✓ Sweating | ✓ Muscle weakness |
| ✓ Headache | ✓ Blurred vision |
| ✓ Rapid heart rate | ✓ Irritability |
| ✓ Numbness in the mouth | ✓ Mental confusion |



What should I do if I think my blood sugar is too low?

- ✓ Eat a quick source of sugar.
- ✓ Always carry a quick a source of sugar like hard sugar candy or glucose tablets.
- ✓ Make sure others know that they must get medical help for you at once.

What side effects can sitagliptin cause?

- ✓ Diarrhea
- ✓ Headache
- ✓ Stomachache
- ✓ Stuffy or runny nose
- ✓ Sore throat
- ✓ Joint pain
- ✓ Skin rash
- ✓ Swelling of the face, tongue or throat

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have access to key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Section 4: Educational Materials for Patients

Medication Fact Sheets: Anticoagulants

Anticoagulant Facts

Apixaban

Dabigatran

Enoxaparin

Fondaparinux

Rivaroxaban

Warfarin

Anticoagulant Fact

Anticoagulants, sometimes called “blood thinners,” are used to prevent blood clots in the legs, lungs, heart, or brain. They can reduce the chance of serious conditions like strokes.

Monitoring

Some anticoagulants, such as warfarin, require regular blood testing to measure how “thin” the medication is making the blood. Other anticoagulants do not require regular testing, but do require close follow-up by your doctor.

Special Risks: Bleeding

The main risk when taking anticoagulants is bleeding too easily. This can cause problems such as: passing blood into your urine, passing blood during bowel movements, severe bruising, prolonged nosebleeds, bleeding gums, vomiting or coughing up blood, and heavy periods in women.

Call your doctor immediately if you have any of these problems, or if you notice heavy or recurrent bleeding.

Tips for taking this medication:

- ✓ Tell your doctor about all medications you take, including over-the-counter medication, supplements, and herbal or home remedies.
- ✓ Do not start or stop any medication – including over-the-counter medications or vitamins – without talking to your doctor.
 - Certain medications may increase your risk of bleeding, such as over-the-counter pain medications like ibuprofen, naproxen, or aspirin.
 - Antibiotics can also cause problems in people taking anticoagulants
- ✓ If you need to have surgery or other invasive procedures (including dental), make sure your doctors are aware you are taking an anticoagulant. You may need to stop taking this medication for a short time.
- ✓ Plan ahead. Refill your prescriptions before you run out.

Pharmacist's Notes:

Apixaban Facts

Apixaban is used to prevent blood clots in the legs, lungs, heart, or brain.

Another name for apixaban is **Eliquis®**

How should I take apixaban?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with or without a meal. If it upsets your stomach, take it with food.
- ✓ Take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra apixaban to make up for missing a dose.

What should I avoid?

- ✓ Ask your doctor if you should avoid alcohol.
- ✓ Do not start or stop any medication – including over-the-counter medications or vitamins – without talking to your doctor.
 - Certain medications may increase your risk of bleeding, such as over-the-counter pain medications like ibuprofen, naproxen, or aspirin.

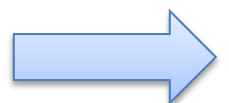
What should I know about bleeding risk?

The main risk when taking apixaban is bleeding too easily. **Call your doctor immediately if you notice heavy or recurrent bleeding or if you have any of these symptoms of bleeding:**

- | | |
|--|---------------------------------|
| ✓ Passing blood into your urine | ✓ Prolonged nosebleeds |
| ✓ Passing blood during bowel movements | ✓ Bleeding gums |
| ✓ Severe bruising | ✓ Vomiting or coughing up blood |

What side effects can apixaban cause?

- ✓ Bleeding
- ✓ Nausea



When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If you need to have surgery or other invasive procedures (including dental), make sure your doctors are aware you are taking apixaban. You may need to stop taking this medication for a short time.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Dabigatran Facts

Dabigatran is used to prevent blood clots in the legs, lungs, heart, or brain.

Another name for dabigatran is **Pradaxa**[®]

How should I take dabigatran?

- ✓ Take capsules by mouth with a drink of water.
- ✓ Take it with or without a meal. If it upsets your stomach, take it with food.
- ✓ Swallow the capsule whole. Do not break, chew, or empty the contents from the capsule.
- ✓ Take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra dabigatran to make up for missing a dose.

What should I avoid?

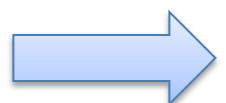
- ✓ Ask your doctor if you should avoid alcohol.
- ✓ Do not start or stop any medication – including over-the-counter medications or vitamins – without talking to your doctor.
 - Certain medications may increase your risk of bleeding, such as over-the-counter pain medications like ibuprofen, naproxen, or aspirin.

What should I know about bleeding risk?

The main risk when taking dabigatran is bleeding too easily.

Call your doctor immediately if you notice heavy or recurrent bleeding or if you have any of these symptoms of bleeding:

- | | |
|--|---------------------------------|
| ✓ Passing blood into your urine | ✓ Prolonged nosebleeds |
| ✓ Passing blood during bowel movements | ✓ Bleeding gums |
| ✓ Severe bruising | ✓ Vomiting or coughing up blood |



What side effects can dabigatran cause?

- ✓ Bleeding
- ✓ Nausea
- ✓ Heartburn
- ✓ Indigestion
- ✓ Gas
- ✓ Stomach pain

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If you need to have surgery or other invasive procedures (including dental), make sure your doctors are aware you are taking dabigatran. You may need to stop taking this medication for a short time.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Enoxaparin Facts

Enoxaparin is used to prevent or treat blood clots in the legs, lungs, heart, or brain.

Another name for enoxaparin is **Lovenox**[®]

How should I take enoxaparin?

- ✓ Inject under the skin 1-2 inches from your belly button or in the middle of your thigh.
- ✓ Pinch the area near your belly button or thigh to make a fold of the skin; inject the full length of the needle into the fold. Be sure to hold the skin throughout the injection. Press down on the plunger to release the medication. Remove the needle and place it in a special sharps container.
- ✓ Do not administer near scars or bruises.
- ✓ Give the injection at about the same time(s) every day. **Do not** inject extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Administer the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Administer your next dose as usual.
- ✓ **Do not** administer extra enoxaparin to make up for missing a dose.

What should I avoid?

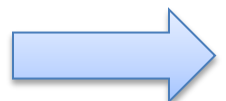
- ✓ Ask your doctor if you should avoid alcohol.
- ✓ Do not start or stop any medication – including over-the-counter medications or vitamins – without talking to your doctor.
 - Certain medications may increase your risk of bleeding, such as over-the-counter pain medications like ibuprofen, naproxen, or aspirin.

What should I know about bleeding risk?

The main risk when taking enoxaparin is bleeding too easily.

Call your doctor immediately if you notice heavy or recurrent bleeding or if you have any of these symptoms of bleeding:

- ✓ Passing blood into your urine
- ✓ Passing blood during bowel movements
- ✓ Severe bruising
- ✓ Prolonged nosebleeds
- ✓ Bleeding gums
- ✓ Vomiting or coughing up blood



What side effects can enoxaparin cause?

- ✓ Bleeding
- ✓ Pain, redness, or irritation at the injection site

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If you need to have surgery or other invasive procedures (including dental), make sure your doctors are aware you are taking enoxaparin. You may need to stop taking this medication for a short time.

How should I organize my medication?

- ✓ Use a calendar to help you remember to take your medication.
- ✓ Keep the original prescription label so you have key information such as expiration date, administration instruction, and refill number.
- ✓ Place your used needles and syringes in a special sharps container. Do not put them in the trash can.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Fondaparinux Facts

Fondaparinux is used to prevent or treat blood clots in the legs or lungs.

Another name for fondaparinux is **Arixtra**[®]

How should I take fondaparinux?

- ✓ Inject under the skin 1-2 inches from your belly button or in the middle of your thigh.
- ✓ Pinch the area near your belly button or thigh to make a fold of the skin; inject the full length of the needle into the fold. Be sure to hold the skin throughout the injection. Press down on the plunger to release the medication. Remove the needle and place it in a special sharps container.
- ✓ Do not administer near scars or bruises.
- ✓ Give the injection at about the same time every day. **Do not** inject extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Administer the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Administer your next dose as usual.
- ✓ **Do not** administer extra fondaparinux to make up for missing a dose.

What should I avoid?

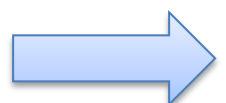
- ✓ Ask your doctor if you should avoid alcohol.
- ✓ Do not start or stop any medication – including over-the-counter medications or vitamins – without talking to your doctor.
 - Certain medications may increase your risk of bleeding, such as over-the-counter pain medications like ibuprofen, naproxen, or aspirin.

What should I know about bleeding risk?

The main risk when taking fondaparinux is bleeding too easily.

Call your doctor immediately if you notice heavy or recurrent bleeding or if you have any of these symptoms of bleeding:

- ✓ Passing blood into your urine
- ✓ Passing blood during bowel movements
- ✓ Severe bruising
- ✓ Prolonged nosebleeds
- ✓ Bleeding gums
- ✓ Vomiting or coughing up blood



What side effects can fondaparinux cause?

- ✓ Bleeding
- ✓ Pain, redness, or irritation at the injection site

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If you need to have surgery or other invasive procedures (including dental), make sure your doctors are aware you are taking fondaparinux. You may need to stop taking this medication for a short time.

How should I organize my medication?

- ✓ Use a calendar to help you remember to take your medication.
- ✓ Keep the original prescription label so you have key information such as expiration date, administration instruction, and refill number.
- ✓ Place your used needles and syringes in a special sharps container. Do not put them in the trash can.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Rivaroxaban Facts

Rivaroxaban is used to prevent or treat blood clots in the legs, lungs, heart, or brain.

Another name for rivaroxaban is **Xarelto**®

How should I take rivaroxaban?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with a meal.
- ✓ Take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra rivaroxaban to make up for missing a dose.

What should I avoid?

- ✓ Ask your doctor if you should avoid alcohol.
- ✓ Do not start or stop any medication – including over-the-counter medications or vitamins – without talking to your doctor.
 - Certain medications may increase your risk of bleeding, such as over-the-counter pain medications like ibuprofen, naproxen, or aspirin.

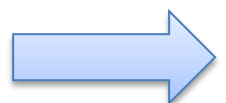
What should I know about bleeding risk?

The main risk when taking rivaroxaban is bleeding too easily. **Call your doctor immediately if you notice heavy or recurrent bleeding or if you have any of these symptoms of bleeding:**

- | | |
|--|---------------------------------|
| ✓ Passing blood into your urine | ✓ Prolonged nosebleeds |
| ✓ Passing blood during bowel movements | ✓ Bleeding gums |
| ✓ Severe bruising | ✓ Vomiting or coughing up blood |

What side effects can rivaroxaban cause?

- ✓ Bleeding
- ✓ Nausea
- ✓ Indigestion



When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If you need to have surgery or other invasive procedures (including dental), make sure your doctors are aware you are taking rivaroxaban. You may need to stop taking this medication for a short time.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Warfarin Facts

Warfarin is used to prevent or treat blood clots in the legs, lungs, heart, or brain.

Other names for warfarin are **Coumadin[®]** and **Jantoven[®]**

How should I take warfarin?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with or without a meal.
- ✓ Take it at about the same time every day. **Do not** take extra doses or skip doses.
- ✓ Plan ahead. Refill your prescription before you run out.
- ✓ You will need to have a blood test called a PT/INR regularly. The PT/INR blood test is done to make sure you are getting the right dose of this medication.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra warfarin to make up for missing a dose.

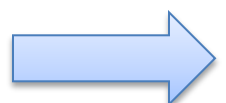
What should I avoid?

- ✓ Ask your doctor if you should avoid alcohol.
- ✓ Do not start or stop any medication – including over-the-counter medications or vitamins – without talking to your doctor.
 - Certain medications may increase your risk of bleeding, such as over-the-counter pain medications like ibuprofen, naproxen, or aspirin.

What should I know about bleeding risk?

The main risk when taking warfarin is bleeding too easily. **Call your doctor immediately if you notice heavy or recurrent bleeding or if you have any of these symptoms of bleeding:**

- | | |
|--|---------------------------------|
| ✓ Passing blood into your urine | ✓ Prolonged nosebleeds |
| ✓ Passing blood during bowel movements | ✓ Bleeding gums |
| ✓ Severe bruising | ✓ Vomiting or coughing up blood |



What side effects can warfarin cause?

- ✓ Bleeding
- ✓ Diarrhea
- ✓ Dizziness
- ✓ Stomach pain

When should I call my anticoagulation clinic or doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including antibiotics and over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If you need to have surgery or other invasive procedures (including dental), make sure your doctors are aware you are taking warfarin. You may need to stop taking this medication for a short time.
- ✓ You should discuss your diet with your anticoagulation clinic nurse, your doctor, or your pharmacist. Do not make major changes in your diet.
 - Vitamin K can affect how well this medication works. Vitamin K is found in a number of foods, including leafy greens. It is okay to eat these foods, but you should try to eat the same amount of these foods each day.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Section 4: Educational Materials for Patients

Medication Fact Sheets: Opioids

Opioid Facts

Codeine/Acetaminophen

Fentanyl

Hydrocodone/Acetaminophen

Hydromorphone

Morphine

Oxycodone

Oxycodone/Acetaminophen

Tramadol

Opioid Pain Medication Facts

Opioids are used to treat moderate to severe pain.

Pain Management

If you are experiencing significant pain, your doctor may prescribe an opioid pain medication. These medications are stronger than over-the-counter medicines. Opioids can be very effective in reducing pain, but they can be dangerous if taken incorrectly. It is important for you to work with your doctor to come up with a plan for pain management.

Special Risk: Sleepiness

Opioids can cause sleepiness, dizziness, and confusion. Do not operate heavy machinery or a car while taking opioid medications.

Special Risk: Problems with Digestion

Opioids can cause constipation, nausea, and vomiting. Your doctor should prescribe a stool softener and/or a laxative to help prevent these side effects. It is important for you to take these as your doctor recommends.

Tips for Managing Opioid Pain Medications

- ✓ Take your medication exactly as prescribed.
- ✓ Do not take extra doses and do not stop taking doses without talking to your doctor.
- ✓ Do not drink alcohol.
- ✓ Do not mix opioids with other medications without talking to your doctor.
- ✓ Do not take over-the-counter pain medications (like Tylenol or acetaminophen) without talking to your doctor.
- ✓ Talk to your doctor if this medication does not relieve your pain.

Pharmacist's Notes:

Codeine/Acetaminophen Facts

This drug contains both codeine and acetaminophen and is used to treat moderate to severe pain.

Other names for this medication include **Tylenol No. 3[®]**, **Tylenol No. 4[®]**, or **Vopac[®]**

How should I take codeine/acetaminophen?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with a meal to minimize problems with digestion.
- ✓ If you take codeine/acetaminophen on a scheduled basis, then take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ If you take codeine/acetaminophen tablets **on an as-needed basis**, then take the medication only when needed for pain relief. **Do not** take extra doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra codeine/acetaminophen to make up for missing a dose.

What should I avoid?

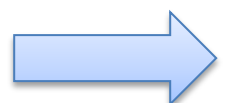
- ✓ Do not take extra doses and do not stop taking doses without talking to your doctor.
- ✓ Do not drink alcohol.
- ✓ Do not mix codeine/acetaminophen with other medications, including over-the-counter pain medications, (like Tylenol or acetaminophen) without talking to your doctor.

What should I know about sleepiness?

Codeine/acetaminophen can cause sleepiness, dizziness, and confusion. Do not operate heavy machinery or a car while taking this medication.

What should I know about digestive issues?

Codeine/acetaminophen can cause constipation, nausea, and vomiting. Your doctor should prescribe a stool softener and/or a laxative to help prevent these side effects.



What side effects can codeine/acetaminophen cause?

- ✓ Sleepiness
- ✓ Digestive issues
- ✓ Dry mouth
- ✓ Loss of appetite

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If your pain does not go away, if it gets worse, or if you have new or a different type of pain.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have access to key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Fentanyl Facts

Fentanyl is used to treat moderate to severe pain.

Other names for fentanyl are **Duragesic[®]**, **Abstral[®]**, **Subsys[®]**, **Actiq[®]**, **Fentora[®]**, **Ionsys[®]**, **Lazanda[®]** and **Onsolis[®]**

How should I take fentanyl?

- ✓ Apply the patch to your skin above the waist (upper arm, chest or back). The area should be clean and dry. Press and hold the patch for 30 seconds.
- ✓ Do not cut the patch; this is dangerous and may result in you getting too much medication.
- ✓ Do not apply the patch to oily, broken, burned, cut, or irritated skin.
- ✓ Do not use soap or alcohol to clean the skin before applying the patch because this can result in you getting too much medication.
- ✓ Remove the old patch and apply a new one every 72 hours.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take off the old patch and apply a new patch as soon as you remember.

If it is almost time for your next dose...

- ✓ Replace the new patch at your next dose as usual.
- ✓ **Do not** apply extra fentanyl patches to make up for missing a dose.

What should I avoid?

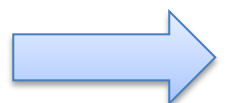
- ✓ Do not apply extra patches, and do not stop taking fentanyl without talking to your doctor.
- ✓ Do not drink alcohol.
- ✓ Do not mix fentanyl with other medications without talking to your doctor.

What should I know about sleepiness?

Fentanyl can cause sleepiness, dizziness, and confusion. Do not operate heavy machinery or a car while taking this medication.

What should I know about digestive issues?

Fentanyl can cause constipation, nausea, and vomiting. Your doctor should prescribe a stool softener and/or a laxative to help prevent these side effects.



What side effects can fentanyl cause?

- ✓ Sleepiness
- ✓ Digestive issues
- ✓ Dry mouth
- ✓ Loss of appetite
- ✓ Itching where the patch was applied

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If your pain does not go away, if it gets worse, or if you have new or a different type of pain.

How should I organize my medication?

- ✓ Use a calendar to help you remember to take your medication.
- ✓ Keep the original prescription label so you have key information such as expiration date, administration instructions, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Hydrocodone/Acetaminophen Facts

This drug contains both hydrocodone and acetaminophen and is used to treat moderate to severe pain.

Other names for this medication are **Vicodin[®]**, **Norco[®]**, **Lortab[®]**, **Lorcet[®]**, **Hycet[®]**, **Maxidone[®]**, **Stagesic[®]**, **Verdrocet[®]**, **Vicodin HP[®]**, **Xodol[®]**, **Zamicet[®]**, **Zolvit[®]**, and **Zydone[®]**

How should I take hydrocodone/acetaminophen?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with a meal to minimize problems with digestion.
- ✓ If you take hydrocodone/acetaminophen tablets on a scheduled basis, then take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ If you take hydrocodone/acetaminophen tablets **on an as-needed basis**, then take the medication only when needed for pain relief. **Do not** take extra doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

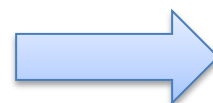
- ✓ Take your next dose as usual.
- ✓ **Do not** take extra hydrocodone/acetaminophen to make up for missing a dose.

What should I avoid?

- ✓ Do not take extra doses and do not stop taking doses without talking to your doctor.
- ✓ Do not drink alcohol.
- ✓ Do not mix hydrocodone/acetaminophen with other medications including over-the-counter pain medications (like Tylenol or acetaminophen) without talking to your doctor.

What should I know about sleepiness?

Hydrocodone/acetaminophen can cause sleepiness, dizziness, and confusion. Do not operate heavy machinery or a car while taking this medication.



What should I know about digestive issues?

Hydrocodone/acetaminophen can cause constipation, nausea, and vomiting. Your doctor should prescribe a stool softener and/or a laxative to help prevent these side effects.

What side effects can hydrocodone/acetaminophen cause?

- ✓ Sleepiness
- ✓ Digestion issues
- ✓ Dry mouth
- ✓ Loss of appetite

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If your pain does not go away, if it gets worse, or if you have new or a different type of pain.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, instructions on how to take the medication, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Hydromorphone Facts

Hydromorphone is a pain reliever. It is used to treat moderate to severe pain.

Other names for hydromorphone are **Dilaudid[®]** and **Exalgo[®]**

How should I take hydromorphone?

- ✓ Take tablet(s) by mouth with a drink of water.
- ✓ Take it with a meal to minimize problems with digestion.
- ✓ Swallow hydromorphone extended-release tablets whole. **Do not** split, chew, or crush them.
- ✓ If you take hydromorphone tablets on a scheduled basis, then take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ If you take hydromorphone tablets **on an as-needed basis**, then take the medication only when needed for pain relief. **Do not** take extra doses.
- ✓ Plan ahead. Refill your prescriptions before you run out.

What should I do if I forget a dose?

- ✓ If you take the immediate release hydromorphone tablets, take the missed dose as soon as you remember.

If it is almost time for your next dose...

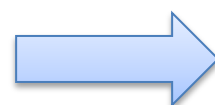
- ✓ Take your next dose as usual.
- ✓ **Do not** take extra hydromorphone to make up for missing a dose.
- ✓ If you take **hydromorphone extended-release tablets**, skip the missed dose and resume your regular dosing schedule.

What should I avoid?

- ✓ Do not take extra doses and do not stop taking doses without talking to your doctor.
- ✓ Do not drink alcohol.
- ✓ Do not take hydromorphone with other medications without talking to your doctor.

What should I know about sleepiness?

Hydromorphone can cause sleepiness, dizziness, and confusion. Do not operate heavy machinery or a car while taking this medication.



What should I know about digestive issues?

Hydromorphone can cause constipation, nausea, and vomiting. Your doctor should prescribe a stool softener and/or a laxative to help prevent these side effects.

What side effects can hydromorphone cause?

- ✓ Sleepiness
- ✓ Digestive issues
- ✓ Itching
- ✓ Dry mouth

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If your pain does not go away, if it gets worse, or if you have new or a different type of pain.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Morphine Facts

Morphine is a pain reliever. It is used to treat moderate to severe pain.

Other names for morphine are **MScontin**[®], **Oramorph**[®], **Roxanol**[®], **Sevredol**[®], **AVINza**[®], **Kadian**[®], **Atramorph**[®] and **Infumorph**[®]

How should I take morphine?

- ✓ Take tablet(s) by mouth with a full glass of water.
- ✓ Take it with a meal to minimize problems with digestion.
- ✓ Swallow morphine extended-release tablets whole. **Do not** split, chew, or crush them.
- ✓ If you take morphine tablets on a scheduled basis, then take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ If you take morphine tablets **on an as-needed basis**, then take the medication only when needed for pain relief. **Do not** take extra doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra morphine to make up for missing a dose.

What should I avoid?

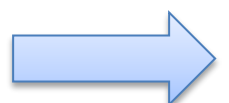
- ✓ Do not take extra doses and do not stop taking doses without talking to your doctor.
- ✓ Do not drink alcohol.
- ✓ Do not take morphine with other medications without talking to your doctor.

What should I know about sleepiness?

Morphine can cause sleepiness, dizziness, and confusion. Do not operate heavy machinery or a car while taking this medication.

What should I know about digestive issues?

Morphine can cause constipation, nausea, and vomiting. Your doctor should prescribe a stool softener and/or a laxative to help prevent these side effects.



What side effects can morphine cause?

- ✓ Sleepiness
- ✓ Dry mouth
- ✓ Upset stomach
- ✓ Loss of appetite

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If your pain does not go away, if it gets worse, or if you have new or a different type of pain.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Oxycodone Facts

Oxycodone is a pain reliever. It is used to treat moderate to severe pain.

Other names for oxycodone are **Oxycontin®**, **Roxicodone®**, **Oxecta®**, and **Oxaydo®**

How should I take oxycodone?

- ✓ Take tablet(s) by mouth with a full glass of water.
- ✓ Take it with a meal to minimize problems with digestion.
- ✓ Swallow oxycodone extended-release tablets whole. **Do not** split, chew, or crush them.
- ✓ If you take oxycodone tablets on a scheduled basis, then take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ If you take oxycodone tablets **on an as-needed basis**, then take the medication only when needed for pain relief. **Do not** take extra doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra oxycodone to make up for missing a dose.

What should I avoid?

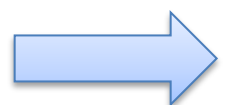
- ✓ Do not take extra doses and do not stop taking doses without talking to your doctor.
- ✓ Do not drink alcohol.
- ✓ Do not take oxycodone with other medications without talking to your doctor.

What should I know about sleepiness?

Oxycodone can cause sleepiness, dizziness, and confusion. Do not operate heavy machinery or a car while taking this medication.

What should I know about digestive issues?

Oxycodone can cause constipation, nausea, and vomiting. Your doctor should prescribe a stool softener and/or a laxative to help prevent these side effects.



What side effects can oxycodone cause?

- ✓ Sleepiness
- ✓ Dry mouth
- ✓ Upset stomach
- ✓ Loss of appetite

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If your pain does not go away, if it gets worse, or if you have new or a different type of pain.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Oxycodone/Acetaminophen Facts

This drug contains both oxycodone and acetaminophen and is used to treat moderate to severe pain.

Other names for this medication are **Percocet[®]**, **Endocet[®]**, **Roxicet[®]**, **Primlev[®]**, **Xartemis XR[®]** and **Xolox[®]**

How should I take oxycodone/acetaminophen?

- ✓ Take tablet(s) by mouth with a full glass of water.
- ✓ Take it with a meal to minimize problems with digestion.
- ✓ Swallow oxycodone/acetaminophen extended-release tablets whole. **Do not** split, chew, or crush them.
- ✓ If you take oxycodone/acetaminophen tablets on a scheduled basis, then take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ If you take oxycodone/acetaminophen tablets **on an as-needed basis**, then take the medication only when needed for pain relief. **Do not** take extra doses.
- ✓ Plan ahead. Refill your prescription before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

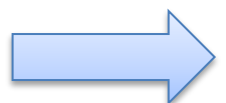
- ✓ Take your next dose as usual.
- ✓ **Do not** take extra oxycodone/acetaminophen to make up for missing a dose.

What should I avoid?

- ✓ Do not take extra doses and do not stop taking doses without talking to your doctor.
- ✓ Do not drink alcohol.
- ✓ Do not take oxycodone/acetaminophen with other medications without talking to your doctor.
- ✓ Do not take over-the-counter pain medications (like Tylenol or acetaminophen) without talking to your doctor.

What should I know about sleepiness?

Oxycodone/acetaminophen can cause sleepiness, dizziness, and confusion. Do not operate heavy machinery or a car while taking this medication.



What should I know about digestive issues?

Oxycodone/acetaminophen can cause constipation, nausea, and vomiting. Your doctor should prescribe a stool softener and/or a laxative to help prevent these side effects.

What side effects can oxycodone/acetaminophen cause?

- ✓ Sleepiness
- ✓ Nausea
- ✓ Vomiting
- ✓ Loss of appetite

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If your pain does not go away, if it gets worse, or if you have new or a different type of pain.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Tramadol Facts

Tramadol is used to treat moderate to severe pain.

Other names for tramadol are **Ultram[®]**, **ConZip[®]**, **Ryzolt[®]**, **EnovaRX-Tramadol[®]**, **Rybix ODT[®]**, and **Synapryn Fusepaq[®]**

How should I take tramadol?

- ✓ Take tablets by mouth with a drink of water.
- ✓ Take it with a meal to minimize problems with digestion.
- ✓ Swallow tramadol extended-release tablets whole. **Do not** split, chew, or crush them.
- ✓ If you take tramadol tablets on a scheduled basis, then take it at about the same time(s) every day. **Do not** take extra doses or skip doses.
- ✓ If you take tramadol tablets **on an as-needed basis**, then take the medication only when needed for pain relief. **Do not** take extra doses.
- ✓ Plan ahead. Refill your prescriptions before you run out.

What should I do if I forget a dose?

- ✓ Take the missed dose as soon as you remember.

If it is almost time for your next dose...

- ✓ Take your next dose as usual.
- ✓ **Do not** take extra tramadol to make up for missing a dose.

What should I avoid?

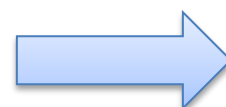
- ✓ Do not drink alcohol.
- ✓ Do not mix tramadol with other medications without talking to your doctor.

What should I know about sleepiness?

Tramadol can cause sleepiness, dizziness, and confusion. Do not operate heavy machinery or a car while taking this medication.

What should I know about digestive issues?

Tramadol can cause constipation, nausea, and vomiting. Your doctor should prescribe a stool softener and/or a laxative to help prevent these side effects.



What side effects can tramadol cause?

- ✓ Sleepiness
- ✓ Digestive issues
- ✓ Itching
- ✓ Loss of appetite

When should I call my doctor?

- ✓ If you are bothered by side effects.
- ✓ If you begin taking any new medication, including over-the-counter medicine, supplements, and herbal or home remedies.
- ✓ If your pain does not go away, if it gets worse, or if you have new or a different type of pain.

How should I organize my medication?

- ✓ Use a pill organizer or calendar to help you remember to take your medication.
- ✓ Keep the original prescription bottle so you have key information such as expiration date, administration instruction, and refill number.

How should I store this medication?

- ✓ Store at room temperature, away from excess heat.
- ✓ Store away from light and moisture.
- ✓ Do not store in the bathroom. The changes in humidity and temperature can affect the drug.

Pharmacist's Notes:

Section 5: Template for EHR Communication

Template for Electronic Health Record (EHR) Communication
Example Language and Smart Text for EHR Communication
Sample EHR Communication

Electronic Health Record (EHR) Communication

Template for Electronic Health Record (EHR) Communication

This template may be used to consistently communicate findings from the home visit medication reconciliation assessments with patients to their Primary Care Providers (PCP).

Example Language and Smart Text for Electronic Health Record (EHR) Communication

Here you will find example language that could be used in the EHR Communication. This includes smart text options that were developed and programmed into the EHR system for the ISAH study.

Examples that begin with a number are smart text. Additional relevant details should always be added to the note.

Examples that begins with a dash (-) are free text examples.

Sample Electronic Health Record (EHR) Communication

Here you will find one cohesive case sample EHR communication.

Template for Electronic Health Record (EHR) Communication

Title: High-Risk Medication Assessment

[Home Visit Summary Here]

[Patient's high-risk medications listed here]

High-Risk Medication Recommendations for PCP:

Other Medication Observations/Plans:

Medication Discrepancies:

Clinically Significant Interactions/High-Risk Medication Combinations:

Complaints and Potential Side-Effects:

Medication Management

Identification:

Organization:

Administration and Timing:

Storage:

Understanding:

Example Language and Smart Text for Electronic Health Record (EHR) Communication

Title: High-Risk Medication Assessment

A home visit, which focused on high-risk medications, was performed on [date of home visit assessment] with [patient's name] by [clinical pharmacist's name, credentials]. [Add details here if people other than the patient provided information for the assessment. e.g. "The patient's [relationship] provided information during the visit."] Discharge from the hospital took place on [date].

[Patient's name] was prescribed the following high-risk medications:

[Patient's high-risk medications listed here]

High-Risk Medication Recommendations for PCP:

Examples:

- Follow up with patient's wife regarding her concern with blood in urine with warfarin therapy.
- Initiated on warfarin in hospital. Last INR [value] on [date]. Follow up with Anticoagulation Clinic as necessary.
- Has bruise on left arm. Counseled on signs of healing (getting lighter/yellowing) but if worsens/gets bigger advised to contact PCP. Pt reports no bleeding episodes since discharge.
- Patient is taking apixaban correctly. Please note that patient reports that colonoscopy completed in [month, year] found blood. Ensure apixaban is monitored as clinically appropriate.
- From previous instruction, PCP advised patient to increase metformin dosage slowly from [dosage] mg up to [dosage] mg if tolerable. Due to intolerance, patient has decreased.
- Follow up with patient regarding her concern that metformin is causing ringing in her ears and headaches.

Other Medication Observations/Plans:

Examples:

- I observed the patient's medication organization and found that she mixes her pills together in a single bottle. Pill organizer provided and instructed in use.
- Patient is inconsistently taking evening dose of metformin. Reinforced appropriate regimen and educated patient about how medication works.
- Symptoms of nausea – may be related to increased dose of metformin.
- Follow up: I plan to call patient in one week to follow up on possible metformin-related side effects and use of pill organizer.

Medication Discrepancies:

1. No concerns were identified.
2. Patient is **taking additional medication(s) not included on discharge list**, but included on outpatient list.
3. Patient is **taking additional medication(s) not included on outpatient list**, but included on discharge list.
4. Patient is **taking additional medication(s) not included on discharge list or outpatient lists**.
5. Patient is **not taking medication(s) included on discharge list**.
6. Patient is **not taking medication(s) included on outpatient list** and should not be discontinued.
7. Patient is **not taking medication(s) in one of the high-risk medication categories**.
8. Patient is **taking the wrong medication(s) [drug, dose and/or frequency] in one of the high-risk medication categories**.

[add details as appropriate]

Clinically Significant Interactions/High-Risk Medication Combinations:

1. No clinically significant interactions or high-risk medication combinations were identified.
2. Clinically significant interactions and/or high-risk medication combinations were identified and addressed with the patient/caregiver. [add details]
3. Clinically significant interactions and/or high-risk medication combinations were identified and will be conveyed to the PCP. [add details]

Complaints and Potential Side-Effects:

1. No complaints or side effects were reported by patient/caregiver.
2. Complaints and/or side effects identified; pharmacist addressed with the patient/caregiver. [add details]
3. Complaints and/or side effects identified and will be conveyed to the PCP. [add details]

Medication Management**Identification:**

1. The patient/caregiver can identify all medications correctly.
2. The patient/caregiver cannot identify all medications correctly. [add details]

Organization:

1. The patient/caregiver organizes medications appropriately.
2. The patient/caregiver does not organize medications appropriately. [add details]

Administration and Timing:

1. The patient/caregiver administers medication correctly.
2. The patient/caregiver administers medication incorrectly. [add details]

Storage:

1. The patient/caregiver stores medication correctly.
2. The patient/caregiver stores medication incorrectly. [add details]

Understanding:

1. The patient/caregiver has adequate understanding of the indications for medications.
2. The patient/caregiver has inadequate understanding of the indications for medications. [add details]

Sample Electronic Health Record (EHR) Communication

Title: High-Risk Medication Assessment Study

A home visit, which focused on high-risk medications, was performed on 6/15/2016 with Jane Doe by Bob Smith, PharmD. Discharge from the hospital took place on 6/13/2016.

Jane Doe was prescribed the following high-risk medications: Metformin, Percocet.

High-Risk Medications Recommendations for PCP:

- **Follow-up with patient regarding current dose of metformin.**

Other Medication Observations/Plans:

- I observed the patient's medication organization and found that she mixes her pills together in single bottle. Pill organizer provided and instructed in use.
- Patient is inconsistently taking evening dose of metformin. Reinforced appropriate regimen and educated patient about how medication works.
- Symptoms of nausea; may be related to increased dose of metformin.
- Pharmacist Follow-up: I plan to call patient in one week to follow-up on possible metformin-related side effects and use of pill organizer.

Medication Discrepancies:

No concerns were identified.

Clinically Significant Interactions and High-Risk Medication Combinations:

Clinically significant interactions and/or high-risk medication combinations were identified and were addressed with the patient/caregiver.

Free text: The patient is taking Percocet as prescribed and is taking acetaminophen as needed for pain. Reinforced the importance of limiting acetaminophen, so as not to exceed maximum daily dose.

Complaints and Potential Side Effects:

Complaints and/or side effects identified and will be conveyed to the PCP.

Free text: Unpleasant symptoms of nausea; may be due to a recent increased dose of metformin. Provided tips on how to off-set nausea. Follow-up required.

Medication Management

Identification:

The patient/caregiver can identify all medications correctly.

Organization:

The patient/caregiver does not appropriately organize medications.

Free text: Patient mixes pills in a single bottle; inappropriate organization. Pill organizer provided and instructed in use.

Pill Organizer: Original prescription bottles

Provided pill organizer: Yes

Provided pill cutter: No

Administration, Timing, and Refills:

The patient/caregiver administers medication correctly.

Free text: Refill issues noted and discussed with patient.

Storage:

The patient/caregiver stores medication correctly.

Understanding:

The patient/caregiver has adequate understanding of the indications for medications.

Free text: Patient shows good level of understanding the purpose of the medications and how to take them, although she is inconsistently taking evening dose of metformin. Reinforced appropriate regimen and educated patient about how metformin works to help control blood sugar. Provided metformin educational leaflet.

Please feel free to contact me with questions or concerns.

Sincerely,
Bob Smith, PharmD

Section 6: Follow-Up Phone Call Materials

Follow-Up Phone Call Script
Follow-Up Phone Call Template for EHR Communication

Follow-Up Phone Call Script

Hello. May I please speak to [PATIENT'S NAME]?

This is [NAME], the pharmacist from [organization's name]. I met with you on [DATE], and I am calling to follow-up on that home-visit. Do you have a few moments to speak with me now about how things have been going with your medication(s) since I last saw you?

If "YES", continue.

If "NO": Is there a better time for me to call? [SCHEDULE TIME]

Great!

First, I'd like to ask you if you've had any problems with your medications since [DATE OF HOME VISIT].

If "YES", discuss medication problems.

If "NO," continue.

Okay, thanks for sharing with me.

When I met with you on [DATE OF HOME VISIT], we went over a few things that could help you safely take your medications. We talked about: [REVIEW INSTRUCTIONS; INSTRUCTIONS WILL BE RECORDED IN THE COMMUNICATION TO THE PCP].

How are you doing with [INSTRUCTIONS]?

[DISCUSS AND REINFORCE INSTRUCTIONS].

Do you have any questions about anything else related to your medications?

If "YES", answer questions.

If "NO" continue.

Okay. Thank you! We are all done. Please continue to follow-up with your primary care provider as you usually would. I appreciate your taking the time to talk with me and have a good day!

[END PHONE CALL]

Follow-Up Phone Call Template for EHR Communication

Title: High-Risk Medication Assessment Study

A follow-up call was made to Jane Doe on 6/28/2016 by Bob Smith, PharmD. The home visit took place on 6/15/2016.

High-Risk Medication Issues Identified During Call:

- Patient has stopped taking metformin due to nausea. Patient did not inform PCP.

Other Medication Issues Identified During Call:

- Patient ran out of furosemide 2 days ago. No refills remain.

Pharmacist Follow-up – Call was placed to PCP and encounter routed to PCP for follow up with patient directly regarding these issues.

Options:

- Encounter routed to PCP*
- Call was placed to PCP and encounter routed to PCP*
- No issues identified; no follow up necessary*