

2026 Annual Convention



October 9–11, 2026

Oregon Zoo • Cascade Crest Ballroom

4001 SW Canyon Road • Portland, Oregon 97221

WITH THANKS TO OUR SPONSORS

McKESSON
Amplify

 **GILEAD**

 **Alnylam**
PHARMACEUTICALS

OREGON STATE PHARMACY ASSOCIATION
2026 Annual Convention
Saturday, October 10, 2026

Thank You to Our Sponsors!

Your support helps make this convention possible



OREGON STATE PHARMACY ASSOCIATION

2026 Annual Convention

Saturday, October 10, 2026

Thank You to Our Exhibitors

We appreciate your participation in the OSPA Annual Convention

Alnylam

ASCP

Bavarian Nordic

Board of Pharmacy

Cascade Pharmacy Group

DEA

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**Pacific University,
School of Pharmacy**

Pfizer

**Pfizer Global Hospital
and Biosimilars**

PhRMA

**PMC Advantage
Insurance Service**

Saladax

Sanofi

ViiV



OREGON STATE
PHARMACY ASSOCIATION



SAVE THE DATE

Mid-Winter CE Seminar

LANE COUNTY

Continuing education.
Professional connections.

FEBRUARY

20-21

2027

Saturday & Sunday

Valley River Inn

1000 Valley River Way
Eugene, Oregon 97401



SCAN FOR DETAILS

Mark your calendar.

Explore event details and registration online.

oregonpharmacy.org

Questions? info@oregonpharmacy.org | 503-582-9055

ripcity runs deep



PORTLAND

VS.

ATLANTA

SATURDAY, DEC. 12
7:00 PM



OSPA
OREGON STATE
PHARMACY
ASSOCIATION

PHARMACY NIGHT WITH THE BLAZERS

Join fellow Oregon pharmacy professionals for a pre-game social* starting at 5:45PM before cheering on the Trail Blazers as they take on the Atlanta Hawks.

Enjoy exclusive OSPA ticket pricing for this exciting night of Rip City basketball!

**Pre-game Social Event Details & Access Instructions will be shared with purchaser email addresses prior to the event.*

VISIT:

Rosequarter.com/groupnights

PROMO CODE:

OSPA



CONTACT:

JACQUI WILSON
503.963.3932

Jacqui.Wilson@trailblazers.com



Oregon State University College of Pharmacy

OFFICE OF CONTINUING PHARMACY EDUCATION

OSPA Annual Convention October 10, 2026

A **credit code** will be provided during each activity to be used during the online evaluation process. This form is to record each **credit code**. ***Be sure to record each code correctly, incorrect codes will NOT be accepted.***

THEME: MUSICAL INSTRUMENTS

Date & Time	Activity Title	ACPE UAN	Credit Code
10/10/2026 8:00 – 9:00 am	Board of Pharmacy Law Update (Pharmacy Law)	0036-9999-26-121-L03-P 0036-9999-26-121-L03-T	
10/10/2026 9:00 – 10:00 am	Question Persuade Refer (QPR) (Patient Safety)	0036-9999-26-122-L05-P 0036-9999-26-122-L05-T	
10/10/2026 10:30 – 11:30 am	Pharmacist Prescribed MOUD	0036-9999-26-123-L08-P 0036-9999-26-124-L08-T	
10/10/2026 11:30 – 12:30 pm	Veterinary Medicine Fundamentals	0036-9999-26-125-L01-P 0036-9999-26-126-L01-T	
10/10/2026 1:30 – 2:30 pm	New Drug Update	0036-9999-26-127-L01-P 0036-9999-26-127-L01-T	
10/10/2026 2:30 – 3:30 pm	Beyond A1C	0036-9999-26-128-L01-P 0036-9999-26-128-L01-T	
10/10/2026 4:00 – 5:00 pm	Cultural Considerations in Shared Decision-Making (Cultural Competence)	0036-9999-26-129-L99-P 0036-9999-26-129-L99-T	

Important notes:

- Credits must be redeemed within 14 days of the activity.
- Upon submission, credits will automatically upload to CPE Monitor within 48 hours. It is your responsibility to check CPE Monitor for accuracy before the 14-day deadline.
- The **Credit Code** is a verification of attendance. Do not share the code with anybody who did not attend the activity or seek out a credit code for any activity you did not attend.

Instructions for Redeeming Credit:

1. Write down the Credit Code in a safe place.
2. Go to <https://pharmacy.oregonstate.edu/ce>. Locate OSPA Annual Convention, follow the link, and click “Register”, or scan the QR code to go directly to registration.
3. Follow the registration prompts.
4. When prompted, enter the Credit Code to access the activity evaluation.
5. Complete the activity evaluation.
6. Complete steps 4 and 5 for each activity you attended.
7. **SUBMIT CREDITS.** After completing the requirements for each activity, **you must submit CE credits**. If you do not complete this final step, your credits will not upload to CPE monitor.





Oregon State University College of Pharmacy

OFFICE OF CONTINUING PHARMACY EDUCATION

8. **CONFIRM CREDITS.** Within 14 days, confirm credits have uploaded to CPE Monitor.

Please note: Once you register for this seminar in Lecture Panda, do not register again. Use the link in your confirmation email or click the link on the registration page to have your personal access link resent.

Cultural Competence in Oregon

To meet re-licensure requirements, pharmacists must upload cultural competence continuing education information to their Oregon Board of Pharmacy Online License Services account.

1. Login to CPE Monitor at <http://mycpemonitor.net> and download your CPE Monitor Statement for the cultural competence activity you wish to provide to the Oregon Board of Pharmacy
2. Login to <https://orbop.mylicense.com/egov/Login.aspx> or register for a new account (registration instructions found at <https://www.oregon.gov/pharmacy/Documents/eGovPersonsLoginInstructions.pdf>)
3. Once logged in, click on “Update License Info” in the menu
4. Navigate to “Attach Documents” and upload your CPE Monitor Statement



This program has been planned and implemented in accordance with the policies of the Accreditation Council on Pharmacy Education (ACPE) through the joint sponsorship of the Oregon State University College of Pharmacy and the Oregon State Pharmacy Association (OSPA). The Oregon State University College of Pharmacy is accredited by the Accreditation Council on Pharmacy Education as a provider of continuing pharmacy education.

The Statement of Credit shall be issued only after successful completion of the program. Successful completion is defined as: 1) Attending, in its entirety, the CPE activity; 2) Completion of the online activity evaluation and assessment located at: <http://pharmacy.oregonstate.edu/ce> **within 14 days** of program attendance.

The CPE office at the Oregon State University College of Pharmacy shall issue a Statement of Credit to each person who successfully completes the program. Statements of Credit will be uploaded to each participant's NABP e-profile automatically within 48 hours of program completion. It is the participant's responsibility to complete the online components within 14 days of program attendance to ensure awarding of credit. Credit will not be provided after 60 days.



OREGON STATE PHARMACY ASSOCIATION

19363 Willamette Drive #260 • West Linn, Oregon 97068
(503) 582-9055 • www.oregonpharmacy.org • info@oregonpharmacy.org

ANTITRUST COMPLIANCE POLICIES AND PROCEDURES

It shall be the policy of the Association to be in strict compliance with all Federal and State Antitrust laws, rules, and regulations. Therefore:

- I. These policies and procedures apply to all membership, board, committee, and other meetings sponsored by the Association, and to all meetings attended by representatives of the Association.
- II. Discussions of prices or price levels is prohibited. In addition, no discussion is permitted of any elements of a company's operations which might influence price such as:
 - a. Cost of operations, supplies, labor or services;
 - b. Allowance for discounts;
 - c. Terms of sale including credit arrangements; and,
 - d. Profit margins and mark ups, provided this limitation shall not extend to discussions of methods of operations, maintenance, and similar matters in which cost of efficiency is merely incidental.
- III. It is a violation of Antitrust laws to agree not to compete, therefore, discussions of division of territories or customers or limitations on the nature of business carried on or products sold are not permitted.
- IV. Boycotts in any form are unlawful. Discussion relating to boycotts is prohibited, including discussions about blacklisting or unfavorable reports about particular companies including their financial situation.
- V. It is the Association's policy that all meetings attended by representatives of the Association where discussion can border on an area of antitrust sensitivity, that the Association's representative request that the discussion be stopped and ask that the request be made a part of the minutes of the meeting being attended. If others continue such discussion, the Association's representative should excuse himself from the meeting and request that the minutes show that he or she left the meeting at that point and why he left. Any such instances should be reported immediately to the President and staff of the Association.
- VI. It is the Association's policy that a copy of these Antitrust Compliance Policies and Procedures be given to each officer, director, committee member, official representative of member companies and Association employees annually and membership of the Association.

The Oregon Pharmacists Fund (OPF)

The Oregon Pharmacists Fund (OPF) helps elect legislators and statewide officials who will act in pharmacists' best interests. The OPF does this by providing financial support to political campaigns. This is a PAC (Political Action Committee) which can help represent the interests of all Oregon Pharmacists and the needs of our patients.

When you support the Oregon Pharmacists Fund you:

- help elect a more pharmacy-friendly legislature
- receive updates on important legal and regulatory issues
- receive invitations to meet with key policy makers

The best way to make sure a good bill passes, or to stop a bad bill, is to elect the right people.

Take advantage of the Oregon Political Tax Credit! Donate to the Oregon Pharmacists Fund, and subtract up to \$100 per couple or \$50 per individual from your Oregon income tax bill. It is a TAX CREDIT. You can make a PAC donation once every year. This credit is only available to individuals with adjusted gross income of \$100,000 or less and for joint filers \$200,000 or less.

The Oregon Pharmacists Fund was created by the Statewide Pharmacy Coalition, Oregon State Pharmacy Association and the Oregon Society of Health-System Pharmacists. Each organization supports the fund as the primary political action vehicle for Oregon's pharmacists. **A PAC committee that considers all practice settings governs disbursements to campaigns.**

Oregon Pharmacists Fund PAC donations may be made by mailing a check or credit card information with the following form to Oregon Pharmacists Fund – P.O. Box 512, Independence, OR 97351

-----CUT AND MAIL -----

Please accept my political action committee donation to the Oregon Pharmacists Fund.
Please use only one form per contributor, if multiple contributors please provide form for each.
Please print information clearly!

Name _____ Occupation _____ Phone _____
Address _____ City _____ State _____ Zip _____
Email _____ Employer Name* _____
Employer Address* _____
City* _____ State* _____ Zip* _____
Amount of Donation: \$ _____

****Employer/Occupation information is a mandatory requirement for state filing.***

Payment method: ☐ check (payable to Oregon Pharmacists Fund) -or- ☐ credit card

Charge \$ _____ to: ☐ VISA ☐ MC ☐ American Express ☐ Discover
Account # _____ Expire (Month/Year) _____
Billing Address _____
City _____ State _____ Zip _____
Signature _____

Please return form to:
Oregon Pharmacists Fund
P.O. Box 512
Independence, OR 97351
Questions? Call 800.293.0510



OREGON BOARD OF PHARMACY

Law Update

OSPA Annual Convention
10/10/2026

Gary Runyon, PharmD, RPh

Executive Director, Oregon Board of Pharmacy



Today's Roadmap

01 Objectives, Pre-assessment Questions & Introduction

Don't just tell, compel! Point -v- Purpose

02 The Board

Composition and Mission

03 The Resources

Tips for using common resources and references

04 The Rules

The Who/What/When/Where and Why

05 Post-Assessment Questions & Take-home Points

Take more than notes... take action!



01

Objectives, Pre-assessment Questions & Introduction

I decide the points; you decide the purpose!



Learning Objectives

- 01 Develop effective strategies to organize and search reference materials, including those on the Board of Pharmacy's website.
- 02 Review current and proposed structure of OAR Chapter 855 Board of Pharmacy Rules to better understand rules framework.
- 03 Discuss recent legislative changes, new rules, and proposed rule amendments that affect pharmacy practice in Oregon specifically for Pharmacists, Pharmacy Interns, Certified Oregon Pharmacy Technicians, and Pharmacy Technicians.
- 04 Become familiar with common observations discovered during routine inspections.
- 05 Review available pathways to communicate with and provide feedback to the Board of Pharmacy.



Pre-Assessment

Question 1:

Pharmacy Prescription Lockers (PPLs)

Under OAR 855-143 and the recent updates from SB 236, which of the following statements are TRUE regarding Pharmacy Prescription Lockers (PPLs)? (Select all that apply)

- a) The board voted in June to send the final iteration of the PPL rules to its November Rulemaking Hearing.
- b) A PPL must be located at the exact same physical address as the retail drug outlet it is associated with.
- c) A retail drug outlet may operate one or more pharmacy prescription lockers located within the state.
- d) A PPL requires a separate, unique license or registration from the State Board of Pharmacy to operate.
- e) A pharmacy prescription locker is considered part of the retail drug outlet.



Pre-Assessment

Question 2:

Mobile Pharmacies

Pursuant to 2026 HB 4131 and proposed OAR 855-145, which of the following requirements apply to the operation of a Mobile Retail Drug Outlet Pharmacy? (Select all that apply)

- a) The applicant must be a registered retail drug outlet with a permanent physical location.
- b) A licensed pharmacist must be physically present at the mobile pharmacy during all hours of operation.
- c) Dispensing records from the mobile pharmacy must be recorded in the permanent retail drug outlet's records within 24 hours of dispensation.
- d) Any registered retail drug outlet in Oregon is eligible to operate a mobile pharmacy unit without restriction.
- e) None of the above.



Pre-Assessment

Question 3:

Drug Compounding

Under the newly adopted Division 183 rules (OAR 855-183), which of the following are baseline requirements for a drug outlet that engages in compounding? (Select all that apply)

- a) The outlet must notify the Board of Pharmacy within 15 days of initiating sterile or non-sterile compounding.
- b) Reconstituting an oral antibiotic according to the manufacturer's FDA-approved labeling is classified as drug compounding.
- c) All compounding must adhere to current applicable United States Pharmacopeia (USP) standards, including USP <795>, <797>, and <800>.
- d) The Pharmacist-in-Charge (PIC) must complete the board's Compounding Self-Inspection form in addition to their annual pharmacy self-inspection.
- e) None of the above.



Pre-Assessment

Question 4:

Multistate Pharmacy Jurisprudence Examination (UMPJE)

Regarding the Board's proposed rules transitioning from the Oregon-specific MPJE to the Uniform Multistate Pharmacy Jurisprudence Examination (UMPJE), which of the following statements are TRUE? (Select all that apply)

- a) Oregon anticipates utilizing the UMPJE effective April 1, 2027.
- b) The jurisprudence examination fee paid directly to the National Association of Boards of Pharmacy (NABP) will increase to \$350 once the UMPJE goes into effective April 1, 2027.
- c) Oregon MPJE examination results will no longer be accepted by the Board after March 31, 2028.
- d) Pharmacist reciprocity applicants who passed an Oregon MPJE in 2024 will be required to retake the UMPJE to keep their Oregon license active.
- e) None of the above.



Pre-Assessment

Question 5

The Oregon Board of Pharmacy encourages active engagement from licensees and stakeholders. Which of the following are established pathways to provide feedback, stay informed, or seek guidance? (Select all that apply)

- a) Submitting new protocol concepts or providing feedback directly to the Public Health and Pharmacy Formulary Advisory Committee (PHPFAC).
- b) Providing written or verbal public comment during official Board rulemaking hearings.
- c) Emailing specific regulatory or inspection-related questions directly to pharmacy.compliance@bop.oregon.gov.
- d) Attending public Board of Pharmacy meetings to stay informed on emerging legislation and rulemaking.
- e) Utilizing the designated pharmacy.rulemaking@bop.oregon.gov email to submit comments on proposed rules.



People don't remember facts; they remember things that make them figure.

“

**Meaningful
changes occurs
when information
meets inspiration.**

An official “Garyism” — as certified by OBOP staff

01

Facts vs. Impressions

Facts stay in the mind. Impressions resound in the mind and body.

02

Information vs. Action

Facts don't change people's lives — actions do. Vision without action is like energy without motion.

03

The “Why” Behind the “What”

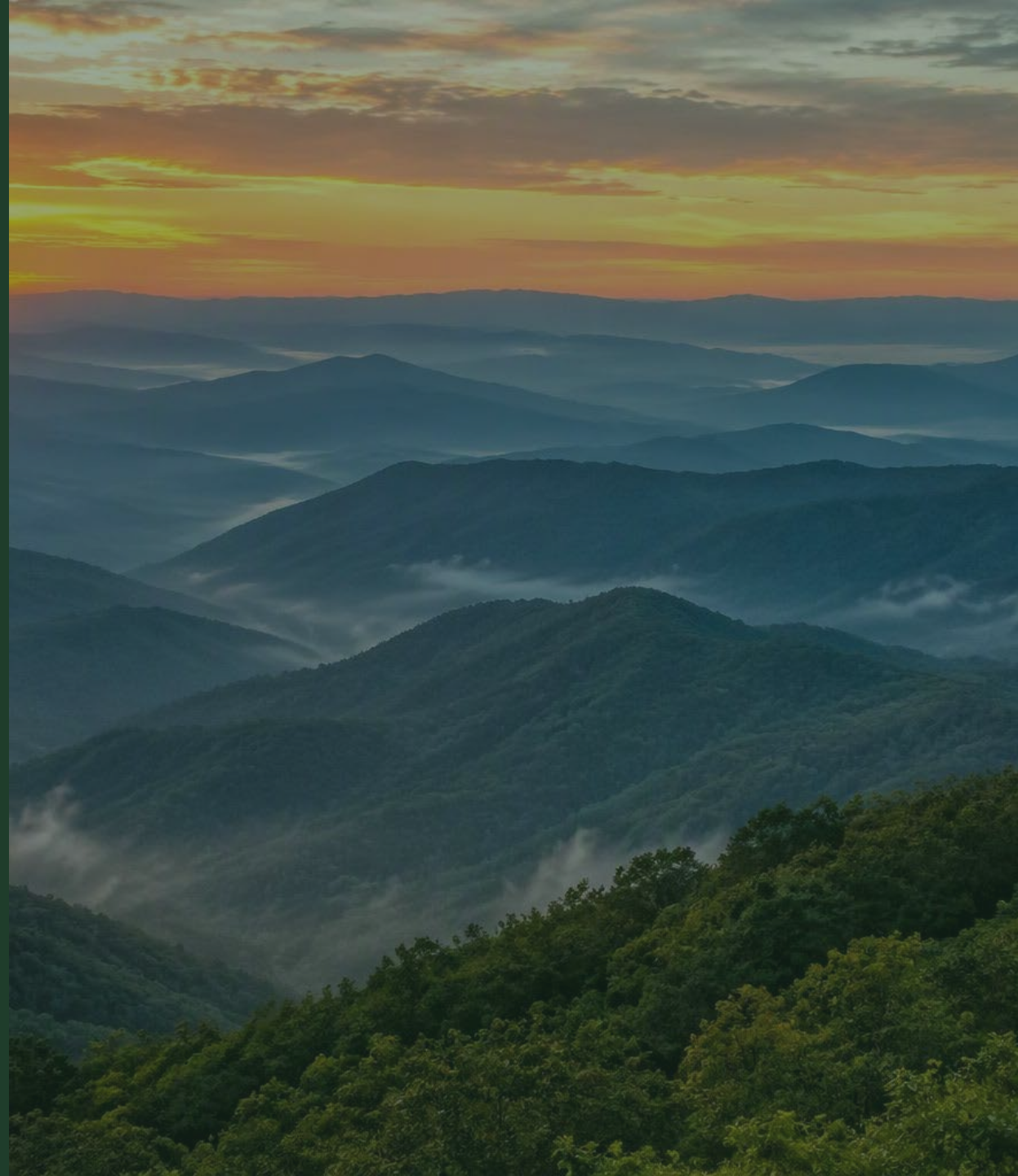
We're great at giving people information — not always the reason they should care about it.



02

The Board

What makes us up, and “what are we made of?”





*Pharmacist Wanted! Apply inside!
(must have handlebar mustache)*

INTRO TO THE BOARD

Where Did We Come From?

1891

135+ years of regulating pharmacy practice in Oregon

01 Evolution of Authority

From apothecary oversight to autonomous clinical prescribing — Provider Status in 2015; PHPFAC in 2017,

02 Self-Sustaining “Other Funds” Agency

100% funded by licensing fees and civil penalties — zero taxpayer General Funds or Lottery Funds.

\$14.7M

2025–27 Legislatively Adopted Budget

\$13.79M

2027–29 Agency Request Budget



What Are We Made Of?

THE GOVERNING BOARD

9 Public Officials

Appointed by the Governor · Confirmed by the State Senate

5

Licensed Pharmacists

2

Certified Oregon
Pharmacy Technicians

2

Public Representatives

THE OPERATIONAL ENGINE

24 FTE Staff

Led by the Executive Director to execute day-to-day operations across three divisions:

- Licensing
- Compliance
- Executive



2026 Board Members



Amy Kirkbride

RPh · Board President



Victoria Kroeger

RPh · Board Vice President



Kat Chinn

APRN · Board Member (Public)



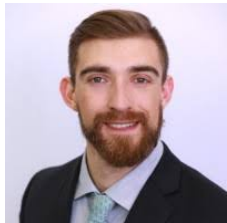
Rich Joyce

COPT · Board Member



Jennifer Hall

RPh · Board Member



Thomas Maslo

RPh · Board Member



Ana Pinedo

COPT · Board Member



Bryan Smith

RPh · Board Member



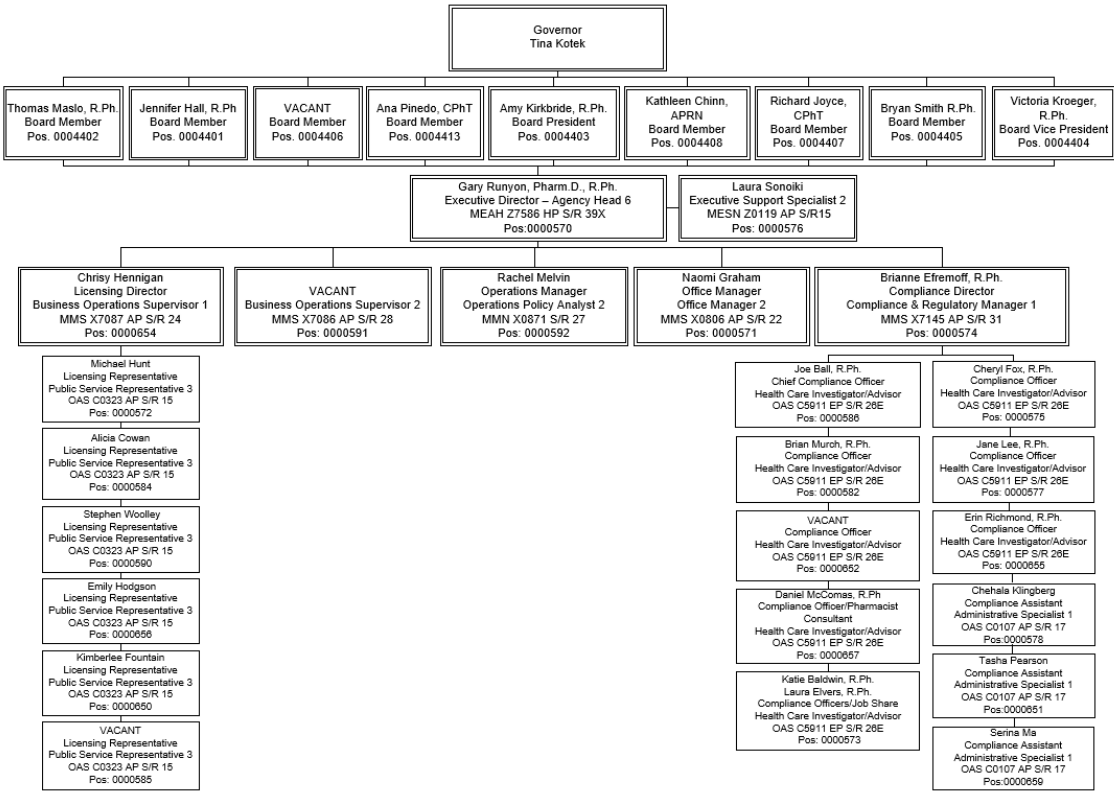
Elisa Friedlander

MS, LMFT, LPCC- Board Member
(Public)



OBOP Org Chart 2026

Oregon Board of Pharmacy
Organizational Chart 2026
24 FTE (9 Board Members & 7 Member Public Health & Pharmacy Formulary Advisory Committee)



24

FTE Staff

9

Board Members

7

PHPFAC
Members





WHAT WE ARE ABOUT

Our Mission

To promote and protect public health, safety, and welfare by ensuring high standards in the practice of pharmacy and through effective regulation of the manufacture and distribution of drugs.

“Outstanding people have one thing in common: an absolute sense of mission.”

— Zig Ziglar



WHERE WE'RE HEADED

Our Vision

All Oregonians have equitable access to medication and pharmacy services, provided safely and conveniently, through a network of highly skilled and dedicated Pharmacists, Interns and Pharmacy Technicians along with a well-regulated manufacturing and distribution network.

That network includes you!



Our Values

These values reflect both how our Board and staff strive to conduct ourselves, and the behaviors we seek to instill across the practice of pharmacy in Oregon.

01 Equity

Each individual and group are valued, respected, and treated fairly — ensuring equal access to medications and support for unique and diverse needs.

02 Service

A consistent standard of excellence in all work, responding promptly to patients, Licensees, Registrants, providers and partners.

03 Safety

Protecting the health, safety and welfare of the public. Safety is the foundation of the Board's Mission.

04 Adaptability

Open to new ideas and to the changing needs and challenges in healthcare and pharmacy.

05 Integrity & Accountability

Transparency and honesty govern our work. We accept responsibility for our actions, products, decisions, and policies.

06 Professionalism

Promoting excellence in pharmacy practice through expertise, commitment, and competence.





CORE PURPOSE & EQUITY

Equity Statement

OBOP is committed to Diversity, Equity, Inclusion, and Belonging (DEIB) within its organization and for the public it serves — reflected in board membership, agency staffing, services provided, and efforts to promote patient safety and access to quality care.

Promote a welcoming, safe, and inclusive culture for people of all backgrounds

Foster fair and unbiased service from agency staff and board for all current and prospective licensees and registrants

Advance diversity and equity in access through culturally responsive service delivery

Ensure all patients receive safe and timely access to medications — regardless of residence, economic or social status, physical ability, ethnicity, or gender identity

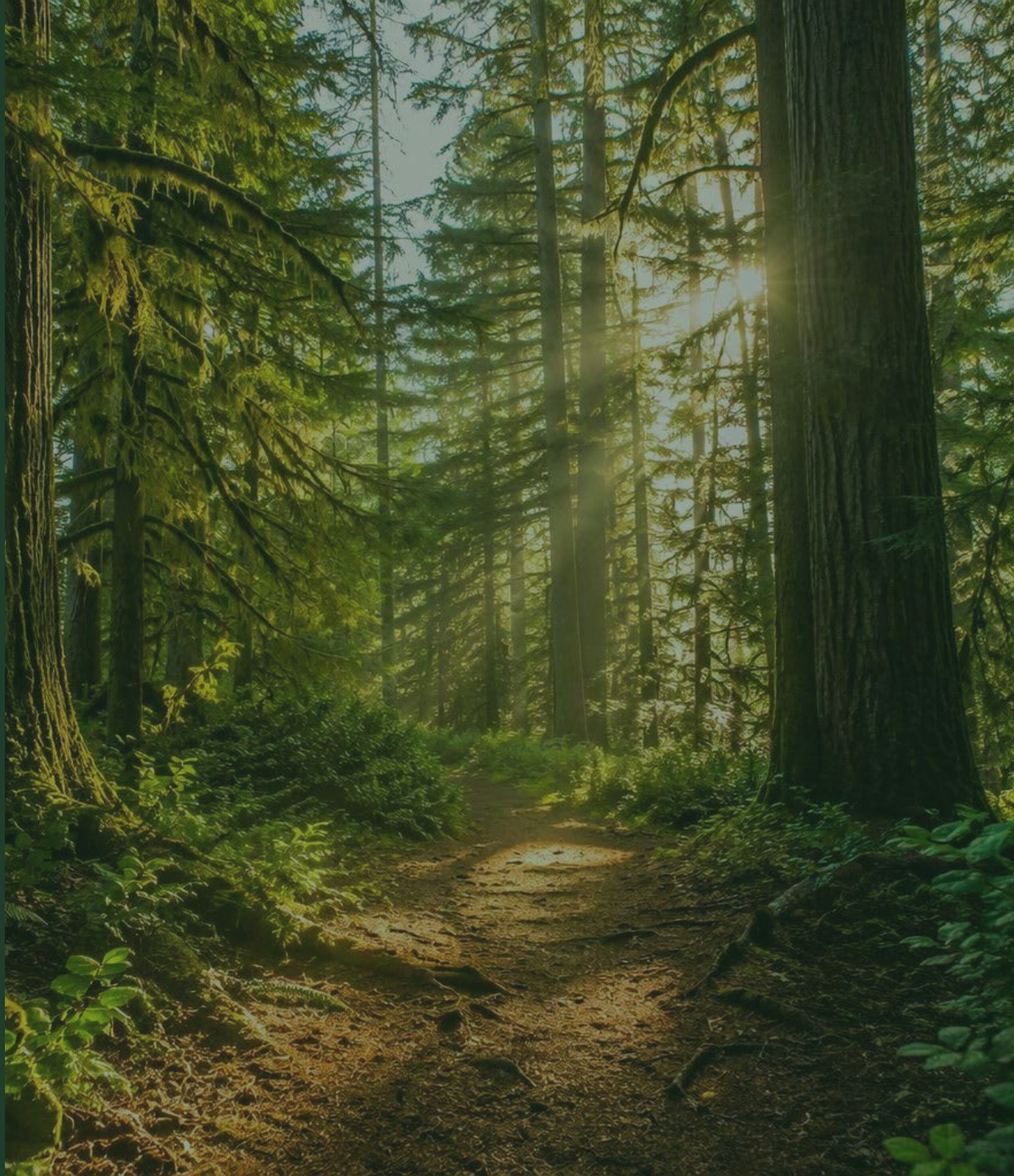
IN PRACTICE Zero-cost OHA-registered interpreters · Dual-language labels in 14 languages



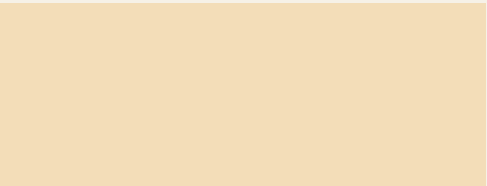
03

The Resources

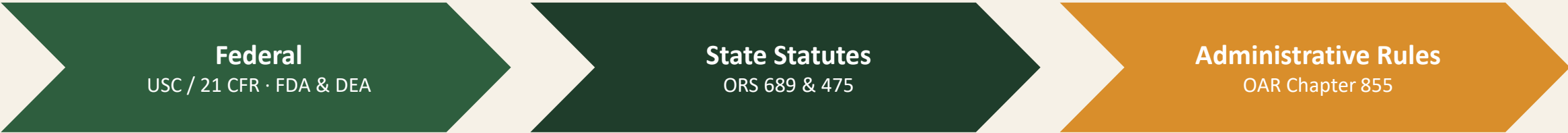
Tips for using common resources and references



Know Your OARs Before You Need Them



01 HIERARCHY OF LAW



02 VERTICAL UNIFICATION IN OAR 855 — MATCHING RULE NUMBERS



03 PRO SEARCH TIPS

Rule Text Search
Secretary of State search = most current rules
(Annual Compilations only reflect Jan 1)

Ctrl+F
Search within the specific Division you need

OLIS
olis.oregonlegislature.gov — read legislative testimony



Ways to Interact with our Rules: Annual Compilations.



- Annual Compilations contain rules effective as of January 1st each year.
- Other rules available (e.g., [847 Oregon Medical Board](#), [818 Oregon Board of Dentistry](#), etc.)
- Great search method if you don't know where to start.
- Rules may not be up-to-date, so cross-reference with current rules where applicable.



Ways to Interact with our Rules: Key Word Search (Control F)

If you have a general idea of where your potential answer is, pull up the applicable Division in its entirety and use the Keyword Search function (Control F on Windows).

Generally speaking, the answers to our most-commonly-asked questions can be found in the following Divisions:

[Division 6 – Definitions](#)

[Division 41 – Operation of Pharmacies](#)

[Division 104 – Universal Rules](#)

[Division 115 – Pharmacists](#)

[Division 120 – Interns](#)

[Division 125 Certified Oregon Pharmacy Technicians and Pharmacy Technicians](#)



Ways to Interact with our Rules: Key Word Search (Control F)



Oregon Secretary of State
LaVonne Griffin-Valade

[Home](#)[Business](#)[Voting](#)[Elections](#)[State Archives](#)[Audits](#)

[OARD Home](#)[Search Current Rules](#)[Search Filings](#)[Access the Oregon Bulletin](#)[Access the Annual Compilation](#)[FAQ](#)[Rules Coordinator / Rules Writer Login](#)

Board of Pharmacy

Chapter 855

^ Division 6 - DEFINITIONS

^ Division 7 - PUBLIC HEALTH EMERGENCY

^ Division 11 - HEALTH PROFESSIONAL'S SERVICE PROGRAM

^ Division 35 - OPERATION OF NONPRESCRIPTION AND MEDICAL DEVICE, EQUIPMENT AND GAS (MDEG) OUTLETS

^ Division 41 - OPERATION OF PHARMACIES

OPERATION OF PHARMACIES

[855-041-1001](#) Definitions

[855-041-1010](#) Outlet (Both Retail and Institutional Drug Outlets): Personnel

[855-041-1015](#) Operation of Pharmacy (Both Retail and Institutional Drug Outlets)

[855-041-1018](#) Outlet: General Requirements

PIC1/43

^vX

Board of Pharmacy

Chapter 855

Division 41
OPERATION OF PHARMACIES

[855-041-1001](#)
Definitions

"Drug room" is a drug storage area registered with the board which is secure and lockable.

Statutory/Other Authority: ORS 689.205 & ORS 689.522
Statutes/Other Implemented: ORS 689.155 & ORS 689.522
History:
[BP 15-2022](#), amend filed 04/20/2022, effective 04/20/2022
[BP 45-2021](#), amend filed 12/16/2021, effective 12/16/2021
[BP 1-2017](#), f. & cert. ef. 2-23-17
[BP 2-2014](#), f. & cert. ef. 1-24-14

[855-041-1010](#)
Outlet (Both Retail and Institutional Drug Outlets): Personnel

Each Drug Outlet Pharmacy must:

- (1) Have one Pharmacist-in-charge (**PIC**) employed on a regular basis at that location who shall be responsible for the daily operation of the pharmacy. The Pharmacist-in-charge shall be indicated on the application for a new or relocated pharmacy and for pharmacy renewal registration.
- (2) Ensure the **PIC** is qualified per OAR 855-115-0205 and complies with OAR 855-115-0210.
- (3) Report a change in **PIC** within 15 days of occurrence in the registrant's electronic licensing record with the board.



Ways to Interact with our Rules: “Rule Text Search” on OBOP Website



[Home](#) [Business](#) [Voting](#) [Elections](#) [State Archives](#) [Audits](#)

Oregon Administrative Rules

Current Rules Search

^ Browse By Chapter

^ Quick Search By Rule Number

^ Rule Text Search

Filter By Chapter

855 - Board of Pharmacy

Search By

MPJE

☒ Exact ☐ Contains ☐ Exclude

☒ Exact ☐ Contains ☐ Exclude

☒ Exact ☐ Contains ☐ Exclude

☒ All must match (AND)

☐ Any matches (OR)

Search

Reset

[OARD Home](#)



[Home](#) [Business](#) [Voting](#) [Elections](#) [State Archives](#) [Audits](#)

Oregon Administrative Rules

Rule Text Search Results

Your search for MPJE (exact match) returned 5 results.

[New Search](#) | [Modify Search](#)

Rows per page: 25 Page 1 of 1

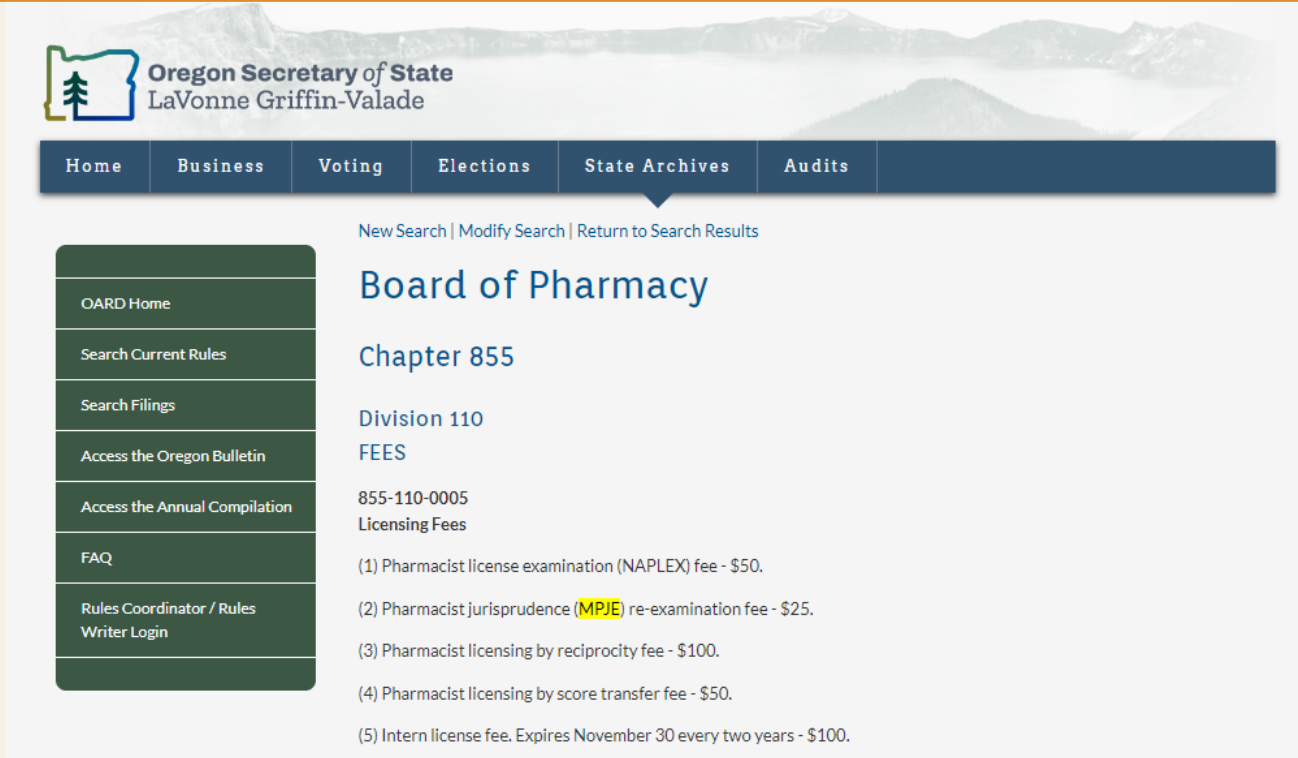
Rule Number	Rule Title	Chapter Name
855-007-0050	Emergency Licensure	Board of Pharmacy
855-110-0005	Licensing Fees	Board of Pharmacy
855-115-0025	Licensure: Qualifications - Reciprocity	Board of Pharmacy
855-115-0035	Licensure: Renewal or Reinstatement	Board of Pharmacy
855-115-0020	Licensure: Qualifications - Examination or Score Transfer	Board of Pharmacy

[New Search](#) | [Modify Search](#)

Rows per page: 25 Page 1 of 1



Ways to Interact with our Rules: “Rule Text Search” on OBOP Website



The screenshot shows the Oregon Secretary of State website. The header includes the Oregon Secretary of State logo and the name LaVonne Griffin-Valade. A navigation bar contains links for Home, Business, Voting, Elections, State Archives, and Audits. Below the navigation bar, there is a search bar with links for New Search, Modify Search, and Return to Search Results. The main content area displays the Board of Pharmacy page, specifically Chapter 855, Division 110, FEES. A list of fees is shown, including Pharmacist license examination (NAPLEX) fee, Pharmacist jurisprudence (MPJE) re-examination fee, Pharmacist licensing by reciprocity fee, Pharmacist licensing by score transfer fee, and Intern license fee. The MPJE fee is highlighted in yellow.

Oregon Secretary of State
LaVonne Griffin-Valade

Home Business Voting Elections State Archives Audits

New Search | Modify Search | Return to Search Results

Board of Pharmacy

Chapter 855

Division 110

FEES

855-110-0005
Licensing Fees

- (1) Pharmacist license examination (NAPLEX) fee - \$50.
- (2) Pharmacist jurisprudence (MPJE) re-examination fee - \$25.
- (3) Pharmacist licensing by reciprocity fee - \$100.
- (4) Pharmacist licensing by score transfer fee - \$50.
- (5) Intern license fee. Expires November 30 every two years - \$100.

- Queried term will display in yellow highlight.
- Excellent way to search if you're unsure where to start, or the material might be covered in multiple divisions.
- Searches most-current rule iterations (unlike annual compilation).

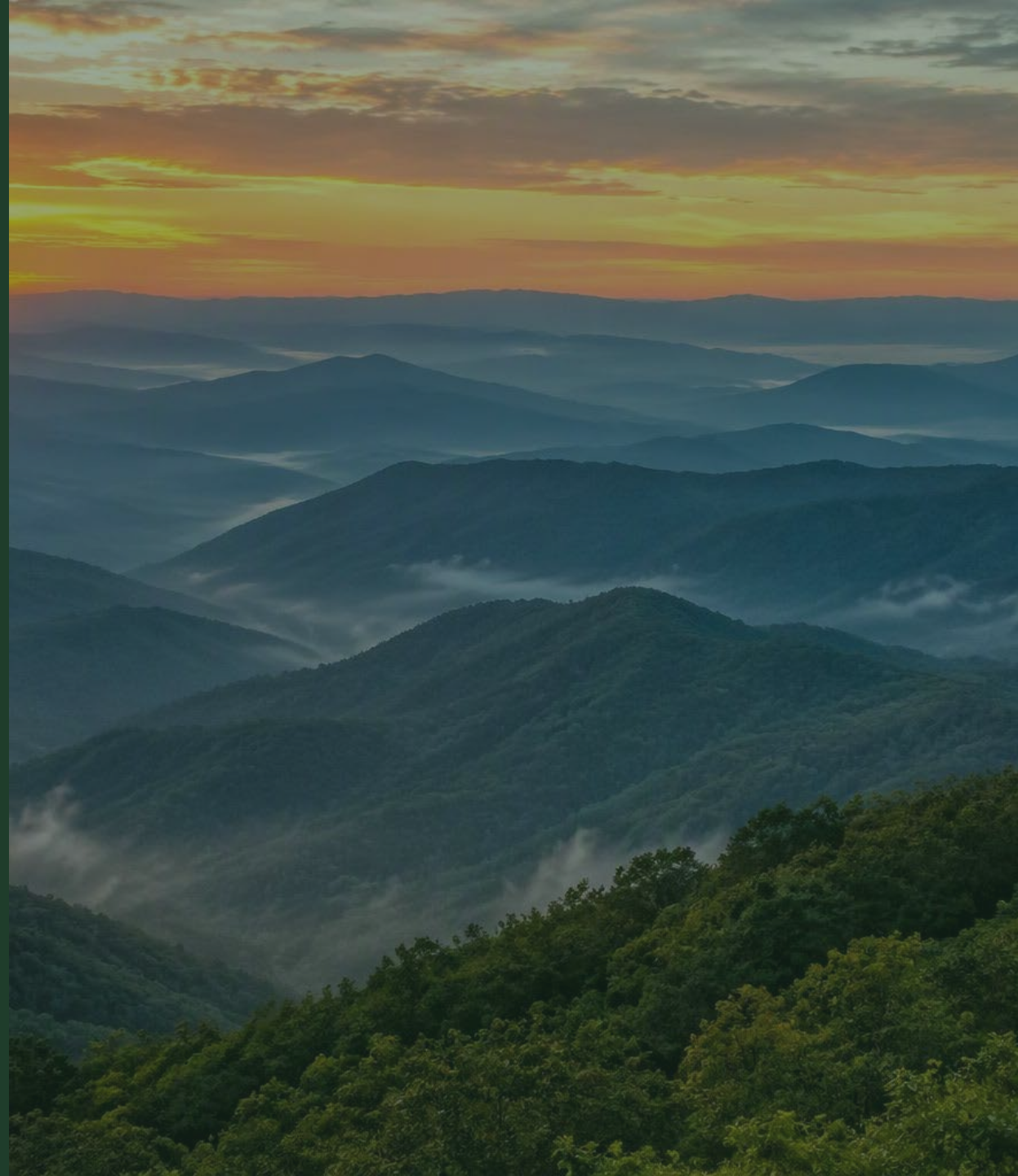


04

The Rules

- *Rules Prioritization List*
- *Highlighted Rules*
- *Pharmacist Prescribing Update*

“Behind every good rule, there’s a good reason.”



Rules Prioritization List: April 2026

Immediate	- Any urgent patient safety risk or public health emergency - Legislative Mandates (New Laws)
High	Drug Supply Chain Security Act - Division 060- Manufacturers - Division 062 DDA/3PL - Division 065 Wholesalers - Division XXX Outsourcing -need to create ~~Drug Compounding – Div 045/183~~ Cold Drug Storage – Universal Rules Div 104 ~~Pharmacists prescribing vaccines – (universal process for vaccine protocols being sent to PHPFAC)~~ Division 041 → Division 141 Pharmacies (IP and RP) - Standards for inspections for Non-Resident Pharmacies - Telework (Remote Work)/ Remote Processing/ Central Fill - Applicability - Long Term Care - PICs Remote Dispensing Site Pharmacy – Div 139
Medium	CDTM and CPA Division 041 Clean up - RDF/RDM/Depot (Lockers/Kiosks) Nonprescription Drug Outlets Nuclear Pharmacy (compounding) Universal Rules Community Health Clinics (Family Planning) Dispensing Practitioner Drug Outlet Standards of Practice- unprofessional conduct
Low	Drug Rooms Correctional Facilities (LTC and jails) Public Health Emergency Division 041 - Home Dialysis - Home Infusion Precursors Charitable Pharmacies
Annually	- Standards Adopted by Reference during April board meeting - New Laws- after each legislative session



Rules Prioritization List: Division History

Division	Last Revised
006- Definitions	2024
007- Public Health Emergency	2009 (2020)
011- Health Professionals Service Program	2010
035- Non-Prescription Drug Outlet and Medical Gas	1992 and 1996 (2008)
041- Operation of Pharmacies	1992, 2008, 2010, 2013, 2015, 2020 (minor 2022, 2023, 2024)
042- Nuclear Pharmacies and Pharmacists	1987
044- Charitable Pharmacies	2010 (2014, 2017 and 2020)
045- Drug Compounding (transition to 183)	2019 (2021 and 2023)
060- Pharmaceutical Manufacturers	1980, 1994 and 2015 (2021)
062- Drug Distribution Agent	2009 and 2015 (2022)
065- Wholesale Drug Outlets	2006, 2009 and 2015 (2017, 2021, and 2022)

Division	Last Revised
070- Prophylactics and Contraceptives	1995 and 2006
080- Schedule of Controlled Substances • Animal Euthanasia	2007, 2010, 2016 (2021, 2022, 2023 and 2024) 2012 (2023)
102- Board Administration	2023 and 2024
104- Universal Rules	2023 and 2024
110- Fees	2010 and 2022 (2024)
115- Pharmacists	2024
120- Interns and Preceptors	2024
125- Certified Oregon Pharmacy Technicians & Pharmacy Technicians	2024
135- Continuing Pharmacy Education	2024
139- Remote Dispensing Site Pharmacy	2022
141- Pharmacy Prescription Kiosk	2022
143- Pharmacy Prescription Locker	2022 (2024)- PENDING



OAR Chapter 855 – Board of Pharmacy

Div.	SUBJECT
6	DEFINITIONS
7	PUBLIC HEALTH EMERGENCY
11	HEALTH PROFESSIONAL'S SERVICE PROGRAM
35	OPERATION OF NONPRESCRIPTION AND MEDICAL DEVICE, EQUIPMENT AND GAS (MDEG) OUTLETS
41	OPERATION OF PHARMACIES
42	NUCLEAR PHARMACIES AND PHARMACISTS
43	PRACTITIONER DISPENSING
44	CHARITABLE PHARMACIES
45	DRUG COMPOUNDING
60	PHARMACEUTICAL MANUFACTURERS
62	DRUG DISTRIBUTION AGENT
65	WHOLESALE DRUG OUTLETS
70	PROPHYLACTICS AND CONTRACEPTIVES

Div.	SUBJECT
80	SCHEDULE OF CONTROLLED SUBSTANCES
102	BOARD ADMINISTRATION
104	UNIVERSAL RULES
110	FEES
115	PHARMACISTS
120	INTERNS AND PRECEPTORS
125	CERTIFIED OREGON PHARMACY TECHNICIANS AND PHARMACY TECHNICIANS
135	CONTINUING PHARMACY EDUCATION
139	REMOTE DISPENSING SITE PHARMACY
141	PHARMACY PRESCRIPTION KIOSK
143	PHARMACY PRESCRIPTION LOCKER
183	DRUG COMPOUNDING



Vertical Unification of Rule Structure

Within the Divisions for **Pharmacists (115)**, **Interns (120)**, and **Certified Oregon Pharmacy Technicians and Pharmacy Technicians (125)**, certain rule numbers and subjects have been standardized.

Rule Number (OAR 855-115/120/125-XX)	Rule Subject
0001	Applicability
0005	Definitions
0010	Licensure: Qualifications
0030	Application
0035	Renewal or Reinstatement
0040	Lapse
0050	Voluntary Surrender
0105	Responsibilities: General
0110	Confidentiality
0115	Duty to Report
0150	Prohibited Practices



Pharmacy Prescription Lockers (PPL)

The Who / What / When / Where & Why

WHO: Pharmacies, Pharmacist-in-Charge (PIC), Licensees, and Patients.

WHAT: Amendment of Division 143 Pharmacy Prescription Locker rules and repeal of the \$168 PPL registration fee.

WHEN: June 2026 (sent to OBOP November Rulemaking Hearing)

WHERE: OAR 855-143 and OAR 855-110-0007.

WHY: To align with 2025 SB 236



Pharmacy Prescription Lockers (PPL)

83rd OREGON LEGISLATIVE ASSEMBLY--2025 Regular Session

Enrolled Senate Bill 236

Printed pursuant to Senate Interim Rule 213.28 by order of the President of the Senate in conformance with pre-session filing rules, indicating neither advocacy nor opposition on the part of the President (at the request of Joint Interim Committee on Addiction and Community Safety Response)

SECTION 19. Section 8, chapter 70, Oregon Laws 2024, is amended to read:

Sec. 8. (1) As used in this section, “**pharmacy** prescription [*drug*] locker” means a mechanical device that serves as an extension of a retail drug outlet’s will call or point of sale area in which completed patient-specific prescription drugs, devices and related supplies and nonprescription drugs, devices and related supplies are stored for pickup.

[(2) A prescription drug locker located within this state and at the same physical address as the retail drug outlet with which the prescription drug locker is associated:]

[(a) Is considered part of the retail drug outlet and is not required to obtain a license or registration from the State Board of Pharmacy; and]

[(b) Is not required to obtain a registration from the Drug Enforcement Administration of the United States Department of Justice.]

[(3) A prescription drug locker located within this state but at a physical address other than the physical address of the retail drug outlet with which the prescription drug locker is associated is considered a remote dispensing site pharmacy and must obtain a registration from the Drug Enforcement Administration in order to dispense controlled substances.]

(2) A retail drug outlet may operate one or more pharmacy prescription lockers located within this state that need not be at the same physical address as the retail drug outlet. A pharmacy prescription locker operated pursuant to this section is considered part of the retail drug outlet, and a separate license or registration from the State Board of Pharmacy is not required.



Mobile Retail Drug Outlet Pharmacy (Mobile Pharmacies)*

The Who / What / When / Where & Why

WHO: Retail Drug Outlets, Mobile Pharmacies, and Pharmacist-in-Charge (PIC).

WHAT: Establishment of a new Mobile Retail Drug Outlet Pharmacy registration and adoption of the

WHEN: October 2026 BM (may appear at November Rulemaking Hearing; HB 4131 effective 1/01/2027)

WHERE: New Division 145, and amendments to Divisions 006, 007, and 110.

WHY: To execute the legislative mandate of 2026 HB 4131 expanding mobile pharmacy access

*** Rules not filed yet; may appear at November 2026 Rulemaking Hearing.**



Mobile Retail Drug Outlet Pharmacy (Mobile Pharmacies)

83rd OREGON LEGISLATIVE ASSEMBLY--2026 Regular Session

Enrolled House Bill 4131

Sponsored by Representatives PHAM H, NOSSE, RIEKE SMITH, Senator PATTERSON; Representatives ANDERSEN, GAMBA, GOMBERG, HARBICK, HARTMAN, ISADORE, JAVADI, LEVY B, MCDONALD, MCINTIRE, MUNOZ, NELSON, WALLAN, WATANABE, WISE, Senators CAMPOS, FREDERICK, GOLDEN, MEEK, NERON MISSLIN, REYNOLDS, SMITH DB, SOLLMAN, WEBER (Presession filed.)

Be It Enacted by the People of the State of Oregon:

SECTION 1. Section 2 of this 2026 Act is added to and made a part of ORS chapter 689.

SECTION 2. (1) The State Board of Pharmacy shall issue a license to operate a mobile pharmacy to an applicant that is a retail drug outlet registered under ORS 689.305 with a permanent physical location and that:

(a) Is one of the following entities:

(A) A critical access pharmacy, as defined by the Oregon Health Authority by rule;

(B) A hospital, as defined in ORS 442.015;

(C) A federally qualified health center; or

(D) The governing body of a county;

(b) Pays the licensure fee established by the board by rule; and

(c) Meets any other requirements established by the board by rule.



Mobile Retail Drug Outlet Pharmacy (Mobile Pharmacies)

(2) A mobile pharmacy licensed under this section shall:

- (a) Have at least one pharmacist physically present at the mobile pharmacy during the mobile pharmacy's hours of operation;**
- (b) Maintain records of the drugs transferred from the retail drug outlet's permanent location to the mobile pharmacy and of the drugs dispensed from the mobile pharmacy;**
- (c) Record in the retail drug outlet's records the drugs dispensed from the mobile pharmacy within 24 hours of dispensation;**
- (d) Store drugs in a manner that prevents diversion and meets any storage requirements specified by the drug manufacturer;**
- (e) Store all drugs, devices and related supplies in compliance with requirements adopted by the board by rule;**
- (f) Store and handle any controlled substances in compliance with requirements established by the Drug Enforcement Administration of the United States Department of Justice relating to the storage of controlled substances by mobile pharmacies and with any rules adopted by the board;**



Drug Compounding

The Who / What / When / Where & Why

WHO: Drug Outlets (resident and non-resident), Pharmacists, Pharmacist-in-Charge (PIC), Prescribers, and Veterinarians.

WHAT: Establishment of Division 183 rules governing sterile and non-sterile compounding, mandating compliance with USP chapters <795>, <797>, <800>, and <825>, and outlining specific notification, self-inspection, labeling, and veterinary compounding requirements.

WHEN: Effective June 17, 2026. (Note: Non-Resident Drug Outlets must provide evidence of approved USP compliance inspections by November 1, 2027).

WHERE: OAR 855-183.

WHY: To protect public health by strictly aligning state compounding practices with current United States Pharmacopeia (USP) safety standards, ensuring proper facility oversight, and clarifying authorized workflows, such as compounding for non-food producing animals without a patient-specific prescription.



Drug Compounding

855-183-0001

Applicability

- (1) All Division 183 rules apply to sterile and non-sterile compounding of a drug for humans and animals.
- (2) Entities that are located in or outside Oregon that engage in the practice of compounding a drug for dispensing, delivery or distribution in Oregon must register with the board as a Drug Outlet and comply with board regulations.
- (3) Entities that are registered with the FDA as an outsourcing facility under section 503B of the Federal Food, Drug, and Cosmetic Act in 21 USC 353b (03/05/2026) must register with the board as a Manufacturer in OAR 855-060.
- (4) Compounding does not include:
 - (a) Mixing, reconstituting, or other such acts that are performed in accordance with directions contained in FDA-approved labeling or supplemental materials provided by the product's manufacturer.
 - (b) Preparing a conventionally manufactured sterile product in accordance with the directions in the manufacturer's FDA-approved labeling when the:
 - (A) Product is prepared as a single dose for an individual patient; and
 - (B) Labeling includes information for the diluent, the resultant strength, the container closure system and Beyond Use Date.



Drug Compounding

855-183-0010

Notification Requirements

Each Drug Outlet must notify the board within 15 days of initiation of sterile compounding, non-sterile compounding or both using a form provided by the board.

Statutory/Other Authority: ORS 689.205

Statutes/Other Implemented: ORS 689.155

History:

BP 8-2026, adopt filed 06/17/2026, effective 06/17/2026



Drug Compounding

855-183-0015

Requirements: General

(1) All drug compounding must adhere to the following standards of the United States Pharmacopeia (USP) and the National Formulary (NF) including:

(a) USP <795> Pharmaceutical Compounding- Non-Sterile Preparations (11/01/2023);

(b) USP <797> Pharmaceutical Compounding - Sterile Preparations (02/01/2026);

(c) USP <800> Hazardous Drugs - Handling in Healthcare Settings (11/01/2023); and

(d) USP <825> Radiopharmaceuticals - Preparation, Compounding, Dispensing, and Repackaging (01/01/2024).

(2) In addition to completing the appropriate drug outlet self-inspection form by July 1 of each year and within 15 days of becoming the Pharmacist-in-Charge (PIC), the PIC must also complete the Compounding Self-Inspection form provided by the board.

(3) All compounding records must be maintained for 3 years in accordance with OAR 855-104-0055.

(4) A pharmacist for a pharmacy or prescriber with prescribing and dispensing privileges for a Dispensing Practitioner Drug Outlet, Correctional Facility or Community Health Clinic must;



Drug Compounding

(5) Comply with all state and federal laws and rules.

(6) Effective November 1, 2027, Non-Resident Drug Outlets that prepare compounded products must be inspected and be in compliance with current USP standards. If a Drug Outlet's home state does not inspect and require compliance with current USP standards, the Drug Outlet, prior to obtaining or renewing a license, must provide evidence to the board that the Drug Outlet is accredited, certified or received an approved inspection within the last two years as follows:

(a) Pharmacy Compounding Accreditation Board (PCAB) provided by the Accreditation Commission for Health Care (ACHC);

(b) Coalition for Compounding Excellence (CCE);

(c) National Association of Boards of Pharmacy (NABP);

(d) The Joint Commission; or

(e) As otherwise approved by the board.

(7) The following is prohibited in the compounding area:

(a) Animal(s); and

(b) For non-sterile compounding, flooring that is not easily cleanable, is porous or particle generating.



Uniform Multistate Pharmacy Jurisprudence Exam (UMPJE)*

The Who / What / When / Where & Why

WHO: Pharmacist applicants and the National Association of Boards of Pharmacy (NABP).

WHAT: Transitioning from the Oregon-specific MPJE to the Uniform Multistate Pharmacy Jurisprudence Examination (UMPJE) and amending the exam fee from \$170 to \$350 payable to NABP.

WHEN: Oregon MPJE proposed to sunset on 3/31/2027. UMPJE implementation and new fee structure proposed to begin 4/01/2027. If adopted/filed, board will stop accepting Oregon MPJE results after 3/31/2028.

WHERE: OAR Chapter 855, Divisions 006, 110, and 115.

WHY: To create a standardized assessment of pharmacist entry into practice throughout the United States without compromising patient safety.

*** Rules not filed yet; sent to November 2026 Rulemaking Hearing.**



Uniform Multistate Pharmacy Jurisprudence Exam (UMPJE)*

About the Uniform MPJE

Ensuring competency in state and federal pharmacy law and providing streamlined pathways to license portability are two goals that can be accomplished together. Working with the boards of pharmacy, we developed a new version of the Multistate Pharmacy Jurisprudence Examination® (MPJE®). The national, Uniform MPJE™ (UMPJE™) is an additional tool that boards of pharmacy can use to assess licensure candidates' knowledge of pharmacy law.

The UMPJE assesses knowledge of concepts and general principles of state law that are uniform to all jurisdictions. Boards in participating jurisdictions have the option to begin using the uniform version or continue to use the current state-specific version of the MPJE.

While the UMPJE covers applicable federal law, it should **not** be considered a federal law exam. Instead, the UMPJE is designed to leverage the commonality of state laws and focuses on assessing knowledge of uniform pharmacy laws and regulations that are applicable across most states.

Read our recent [blog](#) post to learn more about the UMPJE.



Uniform Multistate Pharmacy Jurisprudence Exam (UMPJE)*

Jurisdiction	UMPJE Start Date	MPJE Retirement Date	UMPJE Required for Licensure Transfer
Arizona	April 1, 2026	March 31, 2026	Yes
Florida	June 1, 2026	May 31, 2026	No
Iowa	April 1, 2026	March 31, 2026	Yes
Kansas	April 1, 2026	March 31, 2027	Yes
Maryland	June 1, 2026	May 31, 2027	Yes
Montana	June 1, 2026	May 31, 2026	Must have a previous passing UMPJE or MPJE score in any jurisdiction.
Nebraska	June 1, 2026	May 31, 2028	Yes
North Carolina	April 1, 2026	March 31, 2026	Yes
Ohio	April 1, 2026	September 30, 2026	Must have a previous passing UMPJE or MPJE score in any jurisdiction.
Rhode Island	April 1, 2026	March 31, 2026	Yes
Virginia	September 1, 2026	September 30, 2026	Yes
Washington*	July 2, 2026	December 29, 2026	Yes
West Virginia	June 1, 2026	August 1, 2026	Yes



Pharmacist Prescribing Update: Professional Engagement with PHPFAC

Active Participation: The Board encourages pharmacist involvement in shaping the practice of pharmacy in Oregon. You can engage with the PHPFAC by:

01

Attending Meetings: Committee meetings are open to the public and are often held virtually for easy access.

02

Providing Feedback: Submit public comment on existing Formularies or Protocols directly through the Board's website or respond to Survey Monkey polls intermittently sent out to request targeted feedback on certain topics.

03

Proposing New Concepts: Submit a concept for a new protocol or recommend the addition of a specific drug or device to the Formulary, using the form prescribed by the Board.



West Coast Health Alliance 2026-2027 Respiratory Vaccine Recommendations

In September of 2026, the West Coast Health Alliance (WCHA) issued immunization recommendations for the 2026-2027 respiratory virus season.

These recommendations were informed by trusted national medical organizations, including the American Academy of Pediatrics (AAP), the American College of Obstetricians and Gynecologists (ACOG), and the American Academy of Family Physicians (AAFP).

The WCHA believes that all recommended immunizations should be accessible to the people of our states and aims to ensure that public health recommendations are guided by safety, efficacy, transparency, access and trust.



West Coast Health Alliance 2026-2027 Respiratory Vaccine Recommendations

Age/Condition	COVID-19	Influenza	RSV
Children	All 6–23 months All 2–18 years with risk factors or never vaccinated against COVID-19 All who are in close contact with others with risk factors ¹ All who choose to reduce risk of severe illness	All 6 months and older ⁴	All younger than 8 months ² All 8–19 months with risk factors
Pregnancy	All who are planning pregnancy, pregnant or postpartum	All who are planning pregnancy, pregnant or postpartum	All who are 32–36 weeks gestational age ^{2,3}
Adults	All 65 years and older All 19–64 years with risk factors All who are in close contact with others with risk factors ¹ All who choose to reduce risk of severe illness	All	All 75 years and older ³ All 50–74 years with risk factors ³
Healthcare Workers	All	All	All who meet criteria above



Recent Protocol Updates

01 Influenza Vaccines

02 RSV Vaccines

03 COVID 19 Vaccines

04 MOUD Protocols

Calling all SMEs!

The Oregon Board of Pharmacy is seeking licensed Oregon Pharmacists to volunteer and serve as Subject Matter Experts (SMEs) for the Public Health & Pharmacy Formulary Advisory Committee (PHPFAC). The Committee utilizes SMEs to develop and revise protocols in OAR 855-115-0345.



05

Post-Test Questions & Final Take-Home Points

The Subtraction Bias, The Illusion of “Someday,” and The One Skill That Changes Everything.



Post-Assessment

Question 1:

Pharmacy Prescription Lockers (PPLs)

Under OAR 855-143 and the recent updates from SB 236, which of the following statements are TRUE regarding Pharmacy Prescription Lockers (PPLs)? (Select all that apply)

- a) The board voted in June to send the final iteration of the PPL rules to its November Rulemaking Hearing.
- b) A PPL must be located at the exact same physical address as the retail drug outlet it is associated with.
- c) A retail drug outlet may operate one or more pharmacy prescription lockers located within the state.
- d) A PPL requires a separate, unique license or registration from the State Board of Pharmacy to operate.
- e) A pharmacy prescription locker is considered part of the retail drug outlet.



Post-Assessment

Question 2:

According to 2026 HB 4131 establishing mobile pharmacies, which of the following requirements apply to the ownership and operation of a mobile pharmacy unit? (Select all that apply)

- a) The applicant must be a registered retail drug outlet with a permanent physical location.
- b) A licensed pharmacist must be physically present at the mobile pharmacy during all hours of operation.
- c) Dispensing records from the mobile pharmacy must be recorded in the permanent retail drug outlet's records within 24 hours of dispensation.
- d) Any registered retail drug outlet in Oregon is eligible to operate a mobile pharmacy unit without restriction.
- e) None of the above.



Post-Assessment

Question 3:

Drug Compounding

Under the newly adopted Division 183 rules (OAR 855-183), which of the following are baseline requirements for a drug outlet that engages in compounding? (Select all that apply)

- a) The outlet must notify the Board of Pharmacy within 15 days of initiating sterile or non-sterile compounding.
- b) Reconstituting an oral antibiotic according to the manufacturer's FDA-approved labeling is classified as drug compounding.
- c) All compounding must adhere to current applicable United States Pharmacopeia (USP) standards, including USP <795>, <797>, and <800>.
- d) The Pharmacist-in-Charge (PIC) must complete the board's Compounding Self-Inspection form in addition to their annual pharmacy self-inspection.
- e) None of the above.



Post-Assessment Question 4:

Multistate Pharmacy Jurisprudence Examination (UMPJE)

Regarding the Board's proposed rules transitioning from the Oregon-specific MPJE to the Uniform Multistate Pharmacy Jurisprudence Examination (UMPJE), which of the following statements are TRUE? (Select all that apply)

- a) Oregon anticipates utilizing the UMPJE effective April 1, 2027.
- b) The jurisprudence examination fee paid directly to the National Association of Boards of Pharmacy (NABP) will increase to \$350 once the UMPJE goes into effective April 1, 2027.
- c) Oregon MPJE examination results will no longer be accepted by the Board after March 31, 2028.
- d) Pharmacist reciprocity applicants who passed an Oregon MPJE in 2024 will be required to retake the UMPJE to keep their Oregon license active.
- e) None of the above.



Post-Assessment

Question 5

The Oregon Board of Pharmacy encourages active engagement from licensees and stakeholders. Which of the following are established pathways to provide feedback, stay informed, or seek guidance? (Select all that apply)

- a) Submitting new protocol concepts or providing feedback directly to the Public Health and Pharmacy Formulary Advisory Committee (PHPFAC).
- b) Providing written or verbal public comment during official Board rulemaking hearings.
- c) Emailing specific regulatory or inspection-related questions directly to pharmacy.compliance@bop.oregon.gov.
- d) Attending public Board of Pharmacy meetings to stay informed on emerging legislation and rulemaking.
- e) Utilizing the designated pharmacy.rulemaking@bop.oregon.gov email to submit comments on proposed rules.



LIFE HAPPENS IN THE NOW

The “You” Today Was Once a Dream

THE YOGA PRINCIPLE

“If you can't accept and appreciate who you are now, you will never be able to appreciate who you become later.”

01

The Milestone Trap

The very same “you” sitting in this chair right now is the exact same “you” that will experience your future successes.

02

The Reality of Arrival

Insights from Dr. Daniel Clay Williams (Pediatric Fellow, MUSC) & waking up as Executive Director.

03

What would you do if you had no limits?

Sometimes, significant growth comes from removal, not addition.



Stay in touch and in tune.

What's on the horizon?

OREGON BOARD
OF PHARMACY
STRATEGIC PLAN
2024-2029

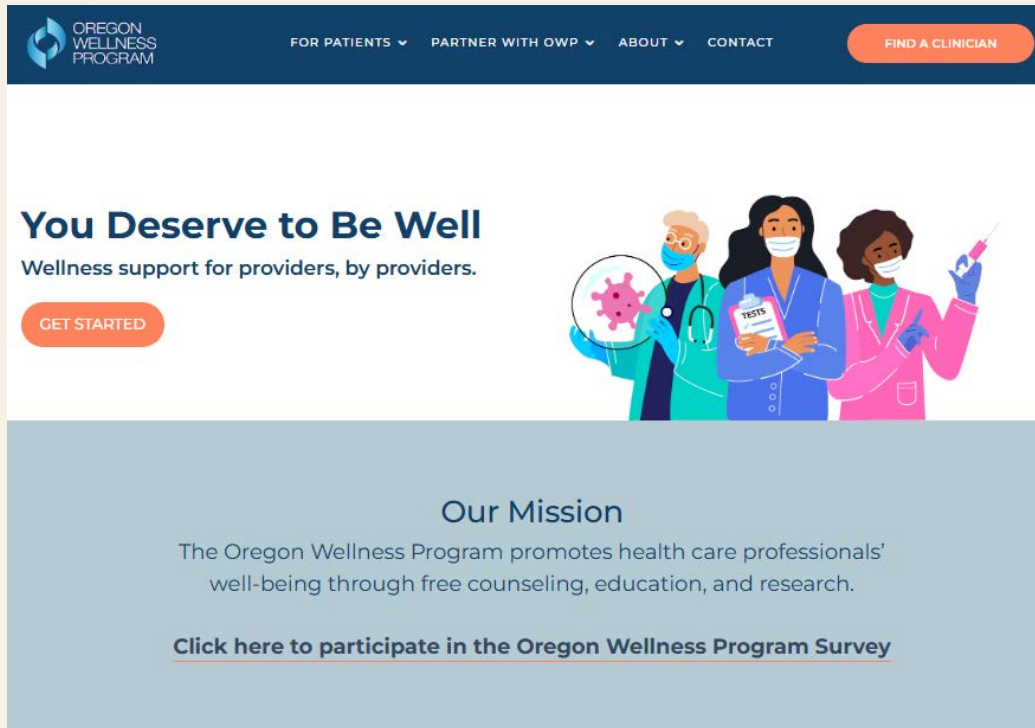


- 01** Strategic Plan Meeting 11/04/2026
- 02** Planning for rules that take effect on 1/01/2027
- 03** Looking ahead to the 2027 Long Session
- 04** Mental Health and Wellbeing Updates



Special Updates: Mental Health and Wellbeing News

At the August Board meeting, I announced a partnership with the Oregon Wellness Plan.



For all OBOP licensees, licensed and working in Oregon, this means:

3 counseling sessions with licensed therapist within 3 business days.

No cost. Completely anonymous.

Not reported to OBOP or insurance providers.

Lowers barrier to care for those who provide critical care for others.



Special Updates: Mental Health and Wellbeing News

Licensing that supports wellbeing

ALL IN: Wellbeing First for Healthcare recognized the Oregon Board of Pharmacy for licensing applications free of intrusive, stigmatizing mental health questions.

You deserve confidential care

Fear of professional repercussions can prevent people from seeking help. Removing these questions reduces stigma and supports your right to pursue care confidentially.





Thank You





Ask A Question,
Save A Life.

QUESTION. PERSUADE. REFER.

1

Reach Out. Support is Available.





Call 503-655-8585
Clackamas Crisis and Support Line 24/7

Health, Housing
& Human Services  CLACKAMAS COUNTY

Clackamas County Public Health Division

2

Disclaimer

We have no financial conflicts of interest to disclose. This presentation is for educational purposes only and does not replace clinical judgment or individualized care. The views expressed are those of the presenters and do not necessarily reflect the policies or positions of Clackamas County.

3



Learning Objectives

- Summarize the relationship between age and suicide risk.
- Identify and list observable suicide warning signs and relevant risk factors during patient interactions.
- Demonstrate effective strategies to engage in supportive and empathetic listening.
- Demonstrate effective strategies to initiate a respectful, compassionate conversation with a patient
- Locate and recommend appropriate local and national suicide prevention resources for patients and families.

4



Summarize the relationship between age and suicide risk, with attention to Oregon-specific data.

Question: Which of the following statements is most accurate about the relationship between age and suicide?

- A. Youth have the highest rate of suicide
- B. Only about 10% of suicides involve adults 75+
- C. Adults aged 85+ have the highest rate of suicide
- D. Age is not an associated risk for suicide

5



Summarize the relationship between firearm access and suicide risk, with attention to Oregon-specific data.

Question: Which of the following statements is most accurate about the relationship between firearm access and suicide in Oregon?

- A. Most firearm deaths in Oregon are the result of homicides
- B. Only about 10% of suicides in Oregon involve a firearm
- C. Suicide accounts for the majority of firearm deaths in Oregon
- D. Firearm suicide risk is higher among civilians than among Veterans

6



Identify and list observable suicide warning signs and relevant risk factors during patient interactions.

Question: Which of the following is **NOT** typically considered a warning sign of suicide?

- A. Giving away prized possessions
- B. Talking about not wanting to be alive
- C. Talking about feeling like a burden
- D. Asking for a refill on a prescription

7



Demonstrate effective strategies to engage in supportive and empathetic listening.

You're a pharmacy technician filling a prescription for an 80-year-old man. He appears agitated and distracted.

What are the appropriate responses?

- A. Keep your head down and give medications – you just want the interaction to end ASAP
- B. "I'm wondering if we could talk – I would like to check in learn a little more about your day"
- C. Think to yourself 'grumpy old man'.

8



Demonstrate effective strategies to initiate a respectful, compassionate conversation with a patient or family member about firearm safety and suicide risk.

You're a pharmacy technician filling a prescription for a middle-aged man. He appears agitated and distracted. While talking, he mentions recent job loss and says, "I've just been feeling like everyone would be better off without me." He also tells you he has a gun at home for protection.

What are the appropriate responses?

- A. "I'm not sure what to say, but it's probably best to focus on getting your medication."
- B. "It sounds like you're going through a lot. Are you thinking about suicide?"
- C. "Why would you say something like that?"
- D. "Can I offer you some resources?" (988 - gun lock)

9



Donna-Marie Drucker

- 988, VCL, Military Help Line
- Victim Advocate (SARC, CCVA)
- Wife of a Veteran
- Oregon Firearm Safety Coalition
- Together with Veterans NW Oregon
- Mental Healthcare Professional
- Survivor of youth suicide attempt

Clackamas County Public Health Division

10



Galli Murray, LCSW

Suicide Prevention Coordinator, Clackamas County

Galli Murray is a Licensed Clinical Social Worker who specializes in crisis trauma and suicide prevention. In her current position as Clackamas County's Suicide Prevention Coordinator, she works within the county health and various other systems in order to reach Clackamas County's goal of zero suicide. Prior to serving in this position, Murray led a team of clinicians and case managers working towards addressing the critical mental health needs of Clackamas County residents. She earned her Master of Social Work degree at Portland State University, spent ten years as an outpatient and psychiatric residential treatment services child and family therapist and has worked for Clackamas County for the better part of 20 years since completing her degree. Murray is honored at the opportunity to continue to serve Clackamas County and specifically to lead the County in reaching the goal of zero suicide.

Clackamas County Public Health Division

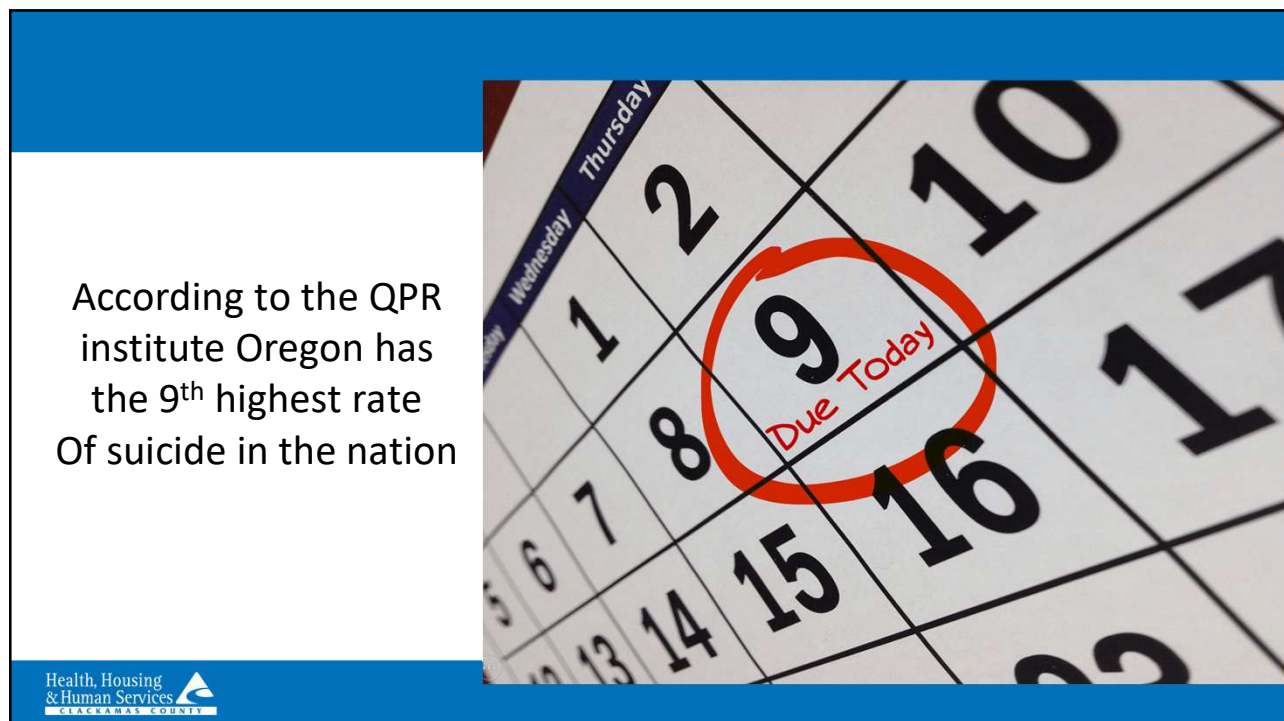
11

To All Those That Have
Lost Someone to
Suicide

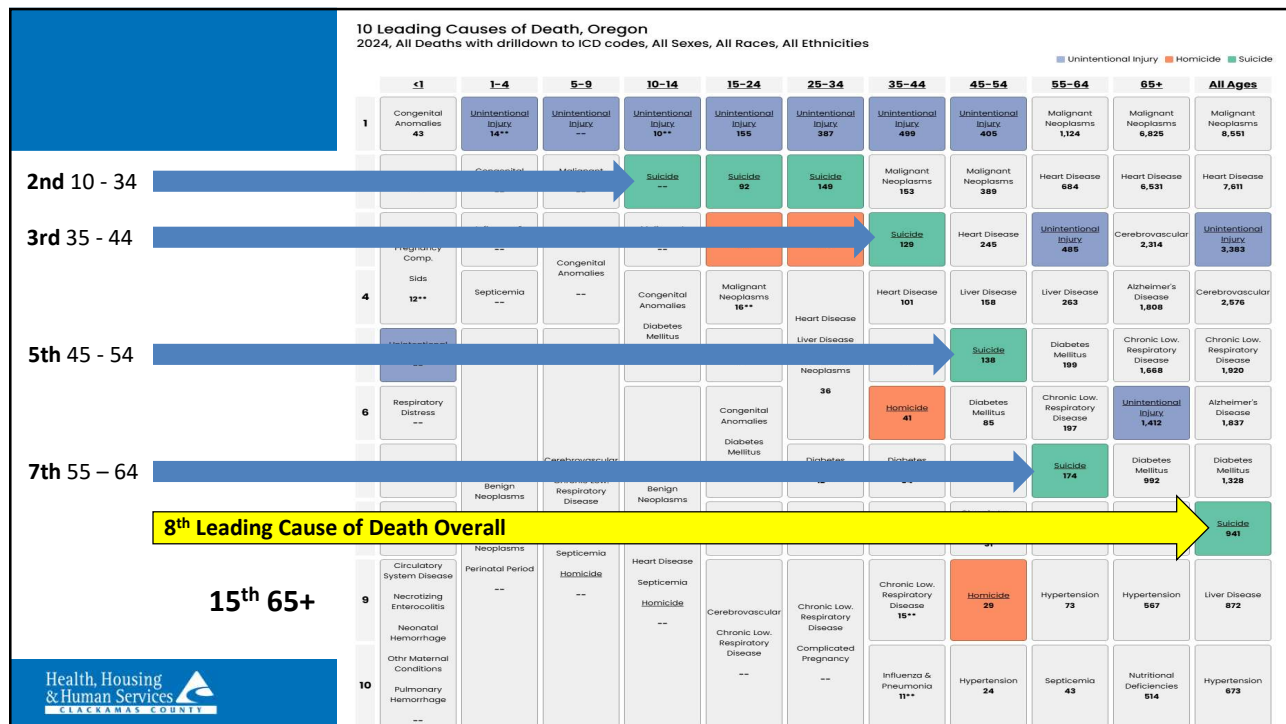
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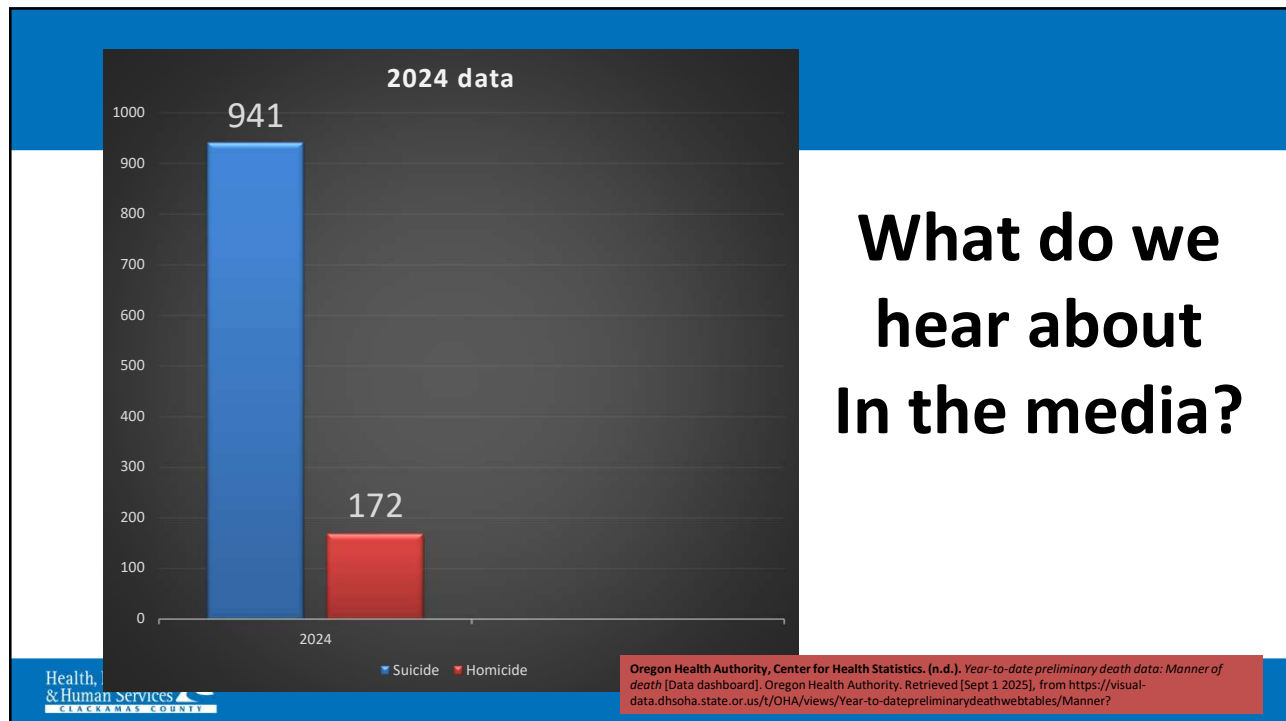
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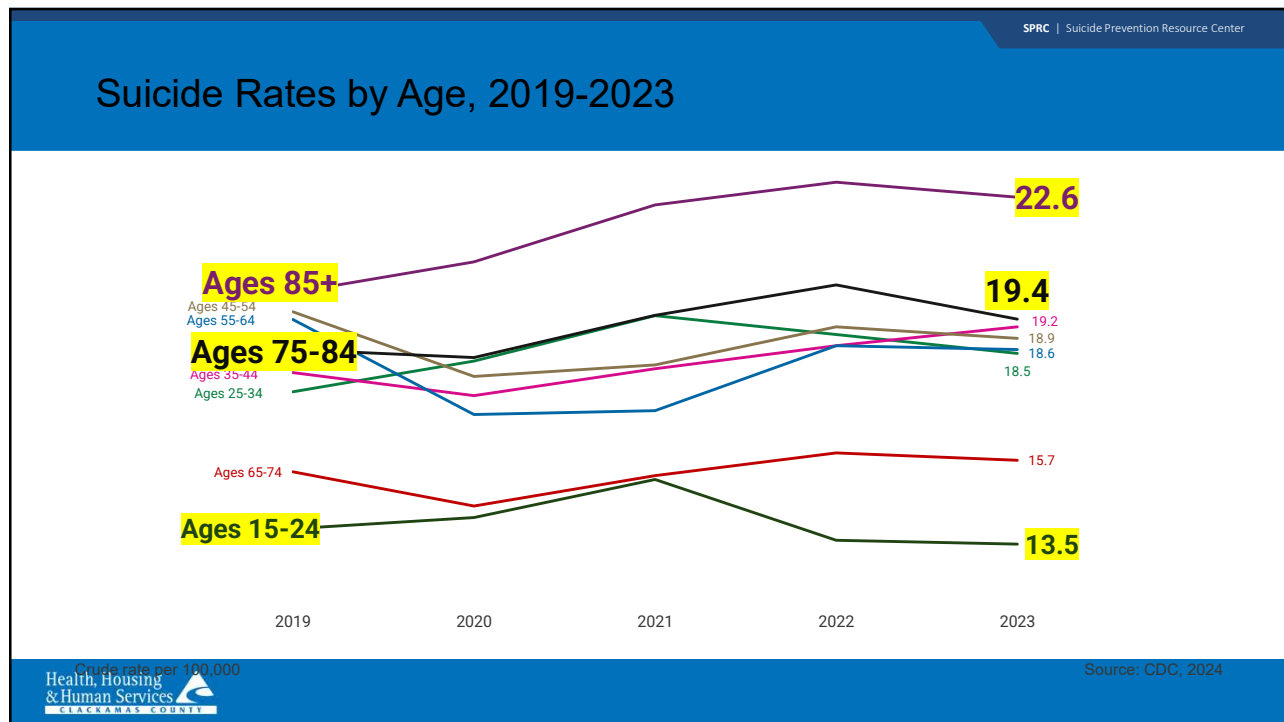
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15



16



17

Who Owns Firearms in Oregon?

At least 50-60% of
ALL homes have firearms

Health, Housing & Human Services
CLATSOP COUNTY

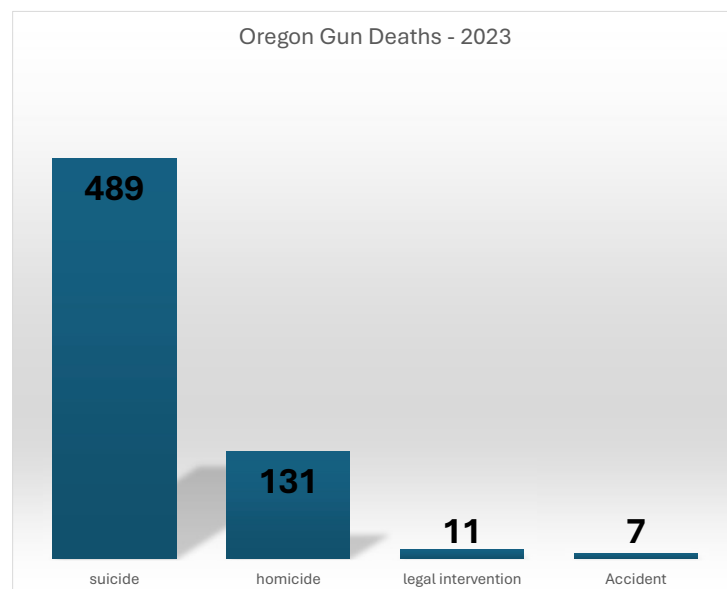
18

For Self Defense/Protect Family from a Threat?

19

80% of Gun Deaths Are Suicide

Most Threats
Come From
Inside the Home



20

Means Matter

55 %

21

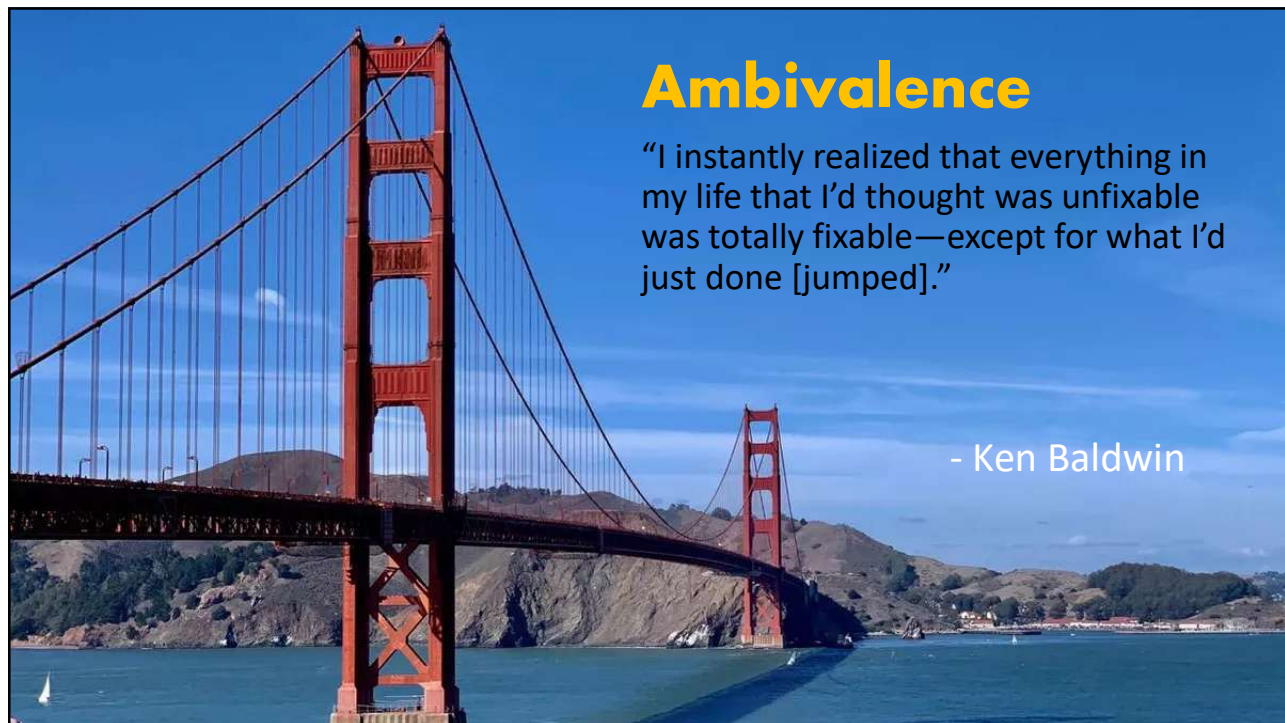


90 – 95%

22



23



Ambivalence

"I instantly realized that everything in my life that I'd thought was unfixable was totally fixable—except for what I'd just done [jumped]."

- Ken Baldwin

24



25

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INSTITUTE

What is the Purpose of QPR?

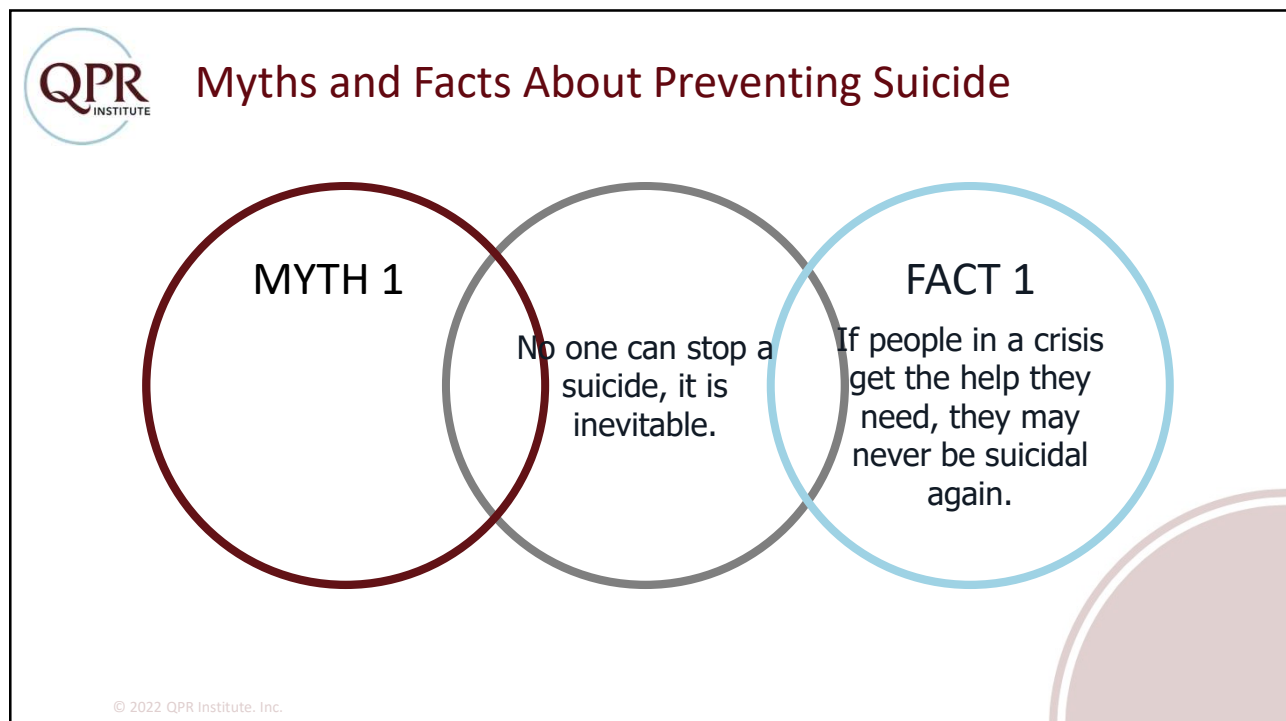
QPR is not intended to be a form of counseling or treatment.

QPR is intended to offer hope through positive action.

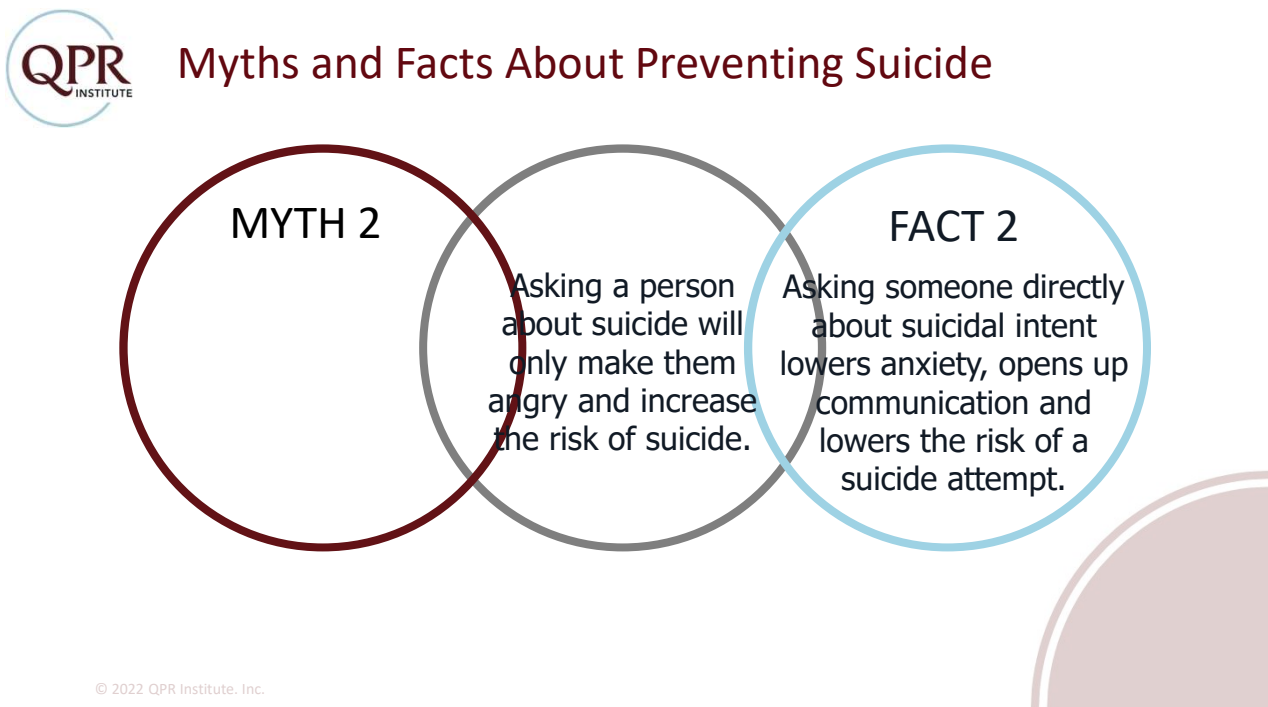
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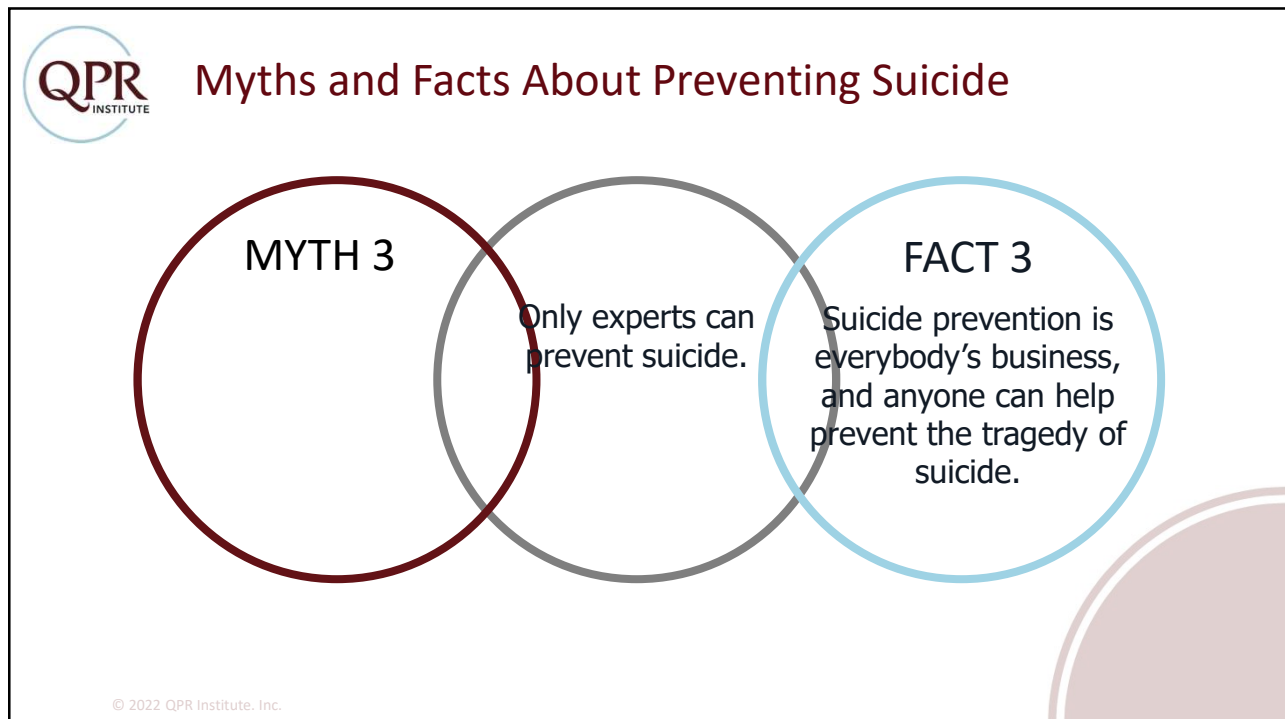
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30

QPR
INSTITUTE

Myths and Facts About Preventing Suicide

MYTH 4
People considering suicide keep their plans to themselves.

Most people considering suicide communicate their intent sometime during the week of preceding their attempt.

FACT 4

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INSTITUTE

Myths and Facts About Preventing Suicide

MYTH 5
Those who talk about suicide, do not do it.

People who talk about suicide may try, or even attempt, an act of self-destruction.

FACT 5

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INSTITUTE

Myths and Facts About Preventing Suicide

MYTH 6

Once a person decides to die by suicide, there is nothing anyone can do to stop them.

FACT 6

Suicide is the most preventable kind of death, and almost any positive action may save a life.

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QPR
INSTITUTE

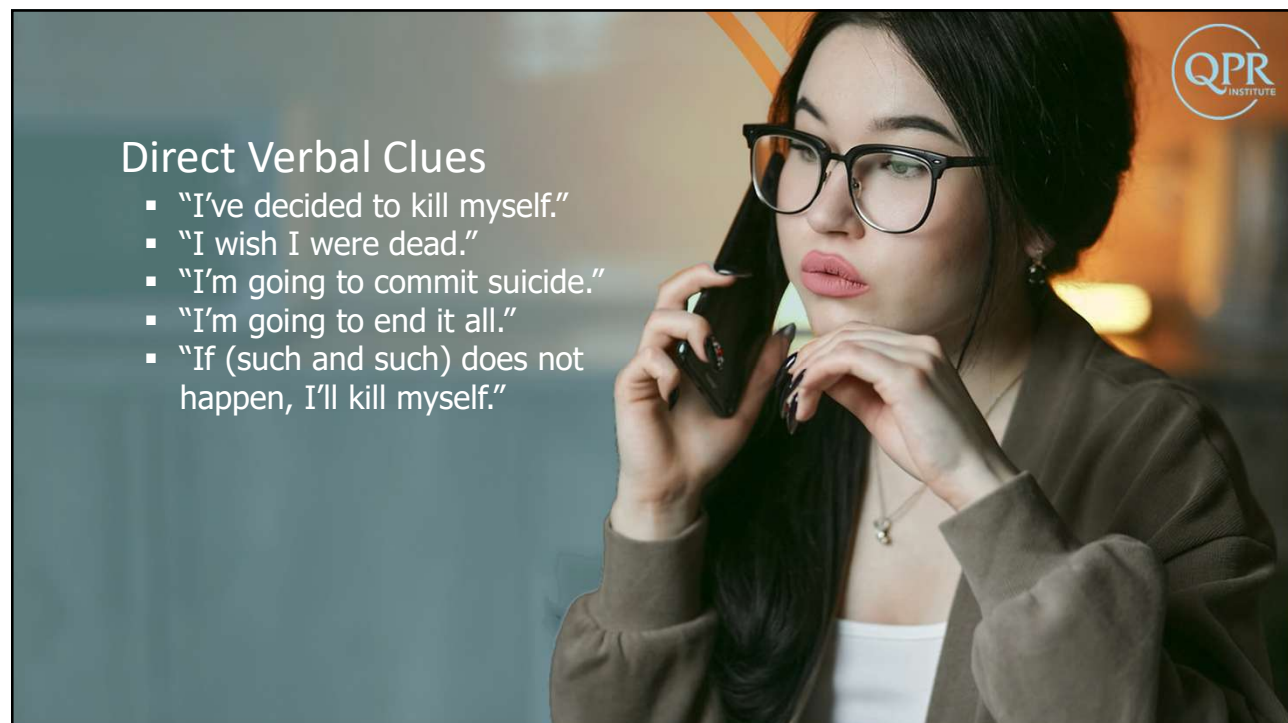
How can I help?

34



Suicide Clues and Warning Signs

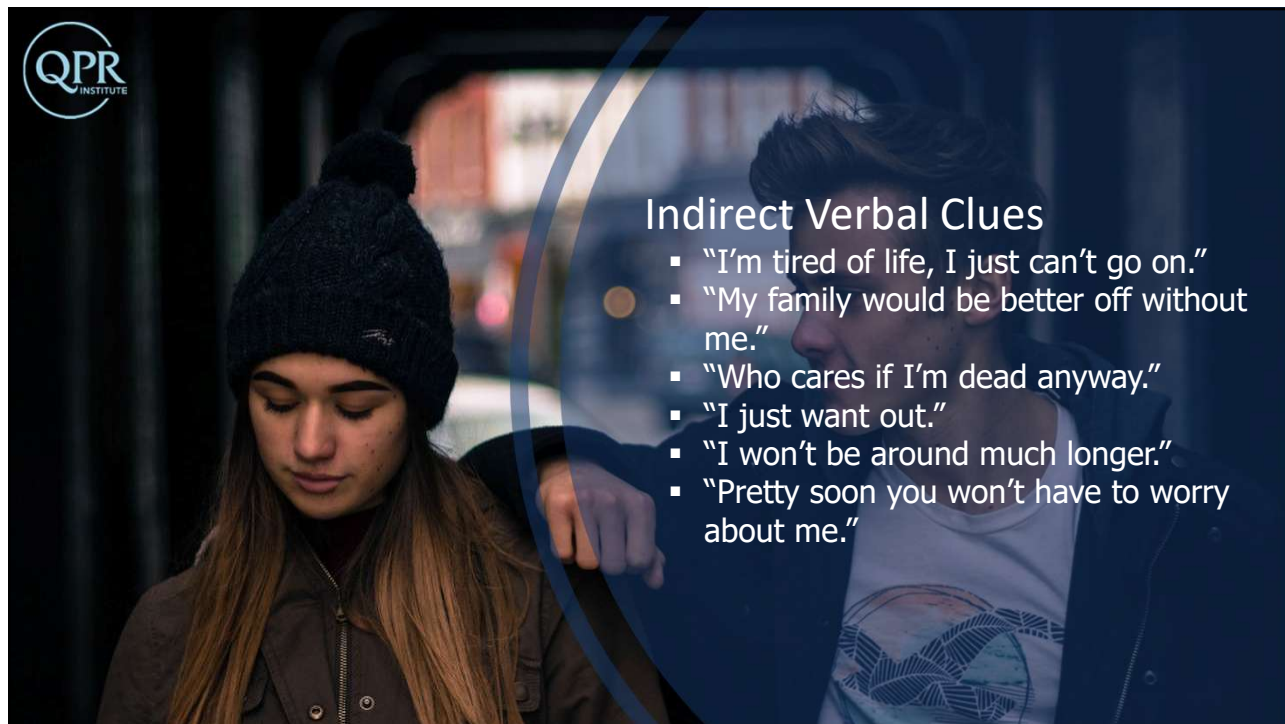
35



Direct Verbal Clues

- "I've decided to kill myself."
- "I wish I were dead."
- "I'm going to commit suicide."
- "I'm going to end it all."
- "If (such and such) does not happen, I'll kill myself."

36

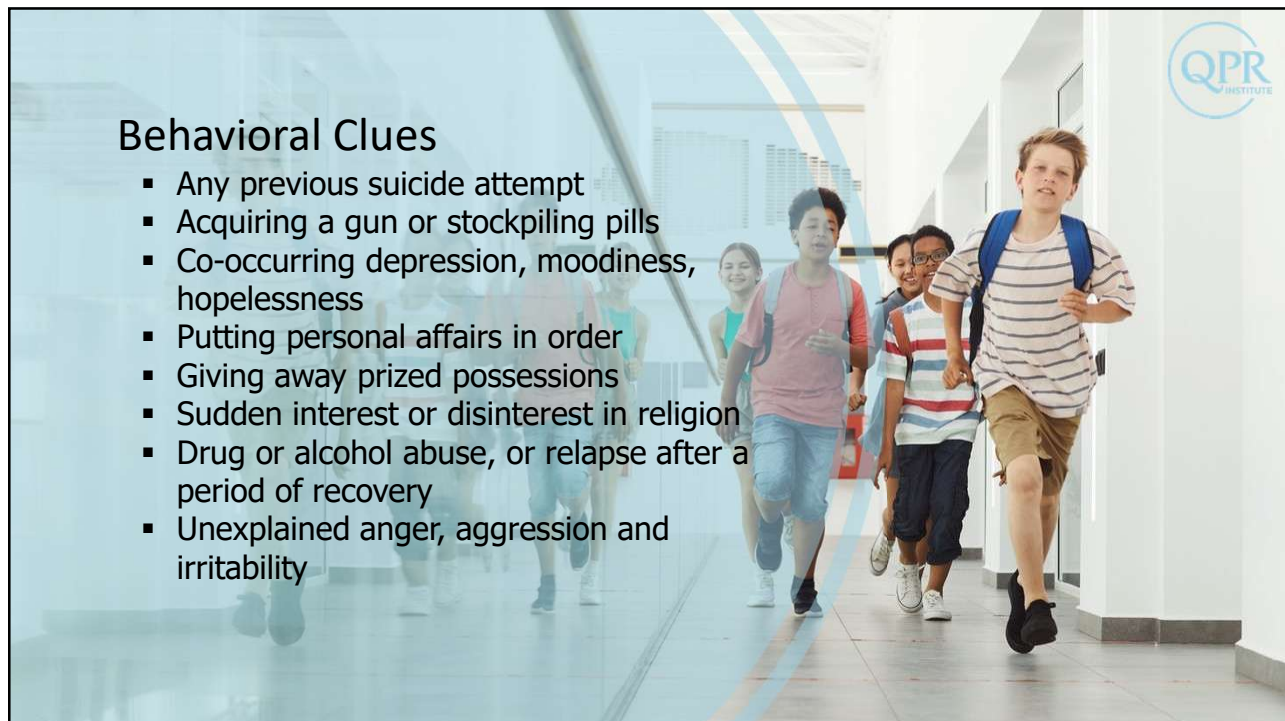


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Indirect Verbal Clues

- "I'm tired of life, I just can't go on."
- "My family would be better off without me."
- "Who cares if I'm dead anyway."
- "I just want out."
- "I won't be around much longer."
- "Pretty soon you won't have to worry about me."

37

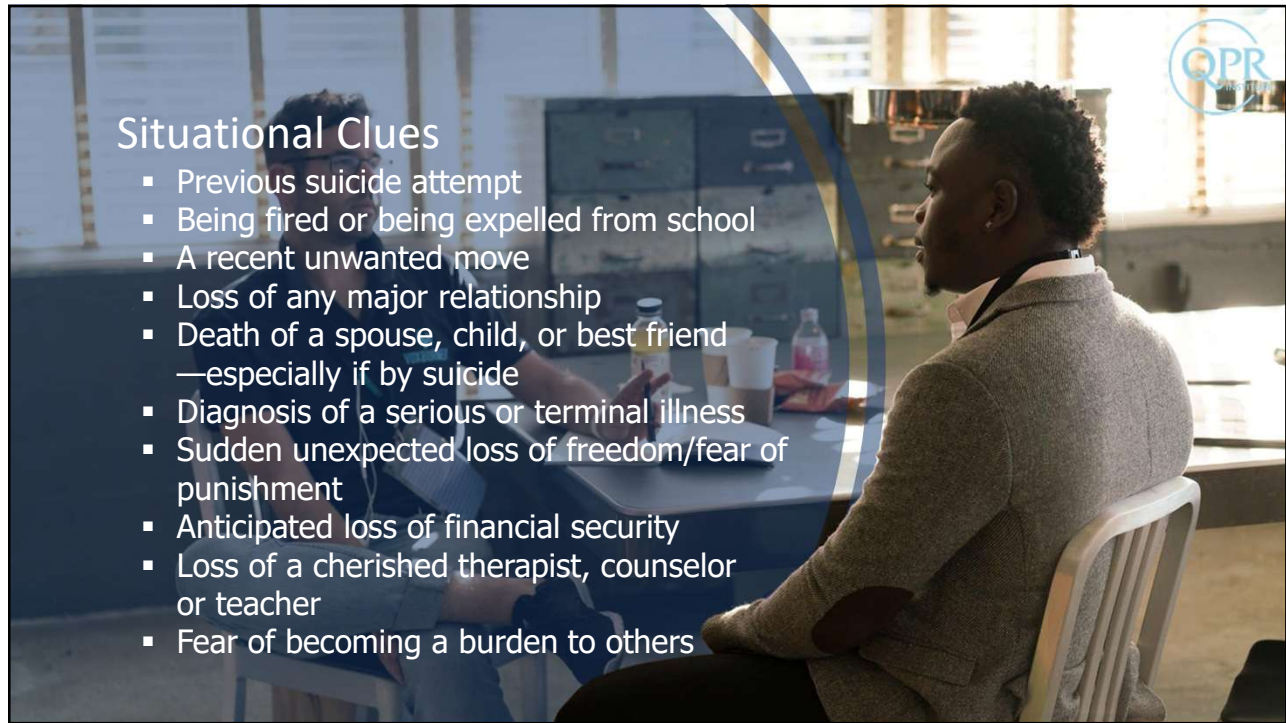


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Behavioral Clues

- Any previous suicide attempt
- Acquiring a gun or stockpiling pills
- Co-occurring depression, moodiness, hopelessness
- Putting personal affairs in order
- Giving away prized possessions
- Sudden interest or disinterest in religion
- Drug or alcohol abuse, or relapse after a period of recovery
- Unexplained anger, aggression and irritability

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Situational Clues

- Previous suicide attempt
- Being fired or being expelled from school
- A recent unwanted move
- Loss of any major relationship
- Death of a spouse, child, or best friend—especially if by suicide
- Diagnosis of a serious or terminal illness
- Sudden unexpected loss of freedom/fear of punishment
- Anticipated loss of financial security
- Loss of a cherished therapist, counselor or teacher
- Fear of becoming a burden to others

39

The QPR Institute offers a 3-step intervention plan.

- Approach: Direct or Indirect
- Identifying questions to avoid



QUESTION

How do you persuade someone to stay alive?



PERSUADE



REFER

How and to whom will you refer the person you just helped?

40



41



Tips for Asking the Question

- 1 If in doubt, don't wait. Ask the Question!
- 2 If the person is reluctant, be persistent.
- 3 Talk to the person alone in a private setting.
- 4 Allow the person to talk freely.
- 5 Give yourself plenty of time.
- 6 Have your resources handy: the QPR Card, phone numbers, counselor's name and any other information that might help.

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QUESTION

Disruptive Approach

"Have you been unhappy lately?" "upset as you seem to be, they sometimes wish they were dead."

"Have you been thinking about ending your life?" "you've been thinking about ending your life?"

"I am worried about you. I wonder if you're thinking about suicide?" "go to sleep and never wake up?"

"Are you thinking about killing yourself?"

43

Call 988



Call a county crisis line



Go to a walk-in clinic

44



How **not** to ask the suicide question:

- ✗ "You're not thinking of killing yourself, are you?"
- ✗ "You wouldn't do anything stupid would you?"
- ✗ "Suicide is a dumb idea. Surely you are not thinking about suicide?"

45

+

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**It's okay, take a
Deep breath
And let them
Know you care**

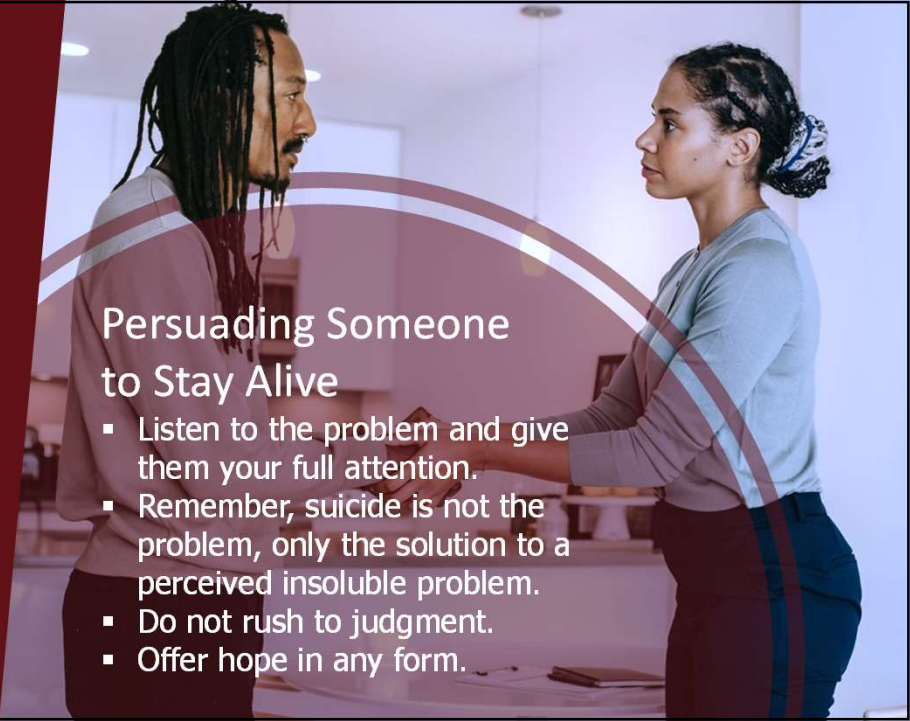
I'm sorry, that didn't quite come out right.

I want you know that I care, and that I'm here for you, so let me try asking that question again.

I can tell you are having a hard time, and sometimes when folks are experiencing what you going through, they can have thoughts of suicide.

Are you having thoughts of suicide?

46



P

PERSUADE

Persuading Someone to Stay Alive

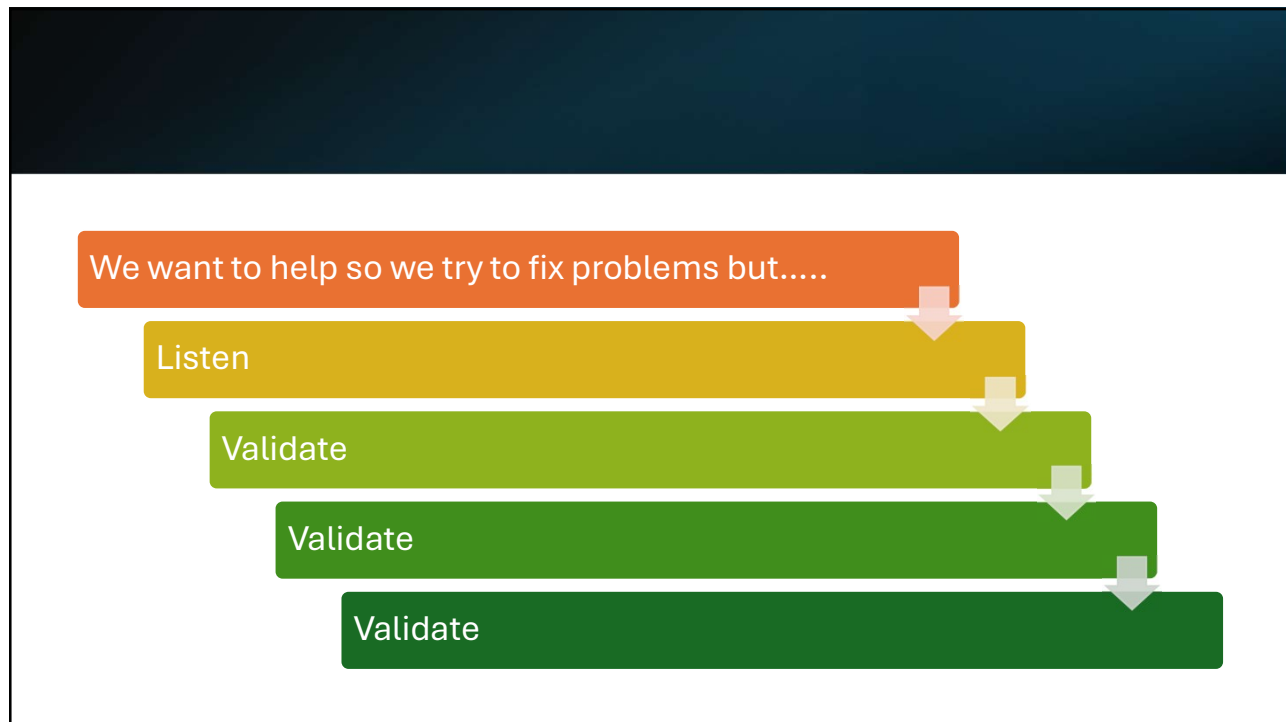
- Listen to the problem and give them your full attention.
- Remember, suicide is not the problem, only the solution to a perceived insoluble problem.
- Do not rush to judgment.
- Offer hope in any form.

47

Tips to Encourage Someone to Stay Alive

When someone is in pain, your steady presence and belief in their worth can be life-saving. You don't need to have all the answers — you just need to show up, listen, and connect.

48



49



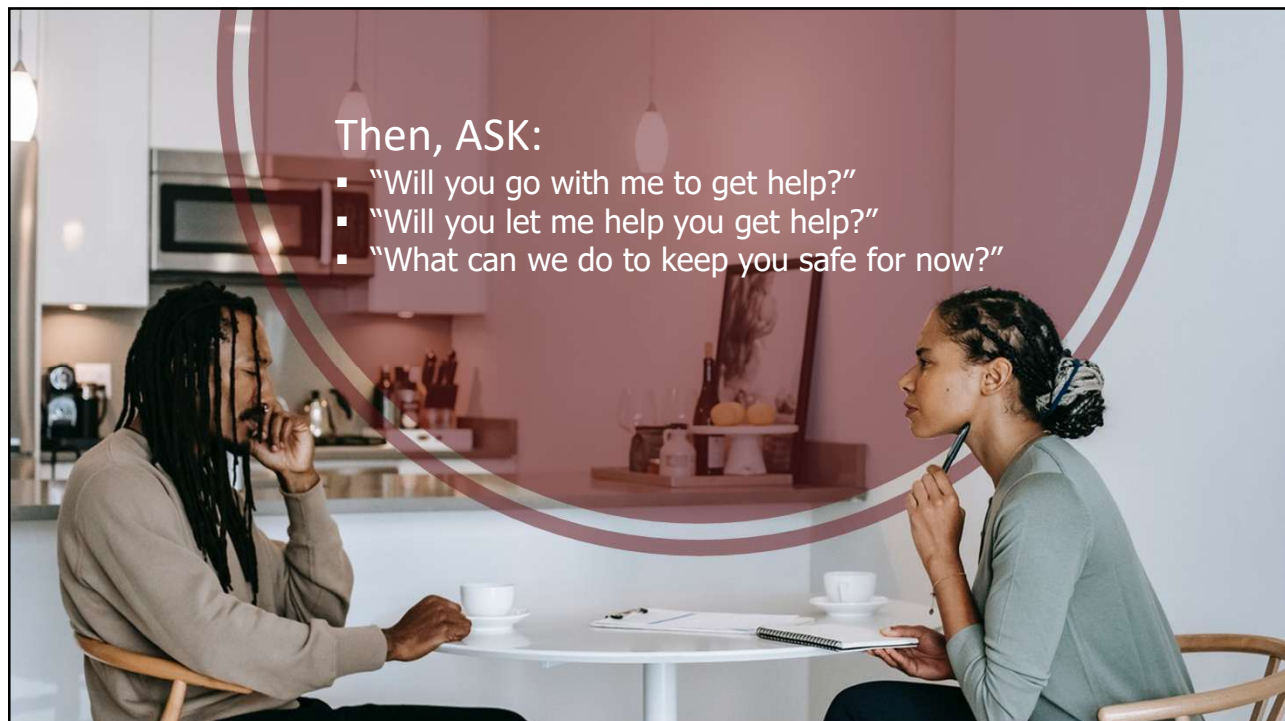
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Be Clear: Their Life Matters

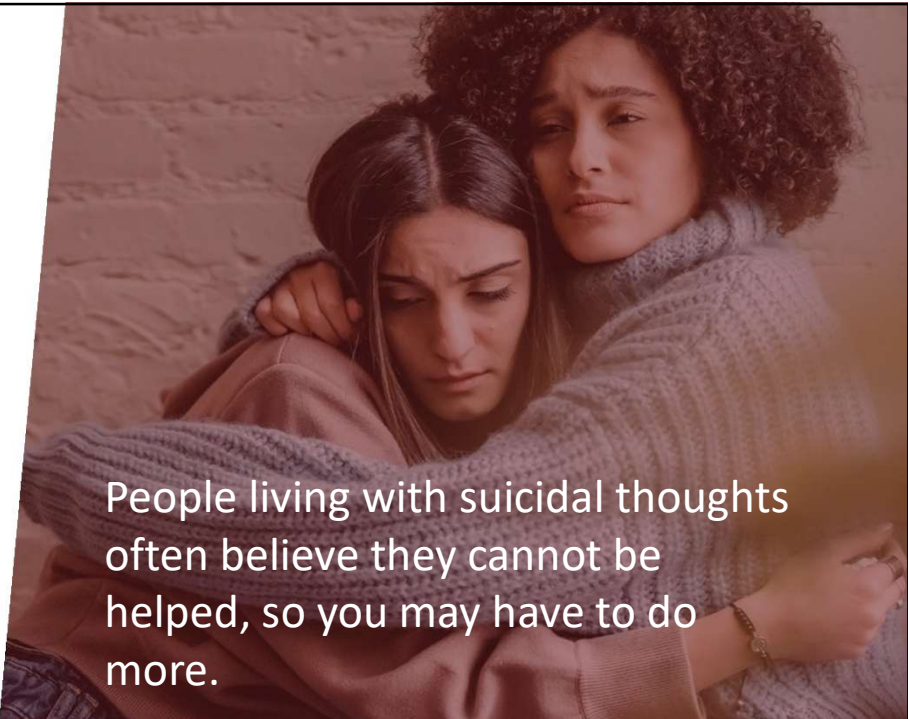
Say it plainly and sincerely:

*"I care about you.
Your life matters. I
want you to stay."*

51



52



R

REFER

People living with suicidal thoughts often believe they cannot be helped, so you may have to do more.

53

Refer to Support

- County Suicide Prevention Website
- Peer
- 988
- Friend or family member – with permission
- Local ER
- Local Walk in Clinic
- Appointment with a therapist
- If needed 911
- County Crisis Team
- County Crisis Line

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Referral Options

- ★★★ The **best referral** involves taking the person directly to someone who can help.
- ★★ The **next best referral** is getting a commitment from them to accept help, then making the arrangements to get that help.
- ★ The **third best referral** is to give referral information and try to get a good faith commitment not to attempt or die by suicide.



55



Summarize the relationship between age and suicide risk, with attention to Oregon-specific data.

Question: Which of the following statements is most accurate about the relationship between age and suicide?

- A. Youth have the highest rate of suicide
- B. Only about 10% of suicides involve adults 75+
- C. Adults aged 85+ have the highest rate of suicide
- D. Age is not an associated risk for suicide

56



Summarize the relationship between firearm access and suicide risk, with attention to Oregon-specific data.

Question: Which of the following statements is most accurate about the relationship between firearm access and suicide in Oregon?

- A. Most firearm deaths in Oregon are the result of homicides
- B. Only about 10% of suicides in Oregon involve a firearm
- C. Suicide accounts for the majority of firearm deaths in Oregon
- D. Firearm suicide risk is higher among civilians than among Veterans

57



Identify and list observable suicide warning signs and relevant risk factors during patient interactions.

Question: Which of the following is **NOT** typically considered a warning sign of suicide?

- A. Giving away prized possessions
- B. Talking about not wanting to be alive
- C. Talking about feeling like a burden
- D. Asking for a refill on a prescription

58



Demonstrate effective strategies to engage in supportive and empathetic listening.

You're a pharmacy technician filling a prescription for an 80-year-old man. He appears agitated and distracted.

What are the appropriate responses?

- A. Keep your head down and give medications – you just want the interaction to end ASAP
- B. "I'm wondering if we could talk – I would like to check in learn a little more about your day"
- C. Think to yourself 'grumpy old man'.

59



Demonstrate effective strategies to initiate a respectful, compassionate conversation with a patient or family member about firearm safety and suicide risk.

You're a pharmacy technician filling a prescription for a middle-aged man. He appears agitated and distracted. While talking, he mentions recent job loss and says, "I've just been feeling like everyone would be better off without me." He also tells you he has a gun at home for protection.

What are the appropriate responses?

- A. "I'm not sure what to say, but it's probably best to focus on getting your medication."
- B. "It sounds like you're going through a lot. Are you thinking about suicide?"
- C. "Why would you say something like that?"
- D. "Can I offer you some resources?" (988 - gun lock)

60

TO RECAP AS WE WRAP UP

Question – something doesn't feel right

Question – are you thinking about suicide

Persuade – I want to help get you help

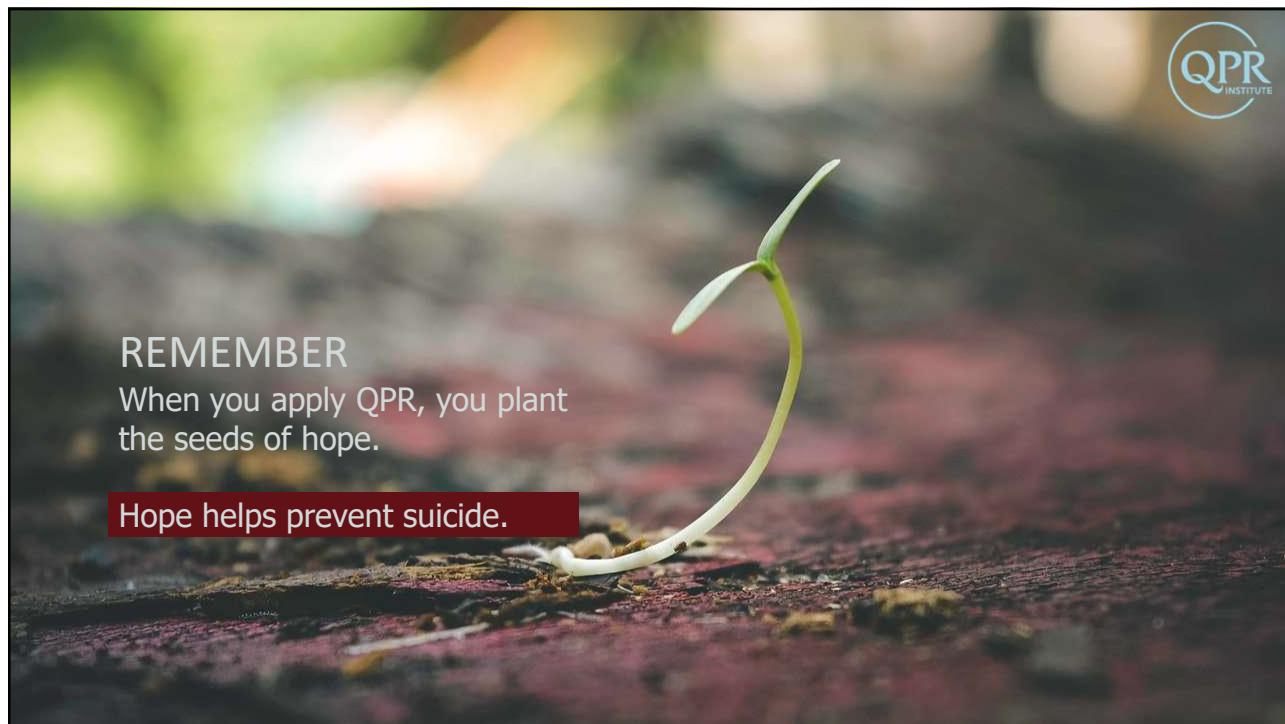
Refer – Let's get you some help.....

61



Any willingness to accept help at some time, **even if in the future**, is a good outcome.

62



63

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64



Donna-Marie Drucker

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Pharmacist-Prescribed MOUD

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Clinical Pharmacist, OHSU

Alice Knotts, PharmD, BCACP
Director, Clinical Systems, Operations & Growth
Inclusive Care Clinic Pharmacy

OPIOID USE DISORDER COUNTS & OPIOID TREATMENT PROGRAMS



Among Oregonians who used medical services from January – December 2022, **44,331** had an OUD diagnosis.

Of people with an OUD diagnosis, **30%** also had a stimulant use disorder diagnosis.

Most OTPs are concentrated along the Interstate-5 (I-5) corridor serving Oregon's 4 largest metro areas – Portland, Salem, Eugene, and Medford. Coastal, rural, and frontier communities in Oregon are severely lacking in access to MOUDs and other OUD treatment.

MEDICATIONS FOR OPIOID USE DISORDER DATA

METHADONE

► As of spring 2022, there are more than 10,000 active methadone patients at Oregon OTPs

BUPRENORPHINE

► Of the 12,000 Oregon providers that are DEA certified, only 1,081 (9.0%) dispensed a buprenorphine prescription. Of those prescribing, 82.0% wrote more than one prescription

► Among the 44,331 people diagnosed with OUD from January – December 2022, 15,711 (35.4%) patients were dispensed buprenorphine, a 7.5% increase from the previous year

NALTREXONE

► Among the 44,331 people diagnosed with OUD from January – December 2022, 1,079 (2.4%) patients were dispensed oral naltrexone, a 0.2% increase from the previous year



TAKE AWAYS

- Rates of OUD and co-occurring OUD and stimulant use disorder are high in Oregon.
- Despite the removal of the waiver requirement to prescribe buprenorphine, most eligible prescribers are not prescribing buprenorphine even though the need is high.
- OHA is committed to implementing state policies to expand access and improve retention in MOUD treatment. Federal requirement revisions have created opportunities for updating policies.

Questions? Contact Courtney Fullinier at OHA at Courtney.Fullinier@oha.oregon.gov

Data sources: Comagine Health All Payer All Claims Database; Oregon Health Authority, SAMSHA, Population Research Center – Portland State University

(OHA 2022)

1

Learning Objectives

At the completion of this program, participants will be able to:

- Identify the important pharmacokinetics of buprenorphine that make it a safe and effective medication for OUD
- Describe relevant assessment questions prior to initiating buprenorphine therapy
- (RPh Only) Apply diagnostic skills and evidence-based treatment principles to optimize opioid use disorder-related patient care
- (CPT Only) Recognize how the pharmacy technician can support the pharmacist to optimize opioid use disorder-related patient care

2

2

Disclosures

- Dr Knotts will discuss some off-label uses for buprenorphine.
- Dr Knotts will mention the following brand name drugs: Suboxone (buprenorphine/naloxone), Sublocade (buprenorphine injection), and Brixadi (buprenorphine injection).
- *Dr Knotts and Dr. Skogrand do not have relevant financial relationships with ineligible companies and have no actual or potential conflict of interest in relation to this program/presentation.*
- Images were generated with the use of ChatGBT (5.6- Luna), Open AI 2026

3

3

Navigation

1

- Buprenorphine Boot Camp

2

- Oregon MOUD protocol

3

- Pharmacist OUD Treatment Experience in Idaho

4

4

Pre-Question 1

Important characteristic of buprenorphine include:

- A. Long half life
- B. Lower risk of respiratory depression
- C. Good bioavailability
- D. A and B

5

5

Pre-Question 2

It is important to ask time of last opioid use prior to starting buprenorphine therapy to avoid:

- A. Opioid Craving
- B. Precipitated withdrawal
- C. Overdose
- D. Respiratory depression

6

6

Pre-Question 3

You are consulted about a 27-year-old patient with major depressive disorder (MDD) who has never received treatment for depression. The consulting provider suspects opioid use disorder but is currently more concerned about her severe depression.

In addition to psychotherapy, which medication class would you recommend to the consulting provider?

- A. SSRIs
- B. TCAs
- C. OATs
- D. None. First, I'd need to evaluate the diagnosis to optimize therapeutic decision making.

7

7

Opioid Use Disorder

- 5 million adults in the US are living with an Opioid Use Disorder (OUD)
- 72,000 Americans lost their lives to overdose in 2025
- 1,500 overdose deaths in Oregon in 2024
- 9,700 ED visits for nonfatal overdose in Oregon
- 5% of non-fatal overdoses that present to the ED die within the year, many within the first 2 days

Jones 2023, CDC 2024, OHA 2024

8

8

Medications Saves Lives

- Methadone is associated with 53% decrease in all-cause mortality
- Buprenorphine is associated with a 66% decrease in all-cause mortality
- NNT to prevent 1 fatal overdose is 52
- **Larger reduction in mortality than any blood pressure medication, statin and even aspirin post STEMI**
- 4 weeks after stopping treatment, the risk of death was 6x higher than during treatment

Santo 2021

9

9

But Patients aren't Getting Treatment

- 87% of patients with an OUD are not offered medications
- Only 1 in 20 patients are offered buprenorphine after a non-fatal overdose
- In Oregon, only 23% of patients with an OUD received buprenorphine
- There is a 51% gap in healthcare providers who prescribe buprenorphine in Oregon

Oregon ADPC 2025, Weimer 2019

10

10

Barriers in Oregon

- Difficulty finding a provider to prescribe buprenorphine
- Long wait time to appointments
- Treatment deserts in rural part of our state
- Primary care providers that don't have the capacity or resources available to take new OUD patients
- Patients being referred out for OUD treatment
- Emergency departments being unfamiliar or uncomfortable with offering buprenorphine post overdose
- Stigma at the pharmacies or unwillingness to fill buprenorphine prescriptions

Sample Footer Text

11

11

You Can Save a Life!

- 95% of patients who survive a nonfatal overdose are not given a medication that is most strongly associated reduced mortality
- The question is now ***Why should we NOT offer buprenorphine?***



AI

12

12

Buprenorphine Boot Camp



AI

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Buprenorphine

PARTIAL
≠
WEAK

- Partial opioid mu agonist
- Activates mu receptors enough to provide analgesia and treat opioid withdrawal symptoms and cravings
- It does not mean partially potent
- Apply the 'partial' to the side effect profile
- 1 mg of SL buprenorphine is ~ 30-50 oral morphine equivalence

Lexi 2026, Weimer 2024, AI

14

14

Buprenorphine PK

- T1/2: 32 hours
- Bioavailability: Sublingual 30-55% (formulation dependent)
- Peak: 30-60 minutes
- Metabolism: CYP 3A4 and 2C8
- Hepatic function: increase in plasma levels in moderate and severe hepatic impairment
- Renal function: no change in plasma levels with any level of renal impairment

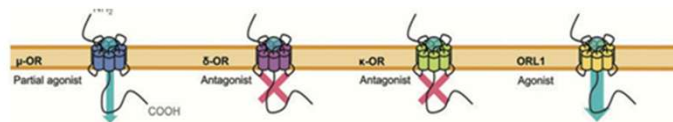
Lexi 2026

15

15

Why Buprenorphine is Different

- Tight binding affinity at the mu receptor
 - Outcompetes other opioids at the mu receptor
 - Explains why precipitated withdrawal occurs
- Long duration of action
 - Suppresses withdrawal/cravings and protects against overdose for an extended period of time
- Tissue specificity
 - Preferentially activates mu receptors in the spinal column, limiting euphoria and respiratory depression



Gundin 2020

16

16

Buprenorphine and Respiratory Depression

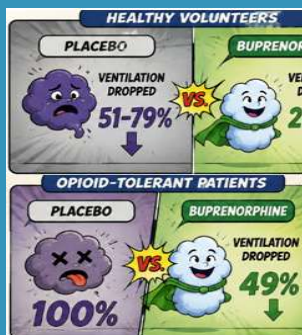
- Ceiling effect
 - A study in healthy volunteers at IV bolus doses ranging from 0.05 to 0.60 mg/70 kg demonstrated a ceiling effect on respiratory depression given no significant changes in minute ventilations between low and high dosing groups
 - 90 men randomized to receive 32, 64 or 96 mg of buprenorphine were monitored for respiratory and cardiovascular complications for 5 days after single dose
 - No severe respiratory effects that required intervention were noted

Dahan 2006, Admadi 2018

17

17

It Protects!



- Buprenorphine is a protectant against fentanyl induced respiratory depression
 - Healthy volunteers were given placebo vs IV buprenorphine to target serum levels of 0.2-0.5 ng/ml
 - Opioid tolerant patients were administered placebo vs IV buprenorphine to target serum levels of 1 ng/ml, 2 ng/ml or > 5 ng/ml
 - Administration of IV fentanyl
 - Healthy volunteers: ventilation dropped 26-47% in buprenorphine group vs 51-79% in placebo group
 - Opioid-tolerant patients: ventilation dropped 49% in buprenorphine group vs 100% in placebo group
- 93% lower risk of experiencing apnea requiring stimulation in all buprenorphine groups

Moss 2022, AI

18

18

Initiation Methods

	High Dose	Standard	Low Dose
Pros	Quick stabilization	Most described method	Continuation of full opioid agonist for withdrawal
Opioid withdrawal	Moderate to severe Wait 24 hours after last fentanyl use	Moderate	Mild to none
Precipitated Withdrawal Risk	Moderate	Moderate-high	Low
Initial Dose	8–24 mg	2–4 mg	0.5 mg
Duration to therapeutic dose	1–3 hours	1–3 days	3–10 days
Continuation of full opioid agonist	No	No	Yes

AI, Lexi 2026, Weimer 2023, Weimer 2024

19

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Pharmacist Prescribing Protocol



PREVENTIVE CARE MEDICATIONS FOR OPIOID USE DISORDER (MOUD) INITIATION OF THERAPY STATEWIDE DRUG THERAPY MANAGEMENT PROTOCOL for the OREGON PHARMACIST AUTHORITY and PURPOSE: - Per ORS 689.645, a Pharmacist may provide patient care services pursuant to a statewide drug therapy management protocol. - Per ORS 689.638, a Pharmacist may prescribe, dispense and administer to a patient medication for the treatment of opioid use disorder in accordance with a statewide drug therapy management protocol, developed in consultation with a physician with a background in addiction medicine, by the Public Health and Pharmacy Formulary Advisory Committee convened under ORS 689.649 and adopted by State Board of Pharmacy rule pursuant to ORS 689.645. - Following all elements outlined in OAR 855-115-0130, a Pharmacist licensed and located in Oregon may prescribe an MOUD drug regimen. STANDARDIZED PATIENT ASSESSMENT PROCESS ELEMENTS: - Utilize the standardized Initiation of Therapy Patient Intake Form (pg. 2-4) - Utilize the standardized Initiation of Therapy Assessment and Treatment Care Pathway (pg. 5-8) PHARMACIST TRAINING AND REGISTRATION REQUIREMENTS Prior to using this protocol, the Pharmacist must: - Complete a total of eight hours of ACPE-accredited (Accreditation Council for Pharmacy Education) training on Opioid Use Disorder (OUD) to include the prescribing of MOUDs, before newly applying for a registration from the DEA to prescribe Schedule III controlled MOUDs for the treatment of OUD. - Hold a current Drug Enforcement Agency (DEA) registration for Schedule III Controlled Substances. RESOURCES - Standardized Initiation of Therapy Prescription Template optional (pg. 9) - Standardized Initiation of Therapy Provider Communication Template optional (pg. 10) - American Society of Addiction Medicine (ASAM) National Treatment Guidelines for Treatment of OUD https://siteinfostorage.blob.core.windows.net/sitefinity-production-blob/docs/default-source/guidelines/npe-jam-supplement.pdf?sfvrsn=a00a52c2_2 - Substance Abuse and Mental Health Services Association (SAMHSA) Tip 63: Medications for Opioid Use Disorder- Full Document https://store.samhsa.gov/sites/default/files/pep21-02-01-007.pdf - American Society of Health-System Pharmacists Society: Neonatal Opioid Withdrawal Syndrome (NOWS) https://publications.ashp.org/flowchart/pdf/display/book/9781585287331/chapter21.pdf	
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Oregon BOP MOUD protocol, AI

20

20

Pharmacist Prescribed Buprenorphine



13 states allow for it

- Statewide protocol
 - Oregon
- Independent Pharmacist prescribing
 - California, Idaho, Nevada, Ohio
- Collaborative Practice Agreement
 - Alaska, Colorado, Connecticut, Maine, Montana, New Mexico, Pennsylvania, Washington

21

21

Steps

1. Apply for DEA license
2. Patient fills out intake form
3. Pharmacist reviews intake form and PDMP
4. Pharmacist fill out *Assessment and Treatment Care Pathway*
5. Pharmacist counsels
6. Pharmacist prescribes buprenorphine
- 7. Pharmacist saves a life!**

Sample Footer Text

22

22

Inclusion Criteria

- 18 years of age or older
- Patient indicates that they have been diagnosed with or believe they have an OUD
- Patient does not have a history of liver failure, cirrhosis or jaundice

Oregon BOP MOUD protocol

23

23

Assessment

2. Have you taken any opioids within the last 7 days? (for example, fentanyl, OxyContin®, Percocet®, oxycodone, hydrocodone, heroin, etc.)
If yes, what were they?

☐ Yes ☐ No

Approximately when did you take them?

How much did you take?

Note: Being honest about recent use is the best way to keep you safe. This information helps us time your first dose to avoid an intense sickness that can happen if the medicine is started too soon.

Oregon BOP MOUD protocol

24

24

Assessment

- **Cravings, Compulsion, Consequences and loss of Control**

1.	Have you been diagnosed with, or believe you might have, Opioid Use Disorder (OUD)? Some symptoms might include: • Taking opioids in larger amounts, or over a longer period, than intended • Being unable to cut down use despite trying • Having a strong desire or urge to use opioids ("cravings") • Difficulty keeping up with major responsibilities (at home, work, school, etc.) because of opioid use • Continuing to use opioids even when it causes problems in your personal life or relationships (with friends, family, people at work, etc.)	☐ Yes ☐ No
----	--	--

Sample Footer Text

25

25

Assessment

- How much/How often
 - Helps you determine how much buprenorphine they may need to control their opioid withdrawal and cravings
 - Patients with high use patterns (more than 1 gram of fentanyl per day) will likely need 24-32 mg daily to control their symptoms
- Time of last use
 - Allows you to counsel on when to start buprenorphine to mitigate precipitated withdrawal risk
 - The farther out from last use, the lower the precipitated withdrawal risk
 - Encourage trying to wait as close to 24 hours after last fentanyl use as possible

Weimer 2023

26

26

Assessment

3. Have you ever had an overdose that involved opioids?

☐ Yes ☐ No

Note: We ask this because knowing your history will help us provide the right education and tools to make sure you're protected (like naloxone nasal spray to help reverse an opioid overdose).

Allows you to discuss the importance of naloxone and serves as a reminder to prescribe it!

Sample Footer Text

27

27

Naloxone Counseling Tips



- Make sure your family and friends know where the naloxone is kept
- Finger placement is important for proper leverage to press down **firmly** on the plunger to effectively administer naloxone as a mist
- Press down quickly and firmly on the plunger
- Repeat after 2 minutes if no response
- Tell the person you administered naloxone once they respond

Lexi 2026

28

28

Assessment

- Liver impairment is an exclusion and reason for referral
- 2-3 fold increase in buprenorphine serum levels in moderate to severe hepatic impairment

Liver Function

- | | | |
|----|---|--|
| 4. | Have you ever been told you have liver failure, cirrhosis, or have you experienced “yellowing” of the eyes or skin? | ☐ Yes ☐ No |
|----|---|--|

Note: We ask about your liver because this medication is processed there. We want to make sure your body can handle the medicine safely.

Oregon BOP MOUD protocol

29

29

Assessment

- Illness
 - Not a contraindication to prescribing
 - Encourage patient to seek higher level of care for their acute medical needs
- Current opioid prescriber
 - Collaborate with current opioid prescriber

Chronic Conditions and Pain

- | | | |
|----|--|--|
| 5. | Are you currently being prescribed opioid medication for a chronic pain condition? | ☐ Yes ☐ No |
|----|--|--|

General Symptoms

- | | | |
|----|---|--|
| 6. | Are you feeling confused or dizzy, or having fever or chills due to an illness that you think is unrelated to withdrawal? | ☐ Yes ☐ No |
|----|---|--|

Oregon BOP MOUD protocol

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Prescribe!

At-home Induction Regimen

Prescription 1- Buprenorphine and Naloxone (Suboxone) 8 mg /2 mg tablets

QTY: 28 tablets

SIG: Follow instruction sheet and take 2 to 4 tablets under the tongue on Day 1, then take 1 tablet under the tongue two to three times daily every day after that.

Comment: Start when you are in moderate to severe withdrawal.

Note: Instruction sheet **MUST** be given to patient to aid induction.

*Prescription 2- Naloxone (NARCAN) 4 mg nasal spray

QTY: 1 box (2 single-dose devices)

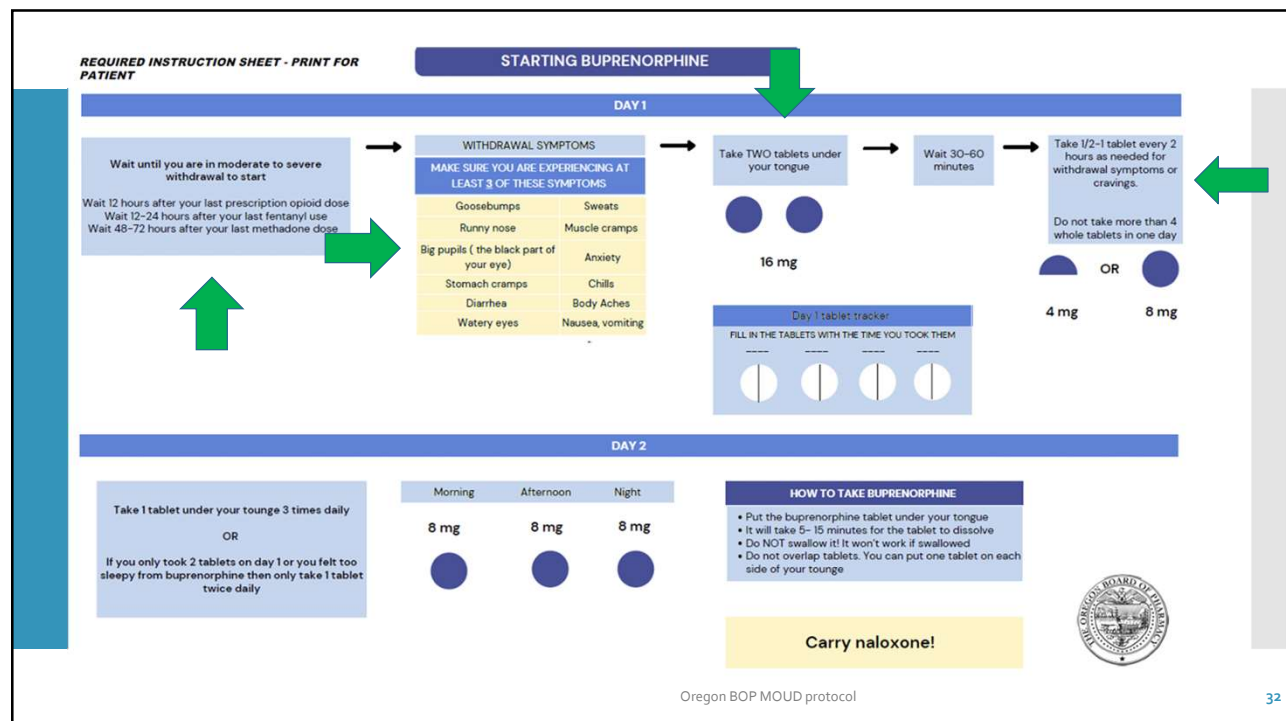
SIG: Instill 1 spray into one nostril as needed for suspected opioid overdose; If needed, repeat dose, alternating nostrils, every 2 to 3 minutes until the patient responds or until emergency medical assistance becomes available.

***Note:** not required if patient refuses.

Oregon BOP MOUD protocol

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Continuation Protocol

3. Overall, how has the medicine and current dosage been working for you?

☐ Excellent - I feel stable and my cravings are well-managed.

☐ Good - It's working, but I still have some difficult moments.

☐ Poor/Fair - I am struggling with cravings or withdrawal symptoms.

Note: This helps us understand your personal experience and whether your current dose is meeting your needs.

4. **Brief Substance Craving Scale (BSCS)**

Please check the box that best describes your experience over the past week when you've been on the medicine:

How often have you had cravings?

☐ Never ☐ Seldom ☐ Sometimes ☐ Often ☐ Constant

How intense were the cravings?

☐ None ☐ Mild ☐ Moderate ☐ Severe ☐ Overwhelming

How long did the cravings last?

☐ None ☐ <10 mins ☐ 10-30 mins ☐ 1-2 hours ☐ Most of the day

Note: This helps us determine if you might benefit from a dose adjustment to reach full effect and help you get the most benefit out of your medicine.

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Dose Adjustments

MOUD Dose Escalation Rubric (for Buprenorphine/Naloxone SL films or tabs)

Current Daily Dose	Moderate Dose Increase (BSCS Risk = Moderate)	Significant Dose Increase (BSCS Risk = High)
2 mg to 12 mg	Increase total daily dose by 2 mg	Increase total daily dose by 4 mg
> 12 mg to < 32 mg	Increase total daily dose by 4 mg, not to exceed *32 mg per day. (If taking 30 mg per day, increase total daily dose by 2 mg to achieve total daily dose of 32 mg per day)	Increase total daily dose by 8 mg, not to exceed *32mg per day. (If taking 26 to 30 mg per day, increase total daily dose by 2, 4, or 6 mg to achieve dose of 32 mg per day)
≥ 32 mg	Do Not Increase; Refer to another provider.	Do Not Increase; Refer to another provider.

* Maximum daily dose is 32 mg. If patient requires higher dosage, refer to another provider.

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Gap in Therapy

LAPSE DURATION	FULL OPIOID AGONIST USE SINCE LAST DOSE?	RECOMMENDED ACTION	RISK LEVEL
Less than 2-day lapse	—	Resume previous buprenorphine dose	LOW RISK
Greater than 5-day lapse	—	Follow initiation dosing pathway	HIGH RISK (Precipitated withdrawal)
3-5 day lapse	NO full opioid agonist use since last dose	Resume previous buprenorphine dose	MODERATE RISK (Monitor for symptoms)
More than 2-day lapse	YES full opioid agonist use since last dose	Follow initiation dosing pathway	HIGH RISK (Precipitated withdrawal)

AI

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Be like Gary!
Prescribe and
Save Lives

YOU are the most accessible link in the healthcare chain to prevent overdose, treat OUD and optimize medication dosing!



AI

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Things You Can Start Doing Today!

- Consider your personal stigma and how that might influence patients MOUD course
- Ensure adequate stock is kept for buprenorphine so you can fill RX same day
- Counsel on proper administration of buprenorphine
 - SL for 5-15 minutes
- Remove unnecessary and stigmatizing barriers for refills
- Consider the harms of withholding a life saving medication

Sample Footer Text

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Pharmacist OUD Treatment Experience in Idaho

Alice Knotts, PharmD, BCACP



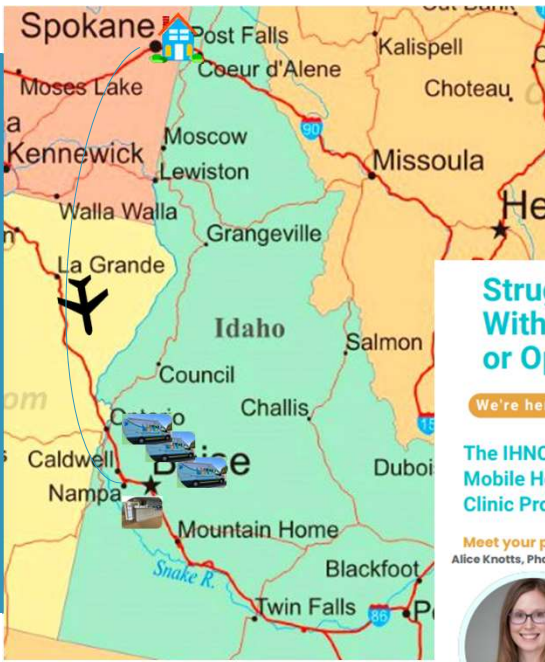
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Why Idaho? Why Me?







Struggling With Alcohol or Opioid Use?

We're here to help with judgment-free, effective treatment.

The IHNC
Mobile Health
Clinic Provides:

- ✓ Medication-Assisted Treatment (MAT)
- ✓ Same-day assessment for alcohol and opioid use
- ✓ Opioid Treatment with Suboxone or Subutex
- ✓ Warm, compassionate care close to home

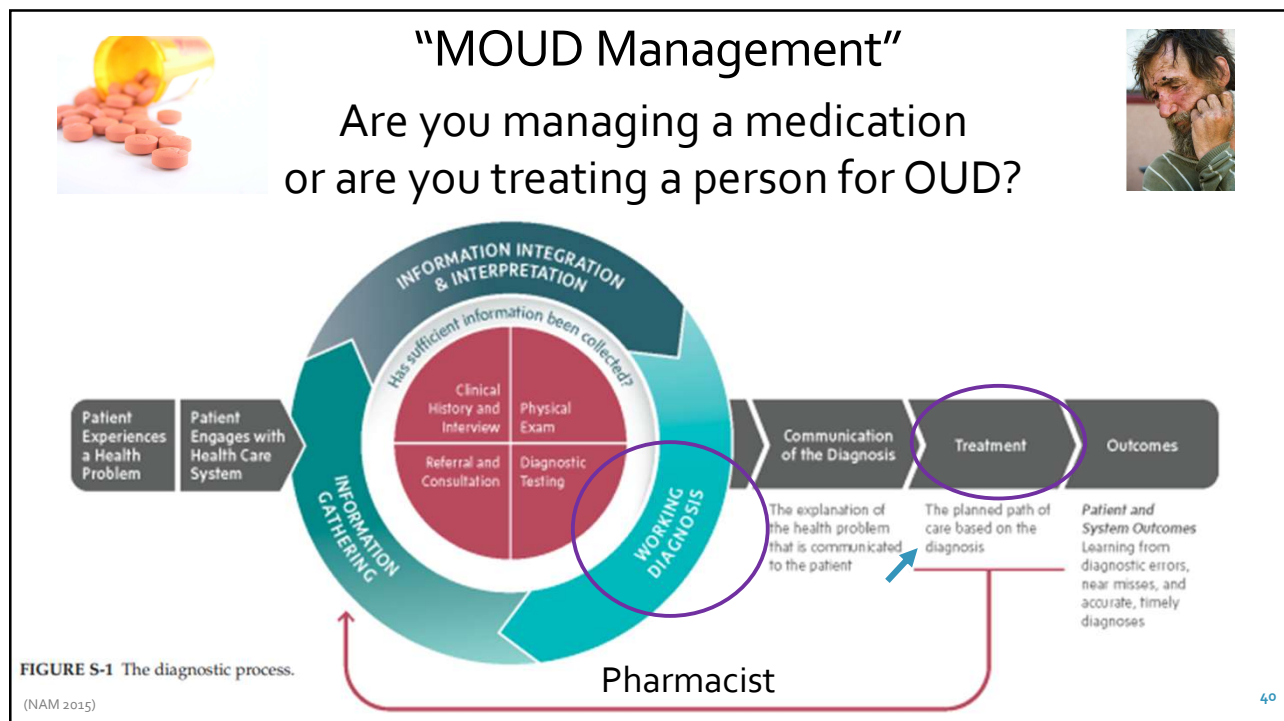
Meet your provider:
Alice Knotts, PharmD, BCACP



Come Visit Us June 18th & 19th:

Payette Family Services 12 pm - 6 pm
 395 S 16th St. Payette, ID 208-606-0396

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Diagnosing Opioid Use Disorder

- DSM-5 TR Initial Diagnosis is a checklist

- **Confirms standard diagnostic criteria is met**
- **Determines severity of illness**
 - Severity levels: Mild, Moderate, Severe
 - Moderate to Severe OUD meets clinical criteria for addiction
- **Ensures common misdiagnoses are avoided:**
 - Other substance use disorders
 - Chronic pain disorder-related tolerance/dependence
 - Misdiagnosis of behaviors associated with uncontrolled pain

(APA, 2013, ASAM, 2017, Kissin, 2025; Ballantyne, 2019)

DSM-5 Criteria for Diagnosis of Opioid Use Disorder	
Diagnostic Criteria* These criteria not considered to be met for those individuals taking opioids solely under appropriate medical supervision.	
Check all that apply	
☐	Opioids are often taken in larger amounts or over a longer period of time than intended.
☐	There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
☐	A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
☐	Craving, or a strong desire to use opioids.
☐	Recurrent opioid use resulting in failure to fulfill major role obligations at work, school or home.
☐	Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
☐	Important social, occupational or recreational activities are given up or reduced because of opioid use.
☐	Recurrent opioid use in situations in which it is physically hazardous
☐	Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by opioids.
☐	*Tolerance, as defined by either of the following: (a) a need for markedly increased amounts of opioids to achieve intoxication or desired effect (b) markedly diminished effect with continued use of the same amount of an opioid
☐	*Withdrawal, as manifested by either of the following: (a) the characteristic opioid withdrawal syndrome (b) the same (or a closely related) substance are taken to relieve or avoid withdrawal symptoms
Total Number Boxes Checked: _____	
Severity: Mild: 2-3 symptoms. Moderate: 4-5 symptoms. Severe: 6 or more symptoms	
*Criteria from American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Washington, DC. American Psychiatric Association page 541. For use outside of IT MATTERS Colorado, please contact MATTCO@colorado.gov.	

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Opioid Withdrawal Symptoms

- Some common symptoms can include anxiety, restlessness, rhinorrhea, diaphoresis, mydriasis (pupil dilation), myalgias, and GI upset. An objective assessment of these symptoms and their severity can be made using the Clinical Opiate Withdrawal Scale (COWS): https://www.asam.org/docs/default-source/education-docs/cows_induction_flow_sheet.pdf

- Can be very unpleasant, but usually not life-threatening

Opioid Intoxication/Overdose

- The classic signs of opioid overdose are respiratory depression and pupil constriction (pin point pupils).
- Alcohol and other substances can resemble opioid overdose, as well as provide "mixed symptoms"
- A respiratory rate ≤ 12 BPM in non-sleeping patient has ~80% sensitivity for predicting a response to naloxone.
 - Clinical diagnosis is strengthened when miosis and/or stupor accompany respiratory depression

Important OUD-Related Diagnoses

(ASAM; APA, 2013; Boyer, 2012; Howard, 2018)

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Important OUD/MOUD- Related Diagnoses

Opioid-Induced Depressive Disorders:

- **During use:** Opioid-induced depressive disorders may onset during opioid use – may be mild, moderate, or severe. Resemble common depressive disorders.
 - Patient w/ OUD transitioned to OAT*, many respond by 12 weeks of OAT alone.
 - If depression persists, TCAs have shown improvement (e.g. Doxepin). SSRIs no different from placebo. Psychotherapy has the most documented efficacy.
 - Caution: Screen for suicidal ideation at all visits as long as depression persists.
- **After discontinuation (w/o OAT transition):** Opioid-dependence-related depression may onset some time in the days to weeks after the discontinuation of opioids and persist for days to weeks to months.
 - Empty void-type depression
 - Caution! Screen for suicidal ideation at all visits

(APA, 2013; Hassan, 2017; Nunes, 2004; Pani, 2010; Bastien, 2023)

*Opioid Agonist Therapies – Buprenorphine, Buprenorphine/Naloxone or Methadone

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Important OUD/MOUD-Related Diagnoses

Opioid-induced hypogonadism (OIH): HPG axis suppression leads to decreased testosterone (men) /estradiol (women) s/sx decreased libido, erectile dysfunction, and menstrual irregularities.

- OIH **63%** across opioid types. Buprenorphine = milder HPG suppression than full agonists.
 - **OIH tx (males):** 5 grams transdermal testosterone gel daily demonstrated efficacy in chronic non-cancer pain patients with OIH.
- **DDx Functional hypothalamic hypogonadism** results from suppression due to obesity, T2DM, chronic illness, eating disorders, stress, or sleep deprivation. Most common cause of secondary hypogonadism in men.
 - Tx: Address the underlying cause

(Harris, 2026; PCSS-MOUD, 2024; deVries, 2020; Basaria, 2015)

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Important OUD/MOUD-Related Diagnoses

Oral ulcers and dental infections: Sublingual/buccal buprenorphine formulations. Likely related to the acidic pH of the preparation and reduced salivary flow.

- **Onset:** identification of dental problems occurred a mean of 45.7 months (range: 5 to 77)
- **Prevention:** Rinse mouth with water after dissolved; recommended not to brush teeth for 1 hr due to transiently softened enamel.
- **DDx SUD mechanisms** (esp. methamphetamine or cocaine)

Suboxone Tooth Decay Lawsuit

Suboxone lawsuits claim that this drug approved to treat opioid disorder can cause serious dental problems such as tooth decay, oral infections, cavities and tooth loss. Lawsuits claim manufacturer Indivior failed to properly warn about the risks and plaintiffs are seeking compensation.

(UpToDate, 2026; Drugwatch, 2025; Etminan, 2022; Segelnick, 2024)

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Important OUD/MOUD-Related Diagnoses

Sleep disturbance: Opioids, including OATs, disrupt the REM cycle. Insomnia is reported by >75% of those with OUD. Etiology is typically multifactorial.

- **DDx SUDs** (Alcohol, Stimulants), psychiatric disorders (anxiety, MDD, PTSD ~63%), psychophysiologic (conditioned) insomnia - Many patients w/ SUD develop perpetuating behaviors (excessive time in bed, irregular sleep-wake schedules, napping, etc.)

Opioid-related nausea: direct pharmacologic effect of mu receptor activation. Typically improves with continued use. 9%-13.6% on buprenorphine alone.

- **DDx Naloxone component effects** published data has demonstrated clinically relevant levels of SL/buccal naloxone are absorbed. Naloxone-associated nausea typically occurs with symptoms of adrenergic excess, diaphoresis, headache, dysphoria.

(Harris, 2026; Steward, 2017; Jain, 2024; Ahmadi, 2022; Roehrs, 2023; Michel, 2025; Newcomb, 2024)

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FDA Approved Medications for Opioid Use Disorder	
MOUD   	Naltrexone (monthly gluteal IM inj., oral tablet) : opioid antagonist (7-10 days opioid abstinence before initiation); not a CS; (IM-only indicated for OUD) best used for mild OUD; NOT associated with decreased mortality, doesn't decrease cravings more than stopping opioid alone
	Buprenorphine (weekly or monthly SQ inj., oral transmucosal tablet/film, patch): partial opioid agonist (12-72 hrs opioid withdrawal before initiation unless low-dose induction); Schedule III CS; best used for moderate – severe OUD; associated with decreased mortality, decreases cravings
	Methadone: (oral liquid, tablet) full opioid agonist (may initiate immediately); Schedule II CS; must be dispensed from a certified Opioid Treatment Program (highly regulated); best used for moderate – very severe OUD; associated with decreased mortality, decreases cravings

(Harris, 2026; Wakeman, 2020)

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Evidenced Based Treatment	
MOUD  This Photo by Unknown Author is licensed under CC BY "Medication First"	❖ For moderate to severe OUD: Buprenorphine or Methadone Why are these medications considered the standard of care? ▪ Methadone and Buprenorphine are the only treatments consistently shown to reduce mortality ▪ all-cause and overdose reductions up to 50% compared to psychosocial or no treatment ▪ Psychosocial interventions alone have repeatedly shown to be inferior to medications for OUD. ▪ An RCT compared inj buprenorphine to placebo plus counseling . Results: 42.7% abstinence rate with buprenorphine vs. 5.0% with counseling alone.

(Amato, 2011, Mattick, 2008, Wakeman, 2020; Height, 2019)

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Buprenorphine Induction:

4 General Approaches

For maintenance: total daily doses up to 24-32 mg/day are common for patients who have been taking fentanyl.

(UpToDate; Silverstein, 2019; Harris, 2025; ASAM, 2020; Weimer, 2023; Waters, 2025; Herring, 2023; Wong, 2024)

Standard Induction: stop their select opioid, wait 12-72hrs, then start them on 2 mg or 4 mg buprenorphine tablet/film and titrated to effect over a few days.

Low-Dose Induction: person continues opioid, uses very small doses slowly to get the person to goal. Typically, the illicit opioid is stopped part way through titration.

High-Dose Induction: opioid is stopped, wait 12-72 hrs, then patient is started on 8 mg to 16 mg buprenorphine tablet/film and titrated to effect typically over a few hours and completed within the day.

Injectable Induction: two ER injectable buprenorphine formulations approved: Sublocade (monthly) and Brixadi (weekly/monthly). Brixadi weekly and Sublocade are FDA approved for initiation after a 4 mg SL test dose. Off-label study w/o SL test dose and w/o fentanyl cessation.

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MOUD



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“Medication First”

“Medication first”

Should not mean medication only.

NIDA and SAMHSA both recommend comprehensive treatment. Why?

1. Better retention rates in treatment;
2. Treatment success is more likely when a patient's problems are addressed holistically.

What is meant by comprehensive services?

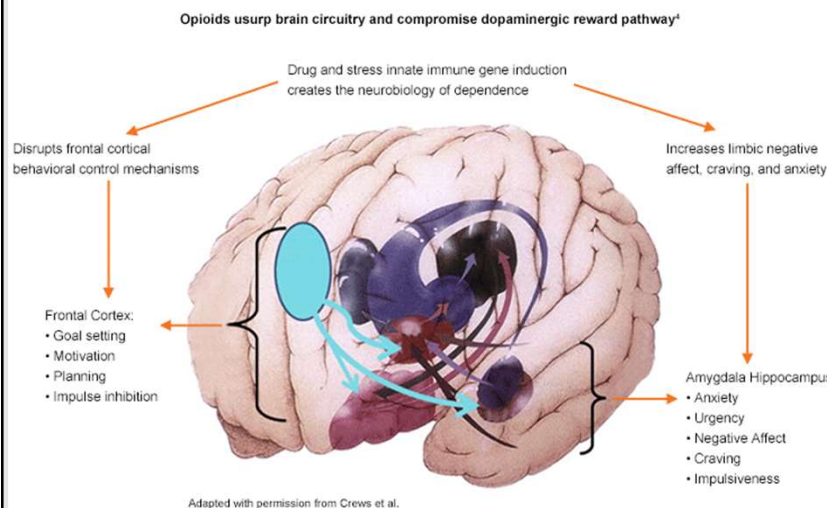
- Addressing basic needs and connecting patients to other services such as housing/shelter, food, employment resources, counseling and other mental health care, primary care, legal identification, etc.

(NIDA.gov; SAMHSA.gov; SAMHSA TIP 27, 1998)

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How long should MOUD last?



(Dexel, 2025; Kosten, 2002)

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How long should MOUD last?

Treatment length should be a shared-decision

- Treatment length is different for each patient.
 - Research has shown, return to use and fatal overdose rates are higher for shorter courses of treatment.
 - All OUD treatment should be a minimum of at least 6-12 months.
 - Long term or indefinite courses appear to be better for many patients.

As a rule of thumb, if a patient identifies benefit, continuation is recommended.

(Kosten, 2002; ASAM, 2020; Harris, 2026)

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Treatment Goals for MOUD

- Decrease risk for overdose and death
- Increase patient functionality
- Normalize patient brain neurobiology
- Decrease risk of transmission of viral infections (Hep B, C, HIV)

❖ The critical goal of MOUD treatment is to help the individual to reach and sustain their personal recovery goals.

❖ MOUD has shown to significantly improve physical and mental health, help relationships, reunite families, lower rates of criminal activity, and increase the likelihood of employment and stable housing.

(ATTCN, 2018; ASAM, 2020; Harris, 2026)

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Important characteristic of buprenorphine include:

Post-Question

1

- A. Long half life
- B. Lower risk of respiratory depression
- C. Good bioavailability
- D. A and B

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Post-Question

2

It is important to ask time of last opioid use prior to starting buprenorphine therapy to avoid:

- A. Opioid Craving
- B. Precipitated withdrawal
- C. Overdose
- D. Respiratory depression

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Post-Question

3

You are consulted about a 27-year-old patient with major depressive disorder (MDD) who has never received treatment for depression. The consulting provider suspects opioid use disorder but is currently more concerned about her severe depression.

In addition to psychotherapy, which medication class would you recommend to the consulting provider?

- A. SSRIs
- B. TCAs
- C. OATs
- D. None. First, I'd need to evaluate the diagnosis to optimize therapeutic decision making.

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Q&A

Thank you for your time today

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Sample Footer Text

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10/10/2026

Veterinary Medicine Fundamentals

Why Basic Knowledge Matters in Everyday
Pharmacy Practice

Presented by: Mark Balyshev, Pharm.D and Brian
Wadyka, Pharm.D



1

All planners, faculty, reviewers, and others in control of the content of this activity, including Brian Wadyka and Mark Balyshev, have disclosed that they have no relevant financial relationships with ineligible companies, as defined by the ACCME/ACPE Standards for Integrity and Independence in Accredited Continuing Education.

2

Learning Objectives

- Evaluate current options for treating/preventing common diseases in common pet species
- Understand treatment options, knowing the differences between the species
- Comprehend limitations in treatment of pets



3

Pre-assessment question 1

A retail pharmacy technician receives a prescription for Vetsulin (U-40 porcine zinc insulin suspension) for a canine patient. Due to low stock of veterinary-specific syringes, the technician suggests dispensing standard human U-100 insulin syringes (orange caps) instead. What is the correct clinical choice and consequence of this substitution?

- A. No consequence, since all insulin syringes are calibrated identically per unit
- B. Inappropriate, since it delivers only 40 percent of the intended dose
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- D. Inappropriate only above 10 units per dose, where the U-100 barrel lacks volume.

4

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Pre-assessment question 2

A community pharmacist is preparing to fill an oral liquid Gabapentin prescription (200 mg PO TID) for a 45 lb Golden Retriever with chronic osteoarthritis pain. What is the most critical excipient check the pharmacy team must perform prior to dispensing?

- A. Verify the sorbitol content, since sorbitol causes osmotic diarrhea and dehydration in canines at therapeutic doses
- B. Verify the product is xylitol free, since xylitol causes hypoglycemia and hepatic necrosis in dogs
- C. Verify the benzyl alcohol content, since BA vehicles are contraindicated in all canine oral liquids, but safe for cats
- D. Verify the dye content, since artificial colorants trigger hemolytic anemia in large-breed dogs

5

5

Pre-assessment question 3

A dog recently diagnosed with hypothyroidism is prescribed Thyro-Tabs® Canine (levothyroxine sodium) . What is the key counseling point that should be communicated to the owner to ensure consistent therapeutic blood levels?

- A. This medication has high bioavailability and a long half life so missing a dose is not a big deal
- B. Give medication same time each day, consistent relative to food
- C. Medication can be given without regard to time of day or meals
- D. If the dog vomits post-dose, feel free to re-dose

6

6

Pre-assessment question 4

A canine patient is diagnosed with generalized anxiety disorder and severe acute noise phobia (triggered by fireworks and thunderstorms) . How should the pharmacist instruct the owner on the distinct roles and expectations of their daily and as-needed (PRN) medications?

- A. SSRIs may take up to 8 weeks to take effect
- B. Trial event-based medications before the event to see how animal reacts
- C. Diazepam is a great option for cats with inappropriate urination
- D. Both A and B

7

7

Classroom → Community: Mind the Gap

- 2022 study shows 27% of responding schools offer didactic coursework in veterinary pharmacy, with 60% offering rotational opportunities¹
- 97% of community RPHs report dispensing RXs for animal patients², but avg assessment scores ranged 29.4 - 35.3% on core concepts³
- ~1/3 of DVMs aware of RPH changing dispensed drug w/o consulting DVM⁴
- In July 2026, BPS approved development of new specialty certification program in Veterinary Pharmacy⁵



8

State of the Union

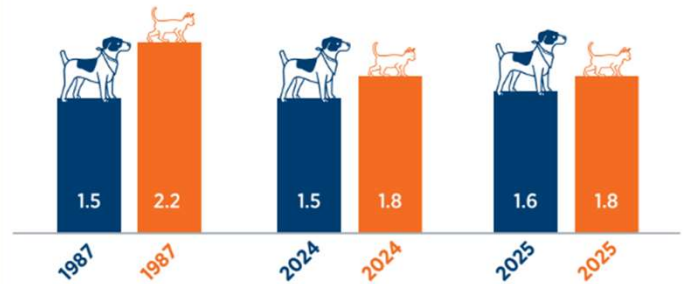
Total percentage of households owning a pet: 56.1%

87.3 million dogs and 76.3 million cats

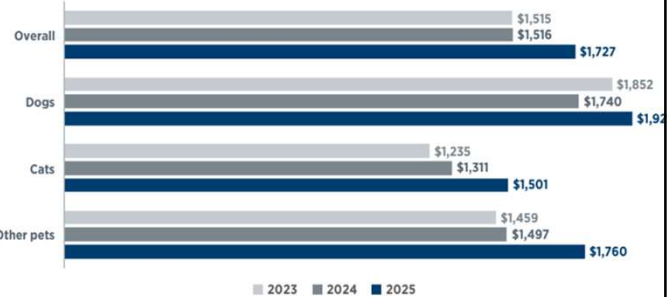
79.5% of pet owners view their pets as members of the family

Pet owners spend around \$275/year on medications, getting half of their meds from the vet practice and ~5% from "human" pharmacy¹.

Dogs and cats per dog- or cat-owning household



Average total amount spent per household on pets in a typical year, as reported in 2023-25



9

Required References

Oregon Administrative Rules

OAR 855-041-1035(1)(a)

Requires "appropriate and current references... based on services offered by the outlet."

Consequence

Failure to do so constitutes unprofessional conduct under ORS 689.405(1)(a).

1. Plumb's

Focus on pharmacology, dosing, DDI, PK etc.
Digital version requires subscription

2. Merck Veterinary Manual

Focus on pathology, diagnostics, s/sx, disease management.
Digital version is free

3. Carpenter's Exotic Animal Formulary

Niche interest, available as digital download

4. OBOP Cheat Sheet

"OBOP veterinary prescription resources" available online¹

5. Pet Poison Helpline

855-764-7661- Fee-based (\$89) triage and CoC consult²



10

10

Legalese Cont'd

- Vets don't have an NPI number
 - Issued by CMS. Dogs are not eligible for medicare.
- Required elements of prescription
 - Species¹, name of patient *and* owner.
 - Not required, but recommended: WEIGHT!
- DEA instructs DVMs to NOT provide DEA for non-CS RXs^{2,3}
 - Should use state license number

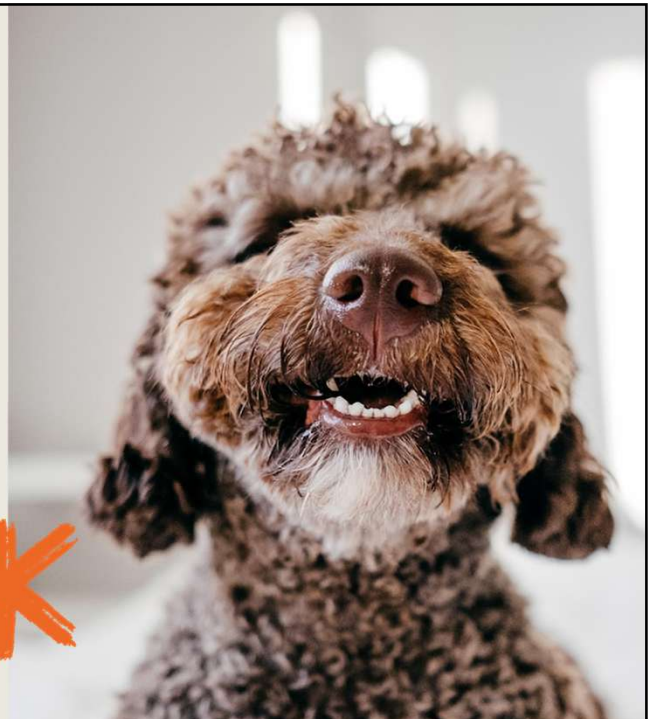


11

AMDUCA

(The Animal Medicinal Drug Use Clarification Act)

- Allows vets to prescribe off-label with valid VCPR if:
 - No approved animal drug available, or animal drug has wrong ingredient, formulation, concentration
- Restrictions around food producing animals
- Labeling requirements – look for withdrawal times from DVM
- Forbidden if analytical methods not established or presents public health risk



12

PDMP Reporting

- Pharmacy must report species, name, sex of animal to OHA¹ if prescribed CII-V or gabapentin
- DVMs w/ DEA # have *access* to² and must *register* w/ PDMP³
- Contrast w/ MDs OHP CII rules⁴ and OMB guidance^{5,6}

What the heck is Proin?

AKA phenylpropanolamine (PPA) – commonly used for urinary incontinence in canines (CIII⁷)

13

Anatomy and Physiology



14

General Considerations

Each species is unique

Cats are not small dogs, and dogs are not small humans.

Each species has its own unique biology and vital signs.

Donkeys/mules metabolize pain meds faster than horses¹.

Horizontal Orientation

Dry-pilling can lead to esophageal strictures, particularly in cats².

Subcutaneous Space

Dogs and cats have much larger SQ space (about 100x humans), much less vascularized than humans³.

Breed Matters

ABCB1 gene mutation (formerly (MDR1)) causes P-GP pump failure, leading to ↑ concentration in brain tissue.

Ivermectin, Azole antifungals, cyclosporine, corticosteroids, maropitant and more⁴.

GI pH and Transit Times

GI pH: Dogs > Cats > Human > Horse > Cattle

Transit Time: Dogs > Cats > Humans > Horses/Ruminants⁵.

15

Canine A&P Considerations

Dolichocephalic

- More likely to negative effects from GA/sedatives³, more likely to see sinonasal aspergillosis⁴

Mesaticephalic

- Baseline model, the sedan of dog head shapes

Brachycephalic

- Stenotic ear canal = ear infections¹, smush face = fungal infections², breathing problems



16

Feline A&P Considerations

- Obligate carnivores - flavoring challenges, don't taste sweet¹
- Food shape is important²
- Lack UGT enzymes - avoid OTC pain medications³
- Cat breeds have the same skull - shape issues as dogs



17

Med Considerations for Cats and Dogs

Animals metabolize drugs differently than humans

- Dogs have more blood/kg and faster glomerular filtration compared to humans
- Cats have limited or deficient metabolic pathways used to eliminate drugs (e.g., glucuronidation).

Drugs that are safe to use in humans can potentially lead to toxicity in pets

- Acetaminophen is contraindicated in cats. It is sometimes used in dogs for pain (e.g., when unable to use nonsteroidal antiinflammatory drugs due to kidney function)
- Aspirin in cats is less likely to quickly metabolize which leads to its accumulation and kidney toxicity
- Dog breed dependent medications (Collies, Australian/German Shepherds, Sheepdogs), require genetic testing for ABCB-1 gene deletion

18

A customer comes to your consult window and says, *"I need some syringes for my dog's insulin."* What is your first question to the customer?

19

What insulin is your dog using?

1

Vetsulin/Caninsulin (porcine zinc insulin) and Prozinc (protamine zinc recombinant human insulin)

For veterinary use only. 40 units/ml intermediate and long-acting insulins, respectively

2

Must dispense with U-40 syringes

Vetsulin in U100 syringe = 2.5x UNDERdose, Lantus or other U100 insulin in U40 syringe = 2.5x OVERdose

3

Shake well sticker for Vetsulin (suspension)!!

Prozinc plays by the rules - roll gently

20

Inactive ingredients

- **(Benzyl) Alcohol** can lead to serious effects: drop in blood sugar, blood pressure, and body temperature - look for inactive ingredient in liquid medications. BA preservative used in injectables/liquids, dangerous to cats- lack of UGP enzymes¹
- **Propylene Glycol** is toxic to cats (and dogs to lesser extent), causing Heinz body anemia ➡ O₂ carrying capacity²
- **Xylitol** is harmful to dogs by causing hypoglycemia, stimulating pancreas to secrete insulin and liver failure³. Common in SF gums and peanut butter. A lot of OTC products will contain this!
 - Gabapentin Oral Solution⁴
 - Mobic (Meloxicam) Oral Suspension⁵

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Forbidden Fruits

Avocado, raisins, chocolate, raw bread dough¹

(Raw/rotten) Salmon- larval flukes excyst releasing *Neorickettsia helmonthoeca*. Can be fatal, presents similar to Parvo:

- Fever, depression, V/D, weight loss²
- Specific to canids³

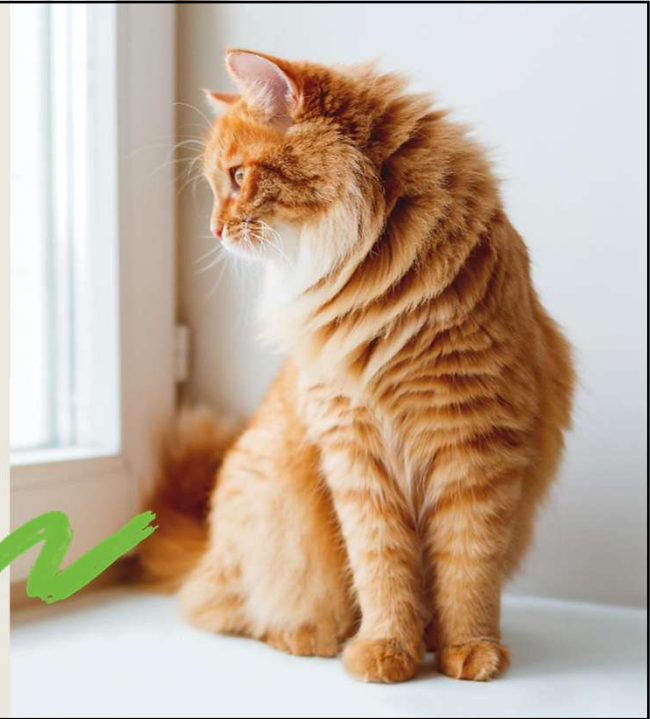
Tansy Ragwort- toxic to all livestock, but esp. cattle & horses.

- Usually avoided, but eaten in drought conditions
- Metabolized to reactive pyrroles, cytotoxic to hepatocytes
 - anorexia, weakness, diarrhea, constipation, ascites, icterus⁴



22

Common medical conditions and their treatment



23

Parasite prevention

Heartworm preventatives

- Ivermectin (Heartgard Plus), milbemycin (Interceptor Plus, Trifexis, Sentinel, moxidectin (ProHeart, Advantage Multi, Simparica Trio, NexGard Plus), etc

Flea and tick control

- Afoxolaner (NexGard), fluralaner (Bravecto), sarolaner (Simparica), lotilaner (Credelio), etc.

Permethrin-containing dog products are lethal to cats!

- No glucuronidation pathway. Causes tremors and seizures



24

Chronic conditions in dogs

- **Osteoarthritis:** veterinary NSAIDs (carprofen, meloxicam, deracoxib, grapiprant)
- **Hypothyroidism:** levothyroxine at doses that look like errors– give consistently with regard to food same time each day
- **Epilepsy:** phenobarbital, potassium bromide, levetiracetam (IR every 8 h, ER every 12 h), zonisamide. Phenobarbital is titrated to serum levels
- **Congestive heart failure:** pimobendan (Vetmedin), furosemide, enalapril or benazepril, spironolactone
- **Allergic dermatitis:** oclacitinib (Apoquel), ilunocitinib (Zenrelia), lokivetmab (Cytopoint) injection. Steroids are common but not first line long term
- **Urinary incontinence:** phenylpropanolamine (Proin), estriol (Incurin)



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Chronic conditions in cats

- **Hyperthyroidism:** methimazole oral (Felimazole) or compounded transdermal gel applied to the inner ear
- **Diabetes:** insulin glargine or ProZinc (U-40). Remission is possible with early control and a low-carb diet
 - Oral SGLT2 inhibitors bexagliflozin (Bexacat) and velagliflozin (Senvelgo) are FDA approved for otherwise healthy, insulin-naïve cats
- **Chronic kidney disease:** telmisartan or benazepril for proteinuria, phosphate binders, maropitant for nausea, transdermal mirtazapine (Mirataz) for appetite, subcutaneous fluids at home
- **Pain:** gabapentin, buprenorphine (Simbadol, buccal absorption), frunevetmab (Solensia) monthly injection for OA. Robenacoxib (Onsior) and meloxicam are the only NSAIDs with feline labeling
- **Stress at the vet:** gabapentin 50 to 100 mg 2 to 3 hours before the visit.



26

Behavior and Anxiety Medications

Behavior prescriptions are the fastest-growing category of human drugs dispensed for pets, and most are filled in community pharmacies

- **Situational:** trazodone, gabapentin, dexmedetomidine oromucosal gel (Sileo, for canine noise aversion). Combinations are common and intentional
 - Counsel owners to give a trial dose at home on a calm day before the fireworks, flight, or vet visit
- **Chronic:** fluoxetine (Reconcile or human generic), clomipramine (Clomicalm), sertraline. Expect 4 to 8 weeks to effect, taper rather than stop
- **Acepromazine** sedates without reducing anxiety and is falling out of favor as monotherapy
- **Oral diazepam in cats** has been linked to fatal hepatic necrosis. Alprazolam or lorazepam are preferred if a benzodiazepine is needed
- **Serotonergic stacking** matters in pets too: fluoxetine plus trazodone plus tramadol is a real DUR alert (look for behavior changes, stomach upset, muscle tremors, agitation)
- **In Oregon, gabapentin for an animal is PDMP reportable**

27

High Dosing?

Confirm species and weight, do the math per kg, then decide. Verify in Plumb's before you call.

- **Gabapentin:** dogs 10 to 20 mg/kg every 8 to 12 h. A 70 lb dog on 600 mg TID is routine.
- **Trazodone:** dogs roughly 3 to 7 mg/kg, sometimes higher. A 70 lb dog may get 200 mg per dose.
- **Prednisone:** immunosuppressive dosing in dogs is 1 to 2 mg/kg/day. A 60 lb dog on 50 mg daily is not a typo.
- **Metronidazole:** 10 to 15 mg/kg every 12 h. 500 mg tablets for large-breed dogs are common.
- **Phenobarbital:** starting around 2 to 3 mg/kg every 12 h, then adjusted to serum levels.
- **Fluoxetine:** dogs 1 to 2 mg/kg daily. A 40 lb dog on 20 mg is typical; a 90 lb dog on 60 mg is possible.

Actually wrong: prednisone for a cat (should be prednisolone), any ibuprofen or naproxen, acetaminophen for a cat, extended-release human products in any species without a specific reason from the DVM.

28

A client stops you in the aisle: *“Which Benadryl (diphenhydramine) should I give my cat? She scratches like crazy and we’re driving to Boise this weekend.”* What do you need to know before you answer?

29

Working the Case

- **Species and weight first.** Diphenhydramine is used in cats at roughly 2 mg/kg, so a 10 lb cat gets about 10 mg. The 25 mg tablet would need to be quartered
- **Which product?** Liquid Benadryl may contain alcohol. Benadryl-D and allergy-plus-congestion products contain phenylephrine or pseudoephedrine, both dangerous in cats. Gel caps are impractical to split
- **Has a veterinarian seen the itching?** Flea allergy, food allergy, and ringworm all present as scratching. Antihistamines are weak for feline pruritus and may just mask a treatable cause
- **Is this really for the road trip?** If the goal is calming, diphenhydramine is unreliable in cats and can cause paradoxical excitation. Gabapentin from the DVM is the better answer

Suggested response: “I can tell you what is generally used, but I would call your vet first. They can confirm the dose for her weight and rule out fleas or something else driving the itch. If you need a pre-trip option, ask them about gabapentin.”

30

Counseling Pet Owners

- Confirm species, weight, and that the DVM directed the therapy. Rarely recommend a human OTC for a pet on your own
- Pill pockets or food unless the drug must be given fasting. Cats: follow every dry pill with water or food
- Never split or crush extended-release or enteric-coated products
- ASPCA Animal Poison Control 888-426-4435; Pet Poison Helpline 855-764-7661



31

Working With the Veterinary Team

- **Call before you change anything.** No therapeutic substitution, formulation swap, or refusal without a conversation. The reputational damage from a third of DVMs reporting unilateral changes is still with us
- **Your DUR still matters.** Duplicate NSAIDs, NSAID plus steroid, serotonergic stacking, xylitol-containing liquids, and owner confusion about units are real catches
- **Verify the prescriber the way you verify any prescriber.** State veterinary license number, not a DEA number, for non-controlled prescriptions
- **Compounding for animals follows different rules.** FDA GFI #256 (2022) governs compounding from bulk substances; office stock and patient-specific compounds have separate requirements from human 503A practice
- **Document the call.** Species, weight, who you spoke with, what was agreed

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Key Takeaways

- **Species and weight are the first two questions**, every time, before a dose can be evaluated
- **Cats are not small dogs.** Missing glucuronidation, obligate carnivore taste, esophageal stricture risk, and a short list of safe NSAIDs
- **Doses that look wrong are usually right, and the ones that look normal can be dangerous.** Levothyroxine, gabapentin, and prednisone versus prednisolone
- **Check the inactive ingredients.** Xylitol, alcohol, and propylene glycol hide in products you dispense daily
- **U-40 syringes for Vetsulin (porcine insulin zinc) and ProZinc (protamine zinc recombinant human insulin),** U-100 for everything else. The wrong syringe is a 2.5-fold error
- **Know your references and your legal obligations.** Plumb's or equivalent is required in Oregon, and animal C-II through C-V and gabapentin are PDMP reportable
- **Pick up the phone.** Veterinarians want the call, and a specific question gets a fast answer

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Post-assessment question 1

A retail pharmacy technician receives a prescription for Vetsulin (U-40 porcine zinc insulin suspension) for a canine patient. Due to low stock of veterinary-specific syringes, the technician suggests dispensing standard human U-100 insulin syringes (orange caps) instead. What is the correct clinical choice and consequence of this substitution?

- No consequence, since all insulin syringes are calibrated identically per unit
- Inappropriate, since it delivers only 40 percent of the intended dose
- Inappropriate, since any owner conversion error risks a 2.5-fold overdose
- Inappropriate only above 10 units per dose, where the U-100 barrel lacks volume.

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- C. Inappropriate, since any owner conversion error risks a 2.5-fold overdose
- D. Inappropriate only above 10 units per dose, where the U-100 barrel lacks volume.

Rationale: Insulin syringes are calibrated to a specific concentration. A U-100 syringe marks each unit as 0.01 mL, assuming 100 units per mL. Vetsulin contains 40 units per mL, so each 0.01 mL holds only 0.4 units. If the owner draws Vetsulin to the 10-unit mark on a U-100 syringe, they get 0.1 mL, which contains just 4 units of insulin, or 40 percent of the prescribed dose. The result is underdosing and poor glycemic control, with continued hyperglycemia and risk of diabetic complications. The correct choice is to dispense U-40 syringes (or the Vetsulin VetPen) matched to the insulin concentration.

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Post-assessment question 2

A community pharmacist is preparing to fill an oral liquid Gabapentin prescription (200 mg PO TID) for a 45 lb Golden Retriever with chronic osteoarthritis pain. What is the most critical excipient check the pharmacy team must perform prior to dispensing?

- A. Verify the sorbitol content, since sorbitol causes osmotic diarrhea and dehydration in canines at therapeutic doses
- B. Verify the product is xylitol free, since xylitol causes hypoglycemia and hepatic necrosis in dogs
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Rationale: Many commercial human gabapentin oral solutions contain xylitol as a sweetener. In dogs, xylitol triggers a rapid, massive insulin release, causing profound hypoglycemia within 30 to 60 minutes, and at higher doses can cause acute hepatic necrosis and liver failure. The pharmacy should dispense a xylitol-free formulation, typically a compounded suspension or an alternative dosage form such as capsules.

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37

Post-assessment question 3

A dog recently diagnosed with hypothyroidism is prescribed Thyro-Tabs® Canine (levothyroxine sodium) . What is the key counseling point that should be communicated to the owner to ensure consistent therapeutic blood levels?

- A. This medication has high bioavailability and a long half life so missing a dose is not a big deal
- B. Give medication same time each day, consistent relative to food
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- D. If the dog vomits post-dose, feel free to re-dose

38

38

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- D. If the dog vomits post-dose, feel free to re-dose

Rationale: Levothyroxine absorption in dogs is low and variable, with oral bioavailability of roughly 10 to 20 percent, and food can further reduce and alter absorption. Giving each dose at the same time and in the same relationship to meals (consistently with food or consistently on an empty stomach) minimizes day-to-day variability and keeps serum T4 levels stable. This consistency also matters for monitoring, since post-pill T4 levels are typically checked 4 to 6 hours after dosing, and dose adjustments rely on predictable absorption.

39

39

Post-assessment question 4

A canine patient is diagnosed with generalized anxiety disorder and severe acute noise phobia (triggered by fireworks and thunderstorms) . How should the pharmacist instruct the owner on the distinct roles and expectations of their daily and as-needed (PRN) medications?

- A. SSRIs may take up to 8 weeks to take effect
- B. Trial event-based medications before the event to see how animal reacts
- C. Diazepam is a great option for cats with inappropriate urination
- D. Both A and B

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A canine patient is diagnosed with generalized anxiety disorder and severe acute noise phobia (triggered by fireworks and thunderstorms). How should the pharmacist instruct the owner on the distinct roles and expectations of their daily and as-needed (PRN) medications?

- A. SSRIs may take up to 8 weeks to take effect
- B. Trial event-based medications before the event to see how animal reacts
- C. Diazepam is a great option for cats with inappropriate urination
- D. Both A and B**

Rationale: This patient needs two types of therapy with different expectations. The daily maintenance medication, typically an SSRI such as fluoxetine (Reconcile) or a TCA such as clomipramine (Clomicalm), treats generalized anxiety by gradually changing serotonin signaling. Owners should know these drugs can take 4 to 8 weeks to reach full effect, so they should not stop or judge the medication too early. The PRN event-based medication, such as trazodone, gabapentin, alprazolam, or dexmedetomidine oromucosal gel (Sileo), is given before a known trigger like fireworks or a forecasted storm. Owners should trial it at home on a calm day before the actual event to see how the dog responds.

41

41

References (Slides 3 - 8)

Slide 3

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New Drug Update 2026

Natalea Braden-Suchy, PharmD, BCACP
OSU College of Pharmacy

0

Conflict of Interest

- I have no conflict of interest to declare

1

1

Objectives

- Identify new pharmacotherapy choices
- List indications, mechanism of action, common adverse effects, and significant drug interactions for those products
- Recognize safety concerns with selected new choices

2

2

Assessment Question

Which of the following medications is indicated for blood pressure?

- a) Cardamyst (etripamil)
- b) Baxfendy (baxdrostat)
- c) Lipfendra (enlicitide)

3

3

Assessment Question

Which of the following can cause lab abnormalities in liver enzymes?

- a) Lynkuet (elinzantant)
- b) Nuzolvence (zoliflodacin)
- c) Lerochol (lerodalcibep-liga)

4

4

Assessment Question

Which of the following is a biosimilar of insulin aspart?

- a) Oziltus
- b) Garzulys
- c) Langlara

5

5

Our Agenda

- Novel agents
- New formulations/combinations
- Biosimilars

6

6

NOVEL AGENTS

7

Lynkuet (elinzanetant)

- **Indications:** treatment of moderate to severe vasomotor symptoms due to menopause
- **Mechanism of action:** blocks neurokinin 1 and 3 receptors

8

8

Lynkuet (elinzanetant)

- **Contraindications:** pregnancy
- **Warnings/precautions:**
 - CNS depression and daytime impairment
 - Hepatic transaminase elevation
 - Pregnancy loss
 - Risk of seizures in patients with a history

9

9

Lynkuet (elinzanetant)

- **Adverse effects:**

- Headache*, fatigue, dizziness, somnolence, abdominal pain*, rash, diarrhea, muscle spasm
- Depression*, photosensitivity*

- **Drug interactions:**

- CYP3A4 inhibitors/inducers
- It is a P-glycoprotein (P-gp) substrate

10

10

Cardamyst (etripamil)

- **Indications:** conversion of acute symptomatic episodes of paroxysmal supraventricular tachycardia to sinus rhythm

- **Mechanism of action:** calcium channel blocker

11

11

Cardamyst (etripamil)

- **Contraindications:**

- Hypersensitivity
- Heart failure
- Arrhythmias
- Wolff-Parkinson-White, Lown-Ganong-Levine syndromes or manifest pre-excitation on an ECG
- Second degree atrio-ventricular Mobitz 2 block or higher

12

12

Cardamyst (etripamil)

- **Warnings/precautions:** syncope related to hemodynamic effects

- **Adverse effects:** nasal discomfort, nasal congestion, rhinorrhea, throat irritation, epistaxis

13

13

Cardamyst (etripamil)

• Drug interactions

- It is a substrate of CYP3A4, CYP3A5, P-gp, Organic Anion Transporting Polypeptides 1B1 (OATP1B1)
- Inhibits CYP2D6, CYP3A4, CYP2C9, P-gp

14

14

Baxfendy (baxdrostat)

- **Indications:** lower blood pressure in adults in combination with other medications
- **Mechanism of action:** inhibits aldosterone synthase

15

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Baxfendy (baxdrostat)

- **Warnings/precautions:** hyperkalemia, hyponatremia
- **Adverse effects:** hyperkalemia, hypotension, hyponatremia, dizziness, muscle spasms, decrease in eGFR

16

16

Baxfendy (baxdrostat)

- **Drug interactions:**
 - Drugs that increase potassium
 - Strong and moderate CYP3A inducers

17

17

Lerochol (lerodalcibep-liga)

- **Indications:** decrease LDL-C in adults with hypercholesterolemia including heterozygous familial hypercholesterolemia
- **Mechanism of action:** binds to PCSK-9 so that it can't bind to LDL receptors which means more are available to clear LDL from the blood

18

18

Lerochol (lerodalcibep-liga)

- **Adverse effects:**
 - Nasopharyngitis, injection site reactions, peripheral edema
 - Injection site reactions, nasopharyngitis, diarrhea, nausea, peripheral edema

19

19

Lipfendra (enlicitide)

- **Indications:** lower low-density lipoprotein cholesterol in adults
- **Mechanism of action:** PCSK9 inhibitor
- **Adverse effects:** diarrhea, dizziness

20

20

Foundayo (orforglipron)

- **Indications:** weight loss and weight maintenance in those who are obese or who are overweight and have at least one weight related co-morbidity
- **Mechanism of action:** glucagon-like peptide 1 receptor agonist

21

21

Foundayo (orforglipron calcium)

- **Warnings/precautions:**

- Risk of thyroid c-cell tumors
- Acute pancreatitis
- Severe gastrointestinal reactions
- Acute kidney injury due to hypovolemia
- Hyperglycemia
- Hypersensitivity
- Diabetic retinopathy complications in those with type 2 diabetes
- Acute gallbladder disease
- Pulmonary aspiration during anesthesia or deep sedation

22

22

Foundayo (orforglipron calcium)

- **Adverse effects:** nausea, constipation, diarrhea, vomiting, dyspepsia, abdominal pain, headache, abdominal distention, fatigue, eructation, gastroesophageal reflux, flatulence, hair loss

23

23

Foundayo (orforglipron calcium)

- **Drug interactions:**

- CYP3A4 inhibitors and inducers
- Simvastatin
- Insulin or insulin secretagogues
- Oral hormonal contraceptives
- Medications sensitive to absorption changes

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Nereus (tradipitant)

- **Indications:** prevention of nausea induced by motion
- **Mechanism of action:** binds NK1 receptors in the brain

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Nereus (tradipitant)

- **Warnings/precautions:** effects on ability to drive or operate machinery
- **Adverse effects:** somnolence, headache, fatigue
- **Drug interactions:** it is a CYP3A4 substrate

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Icotyde (icotrokinra)

- **Indications:** treatment of moderate to severe plaque psoriasis in those 12 and older who weight at least 40 kg
- **Mechanism of action:** interleukin-23 receptor antagonist

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Icotyde (icotrokinra)

- **Warnings/precautions:**

- Infections
- Live vaccines

- **Adverse effects:** headache, nausea, cough, fungal infection, fatigue

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Adquey (difamilast)

- **Indications:** treatment of those 2 and older with mild to moderate atopic dermatitis

- **Mechanism of action:** phosphodiesterase-4 inhibitor

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Adquey (difamilast)

- **Adverse effects:** nasopharyngitis

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Yuvezzi (carbachol, brimonidine)

- **Indications:** treatment of presbyopia
- **Mechanism of action:** pupillary constriction
- **Contraindication:** hypersensitivity

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31

Yuvezzi (carbachol, brimonidine)

- **Warnings/precautions:**

- Blurred vision
- Risk of retinal detachment
- Iritis
- Potentiation of vascular insufficiency

- **Adverse effects:** eye pain/irritation upon installation, visual impairment and headache

32

32

Yuvezzi (carbachol, brimonidine)

- **Drug interactions:**

- Anti-hypertensives/cardiac glycosides
- CNS depressants
- Tri-cyclic anti-depressants
- Monoamine oxidase inhibitors

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Utebzi (tebipenem pivoxil hydrobromide)

- **Indications:** treatment of complicated urinary tract infections in adults
- **Mechanism of action:** binds to penicillin-binding proteins

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Utebzi (tebipenem pivoxil hydrobromide)

- **Contraindications:**
 - Hypersensitivity to beta-lactam antibacterials
 - Carnitine deficiency

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Utebzi (tebipenem pivoxil hydrobromide)

• Warnings/Precautions

- Hypersensitivity
- Central nervous system adverse reactions
- Use with valproic acid or divalproex sodium
- Secondary carnitine deficiency
- *C. difficile* infections
- Interference with newborn screening test

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Utebzi (tebipenem pivoxil hydrobromide)

• **Adverse effects:** diarrhea, headache, nausea, abdominal pain, increased hepatic enzymes, *C. difficile* infections

• Drug interactions:

- OAT-1 and OAT-3 inhibitors
- Valproic acid or divalproex sodium
- Pivalate generating drugs

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Nuzolvence (zoliflodacin)

- **Indications:** uncomplicated urogenital gonorrhea in patients of 12 years of age and at least 35 kg
- **Mechanism of action:** topoisomerase inhibitor, thus it prevents replication

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Nuzolvence (zoliflodacin)

- **Contraindications:**
 - Hypersensitivity
 - Avoid use with strong CYP 3A4 inducers
- **Warnings/precautions:**
 - Embryo-fetal toxicity
 - Testicular toxicity
 - *C. difficile* infections

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Nuzolvence (zoliflodacin)

- **Adverse effects:**

- Headache, dizziness, nausea, diarrhea
- Neutropenia, leukopenia

- **Drug interactions:**

- It is a CYP3A4, CYP1A2, CYP2C9, CYP2C8 substrate
- It is a P-gp and Breast Cancer Resistance Protein (BCRP), OAT substrate and inhibitor

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Xocova (ensitrelvir)

- **Indications:** post-exposure prophylaxis of COVID-19 in those 12 and over

- **Mechanism of action:** it is a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) main protease inhibitor

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Xocova (ensitrelvir)

- **Contraindications:**

- Hypersensitivity
- Co-administration with CYP3A substrates
- Co-administration with CYP3A inducers

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Xocova (ensitrelvir)

- **Warnings/precautions:**

- Embryofetal toxicity
- Hypersensitivity
- Coadministration with other drugs

- **Adverse effects:** headache, diarrhea, cough, decrease in hemoglobin

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Xocova (ensitrelvir)

- **Drug interactions:**

- CYP3A substrates
- CYP3A inducers
- P-gp substrates
- BCRP substrates

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Simtriyo (centanafadine)

- **Indications:** treatment of ADHD in those older than 6 years old and weighing at least 20 kg
- **Mechanism of action:** inhibitory activity at norepinephrine, dopamine and serotonin reuptake transporters

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Simtriyo (centanafadine)

• **Contraindications:**

- Known hypersensitivity
- Taking within 14 days of stopping a monoamine oxidase inhibitor
- Patient with pheochromocytoma or history of it

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Simtriyo (centanafadine)

• **Warnings/precautions:**

- Risks to patients with serious cardiac disease
- Increased blood pressure and heart rate
- Psychiatric adverse reactions
- Long-term suppression of growth in pediatric patients
- Peripheral vasculopathy including Reynaud's phenomenon
- Serotonin syndrome
- Worsening of tics in Tourette's syndrome

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Simtriyo (centanafadine)

- **Adverse effects:** rash, decreased appetite, nausea, headache, abdominal pain, insomnia, diarrhea dry mouth
- **Drug interactions:**
 - Monoamine oxidase inhibitors
 - Alcohol
 - CYP1A2 substrates
 - CNS stimulants
 - Serotonergic drugs

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Bysanti (milsaperidone)

- **Indications:** schizophrenia and acute treatment of manic or mixed episodes associated with bipolar disorder I
- **Mechanism of action:** dopamine type 2 and serotonin type 2 antagonism

49

49

Bysanti (milsaperidone)

- **Contraindications:** hypersensitivity

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Bysanti (milsaperidone)

- **Warnings/precautions:**

- Cerebrovascular adverse reactions in elderly patients with dementia related psychosis
- QT prolongation
- Neuroleptic malignant syndrome
- Tardive dyskinesia
- Metabolic changes
- Orthostatic hypotension and syncope
- Seizures
- Leukopenia, neutropenia and agranulocytosis
- Priapism
- Potential for cognitive and motor impairment
- Intraoperative floppy iris syndrome

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51

Bysanti (milsaperidone)

- **Adverse effects:**

- Extrapyramidal side effects, dizziness, dry mouth, fatigue, nasal congestion, somnolence, tachycardia, orthostatic hypotension, weight increase
- Elevated serum transaminases, decreased hematocrit, elevated urate levels

- **Drug interactions:**

- Strong CYP2D6 and CYP3A4 inhibitors
- Drugs that prolong QT
- Drugs that lower blood pressure

52

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Other Interesting Approvals

- **Hepcludex (buleviride-gmod):** chronic hepatitis delta infection
- **Idvynso (doravirine, islatravir):** HIV

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Cancer Agents

- **Hernexeos (zongertinib)**: non-small cell lung cancer
- **Hyrnuo (sevabertinib)**: non-small cell lung cancer
- **Jideytro (zidesamtinib)**: non-small cell lung cancer
- **Veppanu (vepdegestrant)**: breast cancer
- **Beqalzi (sonrotoclax)**: mantle cell lymphoma

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Cancer Agents

- **Komzifti (ziftomenib)**: acute myeloid leukemia
- **Inluriyo (imlunestrant tosylate)**: breast cancer
- **Rasonque (daraxonrasib)**: prostate cancer
- **Zenbexus (iberdomide hydrochloride)**: multiple myeloma
- **Lifyorli (relacorilant)**: ovarian, fallopian and peritoneal cancer

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55

NEW FORMULATIONS

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New Formulations

- **Cavhanza:** nilotinib
- **Enbumyst:** bumetanide
- **Desmoda:** desmopressin acetate
- **Bondlido:** lidocaine

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New Formulations

- **Javadin:** clonidine HCl
- **Qlonilik:** clonidine HCl
- **Tonmya:** cyclobenzaprine HCl
- **Vybrique:** sildenafil citrate

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New Formulations

- **Sehippy:** vortioxetine
- **Subvenite:** lamotrigine
- **Clotic:** clotrimazole

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New Formulations

- **Zolybus:** bimatoprost
- **Quific:** folic acid
- **Wegovy:** semaglutide

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New Combinations

- **Trimbow:** beclomethasone dipropionate, formoterol fumarate, glycopyrrolate

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BIOSIMILARS

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Biosimilars

- **Jubereq** (denosumab-desu)
- **Osvyrti** (denosumab-desu)
- **Aukelso** (denosumab-kyqq)
- **Bosaya** (denosumab-kyqq)
- **Enoby** (denosumab-qbde)
- **Xtrenbo** (denosumab-qbde)

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Biosimilars

- **Boncrea** (denosumab-mobz)
- **Ponlimsi** (denosumab-adet)
- **Oziltus** (denosumab-mobz)
- **Garzulys** (insulin aspart-fsan)
- **Langlara** (insulin glargine)

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64

Assessment Question

Which of the following medications is indicated for blood pressure?

- a) Cardamyst (etripamil)
- b) Baxfendy (baxdrostat)
- c) Lipfendra (enlicitide)

65

65

Assessment Question

Which of the following can cause lab abnormalities in liver enzymes?

- a) Lynkuet (elinzantant)
- b) Nuzolvence (zoliflodacin)
- c) Lerochol (lerodalcibep-liga)

66

66

Assessment Question

Which of the following is a biosimilar of insulin aspart?

- a) Oziltus
- b) Garzulys
- c) Langlara

67

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Beyond A1C: Unlocking the Full Potential of GLP-1 RAs and SGLT2 Inhibitors

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Disclosures

- **Andrew Bzowyckyj, PharmD, BCPS, CDCES**
 - I have no financial relationships with ineligible companies.
 - **Unapproved uses:** This presentation discusses the off-label use of GLP-1 receptor agonists and SGLT2 inhibitors. These uses are discussed for educational purposes based on current scientific literature.

2

Learning Objectives

Pharmacists

- **Interpret** current guideline recommendations for the use of GLP-1 receptor agonists and SGLT2 inhibitors in type 2 diabetes, including their cardiovascular and kidney benefits.
- **Explain** relevant patient-specific factors for selecting, dosing, monitoring, and mitigating adverse effects with GLP-1 receptor agonists and SGLT2 inhibitors.
- **Identify** practical solutions for overcoming barriers to GLP-1 receptor agonist and SGLT2 inhibitor therapies.

Pharmacy Technicians

- **Recall** the generic names, brand names, and classifications for the various GLP-1 receptor agonists and SGLT2 inhibitors used in type 2 diabetes.
- **Recognize** the indications, dosage forms, and common adverse effects of GLP-1 receptor agonists and SGLT2 inhibitors used in type 2 diabetes.
- **Describe** pharmacy-based strategies technicians can use to help address common access and medication-processing barriers to GLP-1 receptor agonist and SGLT2 inhibitor therapies.

3

Pharmacist Question #1

A patient with type 2 diabetes and CKD has been receiving an SGLT2 inhibitor for kidney protection. Her eGFR declines from 24 to 18 mL/min/1.73 m². She is tolerating therapy and has not started dialysis. What is the MOST appropriate interpretation of current guidance?

- Discontinue the SGLT2 inhibitor immediately because eGFR is below 20 mL/min/1.73 m²
- Increase the SGLT2 inhibitor dose to compensate for reduced kidney function
- Continue the SGLT2 inhibitor if tolerated despite the decline in eGFR
- Discontinue all glucose-lowering therapies until dialysis begins

4

Pharmacist Question #2

A patient taking an SGLT2 inhibitor is scheduled for elective surgery. Which recommendation is MOST appropriate to reduce the risk of perioperative ketoacidosis?

- A. Double the dose the day before surgery
- B. Continue the medication unless blood glucose falls below 70 mg/dL
- C. Hold the medication only on the morning of surgery
- D. Hold the medication for 3–4 days before surgery

5

Pharmacist Question #3

A patient stopped a weekly GLP-1 receptor agonist after developing nausea during dose escalation but remains an appropriate candidate for therapy. Which pharmacist intervention BEST addresses this barrier?

- A. Recommend that the patient permanently avoid all GLP-1 receptor agonists
- B. Restart immediately at the dose last used by the patient
- C. Clarify the nature of the symptoms and develop a more tolerable titration strategy
- D. Recommend taking the GLP-1 receptor agonist every 10 days instead of every 7 days

6

Pharmacy Technician Question #1

Which generic and brand-name pairing is CORRECT?

- A. Dapagliflozin – Jardiance
- B. Tirzepatide – Ozempic
- C. Empagliflozin – Jardiance
- D. Semaglutide - Trulicity

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Pharmacy Technician Question #2

A patient picking up dulaglutide asks whether the medication is normally administered every day. Which information should the pharmacy technician recognize?

- A. It is taken by mouth once daily
- B. It is injected subcutaneously once weekly
- C. It is injected subcutaneously twice daily
- D. It is administered intravenously once monthly

8

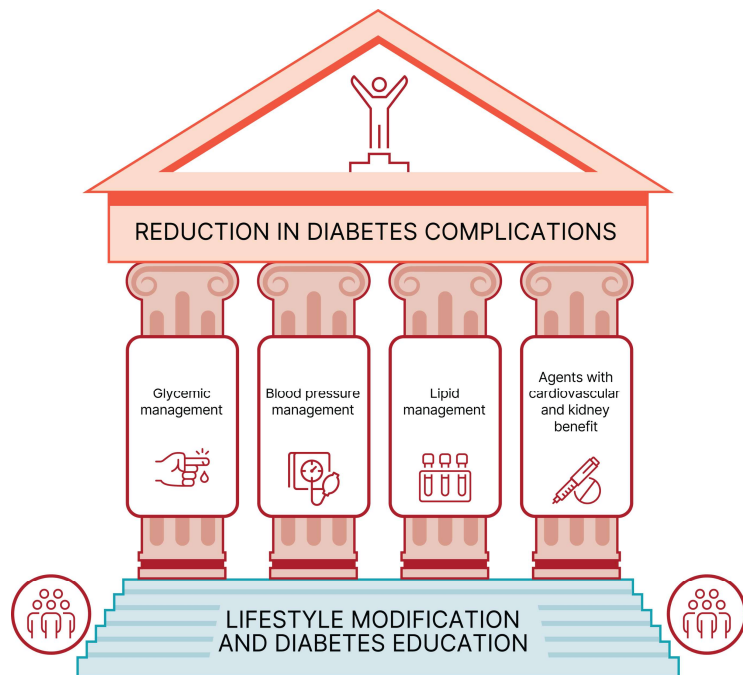
Pharmacy Technician Question #3

A technician submits a prescription for a GLP-1 receptor agonist and receives a rejection stating that prior authorization is required. What is the BEST next step?

- A. Change the medication to a covered GLP-1 receptor agonist
- B. Enter a different diagnosis code until the claim processes
- C. Tell the patient that the insurance plan will not cover GLP-1 receptor agonists
- D. Follow the pharmacy's workflow for notifying the pharmacist and prescriber's office of the prior authorization requirement

9

Emphasizing Holistic Diabetes Care

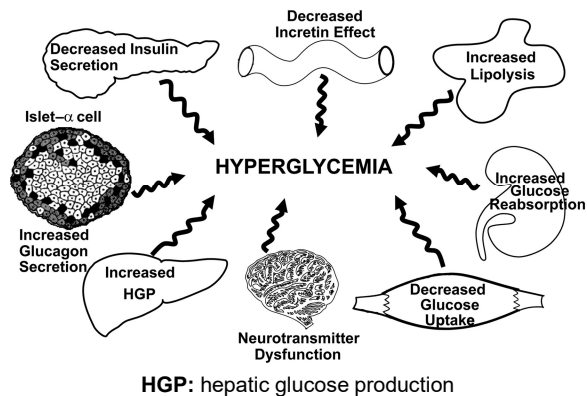


Diabetes Care. 2026;49(Suppl 1):S218.

10

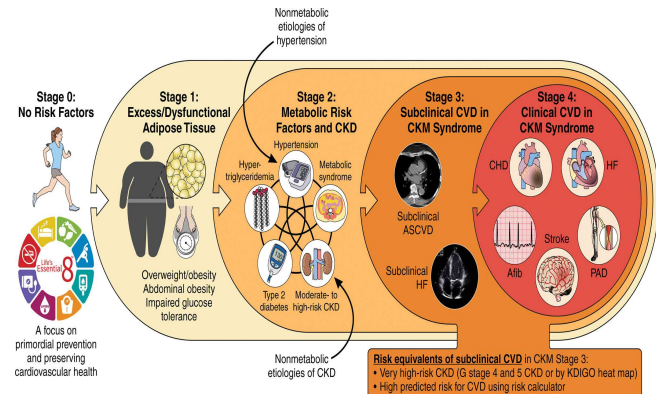
A Convergence of Paradigms

The Ominous Octet



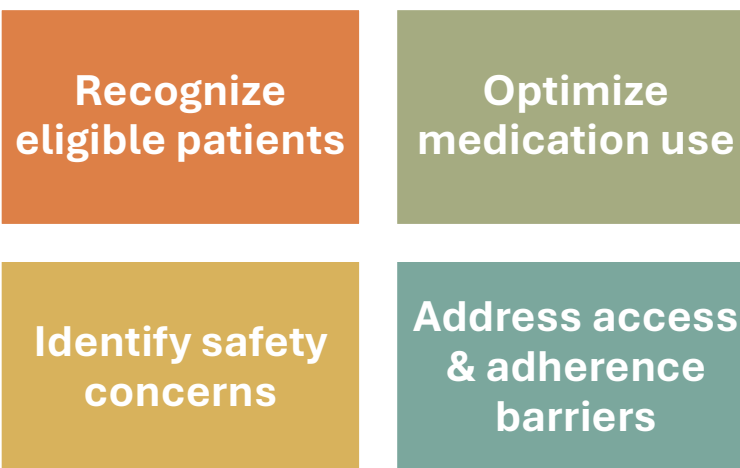
Diabetes. 2009;58:773-95. *Circulation.* 2023;148(20):1606-1635.

Cardiovascular-Kidney Metabolic (CKM) Syndrome

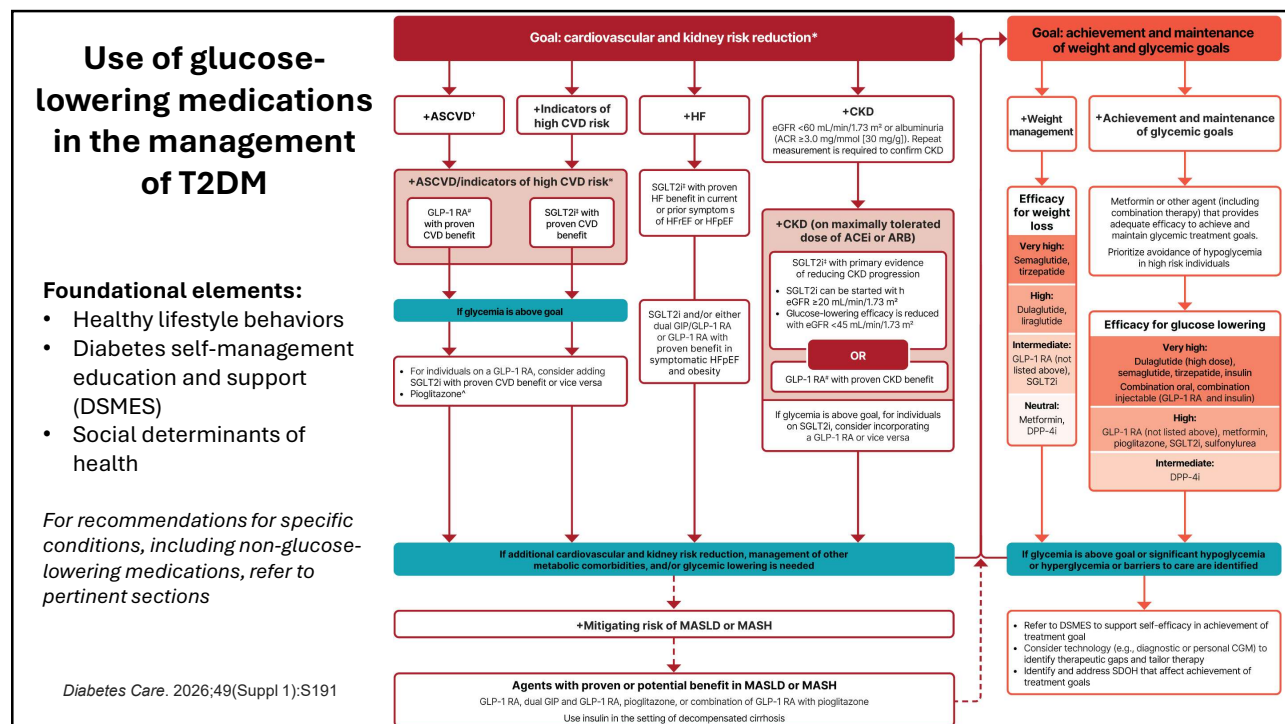


11

Pharmacist & Pharmacy Technician Roles



12



13

Reading the Fine Print (ADA SoC Fig 9.4)

Goal of cardiovascular and kidney risk reduction:

- In people with HF, CKD, established ASCVD, or multiple risk factors for CVD, the decision to use a GLP-1 RA or SGLT2i with proven benefit should be made **irrespective of attainment of glycemic goal**.

“Indicators of high CVD risk”:

- While definitions vary, most include **≥55 years of age with 2+ additional risk factors** (e.g., obesity, hypertension, smoking, dyslipidemia, albuminuria)
- A strong recommendation is warranted for people with CVD and a **weaker recommendation for those with indicators of high CVD risk**. Moreover, a higher absolute risk reduction and thus lower numbers needed to treat are seen at higher levels of baseline risk and should be factored into the shared decision-making process

Diabetes Care. 2026;49(Suppl 1):S191

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GLP-1 (+/- GIP) RA or SGLT2i?

GLP-1 (+/- GIP) RA*

- High to very high glucose-lowering efficacy
- Established ASCVD
- High ASCVD risk
- Symptomatic HFpEF
- CKD
- Obesity/weight-management

SGLT2i*

- Intermediate to high glucose-lowering efficacy
- Established ASCVD
- High ASCVD risk
- HFrEF AND HFpEF
- CKD

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*with proven benefit

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SGLT2 inhibitors

**Bexagliflozin
(Brenzavvy)**

**Canagliflozin
(Invokana)**

**Dapagliflozin
(Farxiga)**

**Empagliflozin
(Jardiance)**

**Ertugliflozin
(Steglatro)**

**Sotagliflozin
(Inpefa)***

*A dual SGLT1/2 inhibitor approved to reduce CV death, hospitalization for HF, and HF exacerbations in adults with HF or T2DM + CKD (so not technically FDA-approved for glycemic management)

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CKD & CV Benefits of SGLT2i's

	Canagliflozin	Dapagliflozin	Empagliflozin	Ertugliflozin
CV (MI, stroke, CV death)	CANVAS (2017) HR 0.86 (0.75-0.97)	DECLARE-TIMI 58 (2019) HR 0.93 (0.84-1.03)	EMPA-REG OUTCOME (2015) HR 0.86 (0.74-0.99)	VERTIS CV (2020) HR 0.97 (0.85-1.11)
HF hospitalization	HR 0.67 (0.52-0.87)	HR 0.83 (0.73-0.95)	HR 0.65 (0.50-0.85)	HR 0.70 (0.54-0.90)
CKD	CREDENCE (2019)	DAPA-CKD (2020)	EMPA-KIDNEY (2023)	VERTIS CV (2020)
	ESKD, doubling SCr, renal/CV death	ESKD, ≥ 50% eGFR decline, renal/CV death	ESKD, ≥ 40% eGFR decline, renal/CV death	Renal death, ESKD, doubling SCr
	HR 0.70 (0.59-0.82)	HR 0.61 (0.51-0.72)	HR 0.72 (0.64-0.82)	HR 0.81 (0.63-1.04)

Can: *N Engl J Med.* 2017;377:644-657. *N Engl J Med.* 2019;380:2295-2306. **Dapa:** *N Engl J Med.* 2019;380:347-357. *N Engl J Med.* 2020;383:1436-1446. **Empa:** *N Engl J Med.* 2015;373:2117-2128. *N Engl J Med.* 2023;388:117-127. **Ertu:** *N Engl J Med.* 2020;383:1425-1435.

17

SGLT2 inhibitor Dosing

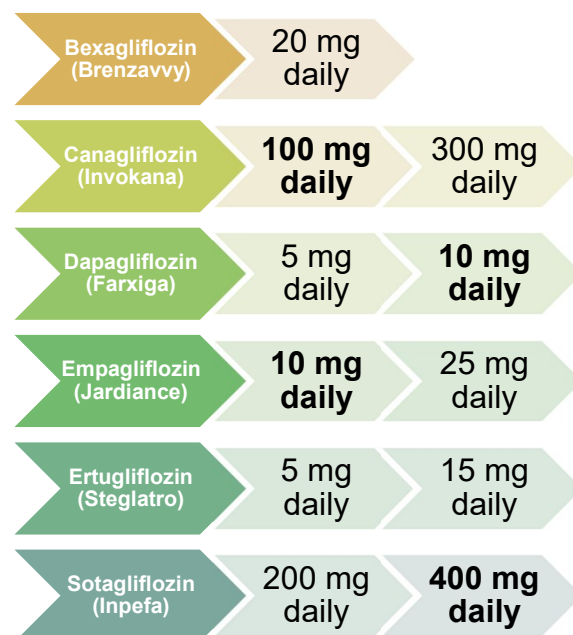
• Clinical pearls with dosing:

- Start with “low dose”
- Administer in the AM
- Can increase to “high dose” for additional glucose benefits
- Lower dose is usually sufficient for CV/CKD benefit (dapagliflozin is an exception)
- Clinical guidelines contradict many package inserts
 - OK to initiate as long as eGFR ≥20 mL/min
 - Continue until dialysis/transplant (as tolerated)

• Access considerations:

- Bexagliflozin available as a cash-only option
- Dapagliflozin available as generic

Diabetes Care. 2026;49(S1):S203.



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SGLT2 inhibitors

Risks:

- Genital mycotic infections
- Intravascular volume depletion
- Euglycemic DKA (mostly in off-label T1DM)
- Necrotizing fasciitis of the perineum (Fournier gangrene)

Clinical pearls:

- Reassess insulins/secretagogues and other volume-contracting agents (e.g., diuretics)
- Hold 3-4 days before scheduled surgery
- Glycemic efficacy diminishes as eGFR declines (**CV/CKD benefit persists!**)

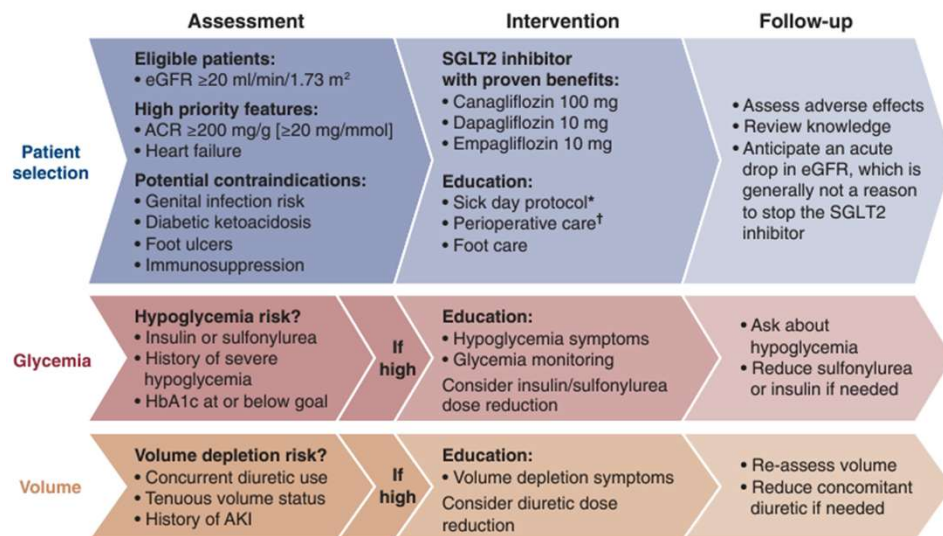
Monitoring:

- Monitor volume status & blood pressure
- Slight decrease in eGFR ($\leq 30\%$) is expected!

Diabetes Care. 2026;49(S1):S193.

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Practical guide to initiating SGLT2i in patients with CKD



Kidney Int. 2022;102(Suppl 5S):S47.

ACR: albumin-creatinine ratio; AKI: acute kidney injury;
eGFR: estimated glomerular filtration rate; HbA1c: glycated hemoglobin

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An eGFR decrease of <30% after SGLT2i initiation is to be expected, a strong indicator of clinical benefit, and reversible

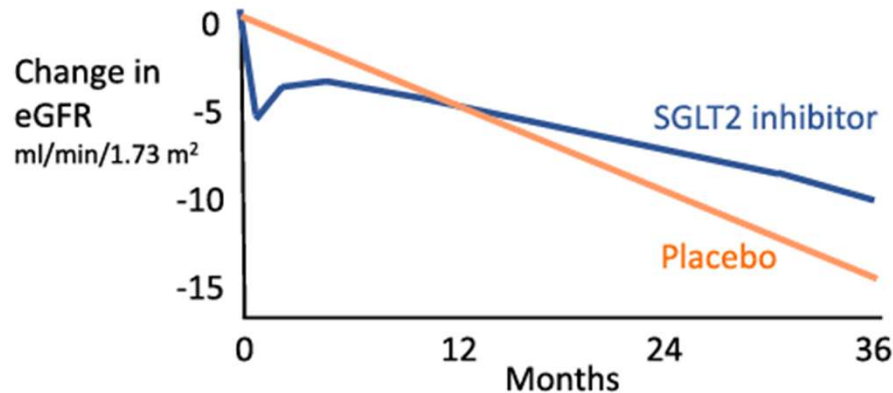


Illustration to show the typical changes in estimated glomerular filtration rate (eGFR) following the introduction and long-term use of SGLT2 inhibitors in people with T2DM. The initial dip in eGFR is about 5 ml/min/1.73m², reaches a nadir within 1–2 weeks and slowly returns towards pretreatment values over the next 3–9 months. Thereafter the rate of decline in eGFR is slower than in individuals who are not treated with an SGLT2 inhibitor. The illustration is loosely based on data from the EMPA-REG, CREDENCE and DAPA-CKD trials

Bailey CJ, et al. *Curr Diab Rep.* 2022;22(1):39-52. KDIGO. *Kidney Int.* 2024;105(Suppl. 4S):S197.

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GLP-1 & Dual GIP/GLP-1 Receptor Agonists

Exenatide (Byetta)	Liraglutide* (Victoza)	Semaglutide* [PO] (Ozempic)	Dulaglutide (Trulicity)
Exenatide ER (Bydureon)	Semaglutide [SC]* (Ozempic)	Tirzepatide* (Mounjaro)	Orforglipron** (Foundayo)

*Also FDA-approved to treat adults with obesity or overweight in the presence of at higher doses

**Only approved for obesity A dual SGLT1/2 inhibitor approved to reduce CV death, hospitalization for HF, and HF exacerbations in adults with HF or T2DM + CKD (so not technically FDA-approved for glycemic management)

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CV Benefits of GLP-1 RAs in T2DM CVOTs

	Exenatide XR	Liraglutide	Semaglutide (SC)	Semaglutide (PO)	Dulaglutide	Tirzepatide
	EXSCEL (2017)	LEADER (2016)	SUSTAIN-6 (2016)	SOUL (2025)	REWIND (2019)	SURPASS-CVOT (2025)
CV (MI, stroke, CV death)	HR 0.91 (0.83-1.00)	HR 0.87 (0.78-0.97)	HR 0.74 (0.58-0.95)	HR 0.86 (0.77-0.96)	HR 0.88 (0.79-0.99)	HR 0.92 (0.83-1.01) (vs. dulaglutide)
	73% with ASCVD	Age 50+ with ASCVD OR 60+ with 1+ CV risk factor	Age 50+ with ASCVD, CHF, or stage 3–5 CKD OR 60+ with 1+ CV risk factor	Age 50+ with ASCVD and/or CKD [CV efficacy study]	Age 50+ with ASCVD OR 55+ with 1 CV risk factor OR 60+ with 2+ CV risk factors	Age 40+ with ASCVD AND BMI ≥25

EXSCEL: *N Engl J Med.* 2017;377:1228-39; **LEADER:** *N Engl J Med.* 2016;375:311-22; **SUSTAIN-6:** *N Engl J Med.* 2016;375:1834-44; **PIONEER-6:** *N Engl J Med.* 2019;381:841-851; **REWIND:** *Lancet.* 2019;394:121-30; **SURPASS-CVOT:** *N Engl J Med.* 2025;393:2409-2420.

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GLP-1 (+/- GIP) RAs Dosing for T2DM (Adults)

	Dosing	Product-specific characteristics
Exenatide (generic only)	5 mcg SC BID ; increase to 10 mcg after 1 month	Fixed dose pens
Liraglutide (Victoza)	0.6 mg SC daily x 7 days; then 1.2 mg. May increase to 1.8 mg daily after ≥1 month (if/as needed)	Multi-dose, titratable pens Lowest dose usually ineffective for glucose mgmt.
Semaglutide PO (Ozempic pill)	1.5 mg PO QAM x 30 days; then 4 mg. May increase to 9 mg after ≥1 month (if/as needed)	Swallow whole, empty stomach, 4 ounces of water, 30 mins before any food/drink/meds Lowest dose usually ineffective for glucose mgmt.
Tirzepatide (Mounjaro)	2.5 mg SC weekly x 4 weeks; then 5 mg. May increase to 7.5 mg, 10 mg, 12.5 mg, and 15 mg (if/as needed)	Fixed dose pens; Hidden needle (auto-injector) Lowest dose usually ineffective for glucose mgmt.
Dulaglutide (Trulicity)	0.75 mg SC weekly x 4 weeks; then 1.5 mg. May increase to 3 mg, then 4.5 mg (if/as needed)	Fixed dose pens; Hidden needle (auto-injector)
Exenatide ER (Bydureon)	2 mg SC weekly	Fixed dose pens; Hidden needle (auto-injector) Prolonged injection time (reconstitutes while injecting)
Semaglutide SC (Ozempic pen)	0.25 mg SC weekly x 4 weeks; then 0.5 mg. May increase to 1 mg, then 2 mg (if/as needed)	Multi-dose, titratable pens Lowest dose usually ineffective for glucose mgmt.

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GLP-1 (+/- GIP) RAs Dosing for Obesity (Adults)

	Dosing	Product-specific characteristics
Liraglutide (Saxenda)	0.6 mg SC daily x 7 days; then 1.2 mg. Increase dose each week to max 3 mg daily	Multi-dose, titratable pens Lowest dose ineffective for weight mgmt.
Semaglutide (Wegovy pill) [oral]	1.5 mg PO QAM x 30 days; then 4 mg. Increase to 9 mg, and 25 mg (if/as needed)	Swallow whole, empty stomach, 4 ounces of water, 30 mins before any food/drink/meds Lowest dose ineffective for weight mgmt.
Tirzepatide (Zepbound)	2.5 mg SC weekly x 4 weeks; then 5 mg. Increase to 7.5 mg, 10 mg, 12.5 mg, and 15 mg (if/as needed)	Fixed dose pens; Hidden needle (auto-injector) Lowest dose ineffective for weight mgmt.
Semaglutide (Wegovy pen) [SC]	0.25 mg SC weekly x 4 weeks; then 0.5 mg. Increase to 1 mg, 1.7 mg, 2.4 mg, then 7.2 mg (if/as needed)	Multi-dose, titratable pens Lowest dose ineffective for weight mgmt.
Orforglipron (Foundayo)	0.8 mg PO daily x 30 days; then 2.5 mg. Increase to 5.5 mg, 9 mg, 14.5 mg, and 17.2 mg (if/as needed)	Swallow whole, do not crush, break or chew. Lowest TWO doses ineffective for weight mgmt.

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GLP-1 & Dual GIP/GLP-1 Receptor Agonists

Risks:

- Nausea / vomiting / abdominal pain
- Thyroid C-cell tumors (in rodents) [Contraindicated if personal/family history of MTC or patients with MEN-2]
- Retinopathy complications in high risk (e.g., older adults, T2D ≥10 years)
- Acute gall bladder disease
- Pancreatitis (?)
- Perioperative complications (?)
- Sarcopenia
- Counterfeit & compounded products

Clinical pearls:

- Emphasize portion size, mindful eating, & regular meals & fluid intake to mitigate nausea
- Less nausea expected with tirzepatide (GIP effect)
- Titrate as slow as necessary – there's no rush (usually)!
- Educate on storage considerations & missed doses
- Assess for healthy vs. unhealthy weight loss

Diabetes Care. 2026;49(S1):S194.

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New Consensus Report!

- Adjunctive treatment for people with T1DM
- Off-label use
- Maximize benefits while mitigating risks

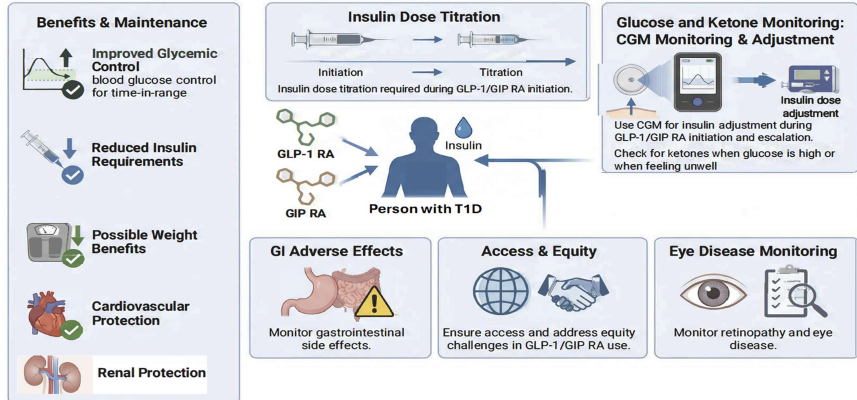
Diabetes Technol Ther.
2026 Jun 5;15209156261449879.
Online, ahead of print

Adjunctive Treatment with GLP-1 and Dual GLP-1/GIP Receptor Agonists for People with Type 1 Diabetes: Consensus Report and Practical Guidelines for Safe Use

DIABETES
TECHNOLOGY & THERAPEUTICS

GLP-1/GIP Receptor Agonists in Type 1 Diabetes: Benefits, Monitoring, and Clinical Considerations

Garg SK et al. *Diabetes Technol and Ther* 2026, 28 (12): DOI 10.1177/15209156261449879



Conclusion: For pre-planned surgery: Recommend to stop GLP/GIP-1RA for at least 1 week. For upper endoscopy, no change in GLP/GIP1-RA needed. GLP/GIP-1RA should be discontinued before or during pregnancy. Never STOP insulin in people with T1D.

Reference: Satish K. Garg, Halis K. Akturk, Samita Garg, Roy W. Beck, Natalie J. Bellini, Petter Bjornstad, Anders L. Carlson, Jim Carroll, Kelly Close, Christophe De Block, Klemen Dovc, Gregory P. Forlenza, Francesco Giorgino, Julie Heverly, Irl B. Hirsch, Mareda Lewer, Brynn E. Marks,

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Promoting Medication Adherence & Persistence

GLP-1 (+/- GIP) RA

- ~50% of patients with **T2DM** stop it within 12 months
- ~80% of patients with **obesity** stop it within 12 months

SGLT2i

- ~30-50% of patients prescribed an SGLT2i are no longer taking it at 12 months

- **Proactive communication**
- **Ask about potential fears, concerns, or issues**
- **Leverage a team approach to help the patient navigate them**
- **For holds or temporary discontinuations, have a plan to restart**

Circulation. 2026;153(Suppl. 1):ATH929. *Am J Cardiol.* 2023;196:89-98.

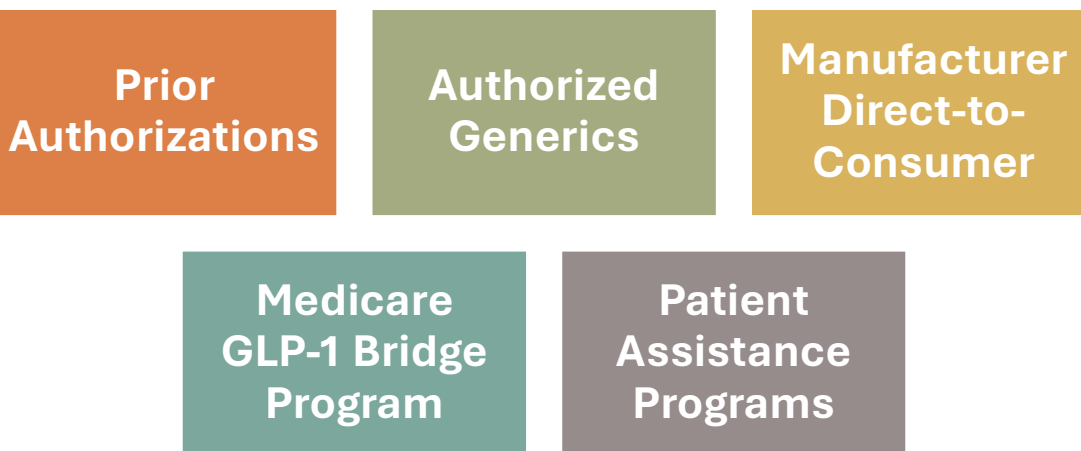
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What's in the pipeline?

Agent	Mechanism	Condition(s)	Additional characteristics
Berobenatide	GLP-1 RA	Chronic weight management	Weekly/monthly SC injections
Orforglipron	GLP-1 RA	T2DM	Once daily oral
Elecglipton	GLP-1 RA	Chronic weight management, T2DM	Once daily oral
Aleniglipton	GLP-1 RA	Chronic weight management	Once daily oral
VK2735	GIP/GLP-1 RA	Chronic weight management	Weekly SC injection (Once daily oral in Phase 2)
Enicepatide	GIP/GLP-1 RA	Chronic weight management, T2DM	Weekly SC injection
Ribupatide	GIP/GLP-1 RA	Chronic weight management	Weekly SC injection
Retatrutide	GIP/GLP-1/Glucagon triple agonist	Chronic weight management, T2DM, Knee OA, OSA, CV outcomes, CKD, MASLD, chronic low back pain	Weekly SC injection
Survodutide	GLP-1/Glucagon dual agonist	Chronic weight management, MASH	Weekly SC injection
CagriSema	GLP-1/Amylin dual agonist	Chronic weight management, T2DM	Weekly SC injection

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Medication Access & Affordability



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Pharmacist Question #1

A patient with type 2 diabetes and CKD has been receiving an SGLT2 inhibitor for kidney protection. Her eGFR declines from 24 to 18 mL/min/1.73 m². She is tolerating therapy and has not started dialysis. What is the MOST appropriate interpretation of current guidance?

- A. Discontinue the SGLT2 inhibitor immediately because eGFR is below 20 mL/min/1.73 m²
- B. Increase the SGLT2 inhibitor dose to compensate for reduced kidney function
- C. Continue the SGLT2 inhibitor if tolerated despite the decline in eGFR
- D. Discontinue all glucose-lowering therapies until dialysis begins

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Pharmacist Question #2

A patient taking an SGLT2 inhibitor is scheduled for elective surgery. Which recommendation is MOST appropriate to reduce the risk of perioperative ketoacidosis?

- A. Double the dose the day before surgery
- B. Continue the medication unless blood glucose falls below 70 mg/dL
- C. Hold the medication only on the morning of surgery
- D. Hold the medication for 3–4 days before surgery

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Pharmacist Question #3

A patient stopped a weekly GLP-1 receptor agonist after developing nausea during dose escalation but remains an appropriate candidate for therapy. Which pharmacist intervention BEST addresses this barrier?

- A. Recommend that the patient permanently avoid all GLP-1 receptor agonists
- B. Restart immediately at the dose last used by the patient
- C. Clarify the nature of the symptoms and develop a more tolerable titration strategy
- D. Recommend taking the GLP-1 receptor agonist every 10 days instead of every 7 days

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Pharmacy Technician Question #1

Which generic and brand-name pairing is CORRECT?

- A. Dapagliflozin – Jardiance
- B. Tirzepatide – Ozempic
- C. Empagliflozin – Jardiance
- D. Semaglutide - Trulicity

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Pharmacy Technician Question #2

A patient picking up dulaglutide asks whether the medication is normally administered every day. Which information should the pharmacy technician recognize?

- A. It is taken by mouth once daily
- B. It is injected subcutaneously once weekly
- C. It is injected subcutaneously twice daily
- D. It is administered intravenously once monthly

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Pharmacy Technician Question #3

A technician submits a prescription for a GLP-1 receptor agonist and receives a rejection stating that prior authorization is required. What is the BEST next step?

- A. Change the medication to a covered GLP-1 receptor agonist
- B. Enter a different diagnosis code until the claim processes
- C. Tell the patient that the insurance plan will not cover GLP-1 receptor agonists
- D. Follow the pharmacy's workflow for notifying the pharmacist and prescriber's office of the prior authorization requirement

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Questions?

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Cultural Considerations in Shared Decision-Making: When the "Best" Recommendation Isn't the Patient's Choice

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Class of 2027

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Learning Objectives

1. Identify common cultural, religious, and personal value conflicts that may influence healthcare decisions
2. Recognize the impact of personal cultural assumptions and implicit bias on patient interactions
3. Distinguish between informed refusal and nonadherence
4. Utilize structured communication tools and shared-decision making frameworks, including the LEARN model, ETHNIC, and Kleinman's Questions to deliver person-centered care

3

Pre-Assessment Questions

1. A patient wants to change when they take their medication so they can fast as part of their religious practice. How should the pharmacist respond?
 - a. Continue counseling the patient until they agree to take the medication exactly as prescribed
 - b. Ask the patient's family to approve the medication schedule before making any changes
 - c. Tell the patient they have to modify their fasting practices if they want to receive appropriate treatment
 - d. Respect the patient's decision, explain the risks and benefits, and work together to find a safe medication schedule

4

Pre-Assessment Questions

2. How do pharmacists' own cultural assumptions and implicit biases typically affect the care they provide to patients?

- a. They have no impact on clinical recommendations as long as the pharmacist follows evidence-based guidelines
- b. They won't impact care as long as it aligns with the patients beliefs
- c. They shape the clinical recommendations the pharmacist makes and the way those recommendations are delivered
- d. They can be corrected when the pharmacist uses a medically trained interpreter

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Pre-Assessment Questions Continued

3. A patient picking up a new prescription for rosuvastatin says they will not take it because they previously experienced severe muscle aches with atorvastatin and are concerned the same side effect will occur again. What would this be an example of ?

- a. Informed refusal
- b. Non-adherence
- c. Both
- d. None of the above

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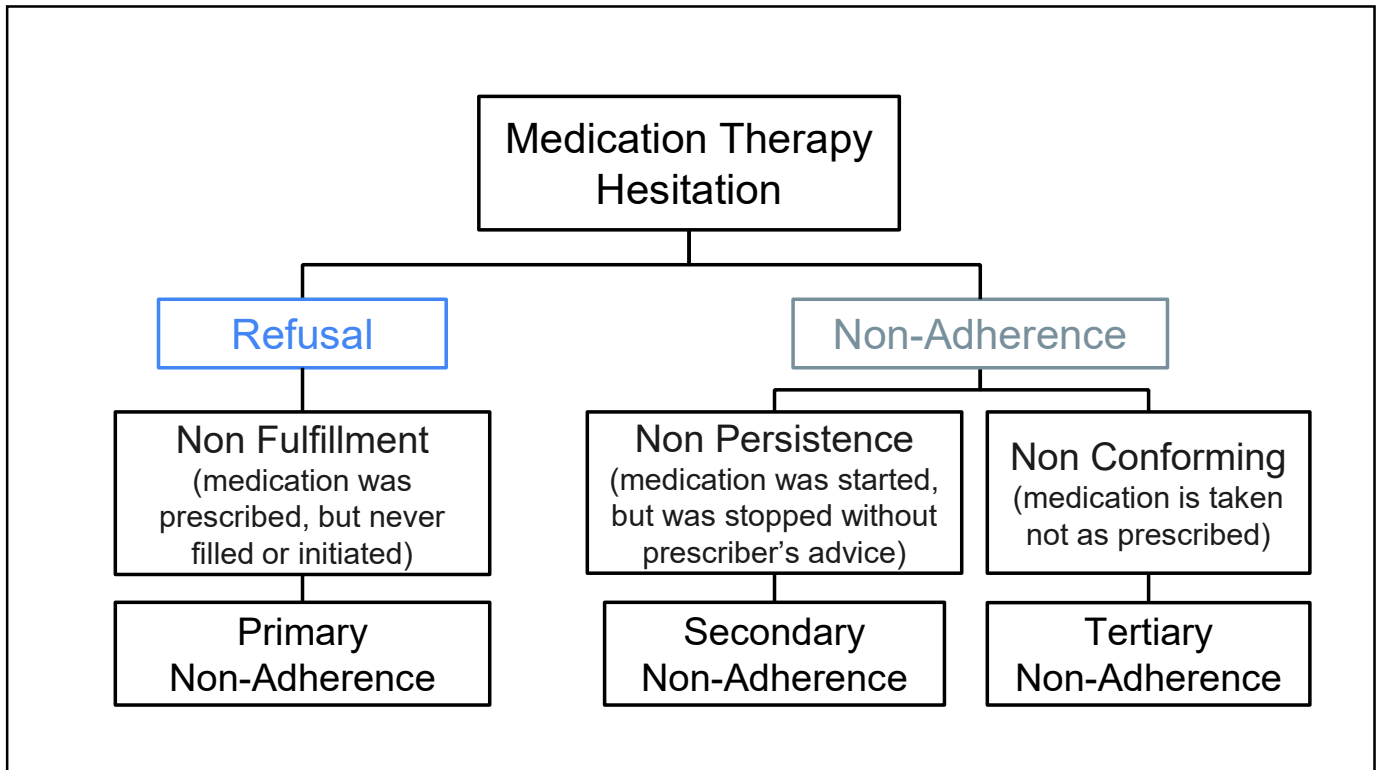
Pre-Assessment Questions Continued

4. Which response best demonstrates elements of the LEARN Model?
- a. You should restart your medication because herbal supplements have not been proven to treat high blood pressure.
 - b. Can you tell me what concerns you have about your medication?
 - c. Please follow the instructions your doctor prescribed because it is the standard of care based on the evidence
 - d. Most patients do well on this medication, so I wouldn't worry about the side effects you've read about

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PART I: REFUSAL AND NONADHERENCE

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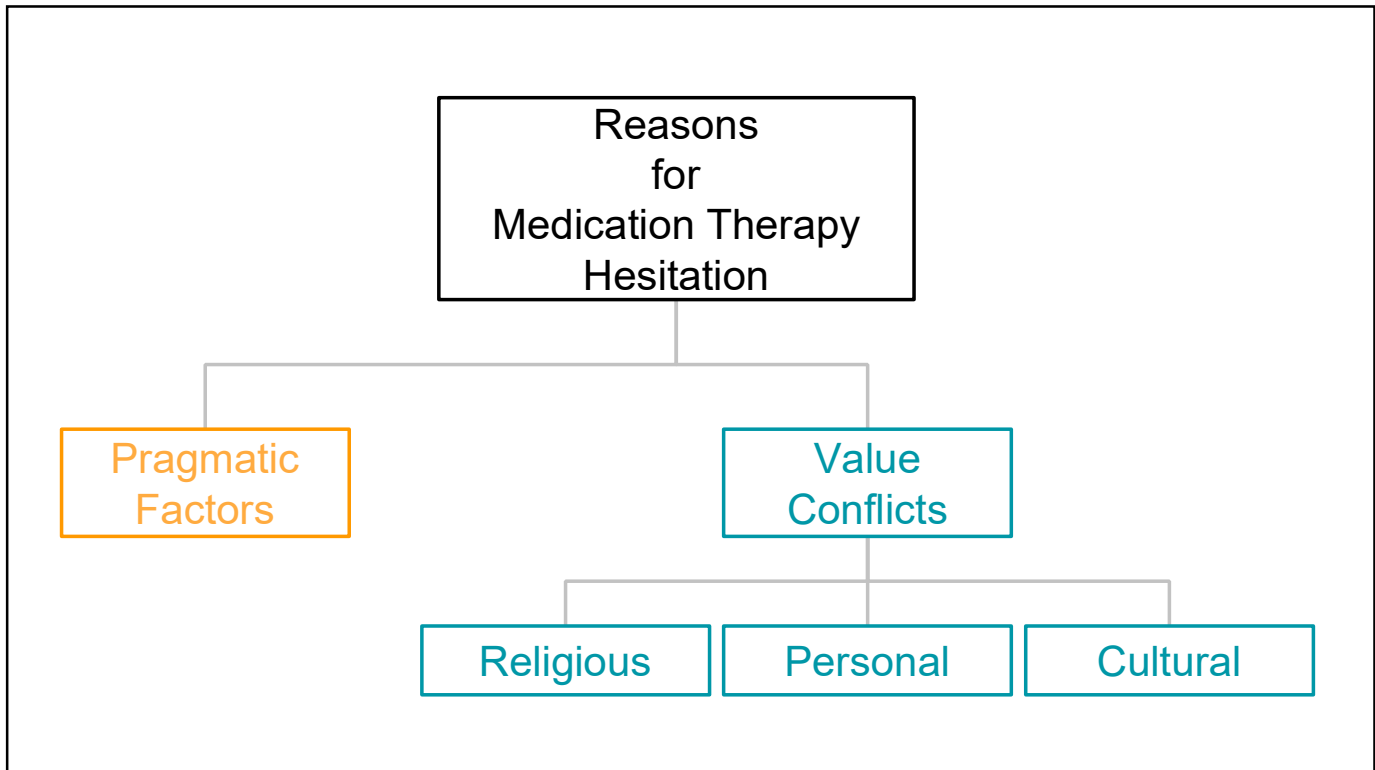


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PART II:

COMMON CULTURAL, RELIGIOUS AND PERSONAL VALUE CONFLICTS

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Primary Reason for Medication Hesitation: Pragmatic Factors

PRACTICAL

- Trouble swallowing medical formulations, especially those that are larger in size
- Avoidance of non-palatable formulations (due to taste, smell, texture, etc.)
- Avoidance of potential allergens:
 - active ingredients (heparins, vaccines, lidocaine patches, etc.)
 - excipients (gelatin capsule shells, artificial dyes, Polyethylene Glycol, lactose etc.)

GEOGRAPHIC

- Long distance to treatment center or pharmacy
- Changing environmental situations

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Primary Reason for Medication Hesitation: Pragmatic Factors

FINANCIAL

- Competing priorities (prioritizing needs of some family members over others) due to:
 - Socioeconomic status
 - Employment status
 - Lack of financial resources
 - Unstable living conditions
- Out-of-pocket costs associated with:
 - Medication itself
 - Transportation to obtain medication

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Primary Reason for Medication Hesitation: Value Conflicts

Restrictions on Medication

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Primary Reason for Medication Hesitation: Value Conflicts Restrictions on Medication

PERSONAL

- Lifestyle Choice:
 - Scepticism towards chemicals present in food and/or environment
 - Adherence to strictly natural lifestyle → no synthetic chemicals
 - Objection to animal-tested and animal-derived products
 - Adherence to a diet: vegetarian, vegan, gluten-free, etc.
- Scepticism towards science and medicine

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Primary Reason for Medication Hesitation: Value Conflicts Restrictions on Medication

RELIGIOUS

- Prohibited medications:
 - Derived from animals (Buddhism, Hinduism, Jainism, etc.)
 - Derived from animals that violate strict dietary laws (Halal in Islam, Kosher in Judaism, etc.)
 - Active ingredients (pig-derived insulins, thyroid medications made from pig thyroid glands, glucosamine and calcium supplements with shellfish additives, etc.)
 - Experiments (gelatin capsule shells, formulations containing alcohol, etc.)
 - Derived from human blood (Jehovah's Witnesses)
 - Whole blood or its components (blood cells, plasma, etc.)
 - *Blood-fractions (biologics, immune globulins, clotting factors, etc.)*

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Primary Reason for Medication Hesitation: Value Conflicts

Restrictions on Medication

CULTURAL

- Belief in 🔥 HOT 🔥 or ❄️ COLD ❄️ condition and therapy classification (Traditional Chinese Medicine, Latin American folk-healing traditions, etc.):
 - Therapies classified as HOT → Conditions classified as HOT
(fever, sore throat, skin rash, heartburn, etc.)
 - Therapies classified as COLD → Conditions classified as COLD
(common cold, chills, fatigue, diarrhea, poor appetite, etc.)
 - Healing = ⚖️ Balance / Equilibrium ⚖️

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Primary Reason for Medication Hesitation: Value Conflicts

Restrictions on Medication Administration

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Primary Reason for Medication Hesitation: Value Conflicts Restrictions on Medication Administration

PERSONAL

- Concerns, anxieties or fears related to:
 - Previous negative experience / treatment failure
 - Potential side effects/possible adverse events
 - Medication dependence or addiction
 - Complexity of medication regimen
 - Duration of therapy
 - Effect(s) of therapy on quality of life and/or lifestyle
- Rejection of certain routes of medication administration due to phobias (severe fear of needles, choking phobia, etc.)

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Primary Reason for Medication Hesitation: Value Conflicts Restrictions on Medication Administration

RELIGIOUS

- Requirements to stop or adjust oral medication administration schedules due to religious fasting periods (daytime fasting during Ramadan in Islam, etc.)

CULTURAL

- Rejection of specific route of administration (vaginal, rectal, etc.) based on cultural beliefs regarding modesty
- Delaying treatment pending approval from family elder, community leader, etc.

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Primary Reason for Medication Hesitation: Value Conflicts

Conflicts on Decision of Treatment of Condition

21

Primary Reason for Medication Hesitation: Value Conflicts

Conflicts on Decision of Treatment of Condition

PERSONAL

- Limited perception of the health risk related to the condition:
 - Misunderstanding, denial or non-acceptance of the disease or disbelief in diagnosis
 - Lack of perceived necessity for treatment
(slow disease progression, low symptom severity, etc.)

RELIGIOUS

- Perception of illness / health condition as a spiritual test / transformative experience

CULTURAL

- Perceiving medication use as a proof of culturally stigmatized health condition
(HIV, STDs, substance abuse disorders, mental health disorders, etc.)

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Primary Reason for Medication Hesitation: Value Conflicts

Conflicts of Confidence and Ability to Manage the Condition

23

Primary Reason for Medication Hesitation: Value Conflicts Conflicts of Confidence and Ability to Manage the Condition

PERSONAL

- Management or/and anxiety over management of a complex medication regimen
 - + in elderly patients - comorbidities associated with functional and/or cognitive impairment
 - + in pediatric patients - lack of proper supervision regarding medication treatment
- Forgetfulness
 - + in elderly patients - comorbidities associated with functional and/or cognitive impairment
- Confusion or misunderstanding of treatment instructions
 - + illiteracy / low level of education
 - + low level of health literacy

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Primary Reason for Medication Hesitation: Value Conflicts Conflicts of Confidence and Ability to Manage the Condition

PERSONAL (continued)

- Driven by comorbidities linked psychological or cognitive impairment (depression, substance abuse, etc.):
 - Feeling of hopelessness
 - Low level of motivation
- Limited perception of the health risk related to the condition:
 - Lack of perceived necessity for treatment (slow disease progression, low symptom severity, etc.)
 - Limited confidence in effectiveness or expected benefit of the treatment

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Primary Reason for Medication Hesitation: Value Conflicts Conflicts of Confidence and Ability to Manage the Condition

RELIGIOUS

- Perception of:
 - rapid progression illness / health condition
 - increase in severity of symptoms
 - increased level of disability due to condition

as a spiritual sign “to stop fighting” and transition into “spiritual readiness / divine will” mode

CULTURAL

- Misunderstanding, denial or non-acceptance of the disease
- + ● Culturally stigmatization of the health condition
- = ● Hiding or rejection of treatment in attempt to protect social standing

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Primary Reason for Medication Hesitation: Value Conflicts

Conflicts of Trust

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Primary Reason for Medication Hesitation: Value Conflicts

Conflicts of Trust

PERSONAL

- Limited perception of the health risk related to the condition:
 - Limited confidence in effectiveness or expected benefit of the treatment
- Fear of over-prescribing

HEALTH CARE SYSTEM RELATED

- Insufficient time spent with the healthcare provider explaining therapy
OR
- Time spent with the healthcare provider explaining therapy felt rushed
- Uncertainty in the continuity of care with the same healthcare provider
- Communication style and or interpersonal style of the healthcare provider

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Primary Reason for Medication Hesitation: Value Conflicts Conflicts of Trust

RELIGIOUS

- Perceiving medication use as a sign of weakness = “lack of true faith”
 - Belief that healing can come only through prayers, religious rituals, etc.

CULTURAL

- Historic or systemic medical mistrust in:
 - Health care providers
 - Medication treatments
- Fear of “being experimented on”
- Prior or expected experience of social or racial inequality / discrimination

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PART III: RECOGNIZING COGNITIVE AND IMPLICIT BIASES

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RESEARCH ARTICLE

Implicit bias in healthcare professionals: a systematic review

Chloë FitzGerald* and Samia Hurst

“All the studies that investigated correlations found a significant positive relationship between level of implicit bias and lower quality of care.”

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Fast Filter (UNCONSCIOUS)

- Automatic, emotional, subconscious, and incredibly fast
- Runs w/o little effort
- Pattern matches prior experience
- Habits, phobias, automatic triggers

Instantly deletes 99.9% based on past programming (beliefs and values)

Slow Director (CONSCIOUS)

- Effortful, logical, calculating and slow
- Checks and questions first impressions
- Easily overridden by fatigue
- Final, highly edited “summary” of the fast filter

Receives a tiny, filtered slide of reality and mistakes it for the absolute truth

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Cognitive vs. Implicit Bias

Cognitive Bias

- Mental shortcuts the brain uses to process information quickly.
Systematic error in information that distorts your clinical judgment.
- Everyone has them
- Example: Focusing only on labs that support your initial diagnosis.

Implicit Bias

- Activated involuntarily (*unconscious*), without awareness or intentional control. Can be either positive or negative.
- Everyone is susceptible
- Can exist even when it contradicts a person's explicit values.
- Example: Stereotypes or unconscious attitudes toward race, age, weight, addiction history...

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Confirmation Bias



The tendency to notice and favor information that confirms what you already believe, while discounting information that doesn't.

A patient comes to the pharmacy requesting an early refill on their pain medication which happens to be controlled. The pharmacist thinks:

- They are most likely abusing this medication and begins to interpret all interactions from that lens:
- The patient may ask if the pharmacy has it in stock and the pharmacist may think that they are pharmacy shopping.

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Anchor Bias



Occurs when we allow ourselves to anchor onto a certain piece of information (oftentimes first piece) about a patient and use it to help us make decisions.

A patient informs the pharmacist that they are, “dizzy because of their blood pressure medication.” The pharmacist immediately anchors on the medication as the cause and focus on:

- The medications adverse-effect profile and the patient’s dose
- The patient’s blood pressure was actually normal and they weren’t drinking enough liquids, had begun exercising intensely, hadn’t been eating well.

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Availability Bias

AVAILABLE

Judge the likelihood or frequency of an event based on how easily examples come to mind rather than statistical frequency.

A pharmacist assumes a patient will experience severe side effects from a statin because they constantly hear vivid complaints from a vocal minority of patients or read negative news.

- Biased counseling – heavily focused on the aches and dangers.
- Patient leaves terrified impacting adherence.
- Statistical reality of myalgia or serious side effects is smaller than what's reported.

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Affinity Bias



Natural affinity toward a patient due to something we have in common with them (e.g. went to the same school, know the same people, etc...)

A pharmacist preferences filling a prescription for a friend she went to high school with over the patient who dropped off their script 20 minutes ago.

- The friend feels welcomed
- Pharmacist is happy to help someone they personally know.

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Weight Bias and Ageism



Assumptions about a patient's discipline, habits, health literacy, or self-care based on body size or age rather than what they have said or done.

A pharmacist thinks the elderly patient will not be adherent to their medications because they are much older.

- Pharmacist spends a lot of time talking about adherence.
- The patient does not understand why the pharmacist spends so much time talking about adherence when they take their medication everyday.

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Strategies to Reduce Implicit Bias

- Stereotype replacement
- Counter-stereotype imaging
- Individuation
- Perspective taking
- Have a basic understanding of the cultures your patients come from
- Don't stereotype your patients; individuate them
- Understand and respect the tremendous power of unconscious bias
- Recognize situations that magnify stereotyping and bias
- [CLAS Standards](#)
- Do a "Teach Back" confirm patient understanding

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PART IV: STRUCTURED COMMUNICATION TOOLS AND SHARED DECISION MAKING FRAMEWORKS

40

Kleinman's Questions

Explore what a patient believes about their illness. Get some insight into how they process.

1. What do you call your problem? What name does it have?
2. What do you think caused your problem?
3. Why do you think it started when it did?
4. What does your sickness do to you? How does it work?

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Kleinman's Questions Continued

Explore what a patient believes about their illness. Get some insight into how they process.

5. How severe is it? Will it have a short or long course?
6. What do you fear most about your disorder
7. What are the chief problems that your sickness has caused for you?
8. What kind of treatment do you think you should receive? What are the most important results you hope to receive from treatment?

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LEARN Model

- L - isten
- E - xplain
- A - cknowledge
- R - ecommend
- N - egotiate

Simple, effective model for pharmacists to build trust, open communication and negotiate treatment with patients.

Helps with active listening.

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ETHNIC Model

- E - xplanation
- T - reatment
- H - ealers
- N - egotiate
- I - ntervention
- C - ollaboration

A mnemonic for practicing culturally competent care that allows pharmacists to address folk healers and spirituality.

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SHARE Approach

- S - eek your patient's participation
- H - help your patient explore and compare treatment options
- A - ssess your patient's values and preferences
- R - each a decision with your patient
- E - valuate your patient's decision

Agency for Healthcare Research and Quality (AHRQ) – designed as a shared decision-making framework and includes discussion of benefits, harms, risks, and what matters most to the patient.

Example: “Here are two options. Let’s look at what matters most to you taking into consideration the cost, convenience, side effects, effectiveness and decide together.”

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POST-ASSESSMENT QUESTIONS

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Post-Assessment Questions

1. A patient wants to change when they take their medication so they can fast as part of their religious practice. How should the pharmacist respond?
 - a. Continue counseling the patient until they agree to take the medication exactly as prescribed
 - b. Ask the patient's family to approve the medication schedule before making any changes
 - c. Tell the patient they have to modify their fasting practices if they want to receive appropriate treatment
 - d. Respect the patient's decision, explain the risks and benefits, and work together to find a safe medication schedule

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Post-Assessment Questions

2. How do pharmacists' own cultural assumptions and implicit biases typically affect the care they provide to patients?

- a. They have no impact on clinical recommendations as long as the pharmacist follows evidence-based guidelines
- b. They won't impact care as long as it aligns with the patients beliefs
- c. They shape the clinical recommendations the pharmacist makes and the way those recommendations are delivered
- d. They can be corrected when the pharmacist uses a medically trained interpreter

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Post-Assessment Questions Continued

3. A patient picking up a new prescription for rosuvastatin says they will not take it because they previously experienced severe muscle aches with atorvastatin and are concerned the same side effect will occur again. What would this be an example of ?

- a. Informed refusal
- b. Non-adherence
- c. Both
- d. None of the above

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Post-Assessment Questions Continued

3. A patient picking up a new prescription for rosuvastatin says they will not take it because they previously experienced severe muscle aches with atorvastatin and are concerned the same side effect will occur again. What would this be an example of ?

- a. Informed refusal
- b. Non-adherence
- c. **Both**
- d. None of the above

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Post-Assessment Questions Continued

4. Which response best demonstrates elements of the LEARN Model?
- a. You should restart your medication because herbal supplements have not been proven to treat high blood pressure.
 - b. Can you tell me what concerns you have about your medication?
 - c. Please follow the instructions your doctor prescribed because it is the standard of care based on the evidence
 - d. Most patients do well on this medication, so I wouldn't worry about the side effects you've read about

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Post-Assessment Questions Continued

4. Which response best demonstrates elements of the LEARN Model?
- a. You should restart your medication because herbal supplements have not been proven to treat high blood pressure.
 - b. Can you tell me what concerns you have about your medication?**
 - c. Please follow the instructions your doctor prescribed because it is the standard of care based on the evidence
 - d. Most patients do well on this medication, so I wouldn't worry about the side effects you've read about

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