# Evolution of Pharmacy Technician Product Verification

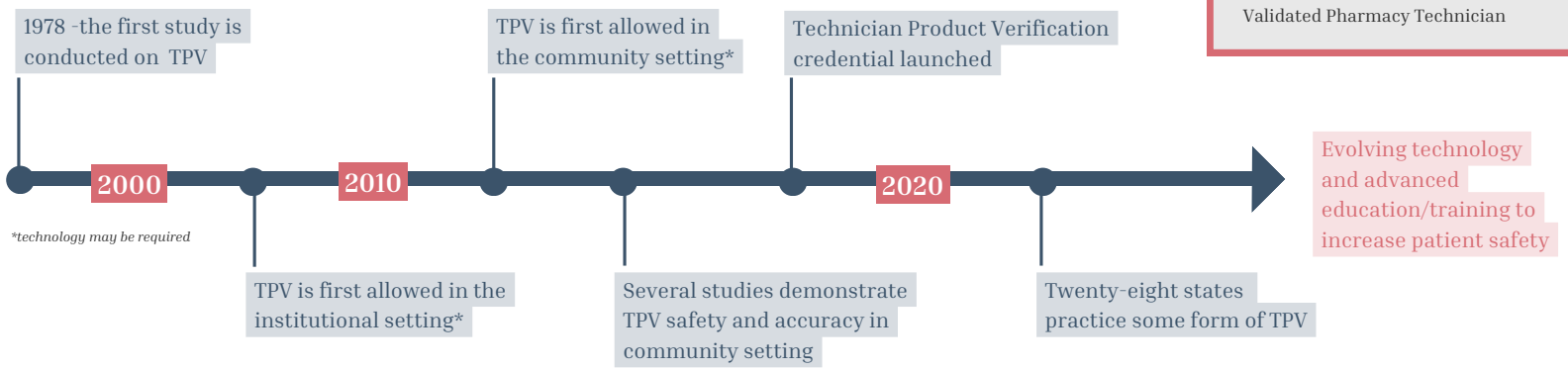
by Kristen Snair, MSJ, CPhT and Julie F Lanza, CPhT-Adv, CSPT

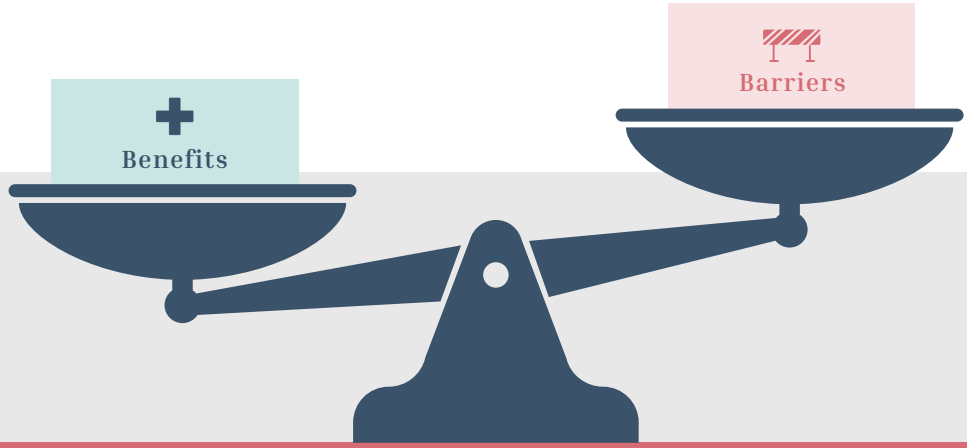
## Terminology

Checking Technician
Delegate-Check-Delegate
Tech-Check-Tech (TCT)
Technician Product Verification (TPV)
Technology Assisted Verification (TAV)
Validated Pharmacy Technician

## Learning Objectives

1. Explain the evolution of pharmacy technician product verification, highlighting the past, present, and future.
2. Describe the barriers of implementing pharmacy technician product verification.
3. Describe the benefits of implementing pharmacy technician product verification.




## Benefits of TPV:

- Increase workflow efficiency
- Technician career advancement
- Time for billable/clinical services
- Time for counseling/MTM/DUR

## Barriers to TPV:

- Compensation
- Implementation
- Liability
- Training

## Conclusion

The process of pharmacy technician product verification has evolved in the more than 40 years of studying, rule-writing, and implementing. There have been different names used for pharmacy technician verification and different settings in which it is allowed to be implemented. Studies report that the accuracy rate of pharmacy technician product verification have remained steadily the same or better than pharmacists' rate. Utilization of the knowledge gained from the evolution of pharmacy technician product verification can influence future implementation.

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# Improving Patient Access to Primary Care

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## Background Information

- Enhanced primary care access is linked to improved health outcomes.[1]
  - reduced hospitalizations
  - broader healthcare service access
  - better adherence to care guidelines
  - improved quality of care
  - early detection and management of diseases,
  - decreased need for specialist consultations
- Primary care provider shortages and extreme demand often make it challenging for patients to establish care and receive timely appointments

## Why Pharmacists?

- 80% of all chronic diseases are primarily managed with pharmacotherapy[2]
- As medication experts, pharmacists can provide comprehensive post-diagnostic medication management across a wide variety of areas
- Pharmacists are increasingly recognized as non-physician providers (NPPs) by state and commercial health plans, delivering care within their defined scope as the 'rendering provider' on medical billing claims.

## How Can Pharmacist Improve Access to Primary Care?

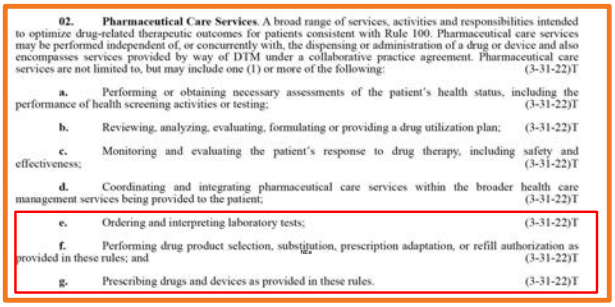
- Offering post-diagnosis medication management services[3]
- Increasing availability and capacity for patient visits with clinic providers[4]
- Reduced clinic appointment wait times[4]
- Expanded range of medication management services, allowing a broader array of medications to be managed directly in the clinic without specialist referrals[5]
- Strengthening the overall capacity of the healthcare system, particularly in rural and underserved communities[4]


## Current Barriers

- Traditional mindsets, outdated practices, and unfamiliarity with the embedded model in private practice
- Limited recognition of pharmacists as independent healthcare providers
- Collaborative practice agreements (CPA) restrictive and inefficient
- Lack of policies granting pharmacists the ability to independently prescribe and interpret laboratory tests

## Role of Regulatory Board

- State regulations can facilitate pharmacist integration by:
  - Converting to a "Standard of Care" regulatory model
  - Adopting policies that grant greater independence to pharmacists
  - Moving beyond collaborative practice agreements
  - Allowing independent prescribing and the ability to order and interpret laboratory tests



**02. Pharmaceutical Care Services.** A broad range of services, activities and responsibilities intended to optimize drug-related therapeutic outcomes for patients consistent with Rule 100. Pharmaceutical care services may be performed independent of, or concurrently with, the dispensing or administration of a drug or device and also encompasses services provided by way of DTM under a collaborative practice agreement. Pharmaceutical care services are not limited to, but may include one (1) or more of the following: (3-31-22)T

a. Performing or obtaining necessary assessments of the patient's health status, including the performance of health screening activities or testing; (3-31-22)T

b. Reviewing, analyzing, evaluating, formulating or providing a drug utilization plan; (3-31-22)T

c. Monitoring and evaluating the patient's response to drug therapy, including safety and effectiveness; (3-31-22)T

d. Coordinating and integrating pharmaceutical care services within the broader health care management services being provided to the patient; (3-31-22)T

e. Ordering and interpreting laboratory tests; (3-31-22)T

f. Performing drug product selection, substitution, prescription adaptation, or refill authorization as provided in these rules; and (3-31-22)T

g. Prescribing drugs and devices as provided in these rules. (3-31-22)T

## Primary Care Pharmacist

Photo: Modern Healthcare

## Discussion

- Integrating pharmacists into primary care teams can:
  - Increase capacity for physician appointments and expand panel
  - Shorten patient wait times
  - Provide direct access to comprehensive medication management services
  - Reduce the need for specialist referrals
  - Improve health outcomes and strengthen the healthcare system, especially in rural and underserved areas

## Conclusion

- Fully integrating pharmacists into primary care teams supports the mission of protecting public health by:
  - Expanding timely and comprehensive primary care access
  - Improving health outcomes
  - Bridging existing gaps in care

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# Improving Patient Access to Primary Care

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## Learning Outcomes

1. Describe the potential health outcomes associated with improved primary care access.
2. Describe the integration model of pharmacists in primary care and their role in expanding patient access through medication management.
3. Examine regulatory frameworks that enhance pharmacists' autonomy and their impact on integrating pharmacists into primary care.

## Poster Summary

"Improving Patient Access to Primary Care" explores the advantages of increased pharmacist involvement within primary care settings. This presentation will provide an overview of the integration model, highlighting pharmacists' essential role in expanding access through post-diagnosis medication management services. It will also explore regulatory frameworks that grant pharmacists greater autonomy and independence, enabling primary care facilities to integrate pharmacists more effectively. Participants will gain a conceptual understanding of how fully integrating pharmacists can enhance the capacity for physician appointments, reduce patient wait times, and improve health care delivery, especially in rural and underserved areas.

## Self-Assessment Questions

1. Which of the following is a potential health outcome associated with improved primary care access?

   A. Increased hospital readmissions
   B. Decreased patient satisfaction
   C. Reduced healthcare costs
   D. Longer patient wait times

2. What is the primary role of pharmacists in the integration model within the primary care setting?

   A. Performing surgical procedures
   B. Conducting primary health assessments
   C. Providing post-diagnosis medication management services
   D. Offering psychological counseling

3. How do regulatory frameworks that enhance pharmacists' autonomy impact their integration into primary care?

   A. They limit the services pharmacists can provide.
   B. They increase pharmacists' ability to independently manage patient medications.
   C. They reduce the need for pharmacist involvement in patient care.
   D. They restrict pharmacists to administrative duties only.

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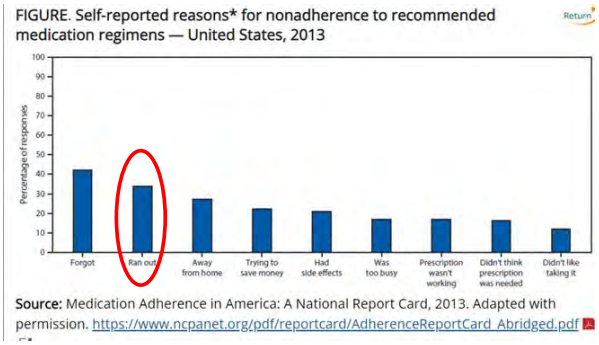
# Pharmacist Prescription Adaptation & Refill Prescribing to Ensure Continuity of Care and Protecting Public Health

Authors: Fallyn Lambertsen, PharmD, Community PGY1 Resident, Idaho State University L.S. Skaggs College of Pharmacy; Eileen Lambert, PharmD Candidate 2026, Idaho State University L.S. Skaggs College of Pharmacy; Tom Wadsworth, PharmD, BCPS, Dean, Idaho State University L.S. Skaggs College of Pharmacy; Debbie Marchetti, PharmD, Clinical Assistant Professor, Idaho State University L.S. Skaggs College of Pharmacy

## Background Information

- The undue complexity of the medication refill process often negatively impacts access to medication therapy.
- When patients cannot obtain refills, it often leads to preventable drug-related adverse events stemming from nonadherence.
- "Running out" ranked second as the self-reported reason for medication regimen nonadherence.[3]




## What Is a Refill Extension?

- A refill extension refers to the continuation of a prescription by adding available refills to the current prescription beyond the initially specified quantity.
- Refill extensions are applied to non-controlled drugs allowing patients to continue receiving their medication without the need for a new prescription, ensuring continuity of care.

## What Is a Prescription Adaptation?

- The process where a pharmacist modifies an **existing prescription** to better suit the patient's needs or circumstances without a new prescription from the health care provider.
- Adaptations could involve:
  - Quantity
  - Dosage Form
  - Medication Strength
  - Therapeutic Interchange
  - Missing Prescription Information

## Why Pharmacists?

- Pharmacists are highly accessible health care providers, naturally positioned to proactively address and mitigate therapy gaps during the prescription refill process.[2]
- As medication experts with an established patient relationship, pharmacists can best assess patient-specific consequences of medication nonadherence.
- The dispensing pharmacist is best positioned to make adjustments or extensions based on patient-specific factors in a practical, timely, and cost-effective manner to mitigate critical gaps in medication therapy.

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## Role of Regulatory Board

- State regulations can facilitate this solution through regulatory and rule changes.
  - Independent refill extensions and prescription adaptations.[4]

**03. Refill Authorization.** A prescription drug order may be refilled when permitted by state and federal law and as specifically authorized by the prescriber. A pharmacist may also refill a prescription for a non-controlled drug to ensure continuity of care. (3-28-23)

**403. FILLING PRESCRIPTION DRUG ORDERS: ADAPTATION.**
A pharmacist may adapt drugs as specified in this rule. (3-28-23)

**01. Change Quantity.** A pharmacist may change the quantity of medication prescribed if: (3-28-23)

**a.** The prescribed quantity or package size is not commercially available; (3-28-23)

**b.** The change in quantity is related to a change in dosage form, strength, or therapeutic interchange; (3-28-23)

**c.** The change is intended to dispense up to the total amount authorized by the prescriber including refills; or (3-28-23)

**d.** The change extends a maintenance drug for the limited quantity necessary to coordinate a patient's refills in a medication synchronization program. (3-28-23)

**02. Change Dosage Form.** A pharmacist may change the dosage form of the prescription if it is in the best interest of patient care, so long as the prescriber's directions are also modified to equate to an equivalent amount of drug dispensed as prescribed. (3-28-23)

**03. Complete Missing Information.** A pharmacist may complete missing information on a prescription if there is evidence to support the change. (3-28-23)

**04. Documentation.** The adaption must be documented in the patient's record. (3-28-23)

## Protocol & Best Practices

## Discussion

- Refill extensions and adaptations can aid in maintaining care continuity, especially during transitions of care and long appointment wait times.
- Practically bridging refill gaps can alleviate unnecessary and costly encounters such as emergency care visits.
- Particularly advantageous in rural and underserved areas with health care provider shortages or long travel distances for accessing medical care.
- Dispensing pharmacists can effectively bridge therapy gaps by quickly and affordably adjusting or extending prescriptions based on patient needs, leveraging their accessibility and medication expertise.

## Conclusion

- This proactive and simple strategy reduces the risk of harm due to undertreatment or absence of treatment. By adopting pharmacist-led refill extensions and prescription adaptations, state boards can significantly minimize these frequent interruptions in patient care.

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## Learning Outcomes

1. Discuss the significance of "running out" of medications as a major factor for medication regimen nonadherence and its impact on public safety.
2. Identify the role of pharmacists in mitigating nonadherence through proactive measures such as refill extensions and prescription adaptations.
3. Recognize the importance of state regulations in facilitating pharmacist-led interventions to ensure continuity in medication adherence.
4. Review the benefits of pharmacist-led refill extensions and prescription adaptations in enhancing access to medication, especially in underserved areas.

## Self-Assessment Questions

1. What does the 2013 CDC report identify as the second-leading self-reported reason for medication regimen nonadherence, and what public safety issue does this highlight?
    a. The report identifies "side effects" as the second-leading reason for medication nonadherence, focusing on adverse reactions rather than refill delays.
    b. The report identifies "cost concerns" as the second-leading reason for medication nonadherence, emphasizing financial barriers over refill processes.
    c. The report identifies "running out" as the second-leading reason for medication nonadherence, highlighting the issue of preventable drug-related adverse events due to refill delays.
    d. The report identifies "forgetfulness" as the second-leading reason for medication nonadherence, overlooking the issue of refill delays.
2. How can pharmacists utilize their medication expertise to proactively address and mitigate gaps in therapy during refill requests?
    a. Pharmacists may ensure patients receive appropriate medications, dosages, and instructions.
    b. Pharmacists can only provide general medication information during refill requests and lack the authority to address therapy gaps effectively.
    c. Pharmacists' medication expertise is limited to dispensing medications and does not extend to identifying or mitigating therapy gaps during refill requests.
3. What regulatory and rule changes can state regulations implement to support pharmacist-led initiatives for refill extensions and prescription adaptations?
    a. Concerns over patient safety and legal liabilities may restrict state regulations from allowing pharmacist-led refill extensions and prescription adaptations.
    b. State regulations can authorize pharmacists to independently extend refills and adapt prescriptions, streamlining access to medications and reducing adverse events.
    c. State regulations may maintain current practices for pharmacist-led initiatives to avoid unnecessary changes.
4. How do pharmacist-led refill extensions and prescription adaptations contribute to reducing emergency care visits and supporting continuous medication therapy, particularly in rural underserved areas like Idaho and Alaska?
    a. Pharmacist interventions are limited by regulations and may not effectively reduce emergency care visits and support continuous medication therapy.
    b. The impact of pharmacist-led interventions is uncertain, with systemic issues like provider shortages remaining unaddressed.
    c. By addressing medication nonadherence, ensuring patients have access to medications, and minimizing adverse events.

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# How to Implement a "Standard of Care" Regulatory Model for Pharmacy

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## Standard of Care Regulatory Model

Clinical ability and education of pharmacists have undergone significant evolution over the past several decades. Despite this evolution and advancements in knowledge, bright line pharmacy regulations (objective rules that are easy to enforce) often create a ceiling, or "top of a pharmacist's license", that does not align with the clinical ability of the majority of graduates.

Bright line regulatory models fall short of allowing some pharmacists to practice at the top of their clinical ability and conversely may allow pharmacists with less clinical ability to practice above their abilities, potentially putting patients at risk.

In order to combat restrictive bright line regulations, a standard of care (SOC) regulatory model should be adopted by state boards of pharmacy. The SOC regulatory model is a dynamic, practice (–) based approach to regulation - it has the flexibility to adapt to different circumstances, practice settings, and clinical abilities of the individual practitioner.[1]


**Figure 1.** Regulatory Model Continuum[1]

## Five-Step Approach to Implementation

State boards of pharmacy can contribute to increased access to quality care by adopting a SOC regulatory model that aligns with these principles.

As the first state to implement a SOC regulatory model with the Idaho State Board of Pharmacy in 2018, we designed a five-step approach to implementation.[2]


**Figure 2.** Five Steps States Must Take to Adopt a Standard of Care Regulatory Model[2]

### Step 1. Adopt a Broad Definition of "Practice of Pharmacy"

It is imperative that each state adopt a broad definition of "practice of pharmacy" that will encompass at minimum, a "full scope of practice." Idaho has, over time refined its definition to:

54.1705(46) "Practice of pharmacy" means the safe interpretation, evaluation, compounding, **administration**, and dispensing of prescription drug orders, patient counseling, **collaborative pharmacy practice**, provision of **pharmaceutical care services**, proper storage of drugs and devices, and **prescribing of drugs and devices** as may be further defined in this chapter.[3]

This definition is the necessary precursor to pharmacists being able to practice at the top of their education and training, not at the bottom of their license.[2]

### Step 2. Allow Elasticity for Scope of Practice Advancement Over Time

To provide flexibility for pharmacy practice advancements, a board of pharmacy must establish laws, allowing the individual licensee to determine if a specific act is within the defined scope of pharmacy practice.

1. Is the act expressly prohibited?
2. Is the act consistent with licensee education, training, and experience?
3. Does performing this act fall within the accepted standard of care that would be provided in a similar setting by another licensed individual with the same education, training, and experience?

The elastic clause also applies to which tasks can be delegated to other individuals, such as pharmacy interns or pharmacy technicians.

### Step 3. Decide Which Limited Instances Still Necessitate Prescriptive Regulation

While it's essential to identify instances where prescriptive regulations are still necessary, the inclusion of waivers in law provide a mechanism to bypass certain regulations, fostering innovation without compromising public safety.

### Step 4. Eliminate All Remaining Unnecessary Regulations

Eliminating unnecessary regulations, or those incompatible with a standard of care model allows for streamlining tasks. While difficult to do so, if the purpose behind a regulation is unclear and its purpose cannot be readily described, it should be deemed unnecessary until proven otherwise.

### Step 5. Strengthen Accountability Mechanisms and Oversight

Though implementation of this model enables the utilization of pharmacists to enhance public health without constant legislative battles, regulations regarding unprofessional conduct are necessary to bring discipline against any licensee for violating the standard of care.

**IDAPA 24.36.01.104.16 Standard of Care.** Acts of omissions within the practice of pharmacy which fail to meet the standard provided by other qualified licensees or registrants in the same or similar setting.

## Discussion

Implementing a SOC regulatory model has the advantage of enabling innovation in the pharmacy profession over time without the need to constantly go to the legislature to advocate for service-specific changes.

States wishing to adopt a standard of care regulatory model can follow this five-step process to enhance patient care and mitigate the lag that is otherwise constant between laws and practice.[2] States that have adopted a standard of care regulatory model include Idaho, Alaska, and Iowa.

**Figure 3.** States with Standard of Care Pharmacy Regulatory Models

## Conclusion

This regulatory model empowers pharmacists by regulating them similarly to other health professions such as nursing and medicine, providing regulatory consistency across the healthcare system.

The incorporation of the SOC model into pharmacy practice regulation presents an exciting opportunity to leverage pharmacists' clinical ability in safeguarding public health through patient access to quality care.

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## Learning Objectives

1. Define bright line regulation and standard of care regulation
2. Identify the five essential steps involved in implementing a standard of care regulatory model
3. Describe how the implementation of standard of care regulation enables pharmacists to contribute to the protection of public health

## Five-Step Approach to Implementation

Bright line regulatory models fall short of allowing some pharmacists to practice at the top of their clinical ability and conversely may allow pharmacists with less clinical ability to practice above their abilities, potentially putting patients at risk. The standard of care (SOC) regulatory model is a dynamic, practice-based approach to regulation-it has the flexibility to adapt to different circumstances, practice settings, and clinical abilities of the individual practitioner. As the first state to implement a SOC regulatory model with the Idaho Board of Pharmacy in 2018, Adams et. al. designed a five-step approach to implementation.[1]


**Figure 2.** Five Steps States Must Take to Adopt a Standard of Care Regulatory Model[2]

## Conclusion

States wishing to adopt a standard of care regulatory model can follow this five-step process to enhance patient care and mitigate the lag that is otherwise constant between laws and practice.[1] The incorporation of the SOC model into pharmacy practice regulation presents an exciting opportunity to leverage pharmacists' clinical ability in safeguarding public health through patient access to quality care.

## References

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## Self-Assessment Questions

1. Which of the following is a key characteristic of standard of care regulation?

   a. It provides little to no flexibility in interpretation and enforcement
   b. It establishes clear and specific rules with minimal room for interpretation
   c. It relies on specific, objective judgment to determine compliance
   d. It allows for the adaptation of new skills and abilities to be integrated into practice quickly without the need for regulation changes

2. Which of the following is the first step of implementing a standard of care regulatory model?

   a. Adopt a broad definition of "Practice of Pharmacy"
   b. Eliminate all remaining unnecessary regulations
   c. Strengthen accountability mechanisms and oversight
   d. Decide which instances necessitate the need for prescriptive regulation

3. How does a standard of care regulatory model in pharmacy practice contribute to the protection of public health? (Select all that apply)

   a. Allows pharmacists to practice with the same regulation as other health care providers, increasing regulatory consistency across health licensing boards
   b. Increases accessibility to patient care
   c. Allows pharmacists to practice at the top of their education, training, and experience
   d. Disempowers pharmacists to advance pharmacy practice through advancing their clinical ability

## Contact Information

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**The majority of the presenters and advisors have no financial relationships to disclose related to this poster.**
**Dr. Jennifer Adams has received grant funding from the Mercatus Center at George Mason University related to pharmacy regulatory innovation.**

Idaho State University | L.S. Skaggs College of Pharmacy

DOPL DIVISION OF OCCUPATIONAL & PROFESSIONAL LICENSES

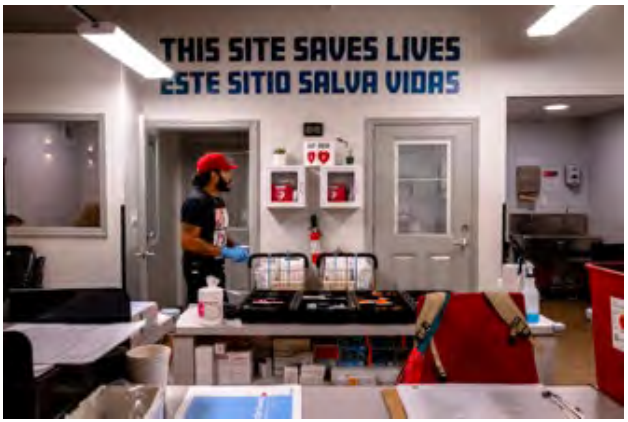
# The Pharmacist's Role in Supporting the Care of People Using Overdose Prevention Centers (OPC)

**Presenter: Nicole Famiglietti, PharmD Candidate, 2025, University of Rhode Island**
**Advisor: Jeffrey Bratberg, PharmD, FAPhA, Clinical Professor of Pharmacy Practice and Clinical Research University of Rhode Island**

## OPC Background

Since 1999, overdose deaths in the United States have been steadily climbing, escalating during & plateauing post-COVID

OPCs have operated globally for decades, where individuals can use pre-obtained substances safely under medical supervision, be connected to wrap-around behavioral, medical harm reduction, and overdose prevention and treatment services




## New York OPC Statistics

**New York City is home to the US's first two OPCs. Here's what they found in their first year of operation:**

- **636** lives were saved, and EMS was called only 23 times
- **1 in 5** participants were referred to housing, detox, treatment, primary care, or employment
- OPCs averted public drug use in **81% of visits**
- **No significant changes** detected in violent crimes or property crimes recorded by police

## Rhode Island OPC - Opening Fall 2024

| | |
|---|---|
| **Offers safe spaces for drug consumption** | **Harm reduction education/training and supplies** |
| **Needle and syringe distribution and disposal** | **Information and referrals to community providers and organizations: clothing, food, housing, employment, legal services** |
| **Point of Care HIV and Hepatitis C testing** | **Drug checking/testing of pre-acquired substances** |

## Pharmacist's Roles

Like OPCs, participate in comprehensive harm reduction for patients through identification, referral or meeting patient needs

Stock and promote naloxone, medications for opioid use disorder (MOUD), HIV & HCV medications, and immunizations and testing

Supply patients with syringes and other safe use supplies, including naloxone and disposal

Emphasize **compassionate care of people** who use drugs, and educate other pharmacists and pharmacy technicians on active listening and how to provide care and referrals

**OPCinfo.org**

# The Pharmacist's Role in Supporting the Care of People Using Overdose Prevention Centers

**Presenter:** Nicole Famiglietti, PharmD Candidate, Class of 2025, University of Rhode Island College of Pharmacy

**Advisor:** Jeffrey Bratberg, PharmD, FAPhA, Clinical Professor of Pharmacy Practice and Clinical Research, University of Rhode Island College of Pharmacy

**Nicole Famiglietti and Jeffrey Bratberg, PharmD, FAPhA, declare that they do not have any current financial disclosures**

**Learning Objectives:**

- Describe the roles pharmacists and pharmacy technicians play in harm reduction in community pharmacies.
- Recognize the role OPCs play in harm reduction, treatment coordination, and connection to social services.
- Describe the regulations implementing OPC's in Rhode Island and the services they provide to people who use drugs.

**Overdose Prevention Centers**, or OPCs, are locations where people can bring previously obtained substances to use in a safe and compassionate space under the supervision of trained medical personnel who will respond in the event of an overdose. At these locations, people also have access to wrap-around services, including access to treatment for substance use, and services affecting social determinants of health (SDOH).

## Wrap-Around Services Offered

- Safe spaces for drug consumption
- Needle and syringe distribution and disposal
- Point-of-care HIV and Hepatitis C testing
- Harm reduction education/training and supplies
- Information and referrals to community providers and organizations: clothing, food, housing, employment, legal services
- Drug checking/testing of pre-acquired substances

## New York OPCs

New York City is home to the nation's first two OPCs that have been operating since November 2021. In the first year of being open, statistics showed that:

- Public drug use was averted in 81% of visits
- Staff intervened 636 times to prevent overdoses

Questions? Nicole Famiglietti Nfamiglietti2@uri.edu

- 83% of opioid overdoses were resolved without naloxone, instead using oxygenation and monitoring in their responses
- 2, 841 unique participants used the sites 48,533 times
- EMS was called only 23 times
- 75% of OPC participants accessed wrap-around services
- 1 in 5 participants were referred to housing, treatment, primary care, or employment
- 100% of participants who sought detoxification were connected to outside providers
- 435,078 units of hazardous waste were kept from public parks, streets and buildings

## Legality of OPCs

OPCs are legal in the US; however, interpretation of a statute in the Controlled Substances Act (CSA), prevents "opening or maintaining any place for the purpose of the use or distribution of controlled substances." State courts determine the implications of this statute, known colloquially as the "Crack House Statute," on an individual basis. Pennsylvania state courts have banned OPCs from opening, whereas in Rhode Island legislation has been approved to open the third OPC in the country in fall 2024.

## The Pharmacist's Role: 2019 APhA statement

**2019 The American Pharmacists Association (APhA) has passed the following regarding the Patient-Centered Care of PWUD**

- Initiate, sustain, and integrate evidence-based harm reduction principles and programs into their practice
- Support pharmacists' roles to provide and promote consistent, unrestricted, and immediate access to evidence-based, mortality- and morbidity-reducing interventions
  - **Sterile syringes, needles, and other safe injection equipment**
  - **Syringe disposal, fentanyl test strips, immunizations, condoms, wound care**
  - **Pre- and post-exposure prophylaxis medications for HIV**
  - **Point-of-care testing for HIV and hepatitis C virus (HCV)**
  - **Opioid overdose reversal medications, medications for opioid use disorder**
- **Refer PWUD to specialists** in mental health, infectious diseases, and addiction treatment; to housing, vocational, harm reduction, and recovery support services; and to ***overdose prevention sites*** and syringe service programs

## Assessment Questions:

**1.** True or False: Overdose Prevention Centers (OPCs) *decrease* public drug consumption and discarded drug paraphernalia.

2. Which of the following wrap-around services can community pharmacists and pharmacy technicians most easily provide to people who use drugs (PWUD) in most jurisdictions?
   a. Basic needs (e.g. food, clothing)
   b. Referral to legal services
   c. Peer recovery specialists
   d. Safe, sterile injection equipment

Questions? Nicole Famiglietti Nfamiglietti2@uri.edu

PRESBYTERIAN COLLEGE SCHOOL of PHARMACY

# Regulatory Insights: Examining the Landscape of State Policies That Allow Medication for Pharmacists With Substance Use Disorders

Audra Butler, PharmD Candidate and Mary Douglass Smith, PharmD

## BACKGROUND

- Individuals with an opioid use disorder (OUD) have several treatment methods to consider: an abstinence-based approach, outpatient treatment, cognitive therapy, and medication prescribed for the OUD (mOUD), including methadone, naltrexone, or buprenorphine.
- The goals of therapy are to minimize cravings and withdrawal symptoms and return to activities of daily living.
- Each state's regulations differ on medications that are allowed, restricted, or simply vague in guidance for the practitioner.
- Clear and effective communication between program participants, licensing boards, and treatment providers can help these licensees return to practice while reducing the risk to public safety.
- Pharmacists are entrusted to have full cognitive function and clear judgment while practicing for the good of public health and safety. These same goals apply to pharmacist with an OUD. By establishing clear guidance on the rehabilitation and maintenance of OUD in pharmacists, including pathways back to licensure, these individuals can seek and establish effective treatment strategies without compromising patient safety.

## METHODS

### OBJECTIVE

This study sought to establish the landscape of regulatory policies related to mOUD for pharmacists.

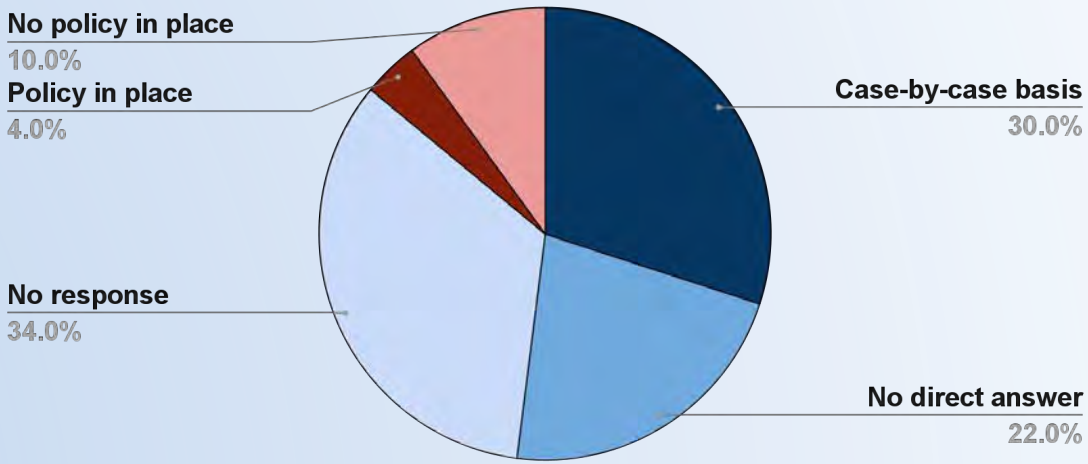
**Primary outcome:** Assess each state's current policy, if any, on the use of mOUD in practicing pharmacist.
**Secondary outcome:** Document the states that offered support programs for pharmacists with opioid use disorders.

### BOARD CONTACT

- Each board administrator's email address was obtained through the National Association of Boards of Pharmacy's (NABP) website or the board's webpage. If an email address could not be obtained, the website chat/message feature (if available) or an associated phone number were utilized.
- Standardized questions were presented to each board of pharmacy regarding the use of mOUD in practicing pharmacists, which drugs (if any) were allowed, and what their state offers for pharmacists with OUD.
- Each board was contacted 3 times to obtain the information.
- The answers were coded into different categories and coded as: 1) policy in place, 2) case-by-case basis, 3) no policy in place, 4) no direct answer or unable to provide, or 5) no response.

## RESULTS

- 33 state boards (66%) responded through email or phone conversation.
- 2 states, Massachusetts and Kentucky, had an explicit policy regarding mOUD use in licensed pharmacists that was limited to use with prescriber approval.
- 19 states offered support programs for pharmacists with OUD.




## CONCLUSIONS

- A pharmacist with OUD can feel overwhelmed when seeking help and finding ways to preserve their professional and personal identities.
- Pharmacists may realize too late that effective treatment is not allowed when returning to practice based on their state's policies.
- Implications of this study suggest that there is a need for proposing a model regulation or legislation to provide clear guidance to licensees with OUD while still protecting public safety.

## REFERENCES & CONTACT INFO

PRESBYTERIAN COLLEGE
SCHOOL of PHARMACY

# Regulatory Insights: Examining The Landscape of State Policies That Allow Medication for Pharmacists With Substance Use Disorders

Audra Butler, PharmD Candidate, Class of 2025 & Mary Douglass Smith, PharmD~

## Objectives:

1. Review the current regulations regarding the accepted use of medications for opioid use disorder (mOUD) with pharmacists amongst the states.
2. Describe the barriers that result from lack of uniformity of policies amongst states and the difficulty in obtaining information for pharmacists suffering with opioid use disorder (OUD).

## Results:

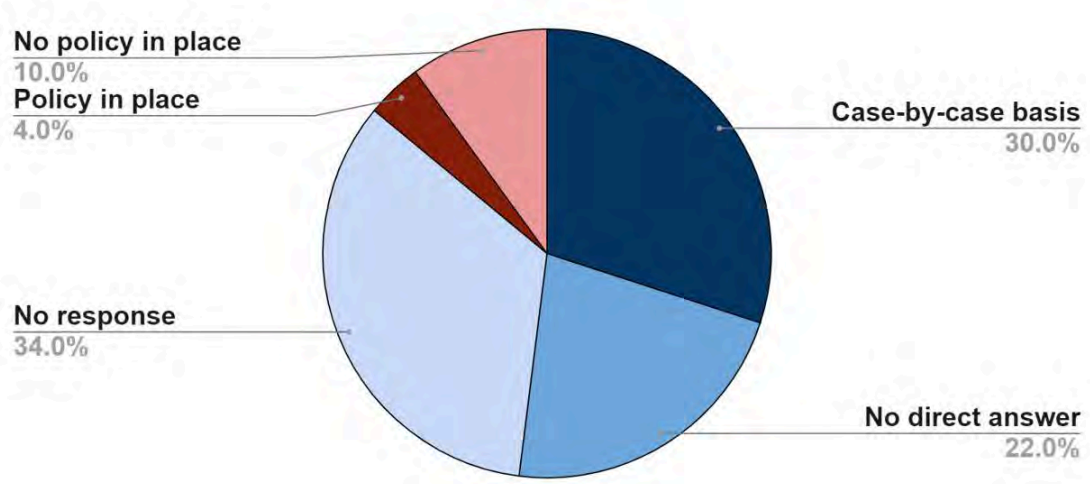
- 33 state boards (66%) responded through email or phone conversation.
- Two states, Massachusetts and Kentucky, had an explicit policy regarding mOUD use in licensed pharmacists, which was limited to use with prescriber approval.
- 19 states offered support programs for pharmacists with OUD.

## Methods:

- Each state's board of pharmacy was contacted directly to collect the most pertinent information regarding use of mOUD by licensees.
- The answers were stratified into different categories and coded as: 1) policy in place, 2) "case-by-case" basis, 3) no policy in place, 4) no direct answer or unable to provide, or 5) no response.

## Conclusion:

- A pharmacist with OUD can feel overwhelmed when seeking help and finding ways to preserve their professional and personal identities.
- Implications of this study suggest that there is a need for proposing a model regulation or legislation to provide clear guidance to licensees with OUD while still protecting public safety.




Poster Presentations: Evolving Pharmacy Practice to Protect the Public Health
NABP Webinar – July 18, 2024

## References & Contact Info:

# The Public Health Implications of Incompetency To Stand Trial: Psychiatric Pharmacist Perspective

Nina Vadiei, PharmD, BCPP; Catherine Hall, PharmD, BCPP; Stephen R. Saklad, PharmD, BCPP

## Overflooded State Hospitals

- People living with mental illness, developmental disabilities, and neurocognitive disorders find themselves jailed, sometimes for years. They have not been convicted of a crime, rather, they are awaiting trial due to concerns about their legal competency.[1]
- Most beds at state hospitals have been repurposed to move people out of overcrowded jails and provide the psychiatric treatment needed to restore competency.
- There are far too many individuals in jail awaiting competency restoration for state hospitals to accept.[1]
- The public mental health sector is under-funded and does not have an adequate number of psychiatrists and advanced psychiatric providers to keep up with increasing mental health demands.[2]
- Board-certified psychiatric pharmacists (BCPPs) are an underutilized resource that can help address the growing need to increase patient access to cost-effective and advanced mental health care.[2]

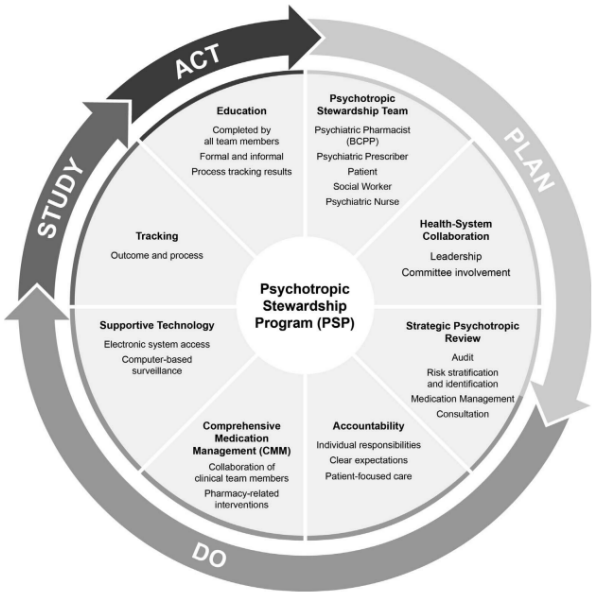
## Psychiatric Pharmacist Role

- The American Association of Psychiatric Pharmacists (AAPP) has promoted the expansion of psychiatric pharmacy through the development of psychotropic stewardship programs (PSPs).[3]
- AAPP envisions that every patient with a psychiatric diagnosis will have their medication treatment plan reviewed, optimized, and managed by a psychotropic stewardship team with a BCPP co-leader.[3]

## Psychotropic Stewardship

- Initial implementation of PSPs should stratify patients with the highest risks of medication-related problems, comorbid conditions, or hospitalization.[3]
- Like antimicrobial stewardship, psychotropic stewardship promotes the safe and appropriate use of psychotropics, minimizes unintended consequences, and improves patient outcomes.[3]
- At San Antonio State Hospital (SASH), one BCPP tracked interventions over the course of 4 months and identified the most common interventions among forensic patients to be: (1) Medication not needed but prescribed; (2) Dose optimization; (3) Lab monitoring; (4) Education

## Core Elements of PSP




## Next Steps/Future Considerations

- Track site-specific PSP outcomes at different health systems, including state-hospitals.

| Outcome category | Tracking process |
|---|---|
| Efficacy | 1. Administer objective rating scales<br>2. Track # of medications initiated, tapered, discontinued |
| Safety | 1. Improve compliance with required lab monitoring<br>2. Track interventions that minimize adverse drug reactions |
| Education | Measure patient satisfaction with care provided by BCPP |
| Care Gaps | Measure team-member satisfaction in BCPP filling treatment care gaps |

## Conclusion

- Patients with severe mental illnesses who are found incompetent to stand trial often have substandard mental health care for years.
- Routine implementation of PSPs across state hospitals is one step in the right direction towards holding state health-systems accountable for improving psychotropic use and associated health outcomes for this vulnerable population.

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# The Public Health Implications of Incompetency to Stand Trial:

# Psychiatric Pharmacist Perspective

Nina Vadiei, PharmD, BCPP, Clinical Associate Professor, The University of Texas at Austin[1]

[1]The University of Texas at Austin, College of Pharmacy, Division of Pharmacotherapy; vadiei@uthscsa.edu

Learning Objectives:

1. Describe the barriers persons with severe mental illnesses (SMI) face in accessing mental health treatment.
2. Explain the role of the board-certified psychiatric pharmacist in fulfilling policymakers' recommendations for improving the full continuum of care for persons with SMI.
3. List measurable outcomes pharmacists can track when implementing a psychotropic stewardship program.

Disclosures:

Dr. Nina Vadiei has no financial relationships to disclose.

Scope of the Problem:

- 797,005 people in Texas have a severe mental illness (SMI), but only 330,664 receive treatment
- People living with SMI frequently have their first contact with the mental health system in jail
- Often, they have not been convicted of a crime and are awaiting competency restoration to stand trial
- There are far too many individuals in jail awaiting treatment for their SMI for state hospitals to accept (estimated over 35,000 inmates with SMI; a little over 1,500 state hospital beds)
    - The current state psychiatric hospital bed to patient ratio is 5:100,000
    - The recommended ratio for providing minimally adequate treatment is 50:100,000
    - Up to 18% of people in jails and prisons suffer from SMI
    - About 1% of the total state budget is allocated to state mental health agencies

Role of Board-Certified Psychiatric Pharmacists (BCPPs):

- BCPPs are an underutilized resource for increasing access to high-quality patient care
- The American Association of Psychiatric Pharmacists (AAPP) has promoted the expansion of psychiatric pharmacy through the development of psychotropic stewardship programs (PSPs)
- AAPP envisions that every patient with a psychiatric diagnosis will have their medication plan reviewed, optimized, and managed by a PSP with a BCPP co-leader
- Standardization of PSP implementation across mental health institutions would help incentivize reimbursement of BCPP clinical services
- Outcomes to track:
    - Efficacy: routinely administer objective rating scales to minimize polypharmacy/high-dose psychotropic use based on subjective reports; track the number of medications initiated, tapered, and/or discontinued over time
    - Safety: improve compliance with required laboratory monitoring; track interventions that minimize adverse drug reactions
    - Education: collect survey data pertaining to patient satisfaction of medication education delivered by BCPP
    - Filling patient care gaps: collect survey data pertaining to team member satisfaction with BCPP services

Below you will find recommendations from policymakers with a mission to prevent the suffering and harm caused by failing to treat SMI and to give all people affected by it the chance to thrive. Suggestions on how the pharmacist's role ties into these policymaker recommendations are provided for pharmacists to advocate for the development and expansion of PSPs.

Connection Between BCPP Role and Policymaker Recommendations:

1. The Vital Continuum: Prioritize and fund the development of a comprehensive continuum of mental health care that incorporates a full spectrum of integrated, complementary services known to improve outcomes for individuals of all ages with SMI.
    a. Pharmacist's role:
    Integrated, complementary service should include medication management with teams consisting of a BCPP.

2. Data-Driven Solutions: Prioritize and fully fund the collection and timely publication of all relevant data on the role and intersystem impacts of SMI and best practices.
    a. Pharmacist's role:
    Support and encourage BCPPs to publish data pertaining to the impact of clinical services provided.

3. Linkages: Recognize that mental health, community, justice, and public service systems are interconnected, and adopt and refine policies to identify and close gaps between them. Practices should include providing "warm hand-offs" and other necessary supports to help individuals navigate between the systems in which they are engaged.
    a. Pharmacist's role:
    BCPPs can be a vital resource for improving transition of care processes.

4. Workforce: Initiate assessments to identify, establish, and implement public policies and public-private partnerships that will reduce structural obstacles to people's entering or staying in the mental health workforce. These assessments should include educational and training opportunities, pay disparities, and workplace safety issues. The assessments should be conducted for the workforce across all positions.
    a. Pharmacist's role:
    Advocate for funding of BCPP education/training and reimbursement for BCPP clinical services.

5. Partnerships: Recognize the vital role families and non-traditional partners outside the mental health system can play in improving mental health outcomes and encourage and support the inclusion of a broader range of invited stakeholders around mental illness policy and practice.
    a. Pharmacist's role:
    Include patient/family satisfaction of care provision as a tracked outcome for justifying BCPP clinical services.

Acknowledgements: Nina Vadiei would like to acknowledge Catherine Hall, PharmD, BCPP and Stephen R. Saklad, PharmD, BCPP who were unable to present today but helped finalize the initial presentation proposal and today's presentation.

# Impacts of Active Learning in a Pharmaceutical Calculations Course

Olgaaurora Rodriguez[1], Jeff Davis[1], Dr. Melanie Reinhardt[1], Dr. Martin D. Perry[1]

[1]College of Pharmacy, University of Arkansas for Medical Science, 4301 West Markham St, Little Rock, AR 72205, USA

## Abstract

**UAMS has committed to active learning (AL) as the predominant mode of content delivery in the Vision 2029 plan. Evidence-based strategies require learners to construct knowledge and meaning resulting in long-term retention as opposed to short-term memorization and superficial understanding. One such strategy is Process Oriented Guided Inquiry Learning. This pedagogical approach uses team-based, guided-inquiry activities designed around a learning cycle while also encouraging the development of process skills such as critical thinking, communication, and self-assessment. Working in this learning environment allows students to be exposed to multiple perspectives, confront commonly held misconceptions, and results in a higher likelihood of understanding and retention. Several student-centered learning activities were developed for select topics in a P1 Pharmaceutical Calculations course and implemented during the 2022 Fall Semester. Exam scores on each of these topics were compared to the previous year's cohort on the same topics taught using traditional instruction. The overall results show improvement in several individual topics, as well as a 16% increase in the final exam scores on these topics where active learning was used.**

## Materials

**Active learning materials were created in an AL format on the following Pharmaceutical Calculations topics:**

- **Aliquots, % Error**
- **Conversions, Metric**
- **Dimensional analysis**
- **Isotonicity**
- **Osmolarity, mEq, mmol**
- **Percent strength, % W/V, % W/W**

## Methods

- **These activities were developed and reviewed by a panel group, consisting of the Pharmaceutical Calculations course coordinator, a POGIL expert, and the summer research student.**
- **Active learning was implemented with the Fall 2022 P1 Cohort (experimental group) in Pharmaceutical Calculations in place of traditional instruction on these topics.**
- **No additional changes were made to the course with five class exams, including a comprehensive final exam, administered to assess performance.**
- **Comparison to the Fall 2021 P1 Cohort's (control group, traditional instruction) exam performances on these same topics were examined.**
- **Comparison between each cohort's overall exam performances were also noted.**
- **Note: No significant differences exist in cohort demographics and prerequisite knowledge.**

## Results

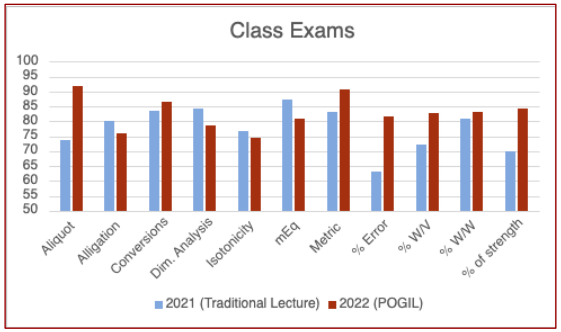


**Figure 1.** Class averages are shown on similar exam questions that covered material that was taught in the traditional lecture style in 2021 and using AL in 2022.

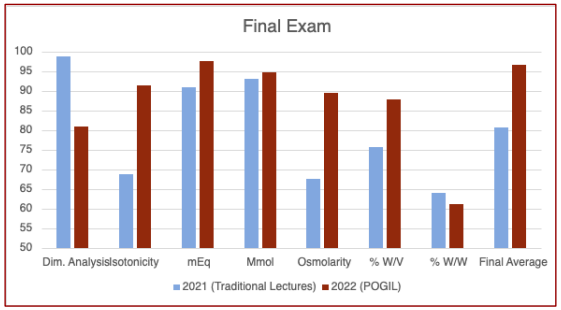


**Figure 2.** Student performance in subject areas on the final cumulative exam represented as a percentage.

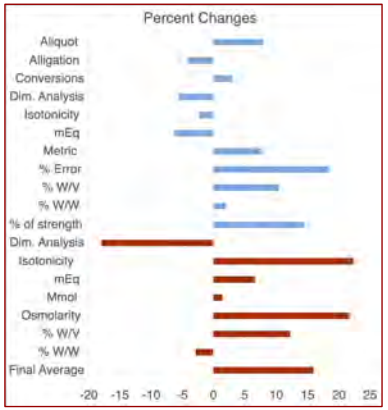


**Figure 3.** Percent changes between student performance in specific domains after implementation of the AL activities into the curriculum. Class exams are shown in blue and Final Exam performance is shown in red.

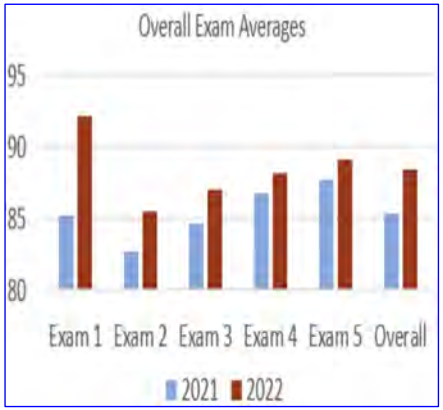


**Figure 4.** Differences in student performance on class exams and overall class scores before and after the implementation of AL activities represented as a percentage.

## Discussion and Conclusions

- **Substantial improvements in student performance were noted in several topics of pharmaceutical calculations.**
- **Some topics showed no improvement upon the initial testing, but on the cumulative final exam yielded higher scores than the previous year indicating better long-term retention in topics such as milliequivalents and isotonicity.**
- **The one significant outlier in performance was the topic of dimensional analysis. The instructional activity on this topic occurred on the second day of class for the new P1 cohort. A non-pharmacy activity could be used during P1 orientation to better acquaint students with expectations and reduce apprehension.**
- **With the implementation of student-centered learning activities, performance shows a clear positive trend, notably in better long-term retention and improved understanding and application of the material, with a large improvement on the cumulative final exam.**

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## Acknowledgements

**Facilities and funding were provided by the College of Pharmacy 2022 Summer Research Program.**

UAMS has committed to active learning as the predominant mode of content delivery in the Vision 2029 plan. Evidence-based strategies require learners to construct knowledge and meaning resulting in long-term retention as opposed to short-term memorization and superficial understanding. One such strategy is Process Oriented Guided Inquiry Learning. This pedagogical approach uses team-based, guided-inquiry activities designed around a learning cycle while also encouraging the development of process skills such as critical thinking, communication, and self-assessment. Working in this learning environment allows students to be exposed to multiple perspectives, confront commonly held misconceptions, and results in a higher likelihood of understanding and retention.

## Interested in learning more about active learning?

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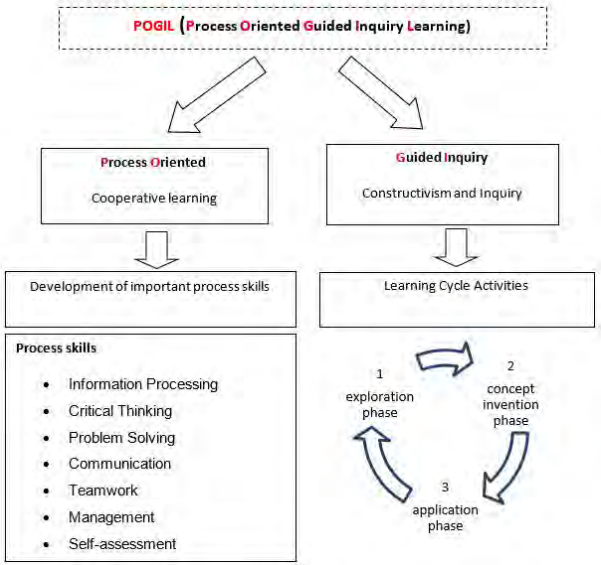
# Impacts of Active Learning in a Pharmaceutical Calculations Course

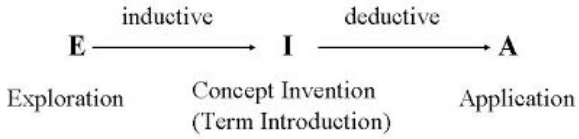
# Learning Objectives

- Describe the types of questions and the order of these questions in an activity that follows the learning cycle.
- Describe the benefits students experience when engaged in active learning during class.
- Explain the statistical data collected from students who were engaged in active learning compared to those who received traditional lectures.

# Methods



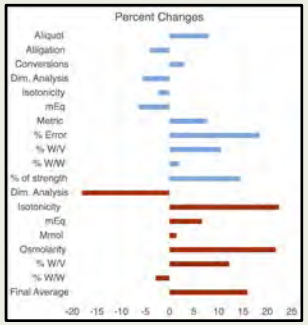

Active learning activities for the experimental group were created using the learning cycle of POGIL. This allowed students in the experimental group to practice and gain process skills like the ones mentioned in the image above.



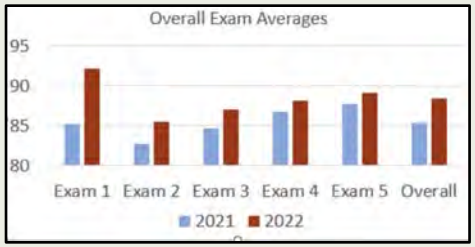

The types of questions and the order they were arranged in the active learning activities, were done with the intent to facility the POGIL learning cycle for the students. By providing “E”, “I”, and ”A” questions, students could work in their groups of four to develop and solidity new pharmaceutical calculations concepts.

# Results

- The one significant outlier in performance was the topic of dimensional analysis. The instructional activity on this topic occurred on the second day of class for the new P1 cohort. A non-pharmacy activity could be used during P1 orientation to better acquaint students with expectations and reduce apprehension.
- With the implementation of student-centered learning activities, performance shows a clear positive trend, notably in better long-term retention and improved understanding and application of the material, with a large improvement on the cumulative final exam.




Percent changes between student performance in specific domains after implementation of the AL activities into the curriculum. Class exams are shown in blue and Final Exam performance is shown in red.




Differences in student performance on class exams and overall class scores before and after the implementation of AL activities represented as a percentage.