



COMMUNITY PHARMACY FOUNDATION

COMPLETED GRANT SYNOPSIS

Community Pharmacist Integration into Contingency Management and Education for Opioid Exposed Patients

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Objectives

- 1) To support and promote community pharmacist integration into contingency management and education for opioid exposed patients where taper is included in treatment goals.
- 2) To promote, encourage and facilitate healthcare consumer access to pharmacists to consult and provide options based on medication interaction review, OTC recommendations for managing pain and cravings, appropriate choice of supplements, and dietary/snack options readily available in the community pharmacy.
- 3) To educate community pharmacists, other pharmacists and pharmacy students regarding OTC contingency management principles and interventions while engaging in opioid taper.
- 4) To support community, FQHC, ACO and embedded primary care pharmacists and associated providers with a working toolkit to act as a reference for them and for customers who are prescribed opioids. The toolkit includes printed bag stuffers (educational leaflets), educational wall calendars, and specific evidence-based OTC interventions to use in the patient’s contingency management context.
- 5) To promote consistent, stigma-free messaging between the Medication Assisted Therapy (MAT) team and the community pharmacy team that dispenses buprenorphine prescriptions, thereby also promoting perceived integrity and positive experience by the customer in their journey to recovery.
- 6) To minimize necessity of repeat post-surgical or post-procedure opioid prescriptions in the community setting using evidence-based OTC multimodal adjunctive therapy.

Methods

Design	<ul style="list-style-type: none"> • Model and promote pharmacist participation in Medication Assisted Therapy (MAT) clinics for substance use disorder patients in the ambulatory care setting. Promote and enable community pharmacists to participate in random dose count/lot number checks for providers prescribing opioids. Educate pharmacists, pharmacy technicians, pharmacy students/residents to enable them to recommend evidence-based OTC interventions that help the patient to taper or minimize opioid exposure, and maintain resilience. • Develop and produce toolkit that includes (posted on the Community Pharmacy Foundation website): <ol style="list-style-type: none"> 1) 17-month educational wall calendar, one-year refrigerator educational calendar; 2) 8 educational leaflets addressing sleep quality, magnesium supplementation, vitamins and supplements (particularly iron, vitamins B6, B12, ascorbic acid, vitamin D, turmeric), vitamin safety, smoking cessation, opioid tapering and finding help in substance use disorder • Develop, produce and conduct educational surveys that include topics associated with OTC support for patients who are tapering or wish to minimize their exposure to opioids:
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	<ol style="list-style-type: none"> 1) A 10-question survey for patients, healthcare consumers 2) A 15-question survey for pharmacists 3) At the close of the 10-question survey, there was an invitation for the project lead to telephone after at least 6 months to determine what aspects of information provided by the pharmacist (oral, written, calendar, education leaflets) was meaningful to their pain management or substance use disorder recovery. The patient provided permission and a contact name and telephone number. <ul style="list-style-type: none"> • Develop, produce 3 x 1 hour ACPE written modules to address opportunities identified by the 15-question pharmacist survey. • Present 1 hour CPE session at a state pharmacy association meeting to address opportunities identified by the 15-question pharmacist survey and the 10-question patient survey. • Facilitate collaboration between community pharmacists and primary care practices actively tapering opioids in the chronic pain or substance use disorder contexts (includes production of 8 educational leaflets dealing with topics: magnesium, iron, Vitamin B6/B12, Vitamin C, Vitamin D supplementation, sleep quality, smoking cessation, and general minimization of opioid exposure information). <p>All products and tools developed and described are featured in the “Tools” section on the Community Pharmacy Foundation website. Project lead name: Elizabeth Dragatsi.</p>
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Study endpoints	<ul style="list-style-type: none"> • Patient Survey testing for knowledge of options available to them that do not require a prescription: <ol style="list-style-type: none"> a) As general knowledge, if they are wishing to minimize opioid exposure in future, or b) While engaging in opioid taper or minimizing opioid exposure • Pharmacist Survey testing for knowledge of: <ol style="list-style-type: none"> a) patient options based on medication interaction review, b) OTC recommendations for managing pain and cravings, c) appropriate choice of supplements, and d) dietary/snack options readily available in the community pharmacy. • Highlight examples of provider/patient/pharmacist collaboration that model how grant objectives were fulfilled, and how positive patient outcomes occurred in the course of the grant project, which also involve material(s) developed under the grant.
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Results

In baseline knowledge surveys, patients and pharmacists were asked 10 and 15 questions respectively. Topics that were answered incorrectly most often were incorporated into educational interventions. These included iron/magnesium/nutritional status, allergy/histamine status, sleep quality/gastrointestinal health, smoking concentrated sugar intake, and adverse drug-supplement-herbal interactions as they impact opioid tapering, and one question relating to the use of stigma-free language. (1)

Baseline

	N=	Overall Average Correct Response	Topics Requiring Education in Descending Priority Relating to Knowledge Base
Patients	123	51.6%	<ol style="list-style-type: none"> 1. Sugar dietary intake, and impact on analgesia, opioid cravings 2. Turmeric supplement information for low-grade inflammatory pain 3. Allergy/Histamine status, contribution to bone and exercise induced Musculo-skeletal pain, appropriate use of full histamine block

			<p>4. Gastrointestinal health and impact on many types of pain and opioid tapering efforts</p> <p>5. Comparative safety of topical analgesic products, nicotine and role in opioid tapering</p> <p>6. Acetaminophen dosage safety, equivalence of acetaminophen/ibuprofen to Percocet®/Vicodin®/Tylenol with Codeine #3® (2)</p> <p>7. Sleep quality</p>
Pharmacists	22	54.7%	<p>Impact on opioid tapering with respect to:</p> <p>1. Turmeric as adjunct</p> <p>2. Addressing allergy/histamine status</p> <p>3. Magnesium as NMDA inhibitor/salt forms/bioavailability</p> <p>4. Melatonin, Sleep quality and pain</p> <p>5. Medication Assisted Therapy (MAT) clinical pearls</p> <p>6. Smoking, MAT and pain</p> <p>7. Menthol, pain and GERD</p> <p>8. Omeprazole/simvastatin adverse drug interaction and rhabdomyelitis associated with inappropriate opioid prescribing</p> <p>9. Serum iron levels, bone pain and cravings</p> <p>9. NMDA inhibitors and opioid tapering</p> <p>10. Bidirectional opioid and sugar cravings</p> <p>11. Folic Acid/Vitamin B12 supplementation and fibromyalgia</p> <p>12. Using stigma free language, i.e. 'substance use disorder' versus 'drug or alcohol addiction'.</p>

Post Intervention Scores:

1. Live CPE Event 3/31/19 for Pharmacists and Technicians sponsored by the Maine Pharmacy Association: score was 100%, 4 questions based on topics identified from surveys, n=48
2. FREE Web based ACPE (see CEImpact.com, Course Access Code OPIOIDCPF19, click on 'My Courses', available until 10/31/2020: average score: 78% n = 45 (extensive reference list)
3. Follow-up patient/consumer satisfaction results: 70% of respondents found the educational interventions highly favorable: particular interest in sleep, vitamin and sugar relationships to pain control, n=37

Other Results

1. The project lead pharmacist was able to integrate one local pharmacy into a MAT program collaborative effort to perform random dose count/lot number audits.
2. A primary care practice enlisted the services of the project lead (an independently contracted pharmacist) to conduct monthly provider education/medication regimen reviews after hearing of initial project efforts. The pharmacist provided clinical suggestions to help patients taper their long-term prescribed opioids (n=81 patients). The average daily MME reduction was 43% for 43 patients in 7 months. Three additional community pharmacies have been integrated into this process. Efforts continue, and the practice requested to extend efforts into benzodiazepine and barbiturate tapering, with additional clinical suggestions for building resilience during the n-CoViD-19 pandemic.
3. To date, there have been no lethal opioid overdoses in the MAT program serviced by the pharmacists in the 2-year project period. (n=149, 24 months) The use of magnesium to attenuate opioid cravings, improve anger management, improve sleep quality and offer safer alternative(s) to kratom for opioid cravings have been cited as successes by patients and providers.
4. In all patients serviced during the grant project who underwent surgery, no repeat prescriptions for opioids to treat acute pain was necessary. N = 2

5. **Total number of patients who completely tapered down and off their prescribed and illicit opioids: 22**
6. This project has been selected to be presented by virtual poster session, APhA 2020.
7. The project lead was honored by the Maine Pharmacy Foundation, who nominated and presented the Upsher-Smith Excellence in Innovation Award, 2019 for work performed in this grant and a previous Community Pharmacy Foundation grant, titled *"Integrating Pharmacist Support for Thriving in Place Home Health Program."*

Conclusion

Pharmacists are strategically positioned to provide care for patients taking opioids, minimizing exposure, or recovering from opioid use disorder. When educated about addressing patient factors that readily play into the burden of reducing opioid use, while aligning with a behavioral healthcare plan that includes contingency management, this leads to a new and exciting area of pharmacy practice. *Given that long-term opioid use leads to poorer immune status when facing serious viral and bacterial infection (3), comfortable opioid tapering while maintaining resilience is particularly salient to pandemic realities.*

References

1. See **CEImpact.com, Course Access Code OPIOIDCPF19, click on 'My Courses', available until 10/31/2020**: the 3 modules have an extensive reference list, last accessed 4/29/2020.
2. Chang AK et al, Effect of a Single Dose of Oral Opioid and Nonopioid Analgesics on Acute Extremity Pain in the Emergency Department: A Randomized Clinical Trial, *JAMA*, 2017 Nov 7;318(17):1661-1667.
3. Mefford BM, Donaldson JC, Opioids and the immune system, *US Pharm*, 2020;45(3):HS-10.

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Study Participants: Maine Pharmacies: Harris Drug Store, Holland's Variety Drug, Foxcroft Pharmacy, Taylor's Drug Store, Community Pharmacies (Randolph, Waldoboro), Walgreen's Newport and Pittsfield, CVS Pharmacy-Augusta. Pharmacists: Felicity Arnold, Frank McGrady, Kris Ravin, Amelia Arnold, Paula Knight, Lori Wood, Michelle Leblanc, Kristy Krasnavage, Kevin Holland, Michelle Wilcox, Jen Knowlton.. Provider Practices: Hometown Health Center (Robin Winslow CEO, Lindsay Norton FNP), PCHC (Dr. Noah Nesin, Medical Director, Frank McGrady, Director of Pharmacy, Kris Ravin, Pharmacy Resident); HealthReach (Connie Coggins CEO, Dr. Amy Madden, Medical Director, Christina Clark, Practice Manager, Nancy Grudda, Clinical Coordinator). Maine Pharmacy Association (Amy Downing, Executive Director, Dan Mickool, President), CEImpact: Jen Moulton, Christy Lodge; Community Pharmacy Foundation: Anne Marie Kondic, Executive Director and the Board for their kind support.