

Evaluation of facilitators and barriers to communication between community pharmacists and prescribers in a rural community

Amy Dunleavy, PharmD

PGY1 Community-based Pharmacy Resident, University of Iowa College of Pharmacy | Iowa City, IA
Osterhaus Pharmacy | Maquoketa, IA

Matthew Osterhaus, BPharm

University of Iowa College of Pharmacy Community-based Residency Site Director
Osterhaus Pharmacy | Maquoketa, IA

Logan Murry

University of Iowa College of Pharmacy | Iowa City, IA

Matthew Witry

University of Iowa College of Pharmacy | Iowa City, IA

Stevie Veach

University of Iowa College of Pharmacy Community-based Residency Program Director
University of Iowa College of Pharmacy | Iowa City, IA

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Corresponding author:

Amy Dunleavy, PharmD
918 W. Platt St
Maquoketa, IA 52060
Email address: amy.dunleavy93@gmail.com

Introduction

Prescribing medications for individuals with multiple disease states, older age, younger age, and complex medication histories can be complicated. Having a pharmacist on the healthcare team when caring for these patients leads to better healthcare outcomes. The average patient visits their community pharmacy 35 times a year. During these visits, pharmacists have the opportunity to discuss the patient's current medical conditions and medications, recent changes to their medication regimen or lifestyle, advise on non-drug therapy options, provide education to the patient and family regarding disease progression and/or disease prevention, and much more. Additionally, pharmacists' expertise is in the rational and therapeutic use of medication. As such, they are constantly evaluating patients' medication regimens and current medical conditions to ensure patients are receiving the appropriate drug therapy to achieve optimal outcomes and increased quality of life.

Osterhaus Pharmacy is a member of the Community Pharmacy Enhanced Services Network (CPESN USA and CPESN Iowa) and is involved in Flip the Pharmacy; through involvement in these networks and programs the pharmacy has successfully built numerous patient care services. Medication synchronization is the most widely used service by Osterhaus Pharmacy patients. The patients enrolled receive a monthly call from the pharmacy to review their medications and refill those needed. The pharmacists use these monthly phone-based appointments as a time to evaluate the patient's current medication therapy and when appropriate make recommendations to the prescriber for changes to therapy.

Within the community, there are two primary care clinics and one mental health clinic. The prescribers at the previously mentioned locations are responsible for a large portion of the prescriptions filled at Osterhaus Pharmacy. Pharmacists often make patient specific recommendations to these prescribers via manual fax or a phone call. It is not uncommon for a pharmacist to need to resend a fax or call the clinic multiple times before getting a response.

Identifying how various forms of communication from pharmacy flow through clinic staff and identifying the conditions in which communication from pharmacy are addressed and returned will help pharmacists to communicate their recommendations to prescribers in an effective and efficient manner.

Objectives

The objectives of this study were as follows; 1) Survey clinic staff to gain an understanding of how recommendations and requests from pharmacy are handled, 2) Assess prescriber confidence in assessing drug interactions when writing prescriptions, and 3) Assess local prescribers' willingness to share mutual patient's health information with Osterhaus Pharmacy.

Methods

Two surveys were administered to healthcare providers employed by the three local healthcare clinics (2 primary care clinics and 1 mental health clinic). The staff surveyed included prescribers, nurses, and support staff. The surveys were administered at Osterhaus Pharmacy, during the 15-minute observation period after the healthcare provider had received his/her COVID-19 vaccination. Surveys were administered electronically, using the online platform JotForm. All surveys were submitted

anonymously. Three open ended items were coded descriptively. Each survey can be viewed in the report Appendix.

Results

The answers to the two surveys were analyzed for trends.

Table 1. Survey Respondents

Role	Survey #1 Respondents	Survey #2 Respondents
Prescriber	13	10
Nursing	18	8
Support Staff	11	7
Total	42	25

Table 1 shows the number of respondents to each survey administered. Clinic staff was broken down into 3 groups, “Prescribers,” “Nursing,” and “Support staff.” All staff members were given the same surveys.

The following were notable results.

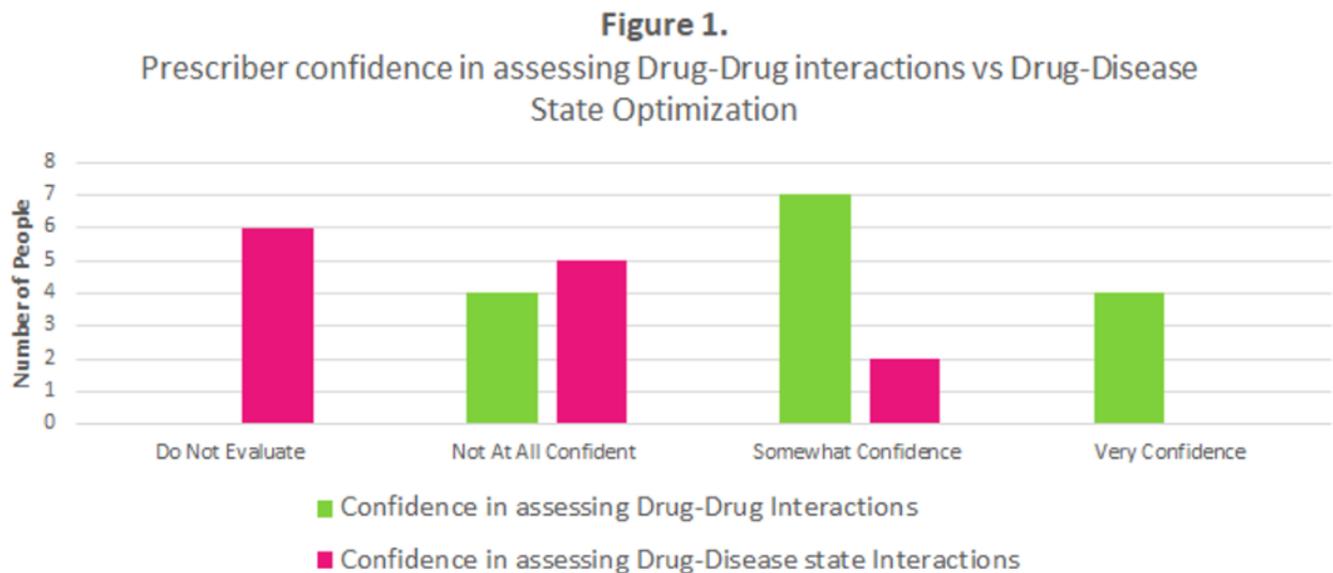


Figure 1. A majority of prescribers noted feeling “somewhat confident” or “very confident” in assessing drug-drug interactions when prescribing medications. Whereas, a majority of prescribers “do not evaluate” or are “not at all confident” in assessing drug-disease state interactions.

Figure 2.

Confidence in Medication List Accuracy at Clinic vs Pharmacy

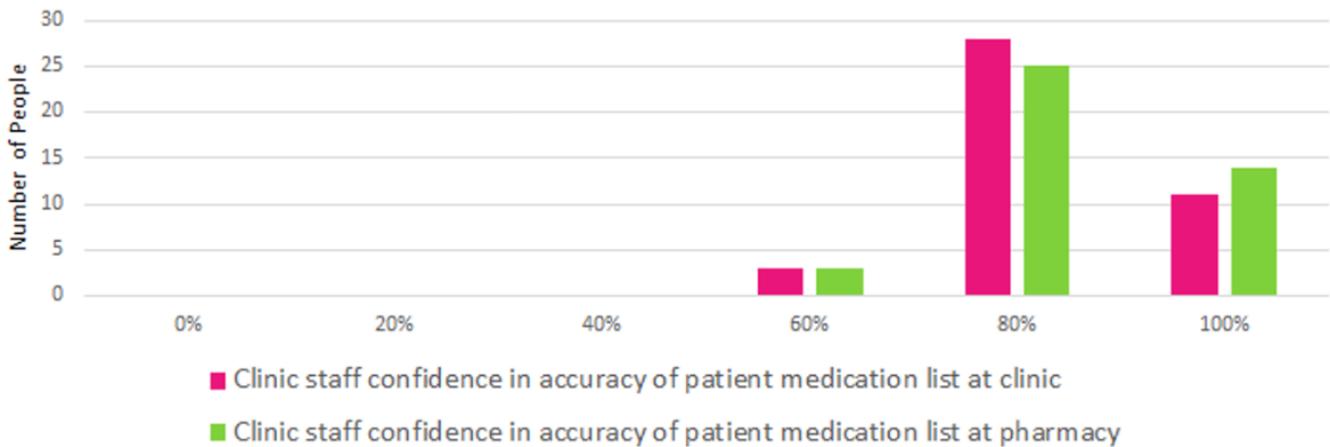


Figure 2. Clinic staff confidence in patient medication lists at the clinic and at the pharmacy are similar. With 14/42 clinic staff having 100% confidence in the medication lists at the pharmacy, and 11/42 clinic staff having 100% confidence in the medication lists at the clinic, 25/42 clinic staff having 80% confidence in the medication lists at the pharmacy, and 28/42 clinic staff having 80% confidence in the medication lists at the clinic.

Figure 3.

Clinic Staff: "Do you think it would be beneficial to share mutual patient EHR with pharmacy?"

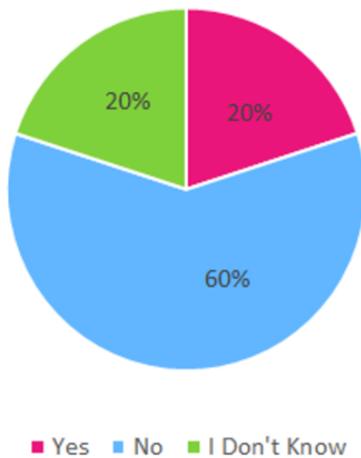


Figure 3. A majority of clinic staff surveyed did not think it would be beneficial for pharmacy to have access to mutual patient electronic health records.

Figure 4.

Prescribers: “Do you think it would be beneficial to share mutual patient EHR with pharmacy?”

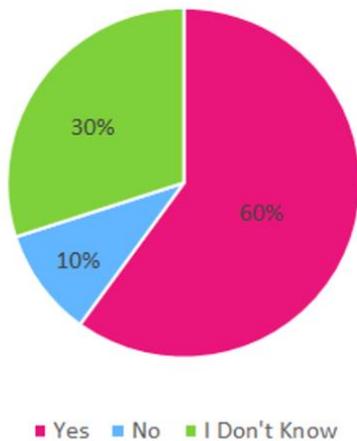


Figure 4. A majority of prescribers surveyed did think it would be beneficial for pharmacy to have access to mutual patient electronic health records.

Additional results include:

- Prescribers prefer faxed communication of recommendations and requests from pharmacy.
- The local primary care clinics require 2-3 days to respond to refill requests.
- The local mental health clinic requires 7 days to respond to refill requests.
- Clinic staff record 100% of vaccinations given in the clinic to the Iowa vaccination registry (IRIS) within 24 hours of vaccine administration.

Discussion

The study revealed that prescribers and their clinic staff primarily communicate through written notes placed in the prescriber’s office mailbox or on the prescriber desk. The survey revealed that most prescribers and clinic staff prefer pharmacy recommendations and requests to be sent via fax. This makes sense given the workflow most clinics have for communicating with one another. As technology continues to evolve it is important for pharmacists to talk to their prescribing colleagues about the available updates to electronic prescribing and abilities to move communication to electronic modes.

The survey also revealed that prescribers at the mental health clinic request 7 days to respond to refill requests and prescribers at the primary care clinics request 2-3 days to respond to refill requests sent by pharmacy. Medication adherence can be a challenge for patients, enrolling patients receiving one or more maintenance medications in medication synchronization is one way to decrease gaps in maintenance medication therapy.

Pharmacists’ role in immunizations continues to expand and has been essential to fighting the COVID-19 pandemic. Pharmacists are well positioned to help patients catch-up on routine immunizations that may have been missed due the shift of primary care visits to telehealth. This study revealed that all three clinics record immunizations in the Iowa Database for Immunizations within 24 hours of

administration.

Prescribers feel more confident assessing drug-drug interactions, rather than drug-disease state interactions. As medications experts it is important for the pharmacist to not only assess the patient's medication profile but also their health history. Pharmacists are in an ideal position to fully assess and make recommendations to prescribers regarding a patient's regimen for drug-drug and drug-disease state interactions.

Prescribers and their clinic staff feel more confident in the medications lists at the pharmacy, than their medications list at the clinic. As patients increase the number of prescribers they see, pharmacists play an important role in educating the patient to carry a medication list.

Finally, a majority of prescribers in the area report it would be beneficial for pharmacy to have access to mutual patient electronic health records. Clinic staff (nursing and support staff) do not think it would be beneficial for pharmacy to have electronic health record access. It may be necessary to provide education to clinic staff regarding how pharmacy access to mutual patient electronic health records can reduce the workload of nursing and support staff. By having access to electronic health records pharmacists would not need to call the clinic for lab results, patient diagnosis, previous medications trialed, etc.

Limitations

This study was limited by only looking at one pharmacy site and prescribers local to the Maquoketa area. The results of this study may not be generalizable to a broader population. The community in which this study took place was approximately 6,000. While the response rate was high, there was potential for non-response bias and social desirability bias as the study was completed using surveys administered to healthcare providers while they were at the pharmacy, after the healthcare worker had received their COVID-19 vaccine.

A further limit to this study was that it was survey based. Verbiage used in the questions may have been confusing to practitioners outside of the pharmacy. Misunderstanding questions could contribute to bias.

Conclusion

By better understanding the clinics' workflow and handling of communications this study could help optimize patient outcomes through addressing drug therapy problems and patient specific care planning in a timely and efficient manner.

Appendix 1: Survey #1

Evaluation of facilitators and barriers to communication between community pharmacists and prescribers in a rural community

Osterhaus Pharmacy Residency Project 2020-2021

Which clinic do you practice at? *

- Medical Associates- Maquoketa
- Maquoketa Family Clinic
- Hillcrest Family Services

What is your role? *

- Prescriber
 - Nurse
 - Support staff
-

Next

Current communication with Pharmacy

Does your clinic have a policy/procedure regarding processing of pharmacist recommendations? *

- Yes
 No

How do staff members communicate with one another regarding recommendations made by a pharmacist? Please rank the following modes of communication from most frequently used to least frequently used. (touch and move each line to reorder them)

1: Verbal discussion
2: Paper notes left on desks
3: Notes in the patient EMR
4: Instant messaging

What is your preferred form of contact from pharmacy? (touch and move each line to reorder them)

1: Phone call
2: Fax
3: Notes field on the escript
4: Patient

Is there a time of day that is best for pharmacists to call if they need to speak with a prescriber? *

- Yes
 No

How often is your fax machine checked? *

- More than 2 times daily
 2 times daily (once in the morning and once in the afternoon)
 Once daily in the morning
 Once daily in the afternoon
 Less than once daily

How often are electronic refill requests checked? *

- More than 2 times daily
 2 times daily (once in the morning and once in the afternoon)
 Once daily in the morning
 Once daily in the afternoon
 Less than once daily

How often is your voicemail checked? *

- More than 2 times daily
 2 times daily (once in the morning and once in the afternoon)
 Once daily in the morning
 Once daily in the afternoon
 Less than once daily
 We do not use voicemail

Back

Next

Challenges with current workflow

When a pharmacist sends recommendations/communication from Osterhaus Pharmacy describe your clinic's workflow for addressing it?

Type here...

Osterhaus Pharmacy pharmacists often make recommendations via fax or phone call. What challenges do you find with our current process?

Type here...

When a refill request is sent to a physician who is not in the clinic that day, describe the process and timeline for this request to be addressed.

Type here...

Back

Next

Medication confidence

Does your prescribing software have a drug-drug interaction checker? *

- Yes
- No

How confident are you in assessing drug-drug interactions utilizing your prescribing software? *

- Not at all confident
- Somewhat confident
- Very confident
- My dispensing software does not have a drug-drug interactions feature
- I do not assess drug-drug interactions

Does your prescribing software have a drug-disease interaction checker? *

- Yes
- No

How confident are you in assessing drug-disease interactions utilizing your prescribing software? *

- Not at all confident
- Somewhat confident
- Very confident
- My dispensing software does not have a drug-disease interactions feature
- I do not assess drug-disease interactions

How accurate do you feel most patient medication lists are at your clinic? *

- 100% correct
- 80% correct
- 60% correct
- 40% correct
- 20% correct

How accurate do you feel most patients medication lists are at the patient's pharmacy of choice? *

- 100% correct
- 80% correct
- 60% correct
- 40% correct
- 20% correct

How often does your office notify the pharmacy when a medication has been stopped? *

- Always
- Sometimes
- Never

Have you ever used the cancel Rx feature? *

- Yes
- No, I would like to look into using this
- No, I do not find it useful

Back

Next

Immunization records

Is your office entering immunizations into IRIS, the online immunization registry? *

- Yes
 No

If yes, how soon after the immunization does the immunization get entered? *

- Immediately
 Within 24 hours
 Within 7 days
 Within 2 weeks

Back

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Appendix 2: Survey #2

Evaluation of facilitators and barriers to communication between community pharmacists and prescribers in a rural community (Survey #2)

Osterhaus Pharmacy Residency Project 2020-2021

Which clinic do you practice at? *

- Medical Associates- Maquoketa
- Maquoketa Family Clinic
- Hillcrest Family Services

What is your role? *

- Prescriber
- Nurse
- Support staff

When the pharmacist is counseling a patient about new medications it is helpful for the pharmacist to have the proper diagnosis for the patient's condition. During counseling sessions, the pharmacist is able to provide support and education to the patient regarding their condition.

Some electronic prescribing software allows for diagnosis codes to be transmitted on the prescription. Do you utilize this feature with your current software? *

- Yes
- No
- I don't know
- My role does not require me to send electronic prescriptions

How often do you include a diagnosis code on the electronic prescriptions you send to pharmacy? *

- 100% of the time
- 80% of the time
- 60% of the time
- 40% of the time
- 20% of the time
- Never, I do not find this necessary
- Never, I would like to learn about how to use this feature
- My role does not require me to send electronic prescriptions

Some electronic prescribing software allows for basic vitals (blood pressure, height and weight) to be transmitted, how often do you use this feature? *

- 100% of the time
 - 80% of the time
 - 60% of the time
 - 40% of the time
 - 20% of the time
 - My role does not require me to send electronic prescriptions
 - My dispensing software does not have this feature
-

Next

Medications are often dosed by weight, age or renal/hepatic function. Pharmacists check the dosing of each medication prior to dispensing it to the patient.

How often do you include a child's weight on electronic prescriptions? *

- 100% of the time
- 80% of the time
- 60% of the time
- 40% of the time
- 20% of the time
- I do not consult the pharmacist for dosing
- My role does not require me to send electronic prescriptions

When a patient has known renal dysfunction do you consult a pharmacist regarding medication dosing? *

- 100% of the time
- 80% of the time
- 60% of the time
- 40% of the time
- 20% of the time
- I do not consult the pharmacist for dosing
- My role does not require me to send electronic prescriptions

When a patient has known hepatic dysfunction do you consult a pharmacist regarding medication dosing? *

- 100% of the time
 - 80% of the time
 - 60% of the time
 - 40% of the time
 - 20% of the time
 - I do not consult the pharmacist for dosing
 - My role does not require me to send electronic prescriptions
-

Pharmacists utilize patient's lab work to monitor for the efficacy and safety of medications used. In the outpatient, community setting pharmacists must work with their patient's medical providers to obtain this information.

Next

When a pharmacist calls to obtain a mutual patient's lab information who should they speak with? *

- Support staff
- Lab staff
- Nursing
- Prescriber

What is the best way for the pharmacist to request a mutual patient's lab information? *

- Fax
 - Phone call
 - In the notes section of a refill renewal request
-

Back

Next

Pharmacists in health systems often have access to patient electronic health records. This allows for real-time chart reviews and lab assessments for proper medication management.

Does your clinic's EHR allow for remote login? *

- Yes
- No
- I do not know

Do you think it would be beneficial for pharmacy to have access to mutual patient's EHR? *

- Yes
- No
- I don't know

Are you interested discussing shared EHR access with Osterhaus Pharmacy

- Yes
- No
- I don't know

Back

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