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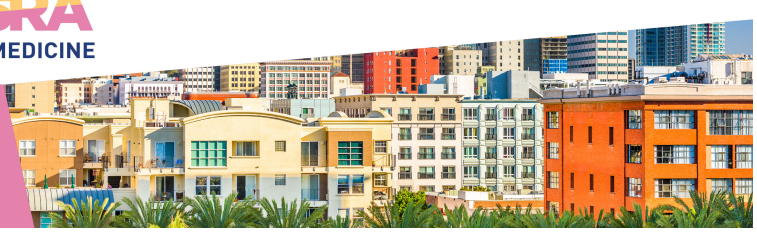

Abstract: 5388

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Co-prescription of naloxone among patients prescribed opioids after inpatient stays

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Introduction

While prescription opioids are commonly used to treat pain after injury or surgery, it has been demonstrated that patients receiving higher doses upon discharge are at increased risk of opioid overdose. [1-2] Although naloxone (an opioid antagonist) has been used to reverse opioid overdoses and has become more readily available [3], it is unknown how frequently providers co-prescribe naloxone alongside an opioid prescription.
We assessed the co-prescription trend of naloxone with an opioid within 28 days after an inpatient discharge. We hypothesized that from 2015 to 2021, there would be an increase in the proportion of inpatient discharges with a co-prescription of naloxone alongside an opioid.

Materials and Methods

This study was approved by the Institutional Review Board at our hospital (IRB#2017-0169). The requirement for written informed consent was waived given the de-identified nature of the data. Using the Truven Health MarketScan database from 2015 to 2021 (Truven Health Analytics, Inc., IBM, Armonk, NY, USA), we identified patients who filled an opioid prescription within 28 days of an inpatient discharge and further identified those with a naloxone prescription within the same 28-day period. Descriptive statistics were stratified by opioids-only and opioids+naloxone prescription ≤28 days after discharge. Variables included age, sex, region, insurance type, length of stay, and discharge status. Year of discharge was included to identify potential trends during the study period.

Results/Case Report

We identified 2,248,615 inpatient discharges between 2015 and 2021 with at least one opioid prescription within 28 days, of which 13,376 (0.6%) also had a naloxone prescription (Table 1). Factors associated with naloxone prescription (among those prescribed opioids) were age (more naloxone in the 45-64 age group), sex (more naloxone among males), hospital region (more naloxone in hospitals located in the West), insurance type (more naloxone in the HMO group), and discharge status (more naloxone when discharged to a home health service); all $p<0.05$. Overall, inpatient discharges with an opioid prescription decreased from 468,812 in 2015 to 157,689 in 2021 while there was a paradoxical increase in the number of naloxone prescriptions filled from 838 (0.2%) in 2015 to 3597 (2.3%) in 2021 (Figure 1).

Discussion

We found an increase in the number of naloxone-opioid co-prescriptions from 2015 to 2021, with various factors associated with naloxone co-prescription. Despite the increasing trend, naloxone co-prescriptions were still alarmingly low within our analysis. Further research is needed to determine if the increase of naloxone co-prescription is also existing in specific cohorts, such as those receiving higher opioid prescriptions.

References

[1] Dowell D, Ragan KR, Jones CM, Baldwin GT, Chou R (2022) CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States, 2022. MMWR. Recommendations and reports 71:1-95.
[2] Stein BD, Smart R, Jones CMet al (2021) Individual and Community Factors Associated with Naloxone Co-prescribing Among Long-term Opioid Patients: a Retrospective Analysis. J GEN INTERN MED 36:2952-2957.
[3] Green TC, Davis C, Xuan Z, Walley AY, Bratberg J (2020) Laws Mandating Coprescription of Naloxone and Their Impact on Naloxone Prescription in Five US States, 2014–2018. American journal of public health (1971) 110:881-887.

Disclosures

Yes

Tables / Images

Figure 1. Trends in naloxone co-prescription among all discharges with an opioid prescription

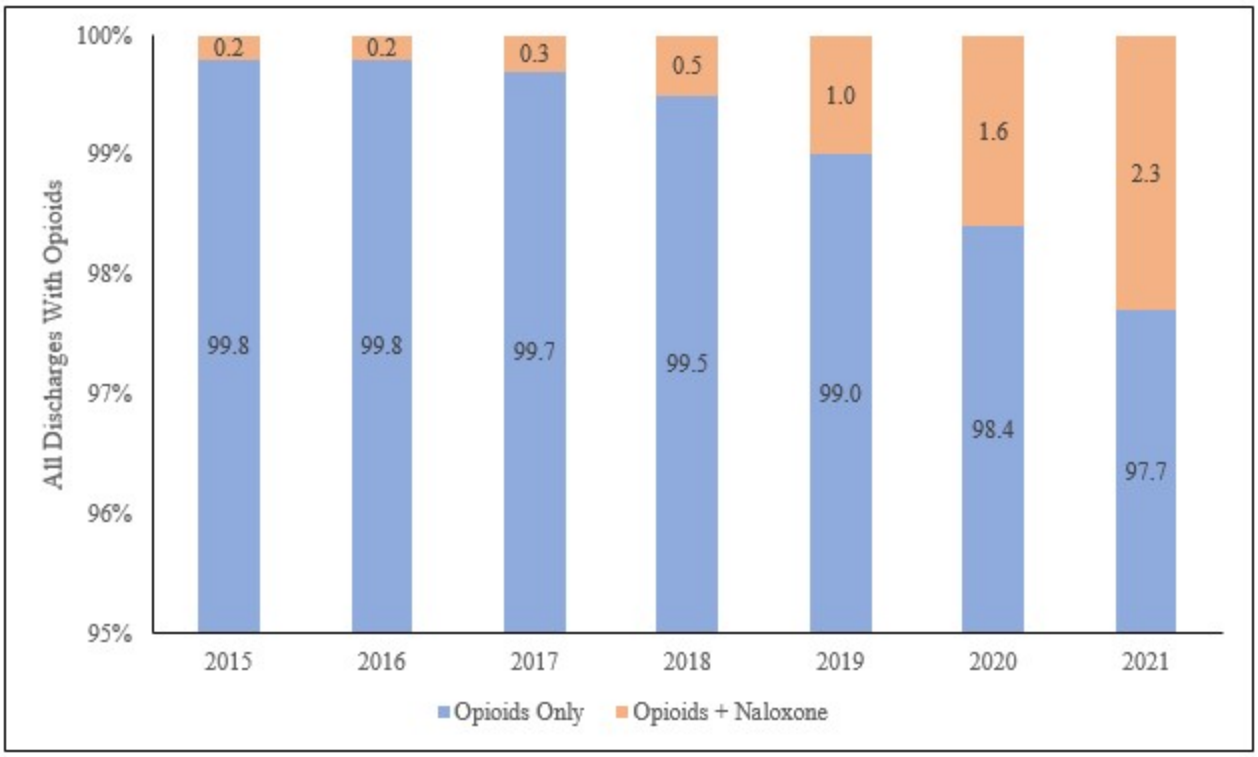

Table 1. Patient and hospital characteristics by opioids only and opioid co-prescription with naloxone (2015–2021)

	Opioids Only (n=2,234,879)		Opioids + Naloxone (n=13,736)		
	N	**%**	**N**	**%**	**P-value**
Age					<.0001
0–17	52689	2.4	319	2.3	
18–44	985501	44.1	4940	36.0	
45–64	1196689	53.5	8537	62.2	
Age, median [IQR]	47.0 [33.0–57.0]		50.0 [37.0–58.0]		<.0001
Sex					<.0001
Male	762616	34.1	6226	45.3	
Female	1472263	65.9	7510	54.7	
Region					<.0001
Northeast	308557	13.8	1619	11.8	
North Central	488037	21.8	2054	15.0	
South	1115519	49.9	6022	43.8	
West	318158	14.2	4007	29.2	
Unknown	4608	0.2	34	0.3	
Insurance					<.0001
Comprehensive	73593	3.3	466	3.4	
EPO	17869	0.8	88	0.6	
HMO	235522	10.5	2175	15.8	
POS	180763	8.1	1343	9.8	
PPO	1221165	54.6	6808	49.6	
POS w/capitation	16063	0.7	60	0.4	
CDHP/HDHP	489904	21.9	2796	20.4	
Length of stay, median [IQR]	3.0 [2.0–4.0]		3.0 [2.0–6.0]		<.0001
Discharge status					<.0001
Home	1716382	76.8	9025	65.7	
Home health service	259792	11.6	2867	20.9	
Transfer to other facility	74410	3.3	802	5.8	
Other/unknown	184295	8.3	1042	7.6	
Year of procedure*					<.0001
2015	467974	99.8	838	0.2	
2016	448295	99.8	891	0.2	
2017	392742	99.7	993	0.3	
2018	327357	99.5	1745	0.5	
2019	270099	99.0	2799	1.0	
2020	174320	98.4	2873	1.6	
2021	154092	97.7	3597	2.3	

* Row percent listed