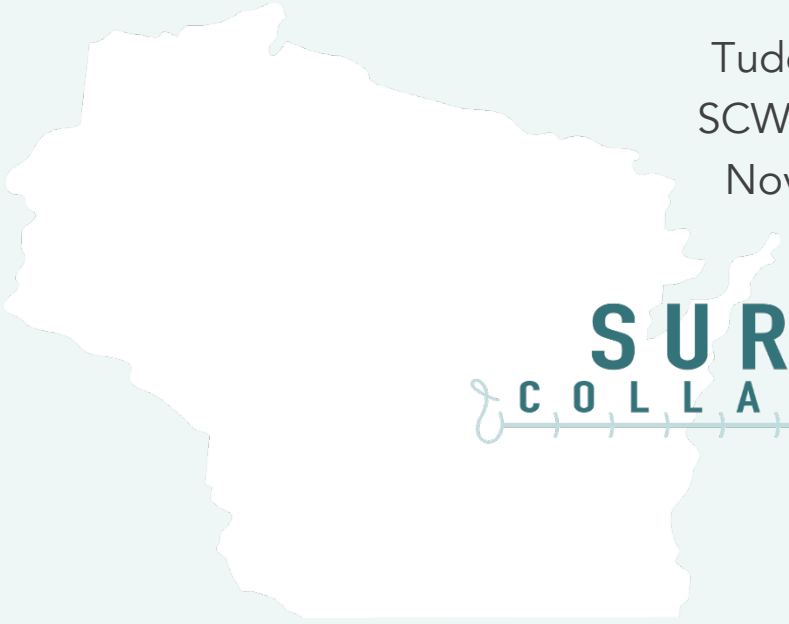
Enhancing Opioid Stewardship Among Surgeons

Tudor Borza, MD, MS

SCW Member Meeting

November 3rd, 2018



SURGICAL COLLABORATIVE OF WISCONSIN

Overview

Background of opioid epidemic

Surgeon role

Evidence for opioid reduction in surgery

SCW opioid reduction strategy

- Targeting post-operative prescribing following laparoscopic cholecystectomy
- Current prescribing patterns at the state level
- Description of individual report

SURGICAL COLLABORATIVE OF WISCONSIN

Opioid Epidemic Nationally

17.4% of the population filled at least one prescription for an opioid in 2017

191,146,822 opioid prescriptions dispensed

- 58.5 prescriptions per 100 persons

CDC National Center for Injury Prevention and Control | 2018

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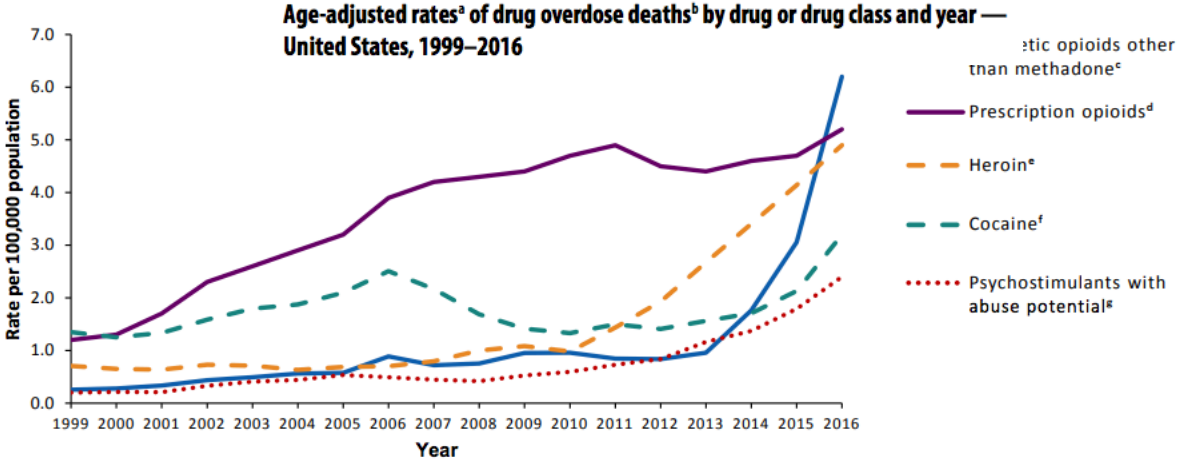
Opioid Epidemic Nationally

42,249 persons in the United States died from drug overdoses involving opioids

- 42% due to prescription opioids



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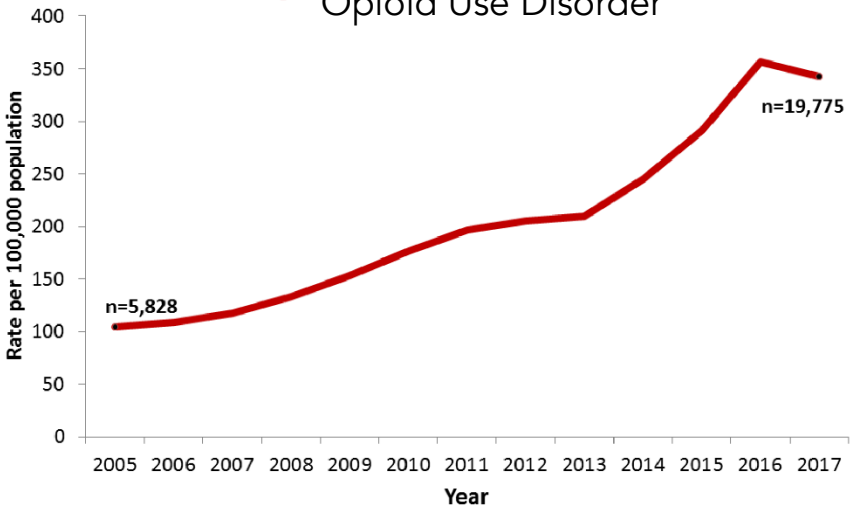
Opioid Epidemic in Wisconsin

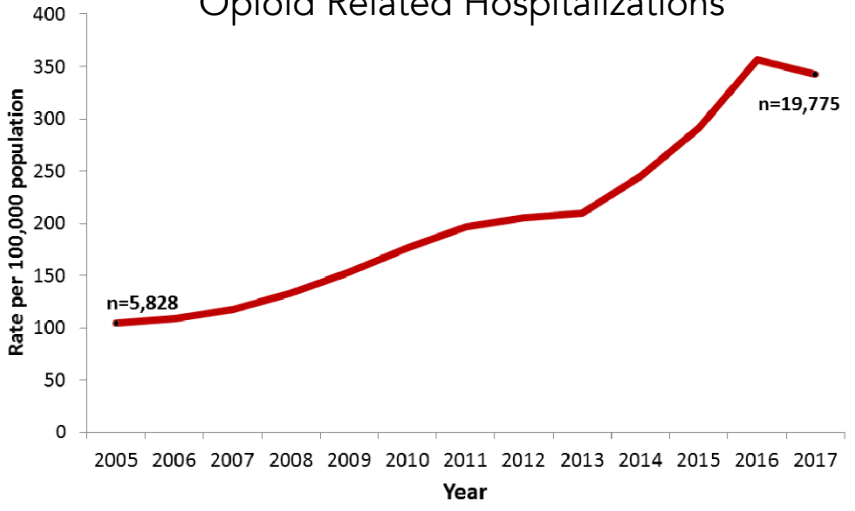
883 opioid overdose deaths in 2017

- 63% due to prescription opioids

Opioid Use Disorder



Opioid Related Hospitalizations



Wisconsin Department of Health Services, Office of Health Informatics and Opioid Harm Prevention Program

SURGICAL COLLABORATIVE OF WISCONSIN

Surgeon Role

10% of all opioid prescriptions

- Family practice 18%, Pain medicine 5%

2-5% of opioid naïve patients become addicted following surgery

Paucity of national data or guidelines in surgical populations

SURGICAL COLLABORATIVE OF WISCONSIN

Evidence for Opioid Reduction in Surgery

Michigan Opioid Prescribing Engagement Network (OPEN)

Illinois Surgical Quality Improvement Collaborative

Opioids After Surgery Work Group

OPEN
OPIOID PRESCRIBING ENGAGEMENT NETWORK

Acute Care Opioid Treatment and Prescribing Recommendations:

Summary of Selected Best Practices

These recommendations are to be used as a clinical tool, but they do not replace clinician judgment.

Procedure
Laparoscopic Cholecystectomy
Laparoscopic Appendectomy
Inguinal/Femoral Hernia Repair (open/laparosc
Open Incisional Hernia Repair
Laparoscopic Colectomy
Open Colectomy
Ileostomy/Colostomy Creation, Re-siting, or Cl
Open Small Bowel Resection or Enterolysis
Thyroidectomy
Hysterectomy
Vaginal
Laparoscopic & Robotic
Abdominal
Breast Biopsy or Lumpectomy Alone
Lumpectomy + Sentinel Lymph Node Biopsy
Sentinel Lymph Node Biopsy Alone
Simple Mastectomy ± Sentinel Lymph Node Bi
Modified Radical Mastectomy or Axillary Lymp
Wide Local Excision ± Sentinel Lymph Node B

Surgical Department

Preoperative Counseling: For patients not using opioids before surgery

- Discuss the expectations regarding recovery and pain management goals with the patient.
- Educate the patient regarding safe opioid use, storage, and disposal.
- Determine the patient's current medications (e.g., sleep aids, benzodiazepines), and any high-risk behaviors or diagnosis (e.g., substance use disorder, depression, or anxiety).
- Do NOT provide opioid prescription, for postoperative use, prior to surgery date.

Intraoperative

- Consider nerve block, local anesthetic catheter or an epidural when appropriate.
- Consider non-opioid medications when appropriate (e.g., ketorolac).

Postoperative

- Meperidine (Demerol) should NOT be used for outpatient surgeries.
- If opioids are deemed appropriate therapy, oral is preferred over IV route.
- Ensure all nursing, ancillary staff and written discharge instructions communicate consistent messaging regarding functional pain management goals.

For patients discharged from surgical department with an opioid prescription

- The prescription drug monitoring program (PDMP) must be accessed prior to prescribing controlled substances schedules 2-5, in compliance with Michigan law.
- Non-opioid therapies should be encouraged as a primary treatment for pain management (e.g., acetaminophen, ibuprofen).
- Non-pharmacologic therapies should be encouraged (e.g., ice, elevation, physical therapy).
- Do NOT prescribe opioids with other sedative medications (e.g., benzodiazepines).
- Short-acting opioids should be prescribed for no more than 3-5 day courses (e.g., hydrocodone, oxycodone).
- Fentanyl or Long-acting opioids such as methadone, OxyContin and should NOT be prescribed to opioid naïve patients.
- Consider offering a naloxone co-prescription to patients who may be at increased risk for overdose, including those with a history of overdose, a substance use disorder, those already prescribed benzodiazepines, and patients who are receiving higher doses of opioids (e.g., >50 MME/Day).
- Educate patient and parent/guardian (for minors) regarding safe use of opioids, potential side effects, overdose risks, and developing dependence or addiction.
- Educate patient on tapering of opioids as surgical pain resolves.
- Refer to opioidprescribing.info for free prescribing recommendations for many types of surgeries.
- Refer and provide resources for patients who have or are suspected to have a substance use disorder.

PDOAC Prescription Drug & Opioid Abuse Commission | OPEN | INJURY PREVENTION CENTER UNIVERSITY OF MICHIGAN | MDHHS

Updated and Approved by the PDOAC June 26, 2018

SURGICAL COLLABORATIVE OF WISCONSIN

Journal of the American College of Surgeons

Opioid-Prescribing Guidelines for Common Surgical Procedures: An Expert Panel Consensus

Heidi N Overton, MD, Marie N Hanna, MD, MEHP, William E Bruhn, BS, Susan Hutfless, PhD, MS, Mark C Bicket, MD, Martin A Makary, MD, MPH, FACS, for the Opioids After Surgery Workgroup

Table 1. Johns Hopkins Expert Panel Recommendations for Ideal Range of Oxycodone 5-mg Tablets to Prescribe to Opioid-Naïve Patients on Discharge after Undergoing Select Procedures

Procedure	Range (minimum–maximum)
General surgery	
Laparoscopic cholecystectomy (procedure 1)*	0–10
Laparoscopic inguinal hernia repair, unilateral (procedure 2)*	0–15
Open inguinal hernia repair, unilateral (procedure 3)*	0–10
Open umbilical hernia repair	0–15
Breast surgery	
Partial mastectomy without sentinel lymph node biopsy (procedure 4)*	0–10
Partial mastectomy with sentinel lymph node biopsy (procedure 5)*	0–15
Thoracic surgery	
Video-assisted thoracoscopic wedge resection	0–20
Orthopaedic surgery	
Arthroscopic partial meniscectomy	0–10
Arthroscopic ACL/PCL repair	0–20
Arthroscopic rotator cuff repair	0–20
ORIF of the ankle	0–20
Gynecologic surgery and obstetric delivery	
Open hysterectomy	0–20
Minimally invasive hysterectomy	0–10
Uncomplicated cesarean delivery	0–10
Uncomplicated vaginal delivery	0
Urologic surgery	
Robotic retropubic prostatectomy	0–10
Otolaryngology	
Thyroidectomy, partial or total	0–15
Cochlear implant	0
Cardiac surgery	
Coronary artery bypass grafting	0–20
Cardiac catheterization	0

Panel members included surgeons, surgical residents, pain specialists, surgical nurse practitioners, patients, and pharmacists.
*Procedures with available literature on amount of opioids to prescribe on discharge at the time the panel convened. As a comparison to the table above, the following recommendations from Hill and colleagues[6] for the ideal number of oxycodone 5-mg tablets are listed: (procedure 1) ≤ 15 pills, (procedure 2) ≤ 15 pills, (procedure 3) ≤ 15 pills, (procedure 4) ≤ 5 pills, and (procedure 5) ≤ 10 pills.
ACL, anterior cruciate ligament; ORIF, open reduction and internal fixation; PCL, posterior cruciate ligament.

SURGICAL COLLABORATIVE OF WISCONSIN

SCW Opioid Reduction Strategy

Preoperative

- Assessment of prior opioid use
- Counseling regarding risks of opioids
- Counseling regarding pain expectations

Perioperative

- Alternative pre- and intraoperative pain management
- Use of non-opioid analgesia
- Minimizing discharge opioid prescribing

Post Discharge

- Education regarding opioid tapering
- Unused opioid disposal
- Monitoring for long term use
- Consideration of naloxone prescription

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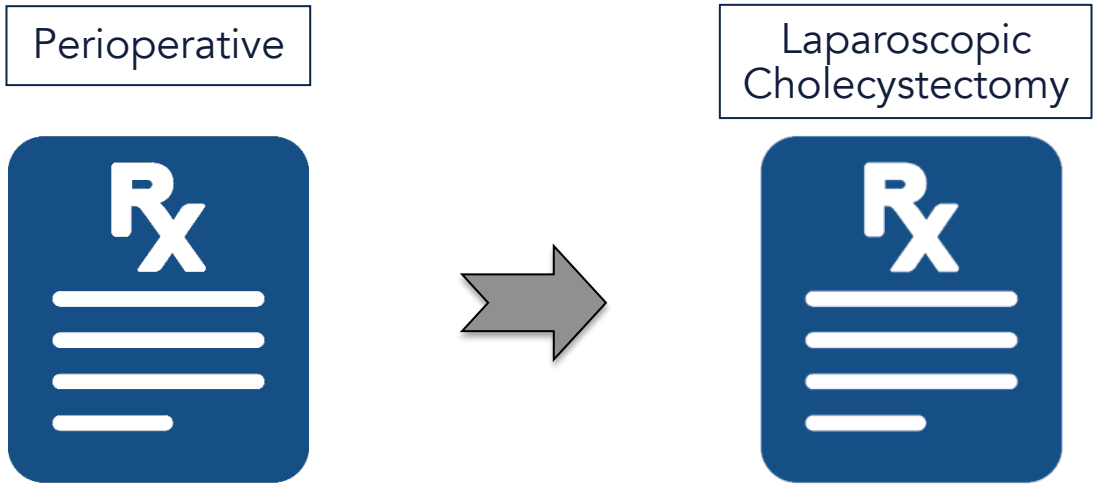
Starting with Laparoscopic Cholecystectomy



GOAL: Reach a consensus among collaborative members regarding "Best Practice" prescribing of opioid analgesics following laparoscopic cholecystectomy and identify strategies to achieve this threshold.

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Starting with Laparoscopic Cholecystectomy

Common procedure performed by many SCW members

Availability of expert recommendations from other collaboratives and working groups

SURGICAL COLLABORATIVE OF WISCONSIN

Starting with Laparoscopic Cholecystectomy

- Understand current prescribing patterns
  - State level prescribing patterns
  - Individual surgeon benchmarked reports
- Agree upon SCW threshold
- Provide education regarding alternative and adjunct pain management strategies
- Allow for quantifiable assessment of improvement and serve as template for subsequent procedures

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7-day Postoperative Prescribing

- Opioid naïve patients
  - No fills in previous 6 months
- Patients undergoing laparoscopic cholecystectomy
- Individual surgeon and facility level data
  - Surgery form July 2016 through June 2017

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7-day Postoperative Prescribing

- 73% of patients filled an opioid prescription

- Most commonly prescribed medications
  - Norco (hydrocodone/acetaminophen) - 57%
  - Percocet (oxycodone/acetaminophen) - 19%
  - Oxycodone -15%

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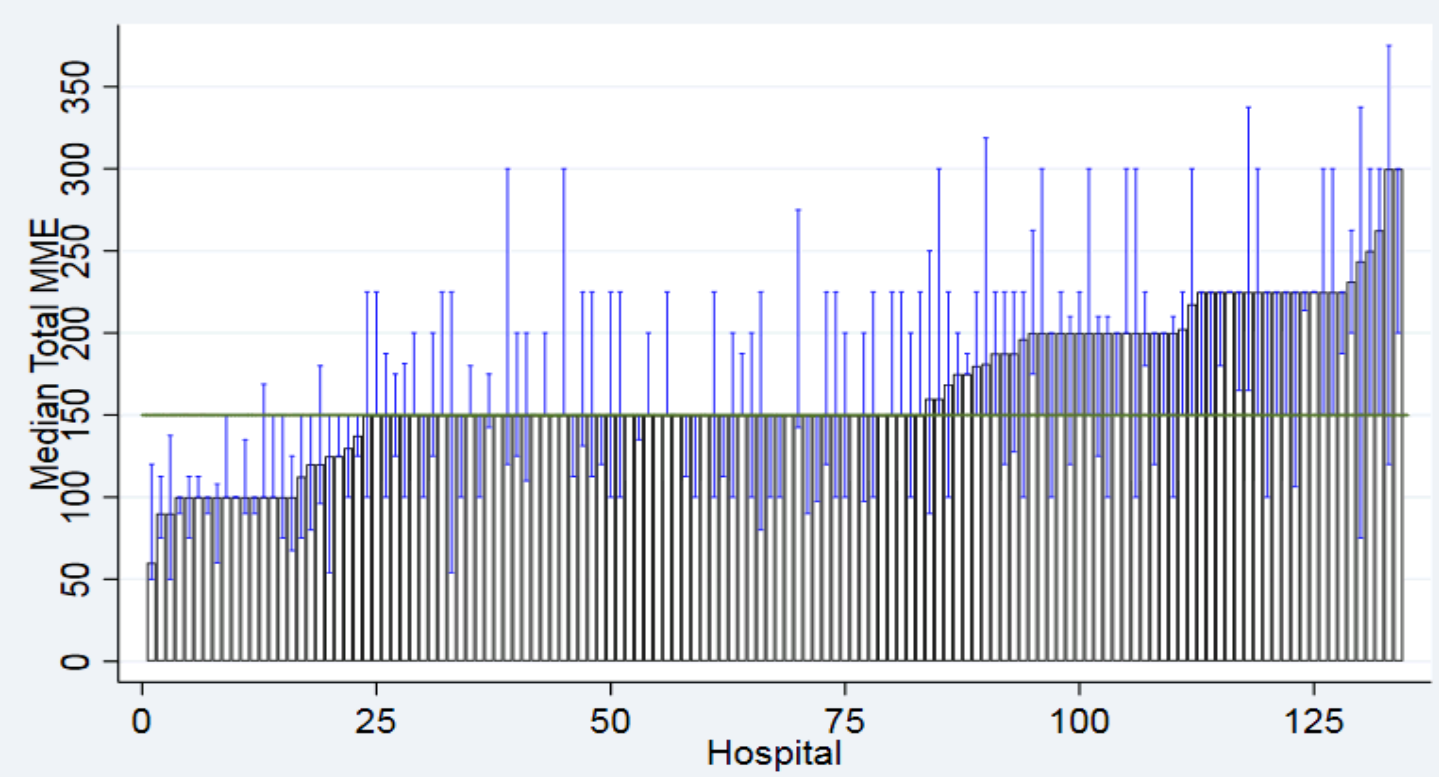
Hospital-Level Variation



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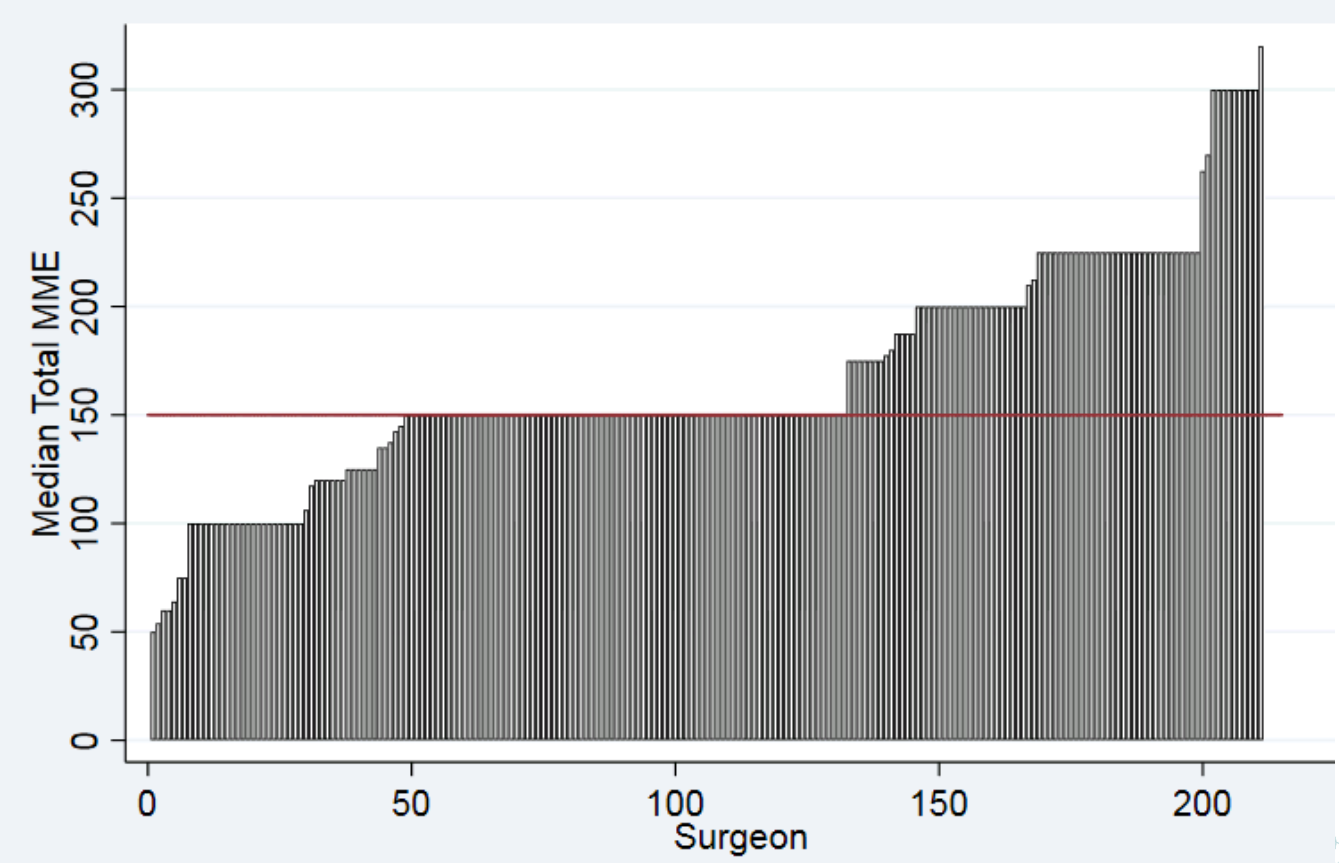
Surgeon-Level Variation



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	Opioid Prescribing Recommendation*	Participating Hospitals	All WI Hospitals
Number of Cases	n/a	1,693	3,986
Hydrocodone (Norco) 5 mg Tablets (Median, IQR)	15	30 (20-40)	30 (20-30)
Codeine (Tylenol #3) 30 mg Tablets (Median, IQR)	15	30 (15-30)	25 (20-30)
Tramadol 50 mg Tablets (Median, IQR)	15	30 (20-40)	30 (20-35)
Oxycodone 5 mg Tablets (Median, IQR)	10	30 (20-40)	30 (20-40)
Hydromorphone (Dilaudid) 2 mg Tablets (Median, IQR)	10	70 (20-120)	25 (18-60)

SURGICAL COLLABORATIVE OF WISCONSIN

Develop a consensus threshold for the amount of opioids prescribed postoperatively

Address barriers to decreasing postoperative prescribing

Increase use of non-opioid analgesics

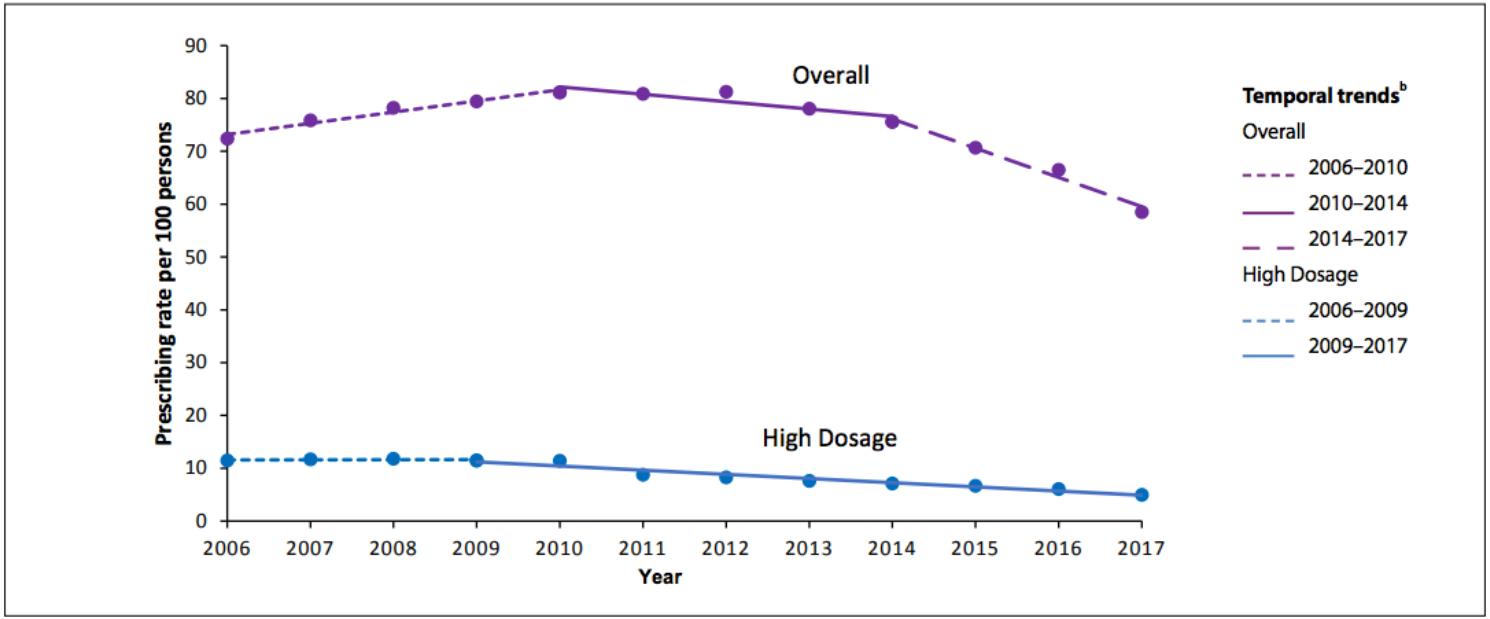
Identify additional procedures to target

SURGICAL COLLABORATIVE OF WISCONSIN

Trends in Opioid Prescribing

FIGURE 1A

Annual opioid prescribing rates overall and for high-dosage prescriptions[a] (≥ 90 MME/day)[b] — United States, 2006–2017



CDC National Center for Injury Prevention and Control | 2018

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OPEN
OPIOID PRESCRIBING ENGAGEMENT NETWORK

Opioid Medication Summary and Michigan OPEN Recommendations

Procedure	Qty.	Discharge Rx
Cholecystectomy	4	Oxycodone
Inguinal Hernia	10	Oxycodone
Sleeve Gastrectomy	10	Oxycodone
Prostatectomy	6	Oxycodone
Sinus Surgery	8	Oxycodone
Thyroidectomy	5	Oxycodone*

*Or Tramadol 50mg as decided by care team

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73% of patients undergoing lap chole procedures had 1 or more opioid fills within 7 days of surgery

Opioid	Percent
Acetaminophen/Hydrocodone Bita	1.0
Acetaminophen/codeine Phosphat	2.2
Acetaminophen/hydrocodone Bita	57.2
Acetaminophen/oxycodone Hydroc	19.0
Acetaminophen/tramadol Hydroch	0.1
Codeine Sulfate	0.1
Fentanyl	0.1
Hydrocodone Bitartrate/ibuprof	0.0
Hydromorphone Hydrochloride	0.5
Methadone Hydrochloride	0.3
Morphine Sulfate	0.2
Oxycodone Hydrochloride	14.9
Tapentadol Hydrochloride	0.1
Tramadol Hydrochloride	4.4

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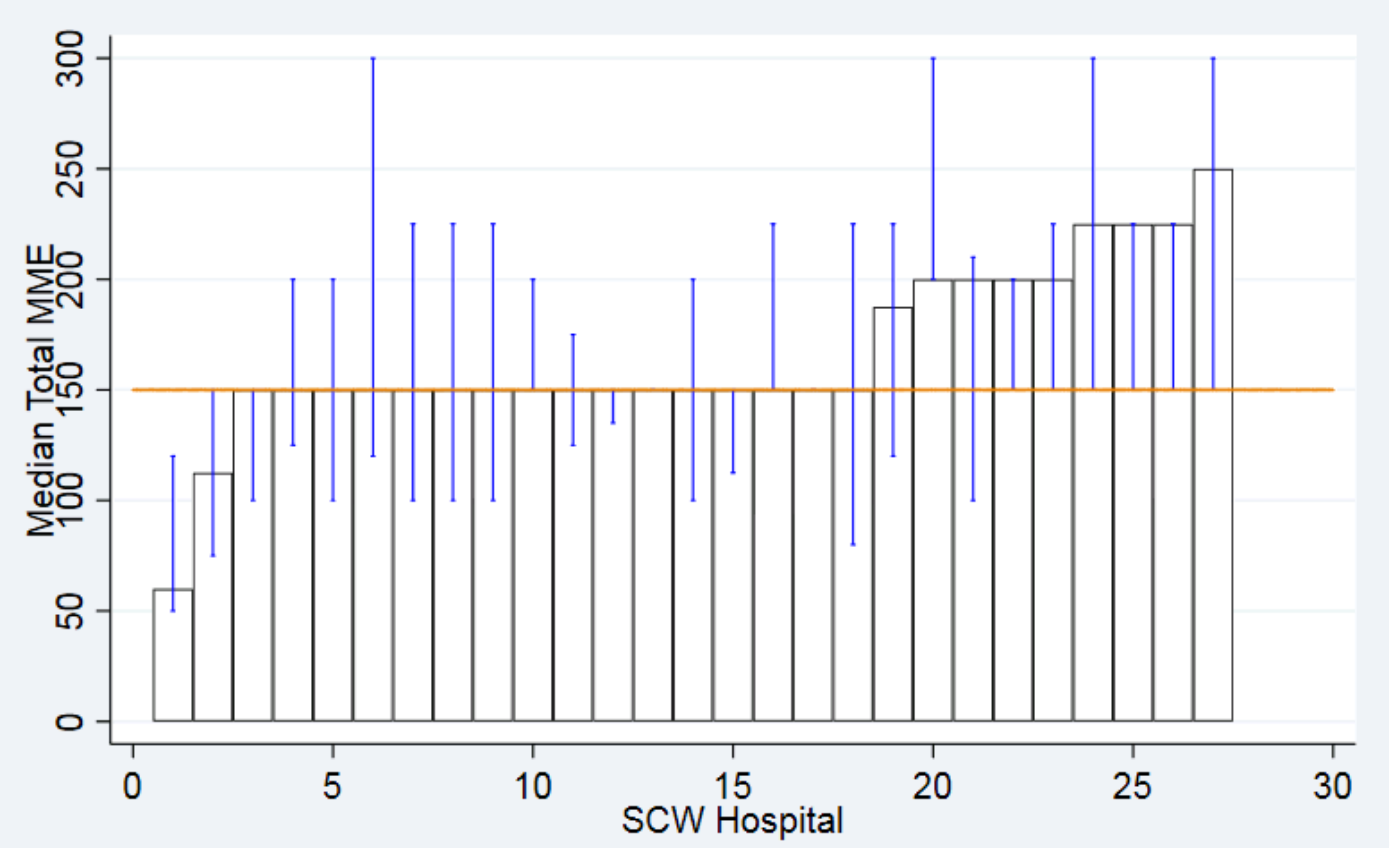
Variation in Median (IQR) Total MME Filled within 7 Days of Lap Chole Procedure Among SCW Hospitals



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