Pharmacists' Role in Buprenorphine Management in Opioid Use Disorder: A Review

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Disclosures

- Dr. Cleary: Genomind, Remitigate LLC
- Dr. Engle and Dr. Winans: nothing to disclose

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Objectives

- Describe the role of the pharmacist in the management of buprenorphine therapy for OUD
- Discuss existing literature focusing on pharmacist involvement in buprenorphine for OUD
- Identify future opportunities for expanding access to OUD care through pharmacist collaboration

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- Cleary JL, Engle AL, Winans ARM. Pharmacists' Role in Buprenorphine, Management for Opioid Use Disorder: A Narrative Review. JACCP Special Issue: The Opioid Crisis: Opportunities for Clinical Pharmacy Practice.

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Background

- 50,000 Americans died from opioid overdose, equating to over 130 deaths, daily in 2019
- By the year 2033, there will be an estimated national shortage of primary care physicians (21,000 – 55,000)
- Rise in opioid use disorder (OUD) patient needs = care imbalance
- Pharmacists are positioned to address gaps in OUD treatment

CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2019.
Association of American Medical Colleges. New report confirms growing shortage of primary care physicians. Primary Care Collaborative. Published July 10, 2020.

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Background – Enter the Pharmacist

- Established role for treatment of primary care conditions, demonstrating improvement in clinical outcomes
  - Diabetes
  - Hypertension
  - Mental health conditions
    - Depression
    - Alcohol use disorder
- Pharmacist opportunities in OUD
  - Fill the care gap
  - Positively impact clinical outcomes
  - Reduce provider burnout

Carter BL. Evolution of Clinical Pharmacy in the USA and Future Directions for Patient Care. Drugs Aging 2016;33(3):169-77.
Greer D, et al. Objective and subjective benefits of a psychiatric pharmacist–led long-acting injectable medication training at a large, multisite organization. Ment Health Clin [Internet]. 2020;10(5):264-9.
Dimitropoulos E, et al. Integration of a clinical pharmacy specialist into a substance use disorder intensive outpatient treatment program to improve prescribing rates of alcohol use disorder pharmacotherapy. Subst Abus. 2018;39(2):190–192.

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Role of the Pharmacist in OUD

Historical Role

- Checking Prescription Drug Monitoring Programs (PDMP)
- Medication dispensing
- Naloxone dispensing
- Patient education

Potential Role

- Initiating and modifying medications for opioid use disorder (MOUD)
- Monitoring safety & efficacy
- Referrals to adjunct services
- Patient and provider education
- Advocacy, reducing stigma

Coon SA, et al. Mobilizing pharmacists to address the opioid crisis: A joint opinion of the ambulatory care and adult medicine practice and research networks of the American College of Clinical Pharmacy. J Am Coll Clin Pharm. 2020; 3(8): 1493-1513.

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Challenges to MOUD Access

- Methadone
  - Physically attend clinic on regular basis
  - Legal and regulatory barriers
- Naltrexone
  - 7-day abstinence period prior to initiation
  - Poor compliance
- Buprenorphine
  - Does not require specialized dispensing site
  - Does not require period of abstinence prior to initiation
  - Prescriber must hold DATA-2000 waiver, limitations on volume

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Objective

- Review published literature with the aim of characterizing the current role of pharmacists in managing buprenorphine for OUD

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Methods

- Modified PRISMA approach using electronic query
  - Search terms used "buprenorphine" and "pharmacist"
- Inclusion criteria
  - Pharmacist role described by authors
  - Practice site located within United States
  - Full text available in English language
- Exclusion criteria
  - Included buprenorphine management for pain indication
  - Pharmacist role included solely order verification, dispensing, or administration
  - Primary methodology as survey or perception-based tool
  - Citation not available as full text

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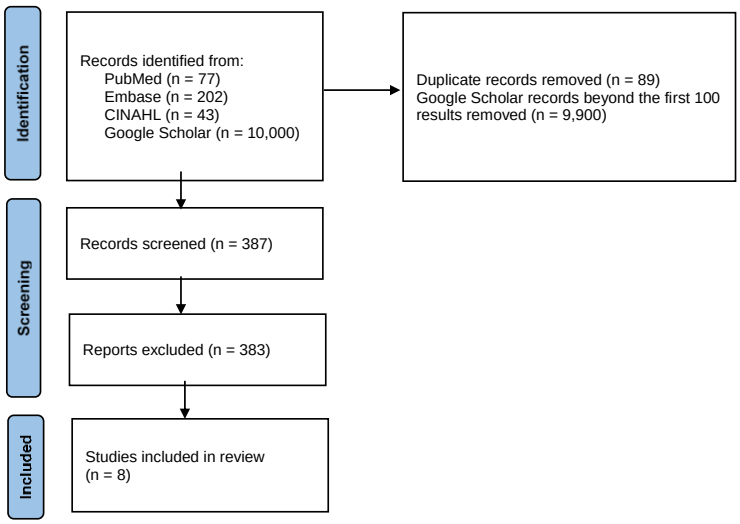
Methods



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Results - *Overall*

Eight care models identified

Author, Year	Brief Reference
Dipaula, 2015	Dipaula B, Menachery E. J Am Pharm Assoc. 2015;55: 187-192.
Duvivier, 2017	Duvivier H, Gustafson S, Greutman M, et al. J Am Pharm Assoc. 2017; 57: S135-S140.
Grgas, 2013	Grgas M. Mental Health Clinician. 2013;3: 290- 291.
Mattle, 2021	Mattle AG, Aladeen T, Blondell RD, et al. *J Am Coll Clin Pharm*. 2021; 4: 424– 434.
Suzuki, 2014	Suzuki J, Matthews ML, Brick D, Nguyen MT, Wasan AD, Jamison RN, Ellner AL, Tishler LW, Weiss RD. J Opioid Manag. 2014 May-Jun;10(3):159-68.
DeRonne, 2021	DeRonne B, Wong KR, Schultz E, Jones E, Krebs EE. *American Journal of Health-System Pharmacy*, Volume 78, Issue 4, 15 February 2021, Pages 354–359.
Mailloux, 2021	Mailloux LM, Haas MT, Larew JM, DeJongh BM. Ment Health Clin. 2021;11(1):35-9.
Wu, 2020	Wu LT, John WS, Ghitza UE, et al. Addiction 2020;116: 1805-1816.

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Results - *Overall*

- All conducted in outpatient settings
- Significant heterogeneity in program design and outcomes evaluated
  - Practice model sizes included 12-150 patients
  - Study duration 5-26 months
  - All conducted in different states
- **5 Key Categories**
  1. Pharmacist Role
  2. Clinic Setting
  3. Collaborating Prescriber Type
  4. Pharmacist Practice Type
  5. Outcomes

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Results - *Pharmacist Role*

- No autonomous buprenorphine prescriptive authority for pharmacists
- 3 care models utilized pharmacists for buprenorphine dosing recommendations
- Most common pharmacist roles:
  - UDS review (62.5%)
  - Patient counseling/education (50%)
  - Buprenorphine dosing recommendation (37.5%)

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Results- *Clinic Setting*

- Three Veterans Affairs (VA) clinics
- Clinic housed within mental health, primary care, or substance abuse programs
- Most variable characteristic

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Results- *Collaborating Prescriber Type*

- MD trained in psychiatry most common (62.5%)
- Primary care/internal medicine MD (37.5%)
- Non-physician prescribers mentioned by Mattle et all and DeRonne et al

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Results - *Pharmacist Practice Type*

- Most often specialty trained in psychiatry (62.5%)
- Care models included a pain management pharmacist and a community pharmacist practicing per protocol
- Pharmacists were utilized to see patients in lieu of prescriber for routine follow up for low-risk inductions
- Telemedicine utilized in Indian Health Services

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Results - *Outcomes*

- **Treatment retention** [including medication adherence] (62.5 %) and **relapse rates** [including opioid overdose events] (25 %) most common outcomes
  - Most outcomes were improved by pharmacist involvement
  - Other concurrent confounding variables
- Other outcomes included:
  - Number of pharmacist recommendations and % implemented
  - Time spent with patients
  - Patient cravings, quality of life, psychological health, injecting risk behavior
  - Abnormal UDS
  - Criminal activity
  - Patient wait time to visit and at pharmacy
- Economic impact of pharmacist work not evaluated
  - Cost avoidance reported in one paper

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Discussion

- Pharmacist lack of autonomy in prescribing buprenorphine and ordering labs not surprising given DATA 2000 restrictions
  - Increasing autonomy in these two areas can expand access and reduce prescriber burden
- Laboratory and urine drug screen review most common role
  - Difficult to translate to management decisions without understanding drug absorption, metabolism and elimination
  - Required for effective monitoring
- Existing collaborative care models give pharmacists autonomy-> mismatch
- Opportunity to reduce provider burnout!

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Discussion

- Education is a central role
  - Patients and Prescribers alike
  - Complex pharmacokinetics and pharmacodynamics
  - Numerous formulations available
  - Dose titration, drug interactions, side effects
  - Reduce stigma
- Pharmacist MOUD training
  - Needed in PGY2 and PGY1 programs for clinical practice settings
  - Needed for all practicing pharmacists given prevalence of OUD in every practice setting

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Discussion

- Outcomes of Interest
  - Patient-Centered vs Productivity-Oriented
  - Economic impact
  - Provider perception
- Increased monitoring between visits
- Key patient outcomes examples: retention and relapse

*We challenge each pharmacist who has a role in buprenorphine management to **report** and **publish** on **their specific care models** and **patient care outcomes**, with the goal of elevating pharmacy practice and allowing others to replicate sustainable care models nationwide.*

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Future Opportunities

- Federal
  - Legislative changes to DATA 2000 regulations already proposed
- State
  - Focused advocacy with State legislators including collaborating prescribers
  - Include language describing the specific roles a pharmacist can have in buprenorphine prescribing to increase prescriber confidence with liability
- Local
  - Leverage strong support of physician champions to amend institution specific rules

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Challenges

- Collaborative practice agreements are state specific and often have specific restrictions
  - Financially sustainable for a pharmacist?
- Outpatient treatment models must be standardized
- Need for inpatient treatment models
- Future work → surveying patient and provider perception of this expanded pharmacist role

Tran TH, Swoboda H, Perticone K, et al. The substance use intervention team: a hospital-based intervention and outpatient clinic to improve care for patients with substance use disorders. *American Journal of Health-System Pharmacy* 2021;78(4):345-353. doi:10.1093/ajhp/zxaa408

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Summary/Conclusions

- Low number of published care models involved pharmacists' collaboration of buprenorphine management in the setting of OUD
- Key roles include laboratory monitoring, education, dose recommendations
- Expansion of pharmacist roles should also include increased pharmacist training
- Legislative challenges exist and pharmacists should aim to have a self-sustaining practice
- More work is needed!

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- Tran TH, Swoboda H, Perticone K, et al. The substance use intervention team: a hospital-based intervention and outpatient clinic to improve care for patients with substance use disorders. *American Journal of Health-System Pharmacy* 2021;78(4):345-353. doi:10.1093/ajhp/zxaa408

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