A Pharmacy Pilot or Demonstration Research Project for a New Practice Model for Community Pharmacy

Phase Three

A Demonstration Project to Study Enhancing Tech-Check-Tech Programs in Community Practice by Adding New Prescriptions and Utilization of Pharmacist-interns

Iowa Pharmacy Association &
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BACKGROUND

Suboptimal medication therapy is at a crisis level in our health care system. Significant changes to pharmacy practice have been occurring while efforts have been underway to more accurately describe the capabilities and appropriate role of the pharmacist in a community pharmacy setting. The most significant of these in Iowa is the elevation of support personnel in pharmacies through mandatory technician certification and the advancement to all doctorate of pharmacy programs in the Colleges of Pharmacy. These two advancements have brought about the need and opportunity to seriously look at and redefine the practice of community pharmacy.

Under the direction of its Board of Trustees, the Iowa Pharmacy Association (IPA) officially created the New Practice Model Task Force (NPMTF) in early 2009. The NPMTF has been charged with the creation and oversight of a pilot program to implement a new workflow and business model for community pharmacy.

It is important to define and demonstrate a new pharmacy practice model in terms of patient care improvement and safety because both are critically needed in today's health care system. Involving the patient and utilizing the pharmacist's knowledge and skills is an important strategy in addressing the growing problem of medication misuse. Health care reform is a priority in our society requiring health care professionals to work closely together.

The pharmacist is an important professional in optimizing the medication use process. Key components of medication therapy management (MTM) are:

- Prospective review on new medication orders
- Appropriate choice of medication as the therapy modality
- Minimizing drug therapy problems
- Assisting the patient in the use of the medication
- Monitoring and adjusting of therapy

The use of the community pharmacist in performing these components of MTM is growing. The increase of avoidable medication-related problems warrants reassessing the roles and responsibilities of community pharmacy personnel. In numerous health-systems across the country, pharmacy technicians are delegated more dispensing functions to allow for growth of clinical pharmacy services. In 2011, the Iowa Board of Pharmacy approved the use of certified pharmacy technicians in institutional settings to conduct the final verification step in the dispensing process in controlled situations.[1] This strategy to increase the role of pharmacy technicians in dispensing is commonly referred to as "Tech-Check-Tech" (TCT) programs. Advanced education and training requirements for pharmacy technicians and ongoing quality assurance is essential in such programs. These programs have been linked to a growth of clinical pharmacy services in institutionalized settings, yet remain underutilized in community pharmacy settings. This begs the question, could a "Tech-Check-Tech" program in a community pharmacy setting achieve the success realized in health-systems settings?

Phase I of the Iowa Pharmacy Association's pilot project "A Demonstration Project to Study the Effects of Implementing Tech-Check-Tech Programs in Community Practice to Engage Community Pharmacists in Clinical Pharmacy Services in Iowa" demonstrated safety and efficacy of utilizing TCT on refill prescriptions in a community pharmacy setting to expand clinical pharmacy services. The Phase I final report, presented to the Iowa Board of Pharmacy

[1] 657 IAC Chapter 40. §1.

on January 13, 2016, demonstrated similar error rates for technician verified refills compared to pharmacist verified refills. There was a statistically significant increase in both the amount of time pharmacists spent in patient care and the number of clinical services provided.

In response to the established rules by the Iowa Board of Pharmacy for pharmacy pilot or demonstration research projects (657—8.40 (155A,84GA,ch63), **the purpose of this application is to study the effects of continued process improvements for the new community pharmacy practice model designed to allow community pharmacists to deliver patient care services to patients across the state of Iowa.**

The MTM services provided by the community pharmacists in this study may:

1. Be coordinated with and complementary to pharmacy services currently being delivered by medical practices in Iowa,

2. Include comprehensive medication reviews, medication compliance counseling, immunization services, and clinical screenings, and

3. Establish site-specific collaborative agreements between physicians and community pharmacists.

The partners in this study initially include the Iowa Pharmacy Association, Drake University College of Pharmacy and Health Sciences, and NuCara Health Management, Inc.

Specific Aims of this study are to:

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.

LEADERSHIP TEAM MEMBERS

Megan Myers, PharmD will serve as Project Coordinator. She will oversee the project, 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, Assistant 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.

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 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.

- 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.

- 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 or employed pharmacist-interns. 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.

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 at a fee-for-service basis 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 necessary assistance to establish a collaborative practice agreement to address these key health care needs in the community.

Services Provided under MTM
A variety of MTM services will be available to patients who have been identified through their screening processes by the pharmacist for receiving them. A comprehensive guide of services was provided to participating pharmacies. All pharmacies will be utilizing the standardized

JCPP's Pharmacists' Patient Care Process with all services provided.[2] These services may include but are not limited to:

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[3]

2. Immunization services

3. Clinical screenings and disease state monitoring

4. Among other services

METHODS

Subjects

Community pharmacies throughout the state of Iowa that have been identified to have the desired characteristics mentioned above will be asked to participate in this study. Only sites from the previous pilot project "A Demonstration Project to Study the Effects of Implementing Tech-Check-Tech Programs in Community Practice to Engage Community Pharmacists in Clinical Pharmacy Services in Iowa" will be considered for participation for the Phase III pilot. The designated pharmacies included in the study (*i.e.*, enhanced Tech-Check-Tech and provide various MTM services) will be identified by members of the New Practice Model Task Force through standard selection criteria. To be eligible, the pharmacies must be an ambulatory pharmacy that is willing to participate in all phases of the project, from design to final assessment. They will agree to document all required refill technician checking activities, pharmacist's MTM activities, and pharmacist daily activity logs. These pharmacies will agree to allow researcher access to documentation on dispensing activities, refill dispensing CQI information, and pharmacist time as gathered above. When necessart, the research team will work with a pharmacy's patient safety organization (PSO) and the research team will have full access to original data to allow for proper statistical analysis.

Measures

<u>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.</u>

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

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[2] American Pharmacists Association. *How to Implement the Pharmacists' Patient Care Process; 2015.*

[3] 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.

month will be double checked for errors and those measurement 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.

Iowa Board of Pharmacy
The Iowa Board of Pharmacy will evaluate specific community pharmacy's Tech-Check-Tech programs pursuant to their final rules as authorized by 2011 Iowa Acts, chapter 63, section 36, as amended by 2012 Iowa Acts, House File 2464, section 31. These sections of the Iowa Acts give authority to the Board of Pharmacy to approve a pilot or demonstration research project of innovative applications in the practice of pharmacy relating to the authority of prescription verification and the ability of a pharmacist to provide enhanced patient care for up to eighteen months.

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

Letter of Commitment by the Pharmacy Owner

I understand that our role as a New Practice Model Participating Pharmacy 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 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 _____

Title _____

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, _____, 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, and agree to complete and accurate reporting of all data.
- 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 _____

Title _____

Letter of Commitment by Certified Pharmacy Technician or Pharmacist-Intern

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.
- Actively participate in all requests for our assistance and response.

We 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 _____

Title _____

Appendix B
Certified Pharmacy Technician 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

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:
    - 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).
    - 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.