Letter of Commitment by Certified Pharmacy Technician

I understand that my role as a New Practice Model Participating Pharmacy Technician is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Ben Rice, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer our expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for our assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed _____ Date 05/16/2016

Title Pharmacy Tech

Letter of Commitment by Certified Pharmacy Technician

I understand that my role as a New Practice Model Participating Pharmacy Technician is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Abigail Cowan, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer our expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for our assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

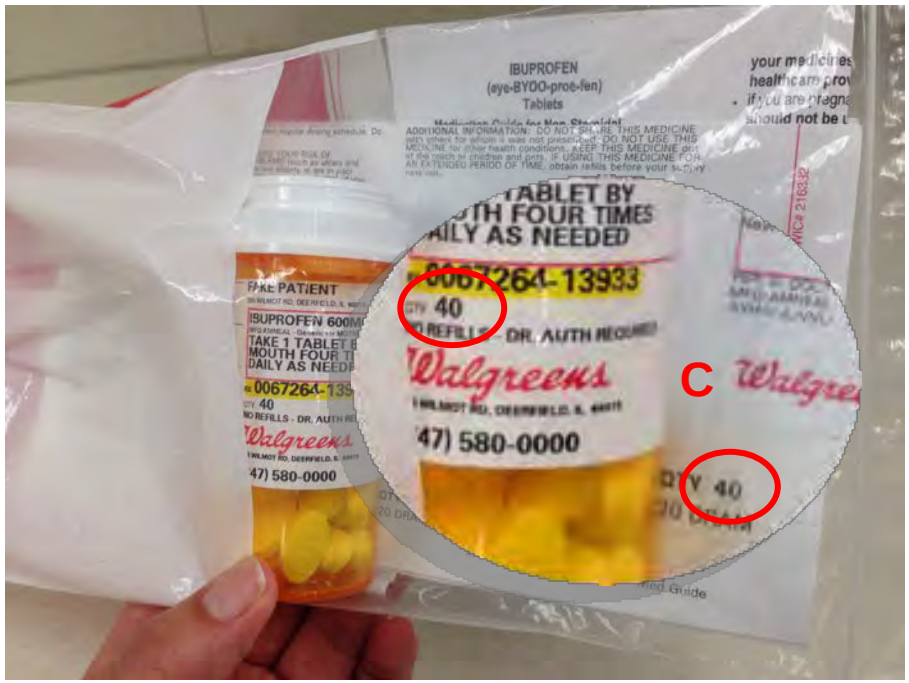
Signed Abby Cowan Date 5-16-16

Title Pharmacy Tech

Revised Date: 10/26/2014 **Process:** Final Product Verification of Tablets and Capsules Filled with the Retail Filling Process (RFP) **SOP number:** WAG.SOP.RX-020		**DEPARTMENT:** Pharmacy and Retail Operations & Planning

PROCESS DESCRIPTION	This document provides the process for product verification of tablets and capsules for prescriptions filled with the Retail Filling Process (RFP).
DEPARTMENT	Pharmacy
AUDIENCE	Pharmacist

STEP #	INSTRUCTIONS	KEY POINTS / ILLUSTRATIONS
1. Verify the Patient Label with the Leaflet	A) Retrieve one prescription from the Quarantine Bin to begin final product verification. o For all prescriptions filled following the Retail Filling Process (RFP), the Pharmacist of Record must complete product verification. o Follow the Traditional Product Verification process for any prescriptions that could not be completed using RFP (ex. CII medications). o If dispensing a Target Drug, review and complete the Target Drug GFD Checklist B) Review the filled medication and the prescription leaflet through the clear side of the prescription bag. o If you are unable to verify the prescription while inside the bag, open the bag and vial as needed. C) Verify that the patient name on each patient label matches the patient name on the prescription leaflet. D) Verify that the medication name, strength, and dosage form on each patient label matches the medication name, strength, and dosage form on the prescription leaflet. E) If the patient name or medication name, strength, and dosage form does not match, remove the leaflet and medication from the bag and send the prescription back to the RFP technician for correction.	

2. Verify the Product	A) If the prescription is a controlled substance, use professional judgment and follow DEA, federal, and state regulations to determine if the prescription should be dispensed. Follow GFD Policy and Procedure B) Verify that the markings, shape, and color of the medication in the vial match the drug description information section on the prescription leaflet. o If the medication is dispensed in a manufacturer stock bottle, verify that the NDC on each manufacturer stock bottle matches the NDC on the prescription leaflet. C) Ensure the quantity dispensed matches the quantity on the prescription leaflet. o If dispensing more than one vial or manufacturer stock bottle, ensure each patient label is marked 1/3, 2/3, etc. If not indicated, write this down on each patient label. D) If any of the dispensed medication's information does not match the information on the prescription leaflet remove the leaflet and medication from the bag and send it back to the RFP technician for correction. E) Verify that the medication is dispensed with a child resistant cap. If the leaflet indicates the patient's preference is SNAP cap, verify a SNAP cap is used. F) If applicable, complete hardcopy documentation requirements per federal and state regulations.	 

3. Complete Product Verification	A) Ensure all other required documentation is packaged with the prescription when indicated on the leaflet. o If a medication guide is required, ensure it is included in the bag. B) Using your clinical judgment, if you feel a consultation is necessary clearly write “See RPh” and the reason for the consultation on the front of the prescription leaflet. C) Place the verified sealed prescription bag in the green ready bin on the filling counter. o If the prescription is a refrigerated item, place in front of the green ready bin so the technician can file in the refrigerator. o Ensure the green ready bin is located on the filling counter in a location that is not patient facing and maintains the privacy and PHI of the ready prescriptions. D) Select the next prescription to perform product verification.	

Revised Date: 10/10/2014 **Process:** Final Product Verification for Unit of Use Items Filled with the Retail Filling Process (RFP) **SOP number:** WAG.SOP.RX-021		**DEPARTMENT:** Pharmacy and Retail Operations & Planning

PROCESS DESCRIPTION	This document provides the process for product verification of unit of items filled with the Retail Filling Process (RFP).
DEPARTMENT	Pharmacy
AUDIENCE	Pharmacist

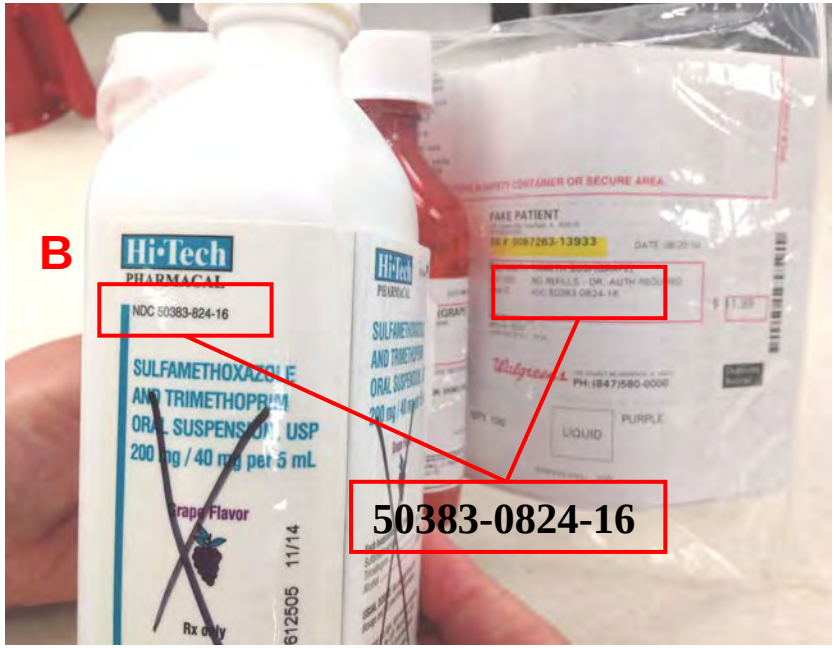
STEP #	INSTRUCTIONS	KEY POINTS / ILLUSTRATIONS
1. Verify the Patient Label with the Leaflet	A) Retrieve one prescription from the Quarantine Bin to begin final product verification. o For all prescriptions filled following the Retail Filling Process (RFP), the Pharmacist of Record must complete product verification. o Follow the Traditional Product Verification process for any prescriptions that could not be completed using RFP (ex. CII medications). ▪ If dispensing a Target Drug, review and complete the Target Drug GFD Checklist B) Review the filled medication and the prescription leaflet through the clear side of the prescription bag. o If you are unable to verify the prescription while inside the bag, open the bag as needed. C) Verify that the patient name on each patient label matches the patient name on the prescription leaflet. D) Verify that the medication name, strength, and dosage form on each patient label matches the medication name, strength, and dosage form on the prescription leaflet. E) If the patient name or medication name, strength, and dosage form does not match, remove the leaflet and medication from the bag and send the prescription back to the RFP technician for correction.	

2. Verify the Product	A) If the prescription is a controlled substance, use professional judgment and follow DEA, federal, and state regulations to determine if the prescription should be dispensed. Follow GFD Policy and Procedure. B) Verify that the NDC on each manufacturer package or stock bottle matches the NDC on the prescription leaflet. C) Ensure the quantity dispensed matches the quantity on the prescription leaflet. o If there are multiple packages or bottles, ensure each patient label is marked 1/3, 2/3, etc. If not indicated, write this down on each patient label. D) If any of the dispensed medication's information does not match the information on the prescription leaflet remove the leaflet and medication from the bag and send it back to the RFP technician for correction. E) Verify that the medication is dispensed with a child resistant cap if dispensing a manufacturer sealed bottle. If the leaflet indicates the patient's preference is SNAP cap, verify a SNAP cap is used. F) If applicable, complete hardcopy documentation requirements per federal and state regulations.	
3. Complete Product Verification	A) Ensure all other required documentation is packaged with the prescription when indicated on the leaflet. o If a medication guide is required, ensure it is included in the bag. B) Using your clinical judgment, if you feel a consultation is necessary clearly write "See RPh" and the reason for the consultation on the front of the prescription leaflet. C) Place the verified sealed prescription bag in the green ready bin on the filling counter. o If the prescription is a refrigerated item, place in front of the green ready bin so the technician can file in the refrigerator. o Ensure the green ready bin is located on the filling counter in a location that is not patient facing and maintains the privacy and PHI of the ready prescriptions. D) Select the next prescription to perform product verification.	

Revised Date: 10/26/2014 **Process:** Final Product Verification of Liquids Filled with the Retail Filling Process (RFP) **SOP number:** WAG.SOP.RX-019		**DEPARTMENT:** Pharmacy and Retail Operations & Planning

PROCESS DESCRIPTION	This document provides the process for product verification of liquids filled with the Retail Filling Process (RFP).
DEPARTMENT	Pharmacy
AUDIENCE	Pharmacy Team Members

STEP #	INSTRUCTIONS	KEY POINTS / ILLUSTRATIONS
1. Verify the Patient Label with the Leaflet	A) Retrieve the filled liquid prescription from the tote to begin final product verification. o For all prescriptions filled following the Retail Filling Process (RFP), the Pharmacist of Record must complete product verification. o Follow the Traditional Product Verification process for any prescriptions that could not be completed using RFP (ex. CII medications). ▪ If dispensing a Target Drug, review and complete the Target Drug GFD Checklist B) Review the filled medication and the prescription leaflet through the clear side of the prescription bag. o If you are unable to verify the prescription while inside the bag, open the bag as needed. C) Verify that the patient name on each patient label matches the patient name on the prescription leaflet. D) Verify that the medication name, strength, and dosage form on each patient label matches the medication name, strength, and dosage form on the prescription leaflet. E) If the patient name or medication name, strength, and dosage form does not match, remove the leaflet and medication from the bag and send the prescription back to the RFP technician for correction.	

2. Verify the Product	A) If the prescription is a controlled substance, use professional judgment and follow DEA, federal, and state regulations to determine if the prescription should be dispensed. Follow GFD Policy and Procedure. B) Retrieve the liquid stock bottle from the tote and verify that the NDC on the stock bottle matches the NDC on the prescription leaflet. o If the medication was filled with a "return to stock bottle", verify the medication name and manufacturer matches the information on the prescription leaflet. o Visually inspect the filled medication and compare it to the information contained on the prescription leaflet to help determine if the prescription was filled correctly. C) Ensure the quantity dispensed matches the quantity on the prescription leaflet. D) If any of the dispensed medication's information does not match the information on the prescription leaflet remove the leaflet and medication from the bag and send it back to the RFP technician for correction. E) Verify that the medication is dispensed with a child resistant cap. If the leaflet indicates the patient's preference is SNAP cap, verify a SNAP cap is used. o Ensure the cap is securely fastened to prevent any leakage. F) If applicable, complete hardcopy documentation requirements per federal and state regulations.	
3. Complete Product Verification	A) Ensure all other required documentation is packaged with the prescription when indicated on the leaflet. o If a medication guide is required, ensure it is included in the bag. B) Using your clinical judgment, if you feel a consultation is necessary clearly write "See RPh" and the reason for the consultation on the front of the prescription leaflet. C) Place the verified sealed prescription bag in the green Ready Bin on the filling counter. o If the prescription is a refrigerated item, place in front of the green Ready Bin so the technician can file in the refrigerator. o When needed, pass the liquid stock bottle to the technician to be returned to the shelf. o Ensure the green ready bin is located on the filling counter in a location that is not patient facing and maintains the privacy and PHI of the ready prescriptions. D) Select the next prescription to perform product verification.	

From:	Megan Myers
To:	Funk, Andrew [IBPE]
Cc:	Jorgenson, Debbie [IBPE]
Subject:	FW: New Practice Model Phase 3
Date:	Tuesday, June 14, 2016 3:36:31 PM
Attachments:	NPM Phase 3 proposal - site 11.pdf NPM Phase 3 proposal - site 12.pdf

---

This contains sites 12 and 14

From: Megan Myers
Sent: Tuesday, June 14, 2016 3:01 PM
To: Funk, Andrew [IBPE] <Andrew.Funk@iowa.gov>
Cc: 'Jorgenson, Debbie [IBPE]' <Debbie.Jorgenson@iowa.gov>; Anthony Pudlo (apudlo@iarx.org) <apudlo@iarx.org>; Kate Gainer <kgainer@iarx.org>; Michael Andreski <Michael.Andreski@drake.edu>
Subject: New Practice Model Phase 3

Dear Andrew,

Thirteen NPM pharmacies are seeking approval to join NPM Phase 3. We would like to present their site specific proposals (need to send in multiple emails due to size of attachments) at the upcoming board meeting.

Similar to Phase 4, I have included the overall IPA document as background of our guiding principles for this pilot, and have highlighted what was changed based on board feedback in May. We continue to welcome feedback on this initiative.

Thank you!
Sincerely,
Megan

From:	Megan Myers
To:	Funk, Andrew [IBPE]
Cc:	Jorgenson, Debbie [IBPE]
Subject:	RE: New Practice Model Phase 3
Date:	Tuesday, June 14, 2016 3:37:06 PM

Sorry SITE 11 AND 12

From: Megan Myers
Sent: Tuesday, June 14, 2016 3:35 PM
To: Funk, Andrew [IBPE] <Andrew.Funk@iowa.gov>
Cc: 'Jorgenson, Debbie [IBPE]' <Debbie.Jorgenson@iowa.gov>
Subject: FW: New Practice Model Phase 3

This contains sites 12 and 14

From: Megan Myers
Sent: Tuesday, June 14, 2016 3:01 PM
To: Funk, Andrew [IBPE] <Andrew.Funk@iowa.gov>
Cc: 'Jorgenson, Debbie [IBPE]' <Debbie.Jorgenson@iowa.gov>; Anthony Pudlo (apudlo@iarx.org) <apudlo@iarx.org>; Kate Gainer <kgainer@iarx.org>; Michael Andreski <Michael.Andreski@drake.edu>
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Sincerely,
Megan

A Pharmacy Pilot or Demonstration Research Project for a

New Practice Model for Community Pharmacy

Phase 3

In Collaboration with the Iowa Pharmacy Association &
Drake University College of Pharmacy and Health Sciences

Site Specific Application for Hartig Drug #3

Primary Contact:

Emily Vyverberg
Pharmacist-In-Charge
Pharmacist License #21065
Hartig Drug #3
2255 JFK Road
Dubuque, IA 52002
Pharmacy License #767
563-588-8703 (phone)
563-588-8732 (fax)
Emily.vyverberg@gmail.com

Submitted to the Iowa Board of Pharmacy

June 30, 2016

BACKGROUND

Since 2009, members of Hartig Drug have been involved within IPA's New Practice Model Task Force (NPMTF). The NPMTF is a continuation of an unofficial working group that had been meeting throughout 2008. It had been charged with the creation and oversight of a pilot program to implement a new workflow and business model for community pharmacy. Since the initial work of the NPMTF, there have been other mechanisms that would help prove a successful impact of community pharmacist-provided medication management.

As a current participant of Phase II of the New Practice Model pilot, our site has demonstrated safety utilizing Tech-Check-Tech (TCT) for refilled prescriptions. Utilizing TCT has allowed growth of patient care services.

Our pharmacy has agreed to submit this application and collaborate on the specific aims of this pilot project, which include:

1. Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to Tech-Check-Tech programs in community pharmacies in Iowa on patient safety measures, and

2. Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to Tech-Check-Tech programs in community pharmacies in Iowa in facilitating the provision of community pharmacist-provided services.

NEW PRACTICE MODEL LEADERSHIP TEAM MEMBERS

Megan Myers, PharmD, will serve as Project Coordinator. She will oversee the project, conduct regular on-site visits with each site, coordinate the study activities, chair the regular team meetings, and lead the writing of the study reports to the Board of Pharmacy.

Michael Andreski, RPh, MBA, PhD, Associate Professor of Social and Administrative Pharmacy, Drake University College of Pharmacy and Health Sciences serve as research consultant and principal investigator, will participate in regular team meetings, and will participate in the writing of the study report.

T.J. Johnsrud, NuCara Health Management, Inc., will provide a pharmacy management perspective for coordinating the community pharmacy clinical services and Tech Check Tech programs within the community pharmacy sites. He will participate in regular team meetings.

Anthony Pudlo, PharmD, MBA, BCACP, Vice-President of Professional Affairs, and Kate Gainer, PharmD, Executive Vice President/CEO, Iowa Pharmacy Association will oversee coordination of clinical pharmacy services available to community pharmacy sites in this study.

PHARMACY SITE-SPECIFIC INFORMATION

Pharmacist-In-Charge:
Emily Vyverberg
License #21065
University of Iowa, 2009
Number of Years Licensed:6
Years at Site:4
Other certifications/training: immunizations, CPR

Staff Pharmacist:
Pam Stierman
License #17664
University of Iowa, 1991
Number of Years Liscensed: 24
Years at Site: 24
Other certifications/training: immunizations, CPR

Certified Pharmacy Technician:
Tammy Jensen
Registration # 19318 Certification #10032631
Elkhorn Area H.S., 1990
Number of Years Registered as Tech:1.5
Years at Site: 1.5
Other certifications/training

Certified Pharmacy Technician:
Shannon (Golick) Martensen
Registaration #17749 Certification #600107010303070
NICC AAS, 2009
Number of Years Registered as Tech:3
Years at Site:3
Other certifications/training:

See attached letters of commitment from each participant.

PROJECT SUMMARY

Participating pharmacies were identified to be New Practice Model (NPM) participant sites using criteria defined by the NPMTF. In the phase III NPM pharmacies, the pharmacist(s) will work collaboratively with prescribers and other care providers in their community to optimize the medication use process. This process may involve the appropriate choice of medication as the therapy modality, initial selection of appropriate therapy to minimize drug therapy problems, assisting the patient in the acquisition and use of the medication, appropriate monitoring and adjustment of the medication therapy, and withdrawal or changing of medication therapy as appropriate, among others. This ongoing effort is coordinated amongst providers, with the pharmacist actively engaged in the process.

Community pharmacies will enhance previously implemented "Tech-Check-Tech" programs to include new prescriptions and additional staff (pharmacist-interns) in order to further increase the availability of the community pharmacist for direct patient care. New prescriptions will include prescriptions for a medication that is new to the patient or renewed medication orders for previously established medication. Pharmacists will continue to have ultimate authority over the dispensing process in this model. However, that does not mean the pharmacist will have hands-on direct supervision over every non-judgmental aspects of dispensing medications. The pharmacist's time will be concentrated on those aspects of dispensing that require the expertise of the pharmacist to assure safe and accurate dispensing.

Following is a brief description of what this practice may look like:

- The pharmacist will be physically located on the premises of the pharmacy in an environment and location that is comfortable and efficient for direct patient interaction.

- The prescription department is staffed by nationally certified technicians or employed pharmacist-interns. The pharmacist-technician and pharmacist-pharmacist intern relationship will become more important as the pharmacist will rely on technology and the leadership of head technicians to maintain the highest safety to patients.

- The pharmacist will review accuracy of the order and appropriateness of therapy for all new prescriptions, as well as complete Drug Utilization Reviews (DURs) or other necessary clinical reviews tied to prescription dispensing for all prescriptions.

- Trained technicians or employed pharmacist-interns will make sure the medication and quantity is correct, it is billed accurately, and the correct patient receives the medication. These non-judgmental tasks of the prescription dispensing process can be entirely technician driven.

- The "final check" technician works closely with the pharmacist. This relationship is important as the pharmacist will often rely on the technician to request appropriate interaction and/or intervention. The "final check" technician has received advanced training. This standardized training was developed by the NPMTF in collaboration with the Iowa Pharmacy Association Foundation with approval by the Board of Pharmacy in 2014. The Board of Pharmacy ultimately approves each pharmacy site's involvement in this initiative.

- Medications excluded from tech-check-tech will include schedule II controlled substances, insulin products, warfarin, digoxin and compounded prescriptions due to

their narrow therapeutic index and/or heightened risk of causing significant harm when dispensed incorrectly. These medications shall be verified by the pharmacist.

- Medication counseling and responding to patient questions may be completed in association with the distribution of the medication to the patient, but it may also occur outside of dispensing. Pharmacists would be easily accessible to patients and more available for consultation with patients, prescribers and other care providers as an integral member of the team. Overall, this model will enable pharmacists to provide direct patient care services.

The medication distribution process will be under the control of a pharmacist, but only in that a pharmacist will be responsible for developing, implementing, and providing Continuous Quality Improvement for a system where the majority of activity will be completed by nationally-certified pharmacy technicians. Use of appropriate technologies (e.g., image verification, barcode scanning, filling machines) will be utilized when appropriate to assure the medication is made available to the patient. See Appendix B for current workflow map of pharmacy.

Board of Pharmacy Rules Waived

As part of the approved application of IPA and Drake University, our site will follow the waiver of three Board of Pharmacy regulations.

657—3.21(1) Technical dispensing functions. By waiving rule 657—3.21(1), the Board of Pharmacy would allow for a certified pharmacy technician to conduct final verification of the patient's prescription or medication order as is the current exception in an approved tech-check-tech program pursuant to 657—Chapter 40, as well as when the initial prescription or medication order is filled by a registered pharmacist-intern.

657—3.23(155A) Tasks a pharmacy technician shall not perform. By waiving rule 657—3.23(155A) specifically point number one, the Board of Pharmacy would allow for a certified pharmacy technician to provide the final verification of a filled prescription or medication order.

657—8.3 (4) Pharmacist-documented verification. By waiving rule 657—8.3(4), the Board of Pharmacy would remove the responsibility of the pharmacist to provide and document the final verification of the patient's prescription medication in order to pilot a tech-check-tech program in community practice settings.

Identification of Patients Needing MTM Services

Patients currently utilizing the community pharmacy will be provided the additional clinical pharmacy services that community pharmacies are available to provide. Patients who would be eligible for commercial and/or governmental MTM services will be identified through pharmacy records. If the patient is not a subscriber to insurance coverage providing payment for pharmacist provided MTM services, these services will be provided when possible. The community pharmacists will also work closely with their physicians in their community to identify key patients in the medical practice that would benefit from medication management services.

Services Provided by Pharmacy

Currently our pharmacy offers of variety of MTM services to patients who have been identified through their screening processes to receive them. These services include:

1. Patient services as identified by OutcomesMTM™ and Mirixa™.

2. Immunization services - Currently we provide annual influenza vaccines and other CDC recommended vaccines pursuant to a standing order.

3. Compliance packaging - Identify patients who may benefit from compliance blister packaging and provide appropriate adherence monitoring for those patients.

It is our goal to build upon these services while being part of this pilot project. During Phase II of the NPM, our pharmacy was able to fully manage a compliance blister packaging program, perform MTM services, and encourage immunizations pursuant to our standing order. In Phase III, we aim to:

1. Use our software to identify patients who may be non-adherent or have gaps in therapy. The patient interactions that result from this process will be documented in the OutcomesMTM™ platform.

2. Develop and implement a travel vaccination program.

3. Administer other injectable products including antipsychotic medications.

4. Provide follow up for patients initiating new drug therapy.

5. Establish a collaborative practice agreement with a new acute care clinic within near proximity.

METHODS

Measures

Aim 1: Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to a Tech-Check-Tech program in community pharmacies in Iowa on patient safety measures.

For the assessment of this Aim, information will be gathered to ensure dispensing accuracy of new prescriptions. Each pharmacy will act as its own control, with baseline measurement of dispensing errors being determined for 50 new prescriptions per day, on days when TCT for refills is being done, for 15 weekdays before initiation of the Tech-Check-Tech procedures for new prescriptions. For the first week after the new procedures have been initiated, the pharmacist will double check all technician-verified prescriptions to ensure accuracy and to gather information on the efficacy of the procedures. If the error rate is equal to or lesser than the baseline measurement, 30-50 new prescriptions as well as 30-50 refill per month will be double checked for errors and those measurements recorded for the reminder of the project. If the error rate is greater than baseline measurement, additional training will be given and procedures reviewed, after which a second assessment will be performed. Length of any second assessment will be determined by the researcher. The research consultant will review these results on an ongoing basis and quarterly reports made to the Board of Pharmacy as necessary during the 18 month study period.

Aim 2: Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to a Tech-Check-Tech program in community pharmacies in Iowa and in facilitating the provision of community pharmacist-provided medication therapy management.

For the assessment of this Aim, information will be gathered regarding the amount of pharmacist time that is made available for other duties as a result of the implementing Tech-Check-Tech for new prescriptions and utilizing pharmacist-interns for TCT on the provision of MTM services by the pharmacist(s) at the subject pharmacies. Each pharmacy will again act as its own control, with baseline measurements consisting of the last quarter of results from the previous pilot program of Tech-Check-Tech for refill prescriptions. The primary data sources will be self-reported pharmacist daily activity logs and numbers of both compensated and identified opportunities for MTM and other patient care services. Once the Tech-Check-Tech procedures for new prescriptions have been initiated and are performing adequately as defined above, the pharmacist(s) at the participating pharmacies will begin to focus on increasing the amount of MTM services provided.

Other Measures:

Job Satisfaction Survey

A job satisfaction survey will be conducted prior to, and one year after implementation of utilizing TCT for new prescriptions. All technicians, pharmacists and employed pharmacist-interns will be asked to complete the survey.

Amount of time spent utilizing TCT (# of TCT days)

The amount of time utilizing TCT will continue to be monitored and will be compared to the previous pilot in order to determine whether or not allowing technicians the ability to check prescriptions filled by employed pharmacist-interns impacted the ability to use TCT.

Analysis

Error rates during the 18 month study period will be compared to those found at baseline by means of Chi-squared testing and matched samples t-tests. Specific errors tracked will include wrong drug, wrong strength, wrong quantity, and wrong cap (safety-cap vs. non-safety cap). Comparisons of pharmacist task composition will be compared to those found at baseline by means of Chi-squared testing matched samples t-tests. The services provided data gathered during the study period will be compared to those found at baseline in terms of the overall number of services provided.

STUDY PARTNERS

Drake University

Drake University will oversee the research component of this project, by working with the pharmacy partners to assure that study activities are conducted in a timely and coordinated manner. Dr. Andreski will design data collection procedures, supervise data collection, manage and analyze study data, and assist in writing the study reports.

Iowa Pharmacy Association

The Iowa Pharmacy Association (IPA) will assist in preparing the community pharmacy sites to deliver the MTM services. They have experience in helping pharmacy practices adjust to providing services such as MTM. IPA will help the practices adjust staffing, workflow, and service delivery issues with the participating community pharmacies

Local Community Pharmacies in the New Practice Model Initiative
Community pharmacies across the state of Iowa will initially participate in the study by working to transform their current patient care delivery model to enhance their Tech-Check-Tech program and further engage pharmacists in clinical programs that follow the JCPP's Pharmacists' Patient Care Process to improve patient safety and provide enhanced patient care. Pharmacists in these pharmacies will deliver the clinical services as described in this study proposal and subsequent service descriptions.

PROJECT TIMELINE

Month 1-2	Project start-up; Baseline data collection; transition workflow to include TCT for new medications
Month 2 -3	Community pharmacies begin enhanced Tech-Check-Tech programs; pharmacists engage in collaborative practice agreements for patient care delivery
Month 18	Pilot project authority expires for Tech-Check-Tech
Month 18-19	Data analyses and report writing

Appendix A
Pharmacy Site #11

Tech check Tech:

- Physical layout/one large walled area in our store with designated drop off and pick up areas with a drive thru and private consultation room, conducive to:
  - Direct technician supervision
  - Questions from techs
  - Follow-up from pharmacists
  - Direct observation of work flow
  - Private consultation room for one-on-one pharmacist-patient consults/vaccinations

- Staffing:
  - Just over a 1:3 Pharmacist/Tech Ratio
  - Experienced Pharmacists

- Existing Clinical

  - Have initiated vaccination services that we wish **to continue**
    - Currently providing annual influenza vaccines and other CDC recommended vaccines pursuant to a standing order
    - We wish to expand our immunization services by utilizing our pharmacy software to identify patients who are in need of additional vaccines

  - Have initiated MTM services that we wish **to continue**
    - Using our software we will identify patients who may be non-adherent or have gaps in therapy. The patient interactions that result from this process will be documented in the OutcomesMTM™ platform.

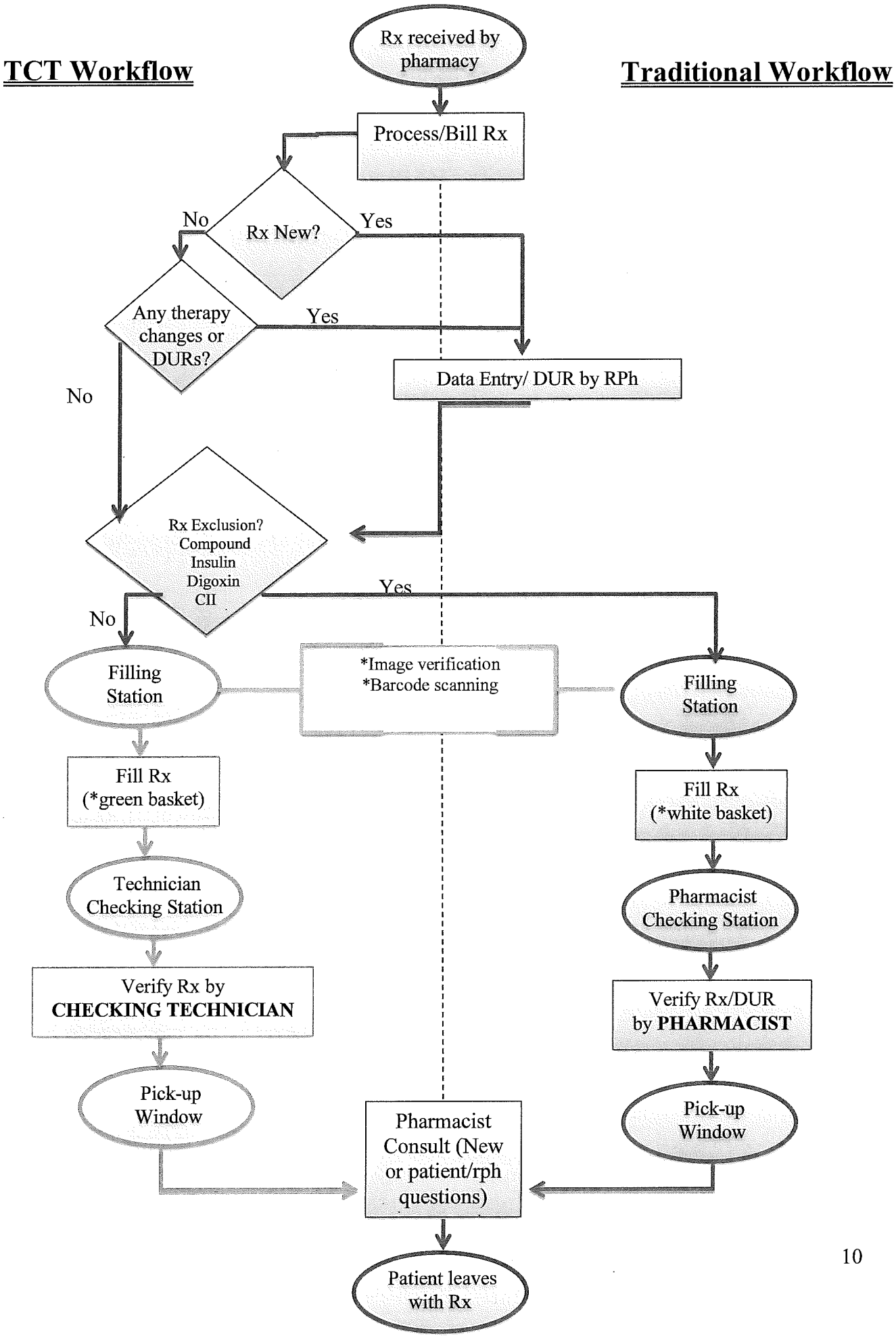
- The pharmacists have shared input on developing this proposal, and will continue to be engaged on training and supporting the technicians.

- Our technicians have actively embraced this opportunity to further their careers and be even more actively involved in serving our patients.

Hartig Drug is a 16 store community based regional pharmacy chain, supplying pharmacy services in 3 states. We operate 2 closed door long term care pharmacies and we supply all pharmacy services for 2 hospitals.

Hartig Drug – Here for Life!

Appendix B


TCT Workflow
Traditional Workflow
Rx received by pharmacy
Process/Bill Rx
Rx New?
No
Yes
Any therapy changes or DURs?
Yes
No
Data Entry/ DUR by RPh
Rx Exclusion?
Compound
Insulin
Digoxin
CII
Yes
No
Filling Station
*Image verification
*Barcode scanning
Filling Station
Fill Rx (*green basket)
Fill Rx (*white basket)
Technician Checking Station
Pharmacist Checking Station
Verify Rx by CHECKING TECHNICIAN
Verify Rx/DUR by PHARMACIST
Pick-up Window
Pick-up Window
Pharmacist Consult (New or patient/rph questions)
Patient leaves with Rx

While Hartig Drug does not currently utilize a pharmacy workflow system that allows the pharmacist to view and approve DURs prior to filling, prior to introduction of Phase III at our pharmacy, our current software vendor will have in place a system for our pharmacists to perform prospective DUR that will follow the workflow below.

1. Both new and refill prescriptions will enter a data entry queue. In this queue, the data entry technician will input and bill prescriptions for processing. Once complete the prescription will be placed into prescription verification (PV1) queue.
2. In the prescription verificiation (PV1) queue, the pharmacist will verify information was entered correctly by technician. At this stage, the pharmacist will also perform DUR to evaluate potential interactions, therapy duplication, and to identify therapy changes. Once completed, the prescription will move to the Rx filling queue.
    a. If the pharmacist discovers a potential DUR issue, they have the ability to move the prescription to a hold queue, until a pharmacist has resolved the issue. Once released, the prescription will enter the filling queue, and resume the path through workflow.
    b. Prescriptions that are saved as "file only" will be placed in a separate queue for the pharmacist to evaluate and verify.
    c. The pharmacist will also have the ability to mark a prescription with "counseling notes" and to note that the patient requires counseling.
3. At this stage, the technician will fill the prescription and utilize barcode scanning to identify that they have used the correct product. The prescription will then be sent to a second prescription verification queue (PV2).
4. In the second verification queue (PV2), the checking technician or pharmacist will then verify the product for accuracy before the prescription is sent to the will call queue, to let the patient know that their prescription is ready.

Appendix C

Certified Pharmacy Technician Training
Requirements & Checklist

Pharmacy Staff Training Requirements

Technician Utilization & Authorized Checking Functions

Each technician specifically authorized to participate in TCT at the participating pharmacy will be identified in their personnel file and an added designation to their posted registrations. A certified pharmacy technician authorized to participate in TCT will be trained in and maintain all the duties, activities, and work of registered and certified technicians. Additionally the Checking Technician may be allowed to check medication orders filled by other certified technicians, limited to the following patient care situations:

- Refill medications, in which DUR has already occurred by a pharmacist
- New medications, in which DUR and data entry review has already occurred by a pharmacist

Each technician certified to check will have documented training and evaluation of necessary training. Each pharmacy location will determine examples of medications that will NOT be checked by technicians. This could include:

- Controlled substances,
- Compounded medications, and
- Others as designated by PIC or staff pharmacists.

"Filling" Technician or Pharmacist-Intern

- Certified technicians filling prescriptions for the TCT program must be nationally certified and passed an audit of accurately filling prescriptions as established by a site's policy and procedures.
- Employed student interns must have at least 300 hours of experience working as a technician or intern, and at least 100 of the 300 hours must be at the current TCT location. Interns must pass an audit of accurately filling prescriptions as established by a site's policy and procedures.

"Checking" Technician Participation & Training

All of the following shall apply to a certified pharmacy technician authorized to be a "Checking Technician" at the participating pharmacy:

- National Certification: current and in good standing
- Iowa Registration: current and in good standing, and not currently subject to disciplinary charges or sanctions.
- Prior Experience: The checking technician shall work at the participating pharmacy full or part time and:
    a) Shall have at least 1,000 hours prior technician work experience at the TCT site and at least 1,000 hours of prior technician work experience at the current or previous pharmacy, successfully complete their necessary location-specific training, and then complete the TCT training (see below).
    b) If the technician has no prior technician work experience in a pharmacy, they shall work at least 2,000 hours at the pharmacy and successfully complete their necessary location-specific training, and then complete the TCT training (see below).

IPA/CEI Tech-Check-Tech CPE Modules

If a pharmacy will be implementing a Tech-Check-Tech program, the certified pharmacy technicians, pharmacist-interns and the pharmacists, shall receive specialized and advanced training as provided in policies and procedures, including training in the prevention, identification, and classification of medication errors. The training program for a certified pharmacy technician shall be didactic in nature and shall include successful completion (80%) of a competency test for each module.

- Pharmacists will be required to complete the first two modules listed, filling technicians and pharmacist-interns will complete the first three modules listed, and checking technicians will complete all the modules listed.
    a. Thinking about Tech-Check-Tech?
        i. State the need in the profession for a technician-managed distribution process
        ii. Describe the opportunities for pharmacists to provide clinical services
        iii. Review current regulations that govern Tech-Check-Tech programs
        iv. Review the principles of ASHP's New Practice Model Initiative and an example of state implementation
        v. Illustrate the case to pharmacy staff, upper management, and the Board of Pharmacy
    b. Tech-Check-Tech: A Step-by-Step Guide for Outpatient Pharmacy
        i. Illustrate the case to pharmacy staff, management, and Board of Pharmacy for Tech-Check-Tech
        ii. Recognize the steps needed to prepare and implement a Tech-Check-Tech program
        iii. Outline how a pharmacy monitors for quality assurance in a Tech-Check-Tech program
        iv. Formulate a sample job description for a pharmacy technician engaged in a Tech-Check-Tech program
        v. Review liability issues in a Tech-Check-Tech program
    c. Accuracy in the Outpatient Pharmacy: Preventing, Identifying and Classifying Medication Errors
        i. Recognize and classify common medication errors
        ii. Recognize the causes of medication errors
        iii. List ways to prevent medication errors
        iv. Recognize the importance of continuous quality improvement (CQI) in the pharmacy distribution process
        v. Describe the technician's role in CQI in the pharmacy
    d. Dosage Forms
        i. Identify the most common medication dosage forms
        ii. Describe the advantages and disadvantages of different medication dosage forms
        iii. Recognize the different routes of administration and the advantages of each
        iv. List ways to recognize and prevent dosage form dispensing errors
    e. Calculations Review
        i. Describe examples of common systems of measurement
        ii. Demonstrate the ability to convert units of measurement
        iii. Appropriately calculate the day's supply from a prescription order

iv. Use percentages, ratios, and proportions to make accurate pharmaceutical calculations using mathematical skills reviewed in the activity
v. Solve common pharmacy calculations using mathematical skills reviewed in this activity
vi. Master specific math functions appropriate to practice setting

f. Advanced Review of Common Medications
i. Group medications by pathophysiologic class using established stems (prefixes, infixes, & suffixes)
ii. List common adverse effects and drug interactions
iii. List common adherence challenges
iv. Distinguish medications with similar generic names
v. Recognize medications with multiple formulations

Responsible Individual

The "Pharmacist in Charge" or Pharmacy Manager at each participating pharmacy shall be ultimately responsible for the TCT program activities (unless otherwise noted). The PIC will be responsible for meeting TCT program training and validation requirements. The PIC will designate the staff pharmacists to supervise the activities of Checking Technicians. The entire staff, pharmacists and technicians, will be involved in collection of data for the program evaluation on a regular basis, reporting information to the PIC for analysis.

Staffing

Pharmacy staffing shall be adequate to ensure consistent and safe implementation and usage of the TCT program and will optimize pharmacist patient care services, which will have data collected and analyzed through the pharmacy's existing CQI process with variations as requested or demeaned necessary by the research team.

Records

The pharmacist in charge shall maintain in the pharmacy department records for each certified pharmacy technician authorized by the pharmacist in charge or responsible pharmacist to participate in the TCT program. The records shall be available for inspection and copying by the Board or its representatives and any other authorized agencies for two years beyond the term of the certified pharmacy technician's employment. The record summary (Technician Function Levels) shall include:

a. The name of the certified pharmacy technician.

b. The date the certified pharmacy technician completed the standardized training and site-specific evaluation for participation in the TCT program.

c. The date the certified pharmacy technician was authorized to participate in the TCT program and the specific TCT program functions and tasks the certified pharmacy technician is authorized to perform.

d. When the certified pharmacy technician is authorized to check the work of other certified pharmacy technicians, the date the checking technician completed the specialized and advanced training.

e. The dates and results of all competency evaluations.

f. The dates of and reasons for any suspension or revocation of the certified pharmacy technician's TCT program authorization, identification of corrective action or retraining completed, and date of subsequent reinstatement of the certified pharmacy technician's TCT program authorization.

g. The dates of and reasons for any disciplinary action taken against the certified pharmacy technician in connection with the certified pharmacy technician's performance of duties relating

to the TCT program.

Evaluation of Program and Technicians:
Technician filling and checking responsibilities will be monitored daily. Errors will be documented for both filling and checking, and review of all errors will also be documented on this sheet by the PIC or responsible staff pharmacist. These sheets will be collected and data entered for bi-weekly review. The records will be maintained in the pharmacy for a minimum of two years.

The implementation of the TCT program shall result in the redirection of pharmacists from distributive tasks to cognitive and patient care activities. The participating pharmacy will document these clinical activities and will collect and maintain these records for no less than two years following the date of the record. These records shall be updated at least semiannually.

1. The PIC shall conduct continuous monitoring and evaluation of each Checking Technician to ensure the continued competency of the TCT program and the safety of the patients. Errors will be identified and records maintained following the pharmacy's quality measures, including variance tracking and reports, event analysis, follow up and education.
2. Specific evaluation of the TCT program will incorporate three measures:
    a. **Filling**: Review of errors identified by a Checking Technician or Pharmacist. The responsible staff pharmacist shall review with all certified pharmacy technicians involved with any errors identified during the evaluation of the filling process and shall discuss procedure and document the review on the daily monitoring sheet to ensure the errors are not repeated.
    b. **Checking**: Periodic review and checking by the pharmacist of work checked (monthly to quarterly as designated) by the Checking Technician and identification and documentation of all errors not identified and corrected by the checking technician and shall discuss procedure and document the review on the daily monitoring sheet to ensure the errors are not repeated.
    c. **Review of errors** identified following release by Checking Technician or Pharmacist. The responsible staff pharmacist shall receive, evaluate, and review with all certified pharmacy technicians involved with any errors identified by a health care professional, a patient, or any individual following release of a drug by the checking technician. All such errors will be documented on the daily form AND recorded via the pharmacy's CQI program.
3. Periodic review and monitoring will be recorded on our Ongoing TCT Competency Evaluation Record.
4. Benchmarks will be identified by compiling and evaluating of the Technician QA Monitoring Daily Reports. Bi-weekly reports will be used to evaluate ongoing competencies, identify possible system modifications, provide data for continuing site specific education, and to establish need for any retraining.
5. Retraining will occur when a Technician or Checking Technician has an error rate significantly above the average for participating pharmacy's technicians. Error rate "outliers" will be determined by an excessive error rate in filling or checking over two consecutive bi-weekly periods OR if the technician's cumulative error rate significantly exceeds the average cumulative error rate. During the retraining period (of not less than two bi-weekly periods) a technician's work will be checked by a pharmacist – nor will the technician be allowed to check other technicians. Retraining will consist of a repeat competency evaluation in the area/s where excessive errors have occurred and potential repeat of didactic modules as appropriate. The PIC, with the input of staff pharmacists, will determine which sections, or all, of the training modules must be repeated.

Letter of Commitment by Pharmacy Owner or Regional Supervisor

I understand that my role as a New Practice Model Participating Pharmacist is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, David Scofield, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer my expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month. Those pharmacies who are unable to meet this standard will be reviewed quarterly for assessment of continuation in the pilot study.
- Provide adequate staffing as required to support the New Practice Model procedures. Those pharmacies who are unable to implement the procedures at least 60% of the time will be reviewed quarterly for assessment of continuation in the pilot study.
- Actively participate in all requests for my assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed _____ Date 5/19/16

Title Director of Pharmacy

Letter of Commitment by Pharmacy Owner or Regional Supervisor

I understand that my role as a New Practice Model Participating Pharmacist is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Aaron Vanderwillen, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer my expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month. Those pharmacies who are unable to meet this standard will be reviewed quarterly for assessment of continuation in the pilot study.
- Provide adequate staffing as required to support the New Practice Model procedures. Those pharmacies who are unable to implement the procedures at least 60% of the time will be reviewed quarterly for assessment of continuation in the pilot study.
- Actively participate in all requests for my assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed _____ Date 5/9/16

Title Director of Pharmacy

Letter of Commitment by Licensed Pharmacist

I understand that my role as a New Practice Model Participating Pharmacist is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Emily Uppendahl, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer my expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for my assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed Emily Uppendahl Date 5/20/16

Title Pharmacist

Letter of Commitment by Licensed Pharmacist

I understand that my role as a New Practice Model Participating Pharmacist is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Pamela A. Stierman, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer my expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for my assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed _____ Date 5-20-16

Title RPh

Letter of Commitment by Licensed Pharmacist

I understand that my role as a New Practice Model Participating Pharmacist is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Joyce Meyer, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer my expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for my assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed Joyce Meyer Date 5-20-16

Title Pharmacist

Letter of Commitment by Certified Pharmacy Technician

I understand that my role as a New Practice Model Participating Pharmacy Technician is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Tammy Jensen, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer our expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for our assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed Tammy Jensen Date 6-8-16

Title Pharmacy Technician

Letter of Commitment by Certified Pharmacy Technician

I understand that my role as a New Practice Model Participating Pharmacy Technician is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, _____, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer our expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for our assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed _____ Date 6-8-16

Title _____

Letter of Commitment by Certified Pharmacy Technician

I understand that my role as a New Practice Model Participating Pharmacy Technician is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Trudy Reiter, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer our expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for our assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed Trudy Reiter Date 6-8-16

Title Cpt

A Pharmacy Pilot or Demonstration Research Project for a

New Practice Model for Community Pharmacy

Phase 3

In Collaboration with the Iowa Pharmacy Association &
Drake University College of Pharmacy and Health Sciences

Site Specific Application for Main at Locust

Primary Contact:

Lisa Ploehn
Pharmacist-In-Charge
Pharmacist License #16831
Main at Locust
129 W. Locust St.
Davenport, IA 52803
Pharmacy License #774
563-324-1641 (phone)
564-884-4480 (fax)
lisaploehn1@me.com

Submitted to the Iowa Board of Pharmacy

June 30, 2016

BACKGROUND

Since 2009, members of Main at Locust Pharmacy have been involved within IPA's New Practice Model Task Force (NPMTF). The NPMTF is a continuation of an unofficial working group that had been meeting throughout 2008. It had been charged with the creation and oversight of a pilot program to implement a new workflow and business model for community pharmacy. Since the initial work of the NPMTF, there have been other mechanisms that would help prove a successful impact of community pharmacist-provided medication management.

As a current participant of Phase II of the New Practice Model pilot, our site has demonstrated safety utilizing Tech-Check-Tech (TCT) for refilled prescriptions. Utilizing TCT has allowed better organization and growth of patient care services including adding pharmacogenetic testing, and CPAP training to our clinic services. We have also increased our enrollment in our "Simplify My Meds" Program.

Our pharmacy has agreed to submit this application and collaborate on the specific aims of this pilot project, which include:

1. Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to Tech-Check-Tech programs in community pharmacies in Iowa on patient safety measures, and

2. Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to Tech-Check-Tech programs in community pharmacies in Iowa in facilitating the provision of community pharmacist-provided services.

NEW PRACTICE MODEL LEADERSHIP TEAM MEMBERS

Megan Myers, PharmD, will serve as Project Coordinator. She will oversee the project, conduct regular on-site visits with each site, coordinate the study activities, chair the regular team meetings, and lead the writing of the study reports to the Board of Pharmacy.

Michael Andreski, RPh, MBA, PhD, Associate Professor of Social and Administrative Pharmacy, Drake University College of Pharmacy and Health Sciences serve as research consultant and principal investigator, will participate in regular team meetings, and will participate in the writing of the study report.

T.J. Johnsrud, NuCara Health Management, Inc., will provide a pharmacy management perspective for coordinating the community pharmacy clinical services and Tech Check Tech programs within the community pharmacy sites. He will participate in regular team meetings.

Anthony Pudlo, PharmD, MBA, BCACP, Vice-President of Professional Affairs, and Kate Gainer, PharmD, Executive Vice President/CEO, Iowa Pharmacy Association will oversee coordination of clinical pharmacy services available to community pharmacy sites in this study.

PHARMACY SITE-SPECIFIC INFORMATION

Pharmacist-In-Charge:
Lisa Ploehn
License #16831
University of Nebraska College of Pharmacy, Year of Graduation 1980
Number of Years Licensed: 36
Years at Site: 28
Other certifications/training: Immunization training, CPR, PCCA Basic Compounding practices, ICPC, Rxright Training

Staff Pharmacist:
Kaye Wright
License #15700
Drake University, Year of Graduation 1980
Number of Years Licensed: 36
Years at Site: 26
Other certifications/training: Immunization Training, PCCA Basic Compounding practices, ICPC, CPR

Staff Pharmacist:
Lisa Garner
License #19366
University of Iowa College of Pharmacy, Year of Graduation 2000
Number of Years Licensed: 16
Years at Site: 16
Other certifications/training: Immunization training, CPR

Certified Pharmacy Technician:
Cindy Wardrip
Registration #12522
Certification #0903205
Highest Level of Education-14, Year of Graduation 1994
Number of Years Registered as Tech: 9
Years at Site 17
Other certifications/training: CPR

Certified Pharmacy Technician:
Mary Vaughn
Registration # 1491
Certification #050105128155747
Highest Level of Education-12, Year of Graduation 1971
Number of Years Registered as Tech: 18
Years at Site: 23
Other certifications/training:

Certified Pharmacy Technician:
Darla English
Registration #9126
Certification #380101061156298
Highest Level of Education-12, Year of Graduation 1977
Number of Years Registered as Tech: 12
Years at Site: 12
Other certifications/training: CPR, Black Hawk Technician Training Course

Certified Pharmacy Technician:
Kelly Dunn
Registration # 5347
Certification #380101061160010
Highest Level of Education-12, Year of Graduation 1981
Number of Years Registered as Tech: 20
Years at Site:16
Other certifications/training: Black Hawk Technician Training Course

Certified Pharmacy Technician:
Sharon Weber
Registration # 6163
Certification #380101061159915
Highest Level of Education-12, Year of Graduation 1984
Number of Years Registered as Tech: 9
Years at Site:13
Other certifications/training: CPR, CMF, Black Hawk Technician Training Course

See attached letters of commitment from each participant listed.

PROJECT SUMMARY

Participating pharmacies were identified to be New Practice Model (NPM) participant sites using criteria defined by the NPMTF. In the phase III NPM pharmacies, the pharmacist(s) will work collaboratively with prescribers and other care providers in their community to optimize the medication use process. This process may involve the appropriate choice of medication as the therapy modality, initial selection of appropriate therapy to minimize drug therapy problems, assisting the patient in the acquisition and use of the medication, appropriate monitoring and adjustment of the medication therapy, and withdrawal or changing of medication therapy as appropriate, among others. This ongoing effort is coordinated amongst providers, with the pharmacist actively engaged in the process.

Community pharmacies will enhance previously implemented "Tech-Check-Tech" programs to include new prescriptions and additional staff (pharmacist-interns) in order to further increase the availability of the community pharmacist for direct patient care. New prescriptions will include prescriptions for a medication that is new to the patient or renewed medication orders for previously established medication. Pharmacists will continue to have ultimate authority over the dispensing process in this model. However, that does not mean the pharmacist will have hands-on direct supervision over every non-judgmental aspects of dispensing medications. The pharmacist's time will be concentrated on those aspects of dispensing that require the expertise of the pharmacist to assure safe and accurate dispensing.

Following is a detailed description of what our practice will look like:

- The pharmacist will be physically located on the premises of the pharmacy in an environment and location that is comfortable and efficient for direct patient interaction. Adjacent to the dispensing area of the pharmacy are a semi-private clinic area and a private room in which MTM and clinic services can be provided. With this set-up the technicians will have access to the pharmacist at all times but patients will be provided an area in which personal health information can be discussed in a confidential manner.

- The pharmacy department is fully staffed by certified technicians. The pharmacist-technician relationship will become more important as the pharmacist will rely on optimization of existing technologies and the leadership of experienced technicians to maintain the highest safety to patients.

- The pharmacist will review accuracy of the order and appropriateness of therapy for all new prescriptions, as well as complete Drug Utilization Reviews (DURs) or other necessary clinical reviews tied to prescription dispensing for all prescriptions.

- Trained technicians or employed pharmacist-interns will make sure the medication and quantity is correct, it is billed accurately, and the correct patient receives the medication. These non-judgmental tasks of the prescription dispensing process can be entirely technician driven.

- The "final check" technician works closely with the pharmacist. This relationship is important as the pharmacist will often rely on the technician to request appropriate interaction and/or intervention. The "final check" technician has received advanced training. This standardized training was developed by the NPMTF in collaboration with the Iowa Pharmacy Association Foundation with approval by the Board of Pharmacy in 2014. The Board of Pharmacy ultimately approves each pharmacy site's involvement in this initiative.

- After the final check by a technician the pharmacist will perform a patient profile review to identify MTM opportunities, immunization needs and clinic services that may be offered to the patient.

- Medication counseling and responding to patient questions may be completed in association with the distribution of the medication to the patient, but it may also occur outside of dispensing. Pharmacists would be available for consultation with patients, prescribers and other care providers as an integral member of the team.

The medication distribution process will be under the control of a pharmacist, but only in that a pharmacist will be responsible for developing, implementing, and providing Continuous Quality Improvement for a system where the majority of activity will be completed by nationally-certified pharmacy technicians. Use of appropriate technologies (e.g., image verification, barcode scanning, filling machines) will be utilized when appropriate to assure the medication is made available to the patient. See Appendix B for workflow map of pharmacy with TCT implementation.

Board of Pharmacy Rules Waived

As part of the approved application of IPA and Drake University, our site will follow the waiver of three Board of Pharmacy regulations.

657—3.21(1) Technical dispensing functions. By waiving rule 657—3.21(1), the Board of Pharmacy would allow for a certified pharmacy technician to conduct final verification of the patient's prescription or medication order as is the current exception in an approved tech-check-tech program pursuant to 657—Chapter 40, as well as when the initial prescription or medication order is filled by a registered pharmacist-intern.

657—3.23(155A) Tasks a pharmacy technician shall not perform. By waiving rule 657—3.23(155A) specifically point number one, the Board of Pharmacy would allow for a certified pharmacy technician to provide the final verification of a filled prescription or medication order.

657—8.3 (4) Pharmacist-documented verification. By waiving rule 657—8.3(4), the Board of Pharmacy would remove the responsibility of the pharmacist to provide and document the final verification of the patient's prescription medication in order to pilot a tech-check-tech program in community practice settings.

Identification of Patients Needing MTM Services

Patients currently utilizing Main at Locust Pharmacy have been provided the additional clinical pharmacy services that community pharmacies and pharmacists are able to provide. Patients who would be eligible for commercial and/or governmental MTM services will be identified through pharmacy records. If the patient is not a subscriber to insurance coverage providing payment for pharmacist provided MTM services, these services will be provided when possible. Main at Locust plans to increase promotion for MTM services for patients whose insurance company does not provide this service. The pharmacist will work closely with the patient's physician to make evidence-based recommendations to improve patient care. Some interventions we may utilize to provide additional care to patients are:

1) Patients receiving new prescriptions for long-term therapy with glucocorticoids should be educated on the risks for osteoporosis, lifestyle modifications for prevention and about adequate Vitamin D and calcium intake. Baseline bone mineral density could also be measured to guide future therapy choices.

2) Patients receiving hormone replacement therapy should be educated on the risks for osteoporosis, lifestyle modifications for prevention and about adequate Vitamin D and calcium intake. Baseline bone mineral density could also be measured to guide future therapy choices.

3) Patients receiving anti-hypertensives should be educated about goal blood pressure and offered monitoring with each prescription refill (and more frequently if appropriate). Evidence-based recommendations regarding therapy will be made to physicians if appropriate in each patient case.

4) Patients with coronary artery disease should be identified and educated about lifestyle modifications to address their modifiable risk factors for atherosclerotic cardiovascular disease (ASCVD). The pharmacist will calculate the patient's ASCVD risk and make evidence-based recommendations to the physician regarding statin therapy when

appropriate. The pharmacist will identify the need for and recommend daily aspirin therapy when appropriate and will also offer lipid monitoring.

5) Patients with diabetes will be educated about goal hemoglobin A1c, goal blood pressure, lipids and appropriate stain therapy. The pharmacist will identify the need for and recommend daily aspirin therapy when appropriate and will also offer blood glucose checks, HBA1c and lipid monitoring at appropriate intervals. Patients being initiated on insulin will receive extensive counseling and follow-up. Evidence-based recommendations will be made to physicians if necessary and appropriate.

6) Patients using ACE inhibitors for heart failure should be identified and at minimum target doses of ace inhibitors should be achieved. Evidence-based recommendations will be made to physicians if necessary and appropriate.

7) Patients using albuterol inhalers excessively (e.g. >2 times per week) should be identified and offered education. Evidence-based recommendations will be made to physicians about controller therapy if necessary and appropriate.

8) Patients using abortive therapy for migraines excessively should be identified and educated about prophylactic medications. Evidence-based recommendation will be made to physicians if necessary and appropriate.

9) Patients who are initiated on or are identified to have been on long-term proton-pump inhibitor therapy should be identified and educated about the risk vs. benefit for this therapy. The need for long-term therapy will be assessed (i.e. appropriate diagnosis) and evidence-based recommendations will be made to physicians if necessary and appropriate.

10) Patients who are initiated on opioid therapy should be identified as candidates for a bowel regimen. Pharmacists will educate about pharmacologic options and lifestyle modifications to prevent constipation. Evidence-based recommendations will be made to physicians if necessary and appropriate.

11) Patients on medications for which drug levels (i.e. digoxin, lithium, phenytoin) or certain labs (TSH, LFTs) should be obtained infrequently or at specific intervals should be identified. Pharmacists will determine if patients are due for levels or labs and notify the physician with this recommendation. Pharmacists will document the lab and date and will also make evidence-based recommendations for therapy adjustment to the physicians if necessary and appropriate.

Services Provided by Pharmacy
Currently our pharmacy offers a variety of MTM services to patients who have been identified through screening processes to receive them. These services include:

1. MTM as described in the *Core Elements of MTM Service Model* document produced as a joint initiative of the American Pharmacists Association and the NACDS Foundation[1]
    a. Pharmaceutical Case Management (Iowa Medicaid) (currently have no cases since they went to managed care)
    b. Outcomes MTM
    c. Mirixa

2. Immunization services

    a. Utilize the current Recommended Adult Immunization Schedule and Recommended Immunization Schedule for Children and Adolescents and the Iowa Immunization Registry Information System to identify patients needing immunizations. Provide all ACIP recommended immunizations for patients age 6 and older per collaborative practice protocol.

    b. Travel Health vaccines and preventative medications given per collaborative practice protocol and information specific to travel location

3. Clinical screenings and disease state monitoring

    a. Cholesterol testing, including Total Cholesterol, LDL cholesterol, HDL cholesterol, Triglycerides, Non-Hdl Cholesterol, Cholesterol Ratio.
    b. Diabetic Services, including Blood Glucose Testing, Hemoglobin A1c testing, Diabetic Shoes, Consultation and Follow-up
    c. Hormone testing
    d. Skin Analysis through DermaView
    e. Bone Density
    f. INR testing for Warfarin
    g. Body Fat Percentage
    h. Blood pressure screenings
    i. Basal Metabolic Rate testing through BodyGem
    j. Mantoux Tuberculosis Skin Test
    k. Adherence Program - Simplify My Meds Program
    l. Rxright pharmacogenetic testing
    m. CPAP training
    n. Hospital Discharge Review (finalizing the program)

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[1] American Pharmacists Association, National Association of Chain Drug Stores Foundation. *Medication Therapy Management in Pharmacy Practice: Core Elements of MTM Service Model.* Washington, DC: American Pharmacists Association; March 2008.

It is our goal to build upon these services while being part of this pilot project. We aim to provide:

1. Adherence Program – Simplify My Meds Program

    a. Continue to improve upon enrollment in this program. During the current phase, we saw a 60% increase in enrollment of patients in this adherence program.

2. MTM as described in the *Core Elements of MTM Service Model* document produced as a joint initiative of the American Pharmacists Association and the NACDS Foundation[2]

    a. Identify other commercial insurers who provide MTM as a benefit to their patients and enroll in their MTM program
    b. Promote the value and benefits of MTM for patients who do not receive it as a benefit of their commercial insurance
    c. Utilize iMedicare to improve star ratings through identification of patients on high risk medications and in need of antiplatelet or statin therapies

3. Immunization services including travel health information and vaccines

    a. Improve immunization rates using IRIS and our pharmacy records to screen patients when in pharmacy for OTC and Rx medications and medical supplies – we utilize IRIS daily when evaluating patients for their immunization status.

4. Clinical screenings and disease state monitoring including

    a. Obtain the American Diabetes Association Certification for diabetes training and improve diabetes teaching services
    b. Improve cholesterol medication adherence and diabetes medication adherence through patient chart review and patient education in order to improve Star Ratings. We have been actively utilizing I-Medicare and profile reviews to identify these patients.
    c. Implement robust wound care program

5. Pharmacogenetic Testing and Counseling

    a. Implement and promote this service in our pharmacy clinic. We have finished training on testing and appropriate counseling, and are now finalizing the service. We will begin marketing for this service in the near future

6. Hospital Discharge Review - Transition of Care Counseling

    a. Identify pharmacy patients with recent hospitalization

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[2] American Pharmacists Association, National Association of Chain Drug Stores Foundation. *Medication Therapy Management in Pharmacy Practice: Core Elements of MTM Service Model*. Washington, DC: American Pharmacists Association; March 2008.

b. Implement a program to review patient's medications post-discharge with a focus on smooth transitions of care. We have developed a review checklist and will implement this service during the upcoming phase of this program.

7. Naloxone Administration

   a. Implement a naloxone distribution protocol. We currently have a written protocol for naloxone administration and training. Our physician has not yet accepted this protocol.

Overall, our plans for expansion of patient services will dedicate additional pharmacist time to implement the new interventions mentioned above and to provide existing services to patients in need of clinic and MTM services

METHODS

Measures

Aim 1: Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to a Tech-Check-Tech program in community pharmacies in Iowa on patient safety measures.

For the assessment of this Aim, information will be gathered to ensure dispensing accuracy of new prescriptions. Each pharmacy will act as its own control, with baseline measurement of dispensing errors being determined for 50 new prescriptions per day, on days when TCT for refills is being done, for 15 weekdays before initiation of the Tech-Check-Tech procedures for new prescriptions. For the first week after the new procedures have been initiated, the pharmacist will double check all technician-verified prescriptions to ensure accuracy and to gather information on the efficacy of the procedures. If the error rate is equal to or lesser than the baseline measurement, 30-50 new prescriptions as well as 30-50 refill per month will be double checked for errors and those measurements recorded for the reminder of the project. If the error rate is greater than baseline measurement, additional training will be given and procedures reviewed, after which a second assessment will be performed. Length of any second assessment will be determined by the researcher. The research consultant will review these results on an ongoing basis and quarterly reports made to the Board of Pharmacy as necessary during the 18 month study period.

Aim 2: Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to a Tech-Check-Tech program in community pharmacies in Iowa and in facilitating the provision of community pharmacist-provided medication therapy management.

For the assessment of this Aim, information will be gathered regarding the amount of pharmacist time that is made available for other duties as a result of the implementing Tech-Check-Tech for new prescriptions and utilizing pharmacist-interns for TCT on the provision of MTM services by the pharmacist(s) at the subject pharmacies. Each pharmacy will again act as its own control, with baseline measurements consisting of the last quarter of results from the previous pilot program of Tech-Check-Tech for refill prescriptions. The primary data sources will be self-reported pharmacist daily activity logs and numbers of both compensated and identified opportunities for MTM and other patient care services. Once the Tech-Check-Tech procedures for new prescriptions have been initiated and are performing adequately as defined above, the pharmacist(s) at the participating pharmacies will begin to focus on increasing the amount of MTM services provided.

Other Measures:

Job Satisfaction Survey

A job satisfaction survey will be conducted prior to, and one year after implementation of utilizing TCT for new prescriptions. All technicians, pharmacists and employed pharmacist-interns will be asked to complete the survey.

Amount of time spent utilizing TCT (# of TCT days)

The amount of time utilizing TCT will continue to be monitored and will be compared to the previous pilot in order to determine whether or not allowing technicians the ability to check prescriptions filled by employed pharmacist-interns impacted the ability to use TCT.

Analysis
Error rates during the 18 month study period will be compared to those found at baseline by means of Chi-square testing and matched samples t-tests. Specific errors tracked will include wrong drug, wrong strength, wrong quantity, and wrong cap (safety-cap vs. non-safety cap). Comparisons of pharmacist task composition will be compared to those found at baseline by means of Chi-square testing matched samples t-tests. The services provided data gathered during the study period will be compared to those found at baseline in terms of the overall number of services provided.

STUDY PARTNERS
Drake University
Drake University will oversee the research component of this project, by working with the pharmacy partners to assure that study activities are conducted in a timely and coordinated manner. Dr. Andreski will design data collection procedures, supervise data collection, manage and analyze study data, and assist in writing the study reports.

Iowa Pharmacy Association
The Iowa Pharmacy Association (IPA) will assist in preparing the community pharmacy sites to deliver the MTM services. They have experience in helping pharmacy practices adjust to providing services such as MTM. IPA will help the practices adjust staffing, workflow, and service delivery issues with the participating community pharmacies

Local Community Pharmacies in the New Practice Model Initiative
Community pharmacies across the state of Iowa will initially participate in the study by working to transform their current patient care delivery model to enhance their Tech-Check-Tech program and further engage pharmacists in clinical programs that follow the JCPP's Pharmacists' Patient Care Process to improve patient safety and provide enhanced patient care. Pharmacists in these pharmacies will deliver the clinical services as described in this study proposal and subsequent service descriptions.

PROJECT TIMELINE

Month 1-2	Project start-up; Baseline data collection; transition workflow to include TCT for new medications
Month 2 -3	Community pharmacies begin enhanced Tech-Check-Tech programs; pharmacists engage in collaborative practice agreements for patient care delivery
Month 18	Pilot project authority expires for Tech-Check-Tech
Month 18-19	Data analyses and report writing

Appendix A

Pharmacy Site #12

Main at Locust Pharmacy Description

Tech check Tech: Why Main at Locust Pharmacy and Medical Supplies?

By Lisa Ploehn, PharmD PIC/Owner, Main at Locust Pharmacy, Davenport Iowa

- Physical layout: Pharmacy has dispensing area separate from semi-private and private clinic areas. This set-up is conducive to:
  - Direct technician supervision
  - Questions from techs
  - Follow-up from pharmacists
  - Direct observation of work flow

- Staffing:
  - Pharmacist/Tech Ratio 1:1 ratio 3 out of 6 days/wk 1:2 ratio other days
  - Experienced Pharmacists (3 pharmacists with 14 -34 years' experience)

- Existing Clinical Services
  - Have implemented many services since 1993 that we wish **to continue**
  - Want to **improve** services offered
  - Want to **expand** patients reached

- Have conducted trial runs of TCT (with RPh final check)
  - Techs have been 100% on the their checking opportunities

- Staff completed all Lessons & Quizzes required for the study.

- As Pharmacist in Charge, I realize we have many more patients we would be able to help if we had adequate time to provide our existing services and to develop additional services. Utilizing our technicians to their full potential to check refill prescriptions will free-up pharmacists' time to provide these services, work on the development of future services and identify patients that are currently not being provided services that would be beneficial to their overall health and wellbeing. I am actively involved in the day to day dispensing and services provided through our clinic programs.

- My pharmacists are engaged in patient care and would like to expand their clinical services. They will continue to be engaged in training and supporting the technicians.

- Our technicians have actively embraced this opportunity to further their careers and to be even more actively involved in serving our patients at Main at Locust Pharmacy and Medical Supplies.

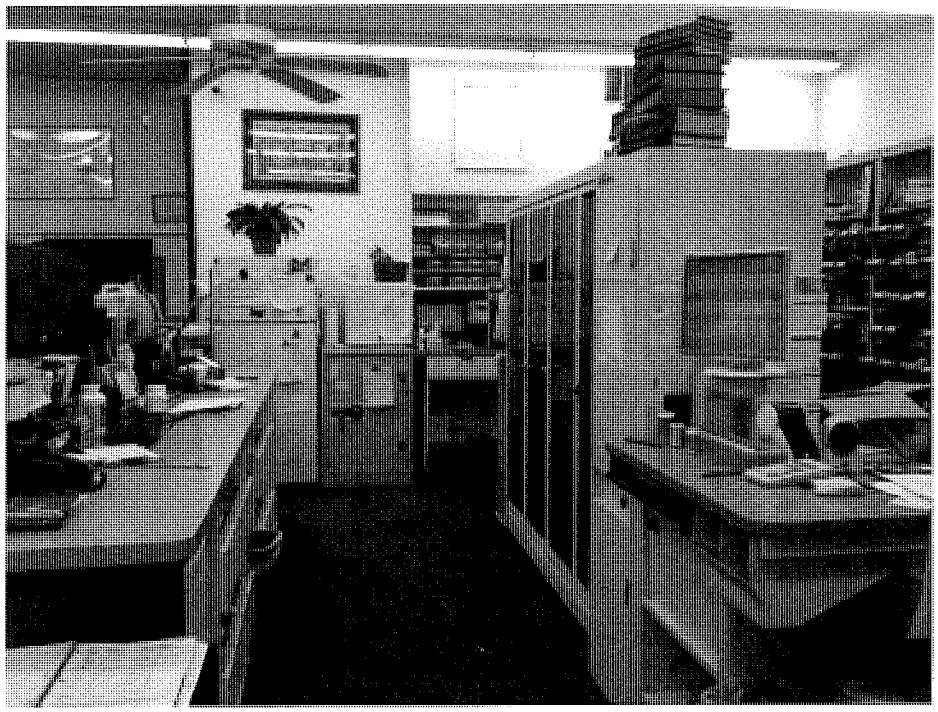
Main at Locust Pharmacy and Medical Supplies is a family owned community Pharmacy in the center of town in Davenport, Iowa. During the 1990's, the pharmacy expanded its services to provide health screenings, immunizations and MTM services.

Main at Locust Pharmacy – "People First" is our Motto

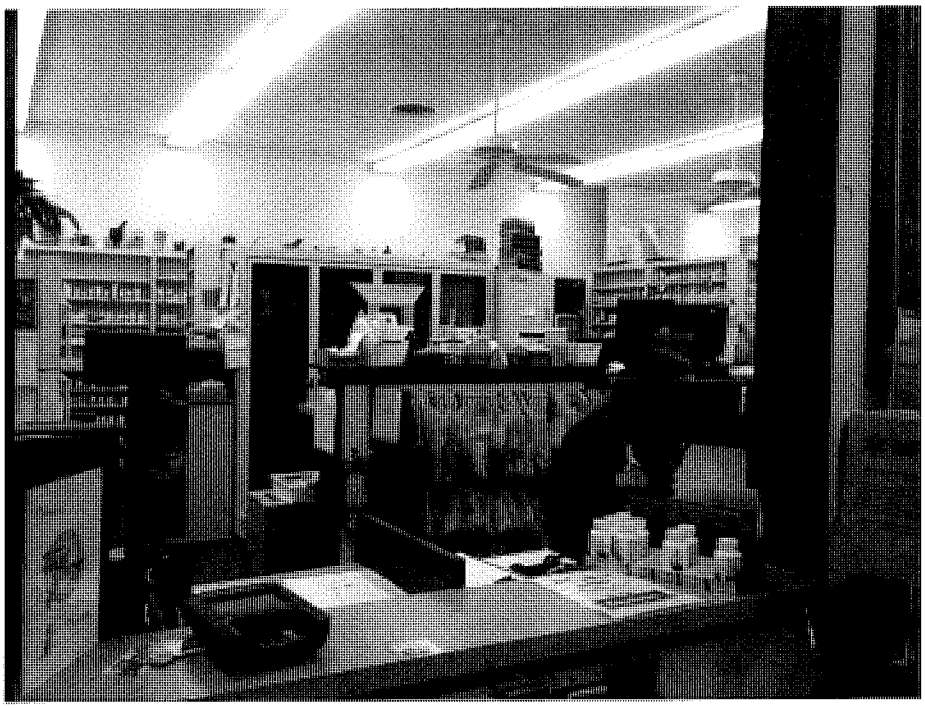
Semi-private clinic/counseling area

Private clinic/counseling area—close door to separate from semi-private clinc/counseling area. Door on un-pictured wall opens directly into pharmacy.

Compounding area



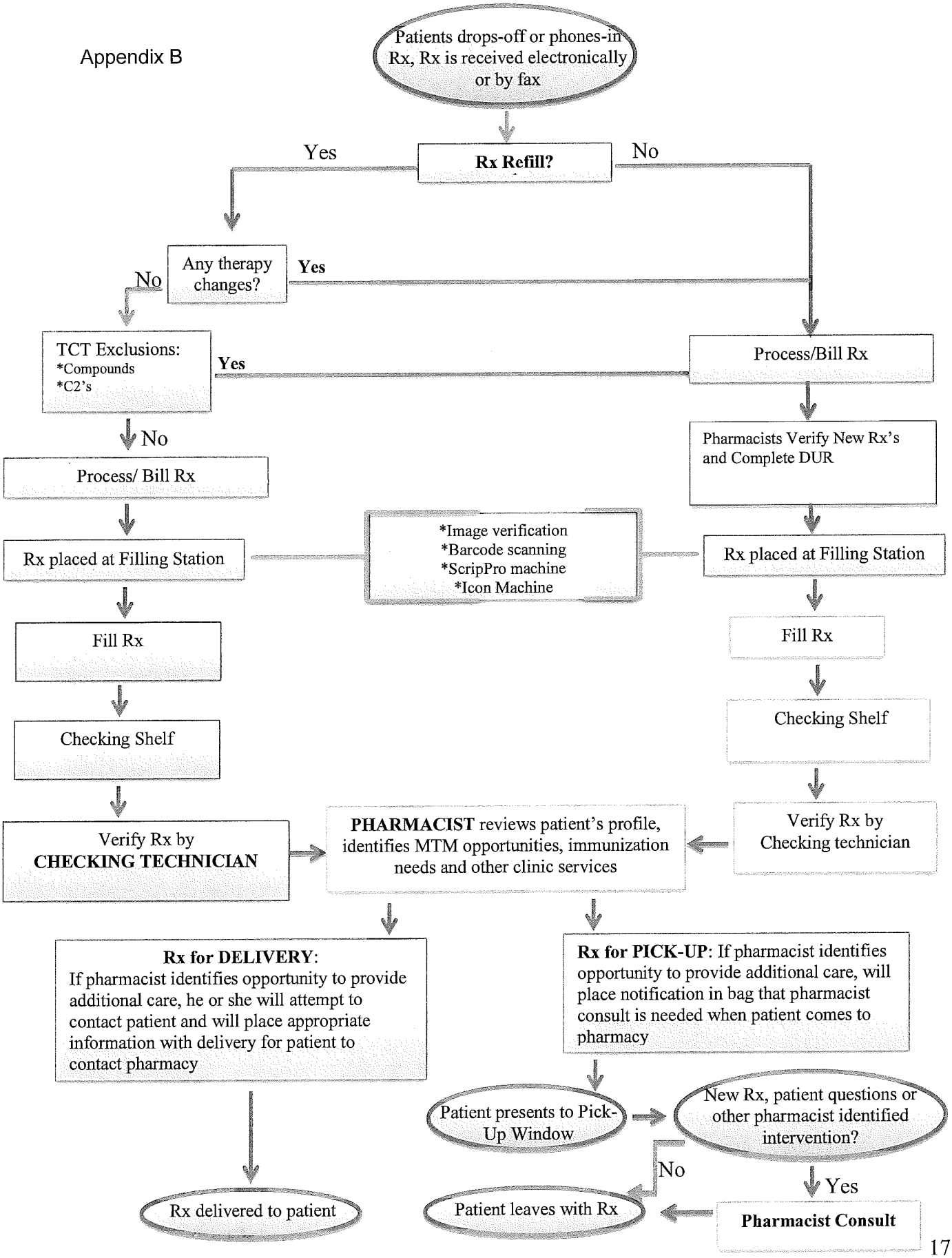
Filling counter on left, ScriptPro automated filling machine on right



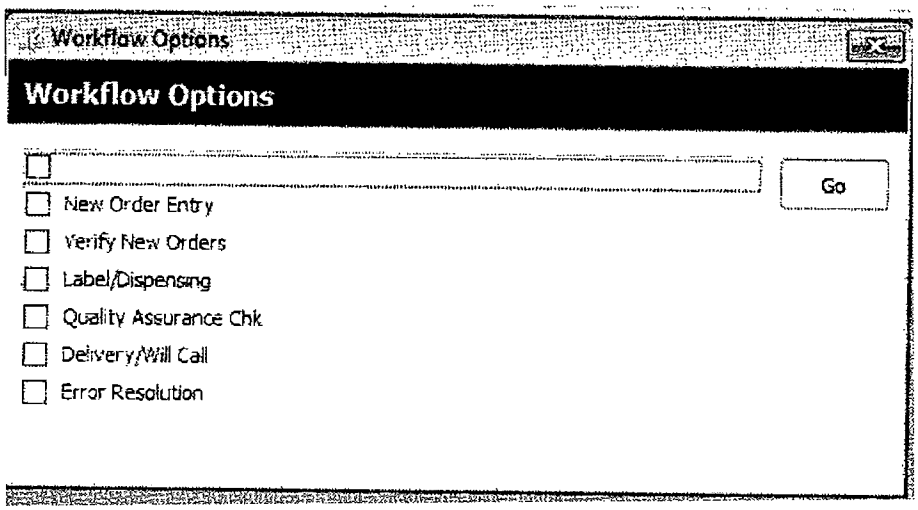
Counter where patients present to pick-up prescriptions.

Doctor-call shelf-baskets with notes indicate waiting for prescriber response.

Appendix B


Patients drops-off or phones-in Rx, Rx is received electronically or by fax
Rx Refill?
Yes
No
Any therapy changes?
Yes
No
TCT Exclusions:
*Compounds
*C2's
Yes
Process/Bill Rx
No
Pharmacists Verify New Rx's and Complete DUR
Process/ Bill Rx
*Image verification
*Barcode scanning
*ScripPro machine
*Icon Machine
Rx placed at Filling Station
Rx placed at Filling Station
Fill Rx
Fill Rx
Checking Shelf
Checking Shelf
Verify Rx by CHECKING TECHNICIAN
PHARMACIST reviews patient's profile, identifies MTM opportunities, immunization needs and other clinic services
Verify Rx by Checking technician
Rx for DELIVERY: If pharmacist identifies opportunity to provide additional care, he or she will attempt to contact patient and will place appropriate information with delivery for patient to contact pharmacy
Rx for PICK-UP: If pharmacist identifies opportunity to provide additional care, will place notification in bag that pharmacist consult is needed when patient comes to pharmacy
Patient presents to Pick-Up Window
New Rx, patient questions or other pharmacist identified intervention?
No
Yes
Rx delivered to patient
Patient leaves with Rx
Pharmacist Consult

Appendix C



This is a view of our workflow in QS1.

Appendix D

Certified Pharmacy Technician Training
Requirements & Checklist

Pharmacy Staff Training Requirements

Technician Utilization & Authorized Checking Functions

Each technician specifically authorized to participate in TCT at the participating pharmacy will be identified in their personnel file and an added designation to their posted registrations. A certified pharmacy technician authorized to participate in TCT will be trained in and maintain all the duties, activities, and work of registered and certified technicians. Additionally the Checking Technician may be allowed to check medication orders filled by other certified technicians, limited to the following patient care situations:

- Refill medications, in which DUR has already occurred by a pharmacist
- New medication, in which DUR and data entry review has already occurred by a pharmacist

Each technician certified to check will have documented training and evaluation of necessary training. Each pharmacy location will determine examples of medications that will NOT be checked by technicians. This could include:

- Controlled substances,
- Compounded medications, and
- Others as designated by PIC or staff pharmacists.

"Filling" Technician or Pharmacist-Intern

- Certified technicians filling prescriptions for the TCT program must be nationally certified and passed an audit of accurately filling prescriptions as established by a site's policy and procedures.
- Employed student interns must have at least 300 hours of experience working as a technician or intern, and at least 100 of the 300 hours must be at the current TCT location. Interns must pass an audit of accurately filling prescriptions as established by a site's policy and procedures.

"Checking" Technician Participation & Training

All of the following shall apply to a certified pharmacy technician authorized to be a "Checking Technician" at the participating pharmacy:

- National Certification: current and in good standing
- Iowa Registration: current and in good standing, and not currently subject to disciplinary charges or sanctions.
- Prior Experience: The checking technician shall work at the participating pharmacy full or part time and:
    a) Shall have at least 1,000 hours prior technician work experience at the TCT site and at least 1,000 hours of prior technician work experience at the current or previous pharmacy, successfully complete their necessary location-specific training, and then complete the TCT training (see below).
    b) If the technician has no prior technician work experience in a pharmacy, they shall work at least 2,000 hours at the pharmacy and successfully complete their necessary location-specific training, and then complete the TCT training (see below).

IPA/CEI Tech-Check-Tech CPE Modules

If a pharmacy will be implementing a Tech-Check-Tech program, the certified pharmacy technicians, pharmacist-interns and the pharmacists, shall receive specialized and advanced training as provided in policies and procedures, including training in the prevention, identification, and classification of medication errors. The training program for a certified pharmacy technician shall be didactic in nature and shall include successful completion (80%) of a competency test for each module.

- Pharmacists will be required to complete the first two modules listed, filling technicians and pharmacist-interns will complete the first three modules listed, and checking technicians will complete all the modules listed.
    a. Thinking about Tech-Check-Tech?
        i. State the need in the profession for a technician-managed distribution process
        ii. Describe the opportunities for pharmacists to provide clinical services
        iii. Review current regulations that govern Tech-Check-Tech programs
        iv. Review the principles of ASHP's New Practice Model Initiative and an example of state implementation
        v. Illustrate the case to pharmacy staff, upper management, and the Board of Pharmacy
    b. Tech-Check-Tech: A Step-by-Step Guide for Outpatient Pharmacy
        i. Illustrate the case to pharmacy staff, management, and Board of Pharmacy for Tech-Check-Tech
        ii. Recognize the steps needed to prepare and implement a Tech-Check-Tech program
        iii. Outline how a pharmacy monitors for quality assurance in a Tech-Check-Tech program
        iv. Formulate a sample job description for a pharmacy technician engaged in a Tech-Check-Tech program
        v. Review liability issues in a Tech-Check-Tech program
    c. Accuracy in the Outpatient Pharmacy: Preventing, Identifying and Classifying Medication Errors
        i. Recognize and classify common medication errors
        ii. Recognize the causes of medication errors
        iii. List ways to prevent medication errors
        iv. Recognize the importance of continuous quality improvement (CQI) in the pharmacy distribution process
        v. Describe the technician's role in CQI in the pharmacy
    d. Dosage Forms
        i. Identify the most common medication dosage forms
        ii. Describe the advantages and disadvantages of different medication dosage forms
        iii. Recognize the different routes of administration and the advantages of each
        iv. List ways to recognize and prevent dosage form dispensing errors
    e. Calculations Review
        i. Describe examples of common systems of measurement
        ii. Demonstrate the ability to convert units of measurement
        iii. Appropriately calculate the day's supply from a prescription order
        iv. Use percentages, ratios, and proportions to make accurate pharmaceutical calculations using mathematical skills reviewed in the activity

v. Solve common pharmacy calculations using mathematical skills reviewed in this activity
vi. Master specific math functions appropriate to practice setting

f. Advanced Review of Common Medications
i. Group medications by pathophysiologic class using established stems (prefixes, infixes, & suffixes)
ii. List common adverse effects and drug interactions
iii. List common adherence challenges
iv. Distinguish medications with similar generic names
v. Recognize medications with multiple formulations

Responsible Individual

The "Pharmacist in Charge" or Pharmacy Manager at each participating pharmacy shall be ultimately responsible for the TCT program activities (unless otherwise noted). The PIC will be responsible for meeting TCT program training and validation requirements. The PIC will designate the staff pharmacists to supervise the activities of Checking Technicians. The entire staff, pharmacists and technicians, will be involved in collection of data for the program evaluation on a regular basis, reporting information to the PIC for analysis.

Staffing

Pharmacy staffing shall be adequate to ensure consistent and safe implementation and usage of the TCT program and will optimize pharmacist patient care services, which will have data collected and analyzed through the pharmacy's existing CQI process with variations as requested or demeaned necessary by the research team.

Records

The pharmacist in charge shall maintain in the pharmacy department records for each certified pharmacy technician authorized by the pharmacist in charge or responsible pharmacist to participate in the TCT program. The records shall be available for inspection and copying by the Board or its representatives and any other authorized agencies for two years beyond the term of the certified pharmacy technician's employment. The record summary (Technician Function Levels) shall include:

a. The name of the certified pharmacy technician.

b. The date the certified pharmacy technician completed the standardized training and site-specific evaluation for participation in the TCT program.

c. The date the certified pharmacy technician was authorized to participate in the TCT program and the specific TCT program functions and tasks the certified pharmacy technician is authorized to perform.

d. When the certified pharmacy technician is authorized to check the work of other certified pharmacy technicians, the date the checking technician completed the specialized and advanced training.

e. The dates and results of all competency evaluations.

f. The dates of and reasons for any suspension or revocation of the certified pharmacy technician's TCT program authorization, identification of corrective action or retraining completed, and date of subsequent reinstatement of the certified pharmacy technician's TCT program authorization.

g. The dates of and reasons for any disciplinary action taken against the certified pharmacy technician in connection with the certified pharmacy technician's performance of duties relating to the TCT program.

Evaluation of Program and Technicians:
Technician filling and checking responsibilities will be monitored daily. Errors will be documented for both filling and checking, and review of all errors will also be documented on this sheet by the PIC or responsible staff pharmacist. These sheets will be collected and data entered for bi-weekly review. The records will be maintained in the pharmacy for a minimum of two years.

The implementation of the TCT program shall result in the redirection of pharmacists from distributive tasks to cognitive and patient care activities. The participating pharmacy will document these clinical activities and will collect and maintain these records for no less than two years following the date of the record. These records shall be updated at least semiannually.

1. The PIC shall conduct continuous monitoring and evaluation of each Checking Technician to ensure the continued competency of the TCT program and the safety of the patients. Errors will be identified and records maintained following the pharmacy's quality measures, including variance tracking and reports, event analysis, follow up and education.
2. Specific evaluation of the TCT program will incorporate three measures:
    a. **Filling**: Review of errors identified by a Checking Technician or Pharmacist. The responsible staff pharmacist shall review with all certified pharmacy technicians involved with any errors identified during the evaluation of the filling process and shall discuss procedure and document the review on the daily monitoring sheet to ensure the errors are not repeated.
    b. **Checking**: Periodic review and checking by the pharmacist of work checked (monthly to quarterly as designated) by the Checking Technician and identification and documentation of all errors not identified and corrected by the checking technician and shall discuss procedure and document the review on the daily monitoring sheet to ensure the errors are not repeated.
    c. **Review of errors** identified following release by Checking Technician or Pharmacist. The responsible staff pharmacist shall receive, evaluate, and review with all certified pharmacy technicians involved with any errors identified by a health care professional, a patient, or any individual following release of a drug by the checking technician. All such errors will be documented on the daily form AND recorded via the pharmacy's CQI program.
3. Periodic review and monitoring will be recorded on our Ongoing TCT Competency Evaluation Record.
4. Benchmarks will be identified by compiling and evaluating of the Technician QA Monitoring Daily Reports. Bi-weekly reports will be used to evaluate ongoing competencies, identify possible system modifications, provide data for continuing site specific education, and to establish need for any retraining.
5. Retraining will occur when a Technician or Checking Technician has an error rate significantly above the average for participating pharmacy's technicians. Error rate "outliers" will be determined by an excessive error rate in filling or checking over two consecutive bi-weekly periods OR if the technician's cumulative error rate significantly exceeds the average cumulative error rate. During the retraining period (of not less than two bi-weekly periods) a technician's work will be checked by a pharmacist – nor will the technician be allowed to check other technicians. Retraining will consist of a repeat competency evaluation in the area/s where excessive errors have occurred and potential repeat of didactic modules as appropriate. The PIC, with the input of staff pharmacists, will determine which sections, or all, of the training modules must be repeated.

Letter of Commitment by Pharmacy Owner or Regional Supervisor

I understand that my role as a New Practice Model Participating Pharmacist is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Lisa C Pleehn, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer my expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month. Those pharmacies who are unable to meet this standard will be reviewed quarterly for assessment of continuation in the pilot study.
- Provide adequate staffing as required to support the New Practice Model procedures. Those pharmacies who are unable to implement the procedures at least 60% of the time will be reviewed quarterly for assessment of continuation in the pilot study.
- Actively participate in all requests for my assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed Lisa C. Pleehn Date 6.11.2016

Title owner, pharmacist.

Fax 515-270-2979
Attn: Megan Myers

Letter of Commitment by Licensed Pharmacist

I understand that my role as a New Practice Model Participating Pharmacist is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Lisa Ploehn, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer my expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for my assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed Lisa C. Ploehn Date 6.9.16

Title pharmacist / PIC

Letter of Commitment by Licensed Pharmacist

I understand that my role as a New Practice Model Participating Pharmacist is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Kaye Wright, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer my expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for my assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed Kaye K. Wright Date 6-9-16

Title Pharmacist

Letter of Commitment by Certified Pharmacy Technician

I understand that my role as a New Practice Model Participating Pharmacy Technician is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Darla English, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer our expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for our assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed Darla English Date 6/9/16

Title CPhT

Letter of Commitment by Certified Pharmacy Technician

I understand that my role as a New Practice Model Participating Pharmacy Technician is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Kelly Dunn, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer our expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for our assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed Kelly Dunn Date 6-9-2016

Title CPhT

Letter of Commitment by Certified Pharmacy Technician

I understand that my role as a New Practice Model Participating Pharmacy Technician is a significant responsibility and will make it a priority. I look forward to working with this team and, like the others, I, Sharon Weber, agree to:

- Support the Mission, Vision, Values and Goals of the initiative.
- Offer our expertise to help ensure the health and success of the initiative.
- Work with the rest of the pharmacy team to communicate the initiative to our most important audiences.
- Attend in person, by phone, or send a designee, to at least two-thirds of the meetings held each year I serve and, whether I attend or not, will continually communicate with the team and the main coordinator to ensure I understand all current affairs.
- Complete all necessary training and education as required.
- Provide support for all data collection procedures. All data for each month will be electronically submitted within 10 days of the end of the month.
- Actively participate in all requests for our assistance and response.

I have read and fully agree to this Letter of Commitment and look forward to assisting the Iowa Pharmacy Association Foundation in this initiative.

Signed Sharon Weber Date 6-9-16

Title CPhT

From:	Megan Myers
To:	Funk, Andrew [IBPE]
Cc:	Jorgenson, Debbie [IBPE]
Subject:	FW: New Practice Model Phase 3
Date:	Tuesday, June 14, 2016 3:42:38 PM
Attachments:	NPM Phase 3 proposal - site 15.pdf

This contains site 15

From: Megan Myers
Sent: Tuesday, June 14, 2016 3:01 PM
To: Funk, Andrew [IBPE] <Andrew.Funk@iowa.gov>
Cc: 'Jorgenson, Debbie [IBPE]' <Debbie.Jorgenson@iowa.gov>; Anthony Pudlo (apudlo@iarx.org) <apudlo@iarx.org>; Kate Gainer <kgainer@iarx.org>; Michael Andreski <Michael.Andreski@drake.edu>
Subject: New Practice Model Phase 3

Dear Andrew,

Thirteen NPM pharmacies are seeking approval to join NPM Phase 3. We would like to present their site specific proposals (need to send in multiple emails due to size of attachments) at the upcoming board meeting.

Similar to Phase 4, I have included the overall IPA document as background of our guiding principles for this pilot, and have highlighted what was changed based on board feedback in May. We continue to welcome feedback on this initiative.

Thank you!
Sincerely,
Megan

A Pharmacy Pilot or Demonstration Research Project for a

New Practice Model for Community Pharmacy

Phase 3

In Collaboration with the Iowa Pharmacy Association &
Drake University College of Pharmacy and Health Sciences

Site Specific Application for Medicap Pharmacy 8036

Primary Contact:

Shanna Zwanzinger
Pharmacist-In-Charge
License number #19096
Medicap Pharmacy 8036
208 E. Euclid
Indianola, IA 50125
Pharmacy License #495
515-961-5303 (phone)
515-961-5964 (fax)
8036@medicap.com

Submitted to the Iowa Board of Pharmacy

June 30, 2016

Medicap Pharmacy is a community pharmacy in Indianola, IA. It serves a wide variety of patients throughout the community. We continually strive to offer additional clinical services to enhance patient outcomes. We work closely with local prescribers and healthcare providers as a valued member of the healthcare team. And as our jingle says "we'll always make time for you".

BACKGROUND

Since 2009, members of Medicap Pharmacy have been involved within IPA's New Practice Model Task Force (NPMTF). The NPMTF is a continuation of an unofficial working group that had been meeting throughout 2008. It had been charged with the creation and oversight of a pilot program to implement a new workflow and business model for community pharmacy. Since the initial work of the NPMTF, there have been other mechanisms that would help prove a successful impact of community pharmacist-provided medication management.

As a current participant of Phase II of the New Practice Model pilot, our site has demonstrated safety utilizing Tech-Check-Tech (TCT) for refilled prescriptions. The only errors this site has encountered are safety cap errors (dispensing a safety cap instead of an easy open cap). We have not had any patient safety errors. Utilizing TCT has allowed growth of patient care services. Our most recent data collection showed that our pharmacists are now spending ½ of their time in patient care vs 1/3 at baseline. We have especially increased the amount of time we spend counseling patients and talking to them about how their medications are working. We have started a blood pressure management program with a local physician and are looking to expand that to a collaborative practice agreement. We have doubled the number of patients we have in our clinical med sync program and our goal is to double that number again. This program not only helps with adherence but also helps us monitor for safety, side effects & progress towards therapeutic goals. This location will be participating in both the Iowa Community Pharmacy Enhanced Services Network (CPESN) and the Wellmark Pay for Performance program. We believe that the ability to employ phase 3 of the NPM will allow our pharmacists to spend even more time with patients and further improve patient outcomes, allowing for success in these enhanced services programs.

Our pharmacy has agreed to submit this application and collaborate on the specific aims of this pilot project, which include:

1. Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to Tech-Check-Tech programs in community pharmacies in Iowa on patient safety measures, and

2. Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to Tech-Check-Tech programs in community pharmacies in Iowa in facilitating the provision of community pharmacist-provided services.

NEW PRACTICE MODEL LEADERSHIP TEAM MEMBERS

Megan Myers, PharmD, will serve as Project Coordinator. She will oversee the project, conduct regular on-site visits with each site, coordinate the study activities, chair the regular team meetings, and lead the writing of the study reports to the Board of Pharmacy.

Michael Andreski, RPh, MBA, PhD, Associate Professor of Social and Administrative Pharmacy, Drake University College of Pharmacy and Health Sciences serve as research consultant and principal investigator, will participate in regular team meetings, and will participate in the writing of the study report.

T.J. Johnsrud, NuCara Health Management, Inc., will provide a pharmacy management perspective for coordinating the community pharmacy clinical services and Tech Check Tech programs within the community pharmacy sites. He will participate in regular team meetings.

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Anthony Pudlo, PharmD, MBA, BCACP, Vice-President of Professional Affairs, and Kate Gainer, PharmD, Executive Vice President/CEO, Iowa Pharmacy Association will oversee coordination of clinical pharmacy services available to community pharmacy sites in this study.

PHARMACY SITE-SPECIFIC INFORMATION

Pharmacist-In-Charge:
Shanna Zwanziger, RPh
License #19096
Drake University College of Pharmacy 1998
Number of Years Licensed: 18 yrs
Years at Site: 26 (includes times spent at site as a student)
Other certifications/training: Immunizations, CPR, certified diabetic shoe fitter

Staff Pharmacist:
Natalie Lappe, PharmD, BCACP
License #20764
Drake University College of Pharmacy 2008
Number of Years Licensed: 8 yrs
Years at Site: 6 yrs
Other certifications/training: Immunizations, CPR, BCACP

Staff Pharmacist:
Nancy Brace, PharmD
License #21916
Ohio Northern University 2003
Number of Years Licensed: 13 yrs
Years at Site: 2 1/3 yrs
Other certifications/training: Immunizations, CPR, MTM, State of Ohio Certification for smoking cessation, working on a well coach certification & pharmacogenomics certification

Certified Pharmacy Technician:
Markie Todd, CPhT
Registration #12925 Certification # 440101080550360
Indianola High School 2003
Number of Years Registered as Tech: 9 yrs
Years at Site: 9 yrs
Other certifications/training: certified diabetic shoe fitter

Technician in Training:
Anika Jackson
Registration # 22322 Certification #
Indianola High School 1982
Number of Years Registered as Tech: 11 months
Years at Site: 11 months
Other certifications/training: will be taking the PTCB exam mid-June 2016

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Certified Pharmacy Technician:
Nevin Radechel, CPhT
Registration #22015 Certification #30001204
Current Drake University student
Registered as Tech in Training: 1/2016
Years at Site: 2 years
Other certifications/training: n/a

Alternates:
Adam Danielson, CPhT
License #12684 Certification #550107010198278
2006 Fairfield High School, 2009 La James International College-Cosmetology/Esthesiology
Number of Years Registered as Tech: 9 years
Years at Site: 4 yrs
Other certifications/training: Dr. Comfort Technical Shoe Fitting Certified

Tanika Sterling, CPhT
License # 8729 Certification # 440101080558206
1995 Central Senior High School, 2003 Mercy College Health Sciences Cert. Tech
Number of Years Registered as Tech: 11 yrs.
Years at Site: 11 years
Other certifications/training: Dr. Comfort Technical Shoe Fitting Certified

We are currently in the process of interviewing to hire two certified pharmacy technicians. We would add these individuals to this program once hired and trained. See the Iowa Pharmacy Association's application for signed letters of commitment from the individuals listed above and on the previous page.

PROJECT SUMMARY

Participating pharmacies were identified to be New Practice Model (NPM) participant sites using criteria defined by the NPMTF. In the phase III NPM pharmacies, the pharmacist(s) will work collaboratively with prescribers and other care providers in their community to optimize the medication use process. This process may involve the appropriate choice of medication as the therapy modality, initial selection of appropriate therapy to minimize drug therapy problems, assisting the patient in the acquisition and use of the medication, appropriate monitoring and adjustment of the medication therapy, and withdrawal or changing of medication therapy as appropriate, among others. This ongoing effort is coordinated amongst providers, with the pharmacist actively engaged in the process.

Community pharmacies will enhance previously implemented "Tech-Check-Tech" programs to include new prescriptions and additional staff (pharmacist-interns) in order to further increase the availability of the community pharmacist for direct patient care. New prescriptions will include prescriptions for a medication that is new to the patient or renewed medication orders for previously established medication. Pharmacists will continue to have ultimate authority over the dispensing process in this model. However, that does not mean the pharmacist will have hands-on direct supervision over every non-judgmental aspects of dispensing medications. The pharmacist's time will be concentrated on those aspects of dispensing that require the expertise of the pharmacist to assure safe and accurate dispensing.

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Following is a detailed description of what our practice currently looks like with the TCT program:

- The TCT trained pharmacist will be physically located on the premises of the pharmacy in an environment and location that is comfortable and efficient for direct patient interaction.

- The pharmacy is fully staffed by nationally certified pharmacy technicians and employed pharmacist-interns. The pharmacist-technician and pharmacist-pharmacist intern relationship will become more important as the pharmacist will rely on new technologies and the leadership of head technicians to maintain the highest safety to patients.

- The pharmacist will review accuracy of the order and appropriateness of therapy for all new prescriptions, as well as complete Drug Utilization Reviews (DURs) or other necessary clinical reviews tied to prescription dispensing for all prescriptions. We will use the technology of our dispensing software to have a verification que that pharmacists will review prior to a label being printed. Thus, all prescriptions will have pharmacist profile review/DUR prior to filling

- Trained technicians or employed pharmacist-interns will make sure the medication and quantity is correct, it is billed accurately, and the correct patient receives the medication. We will use available technology, such as Eyecon® & our dispensing software, Computer Rx with bar code technology to assist in the accurate filling process. These non-judgmental tasks of the process can be entirely technician driven. We also employ "best practices" using 2 identifiers both at the time of filling and patient pick-up to verify patient identify. Our pharmacists also routinely use the "show and tell" method upon patient pick-up and counseling.

- The "final check" technician works closely with the pharmacist. This relationship is important as the pharmacist will often rely on the technician to request appropriate interaction and/or intervention. The "final check" technician has received advanced training. This standardized training was developed by the NPMTF in collaboration with the Iowa Pharmacy Association Foundation with approval by the Board of Pharmacy in 2014. The Board of Pharmacy ultimately approves each pharmacy site's involvement in this initiative.

- We have also remodeled the pharmacy to delineate separate pharmacist and technician work stations to help alleviate confusion and to create a space for the technician to be able to concentrate and focus on the checking task. Part of this remodel also includes changing our workflow to have the product "bagged" after checking. The pharmacist or checking tech will bag the product to be hung for pick up immediately after checking. We feel that this change has helped to prevent errors and improve safety. We are also employing a new "bagging system" that identifies bags as a color and a number vs a name. This helps prevent look alike sound alike names from being hung together and confused upon pickup and adds an additional check and layer of safety at patient pickup. (Example: Tom Smith is Blue 49 and Tim Smith is Red 12. The color/number technique forces staff to use 2 identifiers at pick-up such as name & dob along with the bag tag.)

- We will no longer have two distinct workflow processes (one for new and one for refill). All prescriptions, new and refill, will follow the same process and go to the verification

que for pharmacist review prior to a label print. We believe that having one workflow will not only be less confusing and save time; but we also feel that it will improve patient safety and patient outcomes as pharmacists will spend more time reviewing profiles and less time checking bar codes. Technicians will not do a final product check for the following exemptions: schedule II controlled substances, liquids, combined NDC partials or any product that is not bar code scan-able by Eyecon & Computer Rx.

- Medication counseling and responding to patient questions may be completed in association with the distribution of the medication to the patient, but it may also occur outside of dispensing. Our clinical med sync program allows our pharmacist to be prepared for patient pick-up appointments to more easily incorporate clinical services into patient pick-up. We also spend time going over medications and talking to patients about their medications prior to filling their med sync refills. Pharmacists are available for consultation with patients, prescribers and other care providers as an integral member of the team. We are distributing marketing materials to patients letting them know that we are enhancing our clinical services and that they should see a change and expect to speak with the pharmacist and answer questions when picking up medications. This will increase patient/pharmacist encounters and it is our hope it will also lead to an increase in clinical services, enhanced patient care and improved patient outcomes

- See Appendix B for current workflow map of pharmacy.

The medication distribution process will be under the control of a pharmacist, but only in that a pharmacist will be responsible for developing, implementing, and providing continuous quality improvement for a system where the majority of activity will be completed by nationally-certified pharmacy technicians. Our pharmacists will continually review our policy & procedures and make sure that our program is being implemented and followed by all employees. Incidents will be immediately reported to the pharmacist upon discovery via our incident report form. This form will be completed and given to the pharmacist in charge and reported to corporate office per our policy & procedures. In the meantime, the incident will be resolved with the patient by the pharmacist on duty using their best judgment in accordance with the law and store policies. Our policy and procedure manual with our complete quality assurance/improvement polices is available to the board upon request. Use of appropriate technologies (e.g., image verification, barcode scanning, filling machines) will be utilized when appropriate to assure the medication is made available to the patient. We are currently using the Eyecon® automation system. This is a machine vision counting system that uses barcode technology for verification and filling. Attached is the brochure for this product in Appendix D for reference. A synopsis of how it works is as follows: The technician scans the barcode on the label and then scans the barcode on the bottle. If they match, they can proceed. If not, they will receive an error message. If a match, the product is poured onto the tray and the machine takes a "visual" count. Once the correct amount is on the tray, the technician selects "finish" and a visual "picture" is stored for documentation. This picture can be pulled up at any time and the pharmacist can not only see a picture of the product dispensed but also the ndc# that was dispensed as captured via the barcode scan. Our computer program also uses bar code scanning during the verification step; so this is a double bar code check.

Board of Pharmacy Rules Needed to be Waived
In order for implementation of this pilot project, it is requested that the Iowa Board of Pharmacy waive three regulations.

657—3.21(1) Technical dispensing functions. By waiving rule 657—3.21(1), the Board of Pharmacy would allow for a certified pharmacy technician to conduct final verification of the patient's prescription or medication order as is the current exception in an approved tech-check-tech program pursuant to 657—Chapter 40, as well as when the initial prescription or medication order is filled by a registered pharmacist-intern.

657—3.23(155A) Tasks a pharmacy technician shall not perform. By waiving rule 657—3.23(155A) specifically point number one, the Board of Pharmacy would allow for a certified pharmacy technician to provide the final verification of a filled prescription or medication order.

657—8.3 (4) Pharmacist-documented verification. By waiving rule 657—8.3(4), the Board of Pharmacy would remove the responsibility of the pharmacist to provide and document the final verification of the patient's prescription medication in order to pilot a tech-check-tech program in community practice settings.

Identification of Patients Needing MTM Services
Patients currently utilizing the community pharmacy will be provided the additional clinical pharmacy services that community pharmacies are available to provide. Patients who would be eligible for commercial and/or governmental MTM services will be identified through pharmacy records. If the patient is not a subscriber to insurance coverage providing payment for pharmacist provided MTM services, these services will be provided when possible. The community pharmacists will also work closely with their physicians in their community to identify key patients in the medical practice that would benefit from medication management services. The physician and pharmacist will be provided the tools to establish a collaborative practice agreement to address these key health care needs in the community.

Services Provided by Pharmacy
Currently our pharmacy offers of variety of MTM services to patients who have been identified through their screening processes to receive them. These services include:

1. MTM as described in the *Core Elements of MTM Service Model* document produced as a joint initiative of the American Pharmacists Association and the NACDS Foundation[1]

2. Immunization services (active screening, recommendation, education & administration for ACIP recommended vaccinations)

3. Clinical screenings and disease state monitoring including a blood pressure management program with a local physican

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[1] American Pharmacists Association, National Association of Chain Drug Stores Foundation. *Medication Therapy Management in Pharmacy Practice: Core Elements of MTM Service Model.* Washington, DC: American Pharmacists Association; March 2008.

4. Clinical Med Sync fill program (not an autofill program)

5. Adherence/monitoring programs

6. Janssen®Connect® long acting anti-psychotic administration program

7. Point of Care testing (blood pressure, INR, lipids)

It is our goal to build upon these services while being part of this pilot project. We aim to:

1. Expand MTM services as described in the *Core Elements of MTM Service Model* document produced as a joint initiative of the American Pharmacists Association and the NACDS Foundation[2]

2. Expand the immunization services provided both by increasing overall immunization rates and by increasing the types of immunizations provided

3. Offer more and different clinical screenings and specific disease state educational programs including the potential to expand our blood pressure program to a collaborative practice with a local provider

4. Increase participation in OutcomesMTM™ , Mirixa™ and other billable MTM programs

5. Adherence monitoring to improve patient outcome via sync fill program & DisPill packaging system

6. Blood pressure adherence/monitoring

7. Continue to develop and expand the Janssen®Connect® long-acting anti-psychotic administration program

8. We counsel every patient on every new prescription and answer questions but we would like to be more available to spend even more time educating patients and having more time to consult with patients in regards to their drug therapy/disease state questions. We hope to change patient expectations such that they expect to meet with the pharmacist at pickup (for both new & refills) to assess medication therapy for appropriateness & safety as well as monitoring for progress towards therapeutic goals.

We want to use the New Practice Model phase 3 to free up even more pharmacist time from dispensing activities to provide more time for the pharmacist to do clinical activities. We will be participating in the Iowa CPESN and the Wellmark Pay for Performance Program. Both of these programs will require the pharmacist to spend more clinical time with the patient educating, assessing drug therapy and helping monitor towards therapeutic goals. We envision the

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[2] American Pharmacists Association, National Association of Chain Drug Stores Foundation. *Medication Therapy Management in Pharmacy Practice: Core Elements of MTM Service Model*. Washington, DC: American Pharmacists Association; March 2008.

pharmacist spending more time doing med rec with transitions of care, more immunizations and assessing immunization status frequently with pharmacy visits, CMR with chronic disease management and education, clinical med sync and point of care testing (blood pressure, lipids, INR etc) where appropriate and of course MTM's and adherence counseling & management. We have one pharmacist at this site that is in the process of a well coach certification and another pharmacist at this site has a BCPS certification. We are hoping to develop a collaborative practice agreement with a local provider which will require the pharmacist to spend more clinical time with patients. We are doing marketing to help change the patient's expectations of service in the pharmacy so that they understand that they should expect to spend more time with our pharmacists and the role that pharmacy & pharmacists can play as a member of their healthcare team in a value-based system.

METHODS

Measures

Aim 1: Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to a Tech-Check-Tech program in community pharmacies in Iowa on patient safety measures.

For the assessment of this Aim, information will be gathered to ensure dispensing accuracy of new prescriptions. Each pharmacy will act as its own control, with baseline measurement of dispensing errors being determined for 50 new prescriptions per day, on days when TCT for refills is being done, for 15 weekdays before initiation of the Tech-Check-Tech procedures for new prescriptions. For the first week after the new procedures have been initiated, the pharmacist will double check all technician-verified prescriptions to ensure accuracy and to gather information on the efficacy of the procedures. If the error rate is equal to or lesser than the baseline measurement, 30-50 new prescriptions as well as 30-50 refill per month will be double checked for errors and those measurements recorded for the reminder of the project. If the error rate is greater than baseline measurement, additional training will be given and procedures reviewed, after which a second assessment will be performed. Length of any second assessment will be determined by the researcher. The research consultant will review these results on an ongoing basis and quarterly reports made to the Board of Pharmacy as necessary during the 18 month study period.

Aim 2: Implement and assess the impact of adding new prescriptions and utilization of pharmacist-interns to a Tech-Check-Tech program in community pharmacies in Iowa and in facilitating the provision of community pharmacist-provided medication therapy management.

For the assessment of this Aim, information will be gathered regarding the amount of pharmacist time that is made available for other duties as a result of the implementing Tech-Check-Tech for new prescriptions and utilizing pharmacist-interns for TCT on the provision of MTM services by the pharmacist(s) at the subject pharmacies. Each pharmacy will again act as its own control, with baseline measurements consisting of the last quarter of results from the previous pilot program of Tech-Check-Tech for refill prescriptions. The primary data sources will be self-reported pharmacist daily activity logs and numbers of both compensated and identified opportunities for MTM and other patient care services. Once the Tech-Check-Tech procedures for new prescriptions have been initiated and are performing adequately as defined above, the pharmacist(s) at the participating pharmacies will begin to focus on increasing the amount of MTM services provided.

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Other Measures:

Job Satisfaction Survey

A job satisfaction survey will be conducted prior to, and one year after implementation of utilizing TCT for new prescriptions. All technicians, pharmacists and

employed pharmacist-interns will be asked to complete the survey.

Amount of time spent utilizing TCT (# of TCT days)

The amount of time utilizing TCT will continue to be monitored and will be compared to the previous pilot in order to determine whether or not allowing technicians the ability to check prescriptions filled by employed pharmacist-interns impacted the ability to use TCT.

Analysis
Error rates during the 18 month study period will be compared to those found at baseline by means of Chi-squared testing and matched samples t-tests. Specific errors tracked will include wrong drug, wrong strength, wrong quantity, and wrong cap (safety-cap vs. non-safety cap). Comparisons of pharmacist task composition will be compared to those found at baseline by means of Chi-squared testing matched samples t-tests. The services provided data gathered during the study period will be compared to those found at baseline in terms of the overall number of services provided.

STUDY PARTNERS
Drake University
Drake University will oversee the research component of this project, by working with the pharmacy partners to assure that study activities are conducted in a timely and coordinated manner. Dr. Andreski will design data collection procedures, supervise data collection, manage and analyze study data, and assist in writing the study reports.

Iowa Pharmacy Association
The Iowa Pharmacy Association (IPA) will assist in preparing the community pharmacy sites to deliver the MTM services. They have experience in helping pharmacy practices adjust to providing services such as MTM. IPA will help the practices adjust staffing, workflow, and service delivery issues with the participating community pharmacies

Local Community Pharmacies in the New Practice Model Initiative
Community pharmacies across the state of Iowa will initially participate in the study by working to transform their current patient care delivery model to enhance their Tech-Check-Tech program and further engage pharmacists in clinical programs that follow the JCPP's Pharmacists' Patient Care Process to improve patient safety and provide enhanced patient care. Pharmacists in these pharmacies will deliver the clinical services as described in this study proposal and subsequent service descriptions.

PROJECT TIMELINE

Month 1-2	Project start-up; Baseline data collection; transition workflow to include TCT for new medications
Month 2 -3	Community pharmacies begin enhanced Tech-Check-Tech programs; pharmacists engage in collaborative practice agreements for patient care delivery
Month 18	Pilot project authority expires for Tech-Check-Tech
Month 18-19	Data analyses and report writing

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Appendix A

Medicap Pharmacy #8036
NPM Site #15
Tech Check Tech Program

SITE DESCRIPTION

- Pharmacy Description

  o Independent community pharmacy
  o Open 7am – 7pm Monday through Friday and 9am-2pm on Saturday

- Physical layout:

  o Open dispensing area conducive to:
    - Direct technician supervision
    - Questions from techs
    - Follow-up from pharmacists
    - Direct observation of work flow
    - Pharmacist/Patient interaction and counseling
  - Private counseling area conducive to expanded clinical services
  - New computer system & technology that increase patient safety & allow for better documentation & identification of needed clinical services

- Staffing:
  - Pharmacist/Tech Ratio 1:1
  - Shanna Zwanziger, the PIC, has been licensed over 15 years but has worked at the Medicap in Indianola for 25 years
  - Our other pharmacists are experienced community pharmacists, including one that is Board Certified (BCACP), one that is working on a well coach certification and all our pharmacists are certified in immunizations and provided "added" clinical services at our site

- Existing Clinical
  - We already offer a wide variety of clinical services in our pharmacy but we need more available pharmacist time to continue and expand these services with a goal of improving patient outcomes via our clinical services
  - Want to **expand** the variety services offered
  - Want to **expand** patients reached by our services

- Our program coordinator, Shanna Zwanziger, has been at Medicap in Indianola for 25 years, including starting as a high school student. She has a great relationship with members of the community, including patients and other professional health care professionals. She has many years of experience in teaching technicians and pharmacy students and in developing clinical programs. She has the ability to start and market clinical programs in the community. We feel that we have a good basis of qualified staff and solid policy & procedure to build upon that will make this program successful.

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