# Appropriate Opioid Prescriptions

Prepared by: David Melnick, MD, MPH and Jonathan E. Kohler, MD, MA
University of Wisconsin



#### Overview

- Why focus on opioids? A brief history of the problem
- Overview of evidence and current research
- Ideas for quantity of pills for various procedures
- Future focus on pain management
- How do we move forward?
  - Develop guidelines
  - Disseminate the information
  - Consider hospital based efforts

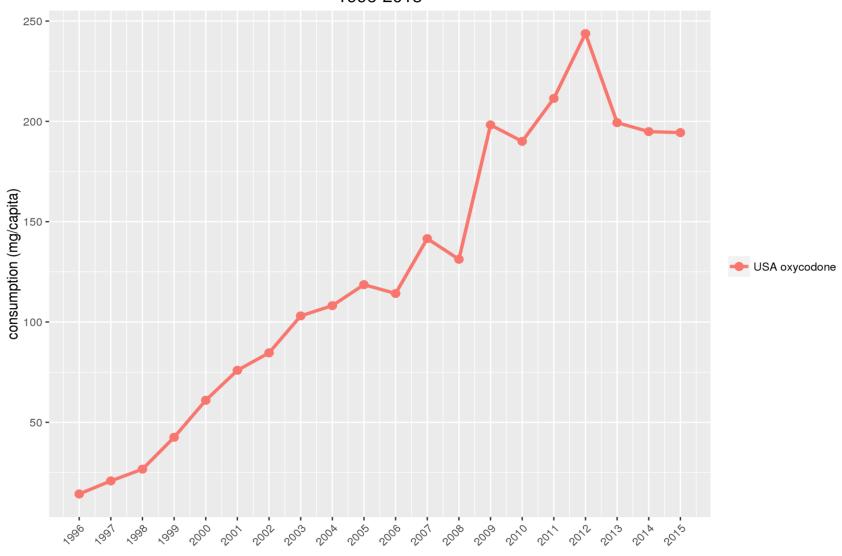


# What do you think?

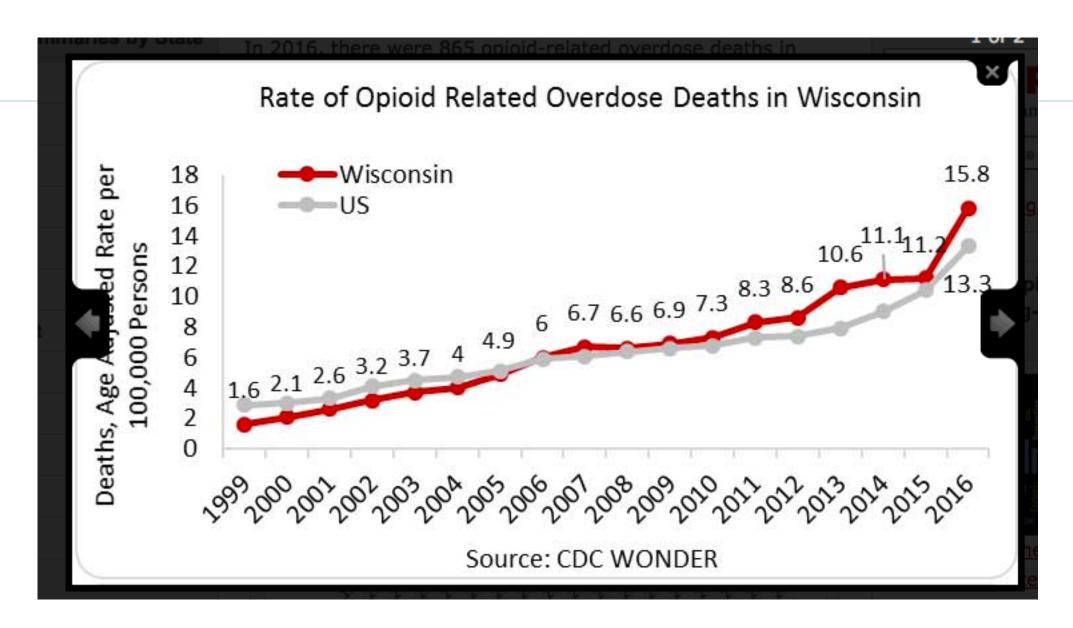
- A. I prescribe too many opioids
- B. I prescribe just the right number of opioids
- C. I don't prescribe enough opioids



#### USA oxycodone consumption (mg/capita) 1996-2015



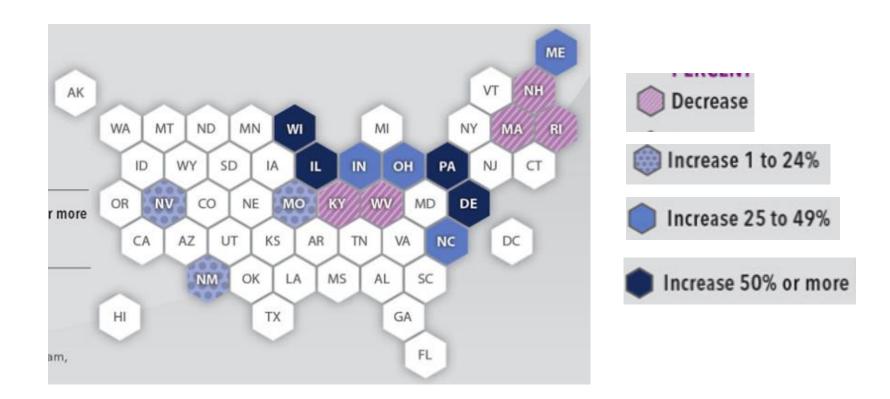
Sources: International Narcotics Control Board; World Health Organization population data By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2018



https://www.drugabuse.gov/drugs-abuse/opioids/opioid-summaries-by-state/wisconsin-opioid-summary



#### Trends in ED visits for Opioid OD- WI highest.



SOURCE: CDC's Enhanced State Opioid Overdose Surveillance (ESOOS) Program, 16 states reporting percent changes from July 2016 through September 2017.



# Heroin Deaths in Madison, WI (Police Chief Blog)

- June 2018.....projected to be the WORST MONTH EVER in the City of Madison for heroin deaths and the second worst for overdoses. A sad truth.
- There were **35 known overdoses** in June (2018). In June (2017) there were **9**; thus we saw a **289% increase**.
- There were 11 suspected deaths from heroin overdoses in June (2018). In June (2017) there were 2; thus we saw a 450% increase!
- Statewide, 833 overdose deaths from opioids in 2017, the highest number ever in Wisconsin.

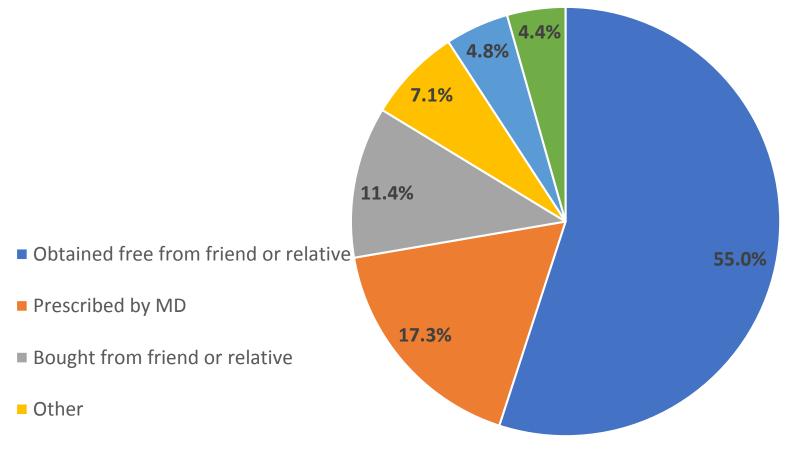


#### What is the most common source in an opioid overdose?

- A. Free from a friend or relative
- B. Prescribed by a physician
- C. Bought illegally from a dealer
- D. Taken from a friend or relative without permission



#### Source of Abused Prescriptions



- Took from friend or relative without asking
- Got from drug dealer or stranger

https://www.cdc.gov/drugoverdose/data/prescribing.html



#### **Our Goal**

To prescribe an appropriate quantity of opioids for postoperative pain control to avoid excess pills as well as minimize the need for refills.



#### Laparoscopic cholecystectomy

- A. No opioids
- B. 10 or fewer pills
- C. 11 20 pills
- D. 21 or more pills
- E. Not applicable in my practice



#### Laparoscopic appendectomy

- A. No opioids
- B. 10 or fewer pills
- C. 11 20 pills
- D. 21 or more pills
- E. Not applicable in my practice



#### Laparoscopic colectomy

- A. No opioids
- B. 10 or fewer pills
- C. 11 20 pills
- D. 21 or more pills
- E. Not applicable in my practice



#### Lumpectomy and sentinel node biopsy

- A. No opioids
- B. 10 or fewer pills
- C. 11 20 pills
- D. 21 or more pills
- E. Not applicable in my practice



#### Studies in the Surgical Literature

- Hill et al. JACS 2017
  - Inpatient procedures. # pills day prior to discharge
    - 0 = no opioids
    - 1-3 = 15 pills
    - >= 4 : 30 pills
- Sekhri Annals of Surgery 2017
  - Higher Rx volume does not lower refill risk.
  - Acute opioid Rx may lead to long term use.
- Hill et al Annals of Surgery 2017
  - Recommended lump: 5; lump/SLN bx 10; hernia/lap chole 15



# Opioid Prescribing Recommendations: Michigan OPEN

Procedure	Hydrocodone (Norco)	Oxycodone
	5 mg tablets	5 mg tablets
	Codeine (Tylenol #3)	
	30 mg tablets	Hydromorphone
	Tramadol	(Dilaudid)
	50 mg tablets	2 mg tablets
Laparoscopic Cholecystectomy	15	10
Laparoscopic Appendectomy	15	10
Inguinal/Femoral Hernia Repair (open/laparoscopic)	15	10
Open Incisional Hernia Repair	30	20
Laparoscopic Colectomy	30	20
Open Colectomy	30	20
lleostomy/Colostomy Creation, Re-siting, or Closure	40	25
Open Small Bowel Resection or Enterolysis	30	20
Thyroidectomy	10	5
Hysterectomy		
Vaginal	20	10
Laparoscopic & Robotic	25	15
Abdominal	35	25
Breast Biopsy or Lumpectomy Alone	10	5
Lumpectomy + Sentinel Lymph Node Biopsy	15	10
Sentinel Lymph Node Biopsy Alone	15	10
Simple Mastectomy ± Sentinel Lymph Node Biopsy	30	20
Modified Radical Mastectomy or Axillary Lymph Node Dissection	45	30
Wide Local Excision ± Sentinel Lymph Node Biopsy	30	20

Table 2. Summary of pills prescribed versus pills taken and proportion of pills unused per prescription by operation

Operation	Pills prescribed: mean (range)	Pills used": mean (range)	Pills unused, No. (%)
Alloperations	26 (5-80)	9 (0-76)	17 (65)
Laparoscopic cholecystectomy (n=90, 24%)	28 (10-80)	12 (0-60)	16 (57)
Inguinal hernia repair	26 (10-80)	9 (0-60)	17 (65)
Unilateral (n=114, 30.6%)	27 (10-80)	10 (0-60)	17 (63)
Bilateral (n=59, 15.8%)	22 (10-60)	8 (0-53)	14 (64)
Umbilical hernia repair (n=60, 16.1%)	22 (10-80)	9 (0-60)	13 (59)
Lumpectomy with SLNBx (n=17, 4.6%)	18 (5-60)	5 (0-60)	13 (72)
Lumpectomy (n=33, 8.9%)	13 (5-30)	2 (0-10)	11 (85)

<sup>\*</sup>Significant difference in number of pills used between procedures (p<0.05).



#### Recommendations using hydrocodone 5 mg tablets

Lumpectomy: 5-10

Lumpectomy with SLN biopsy: 5-10

Laparoscopic hernia/chole: 10-15

Umbilical hernia: 10-15

Open abdominal operation: 15 - 30



# What do you think?

- A. Changing my opioid prescribing would be easy
- B. Changing my opioid prescribing would be hard



#### Target audience for dissemination

Present to residents and/or advanced practice providers

- Present to surgeons who perform the targeted procedures
- Consider presentation to pre-, intra- and post-operative nursing staff so they can reinforce the message



# Did practices change? Anecdotal results

- "I absolutely saw a change in my prescribing practices over the last two years, (end of intern year my average hernia got like 20-30 oxy, now that's like 5-10)."
- "Yes, I for SURE changed my opioid prescribing habits! ... I would routinely give 20-30 tabs for an outpatient procedure, compared to now my practice is to give 0-5 tabs."
- Breast surgeons order set now prescribes 5-10 pills now, decreased from historic numbers of 30.



#### Work in Progress

- We can continue to fine-tune our prescribing practices in both inpatient and outpatient operations.
- Recognize that elderly need fewer pills.
- As we prescribe less and educate patients more about expectations regarding postoperative pain, patients will likely use less.
- Could be incorporated into the EHR.
- Educate about disposal.



#### Ideas for table discussions

- Do you feel this topic warrants inclusion in the SCW?
- How should guidelines be developed regarding opioid prescribing?
- Who should contribute to making recommendations for guidelines and for approving them?
- How should the information we gather be disseminated?
- Should we evaluate Wisconsin surgeons' prescribing practices on a statewide level? On an individual level?
- Should we work with states like Michigan and Illinois who are also working on this problem?

