



KENNEDY

PHARMACY INNOVATION CENTER



UNIVERSITY OF
SOUTH CAROLINA
College of Pharmacy

Impact of pharmacist provision of naloxone at an independent community pharmacy operating under state naloxone protocol.

Kathryn Anderson, PharmD^{1,2}, Patricia Fabel, PharmD, BCPS^{1,3}, William Stevens, PharmD², Lynn Connelly, RPh²

1. University of South Carolina College of Pharmacy 2. Medicine Mart Pharmacy 3. Kennedy Pharmacy Innovation Center

BACKGROUND

- In 2017, prescription opioids alone accounted for more than 47,000 deaths in the United States.¹
- The CDC recommends that naloxone be considered for all patients receiving more than 50 morphine milliequivalents (MME) per day.¹
- While all 50 states have laws that expand access to naloxone through pharmacy dispensing, in 2018, naloxone was provided to only 1 in 69 (1.4%) of patients dispensed a high dose opioid.¹
- A survey of pharmacies in a metropolitan area demonstrated that intranasal naloxone was available at 34% of pharmacies and more likely to be available from a chain pharmacy than an independent pharmacy.²

OBJECTIVES

- To determine if a standardized risk assessment by community pharmacists and subsequent offer to provide naloxone by protocol impacts naloxone possession rates among patients dispensed opiates.
- To identify factors associated with increased risk of opioid-related overdose that may be common among patients dispensed naloxone.

METHODS

- **Inclusion criteria:** Patients > 18 years old presenting a prescription for an opioid medication
- **Exclusion criteria:** Known allergy to naloxone
- **Study period:** November 1, 2019- February 28, 2020
- **Control period:** November 1, 2018- February 28, 2019
- **Intervention:** Offer to provide naloxone and naloxone use education (role of naloxone, signs of opioid overdose, how to administer naloxone) under SC joint protocol³
- Deidentified data from the study period was matched to a control period prior to initiation of the naloxone service to determine if community-pharmacy based naloxone dispensing improved the naloxone possession rate. (expressed as the percentage of patients dispensed an opioid prescription who also received naloxone.)
- Factors associated with increased risk of opioid-related overdose or respiratory depression were collected and reported with descriptive statistics.

RESULTS

Table 1. Medication possession rates

	Nov 2018-Feb 2019	Nov 2019-Feb 2020
	N= 183	N=251
Patients receiving naloxone	3	8
Naloxone possession ratio (NPR)	1.6%	3.2%

Figure 1. Risk factors among patients dispensed naloxone

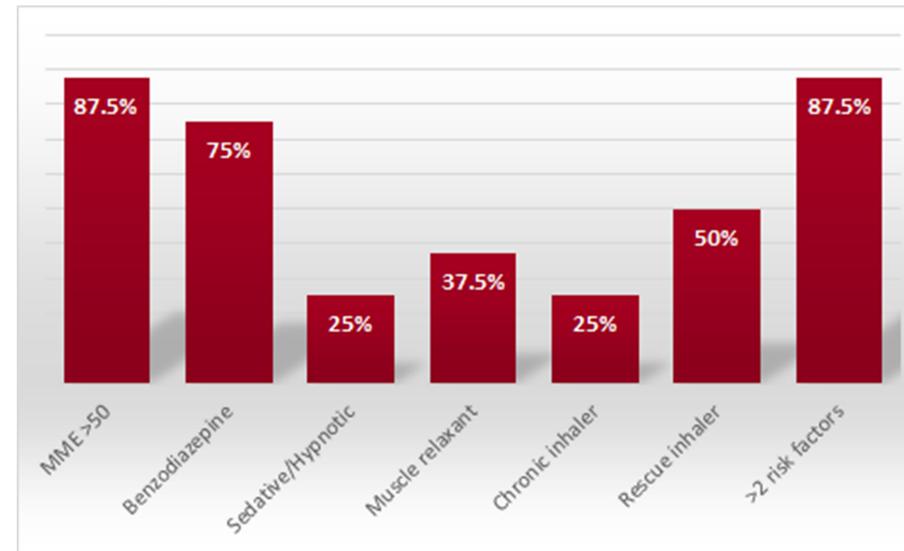
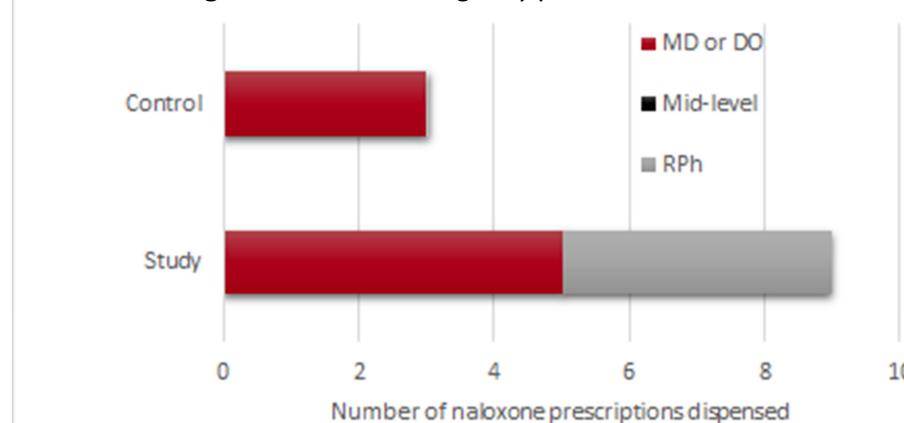


Figure 2. Naloxone origin by prescriber credential.



CONCLUSIONS

- Naloxone dispensing under state protocol did improve naloxone possession rates among patients of the independent community pharmacy.
- This study is limited by its relatively small sample size.
- Results may not be generalized to a broader population. All patients who received naloxone during the study period were white and carried third-party insurance that covered naloxone. Cost was not cited by any patient as the reason for declining naloxone.
- While a similar service could be implemented at other independent community pharmacies, patient eligibility may differ as expanded access laws vary from state to state.
- While not quantified as part of this study, receptiveness varied between patients approached about naloxone. Additional research regarding patient perceptions of pharmacist provided naloxone is warranted.
- When considering risks associated with opioid medications, safe medication disposal could be a future growth opportunity for this service.

REFERENCES

1. Guy GP, Haegerich TM, Evans ME, Losby JL, Young R, Jones CM. *Vital Signs: Pharmacy-Based Naloxone Dispensing — United States, 2012–2018.* *MMWR Morb Mortal Wkly Rep.* 2019;68(31):679-686. doi:10.15585/mmwr.mm6831e1
2. Guadamuz JS, Alexander GC, Chaudhri T, Trotzky-Sirr R, Qato DM. Availability and Cost of Naloxone Nasal Spray at Pharmacies in Philadelphia, Pennsylvania, 2017. *JAMA Netw Open.* 2019;2(6):e195388. doi:10.1001/jamanetworkopen.2019.5388
3. Gardner SR, Russell CS. The South Carolina Board of Medical Examiners and The South Carolina Board of Pharmacy's Joint Protocol to Initiate the Dispensing of Naloxone HCl Without a Prescription. http://naloxonesavessc.org/wp-content/uploads/2018/11/Joint_Naloxone_Protocol.pdf November 17, 2016. Accessed August 18, 2019.

Disclosures

The authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

ACKNOWLEDGEMENTS



Financial support for this project was provided by a grant from the Community Pharmacy Foundation.

Corresponding Author

Kathryn Anderson, PharmD | ANDERSKN@mailbox.sc.edu | (803) 791-7043