SURGICAL OPIOID STEWARDSHIP RESOURCE TOOLKIT

For Surgical Providers and Care Teams

Developed by the **P**ennsylvania **O**pioid **S**urgical **S**tewardship **E**nterprise in partnership with the Pennsylvania NSQIP Consortium

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Purpose of the Toolkit

- **WHO:** This toolkit is intended for surgical providers, care teams, and anyone who works directly with surgical patients.
- **WHAT:** The toolkit advances a multi-faceted approach to opioid surgical stewardship, using multi-pronged approaches to reduce inappropriate opioid use among surgical patients.
- **HOW:** The toolkit includes curated external resources such as trainings, tools, and evidence about a series of topics related to opioid use and surgical practice. Resource citations and links are indicated in slide notes. Share with your colleagues and care teams, in group settings or through individual study, to encourage a culture of best practice around opioid stewardship.

Customizable File

- This toolkit file is editable. Hospitals and health systems are invited to add institution-specific slides and information as desired.
- For those who seek to preserve quality control of the original material before sharing widely, it is recommended that you protect the file by adding password protection or marking as final.
- Potential customized material might include:
    - Institution-specific prescribing data over time
    - Contact information for a health system or hospital's opioid task force
    - Selected screening and risk assessment tools or referrals
    - Selected prescribing guidelines, EMR maximums, and order set information
    - Relevant institution-specific training offerings
    - Patient educational resources or on-campus or nearby disposal site locations

PENNJ-SOS

Pennsylvania/New Jersey Surgical Opioid Stewardship (PENNJ-SOS) is a quality improvement collaborative facilitated by the Health Care Improvement Foundation.

PENNJ-SOS is housed within the Pennsylvania NSQIP Consortium.

Through patient- and provider-facing activities, the collaborative's aim is to reduce inappropriate use of opioids among patients undergoing surgery in Pennsylvania.

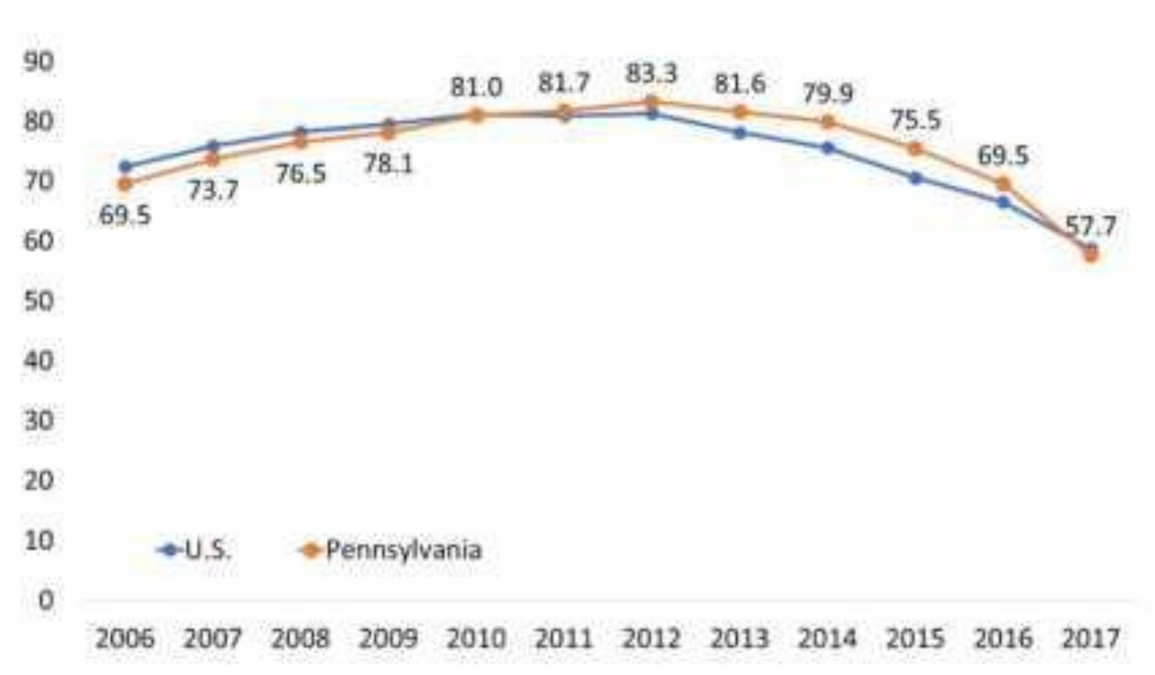
This toolkit was created by the PENNJ-SOS Steering Committee.

Visit our PENNJ-SOS website for program information and resources.

The Opioid Epidemic

- In 2016, more than 11.5 million Americans reported misusing prescription opioids such as oxycodone and hydrocodone in the past year.[1]
- In 2018, 135 opioid overdose deaths occurred on average, every day.[2]
- Prescription opioid use is a risk factor for heroin use. Data from 2002-2012 indicate the incidence of starting heroin use was 19 times higher among people who reported nonmedical pain reliever use (NMPR) compared to those who did not report NMPR use.[3]

Opioids and Pennsylvania



The U.S. and Pennsylvania Opioid Prescribing Rate per 100 persons.[1]
https://www.drugabuse.gov/opioid-summaries-by-state/pennsylvania-opioid-summary

- After six consecutive years above the national prescribing average, Pennsylvania's rate of opioid prescribing was lower than the national average in 2017.[1]
- Also in 2017, 5,388 drug overdose deaths occurred in Pennsylvania, the highest number of any state.[2]
- Pennsylvania has the third-highest age-adjusted rate (44.3) of drug overdose death of any state.[2]

Surgery and the Opioid Epidemic

- In 2017, prescribers in the United States wrote 191 million opioid prescriptions.[1]
- After pain medicine specialists, surgeons write the highest number of outpatient opioid prescriptions.[2]
- On average, surgery patients take only 27% of opioids prescribed to them, creating risk of diversion.[3]
- In 2015, 54% of people who misused prescription pain medication received them from a friend or relative.[4]

ADDICTION AND OPIOID USE DISORDER

Understanding Addiction

> "Every problem was once a solution to a previous problem."
> - Robert Mandel

- Per the American Society of Addiction Medicine, addiction "is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences."[1]
- The reward and relief pathway can be, but is not necessarily, caused by substance use.
- Review the neurobiology of the reward pathway and addiction using the National Institute for Drug Abuse's teaching packet: The Neurobiology of Drug Addiction.[2]

Understanding Opioid Use Disorder (OUD)

- Diagnosis of OUD requires observation of *at least two* below criteria within >12 months.[1] Diagnosis is not based on the number of pills taken; criteria are **social, behavioral, and physiological**:

Diagnostic Criteria	
More use than intended	Use under physically hazardous conditions
Unsuccessful efforts to quit or cut down	Craving to use opioids
Significant time spent in procurement, use, recovery	Failure to fulfill obligations at work, school, or home
Giving up social, occupational, or recreational activities	Continued use despite knowledge of a physical or psychological problem
Continued use in the face of adverse health	Exhibits tolerance
Recurrent interpersonal problems from use	Exhibits withdrawal

Characterizing Opioid Use Disorder

- Severity Levels of OUD:[1]
  - Mild (2-3 criteria)
  - Moderate (4-5 criteria)
  - Severe (>=6 criteria)

- Take the CDC's Module on Assessing and Addressing Opioid Use Disorder (OUD) here.[2]

https://www.cdc.gov/drugoverdose/training/oud/accessible/index.html

THE ROLE OF STIGMA AND BIAS

The Effects of Stigma and Bias

- **Stigma** in behavioral health is a pattern of discrediting beliefs and judgments about people, like those who have a substance use disorder.[1]
- **Bias** is "a prejudice in favor of or against one thing, person, or group compared with another usually in a way that's considered to be unfair."[2] Bias affects every interaction we have with others, whether we know it or not.
- Stigma can lead to feelings of shame, hopelessness, isolation, fear, and reluctance to seek treatment.[3]

Research shows some providers see people who have used drugs as:

drug-seeking
junkie
manipulative
substance abuser
failure
deviant
irresponsible
criminal
poorly motivated

As someone who's used drugs, I'm made to feel…

ashamed
worthless
guilty
discouraged
labeled
afraid
beyond help
uncomfortable
hopeless
embarrassed
isolated

Please see slide notes for links to source material.

Stigma and Bias: Language Matters!

WORDS TO AVOID	WORDS TO USE
Addict, alcoholic	Person with substance use disorder, person with addiction
Drug abuser	Person with substance use disorder
Drug abuse	Drug misuse, harmful use, risky use
Drug problem, drug habit	Substance use disorder
Clean	Abstinent, not actively using
Dirty	Actively using
A clean drug screen	Testing negative for substance use
A dirty drug screen	Testing positive for substance use
Former addict, reformed alcoholic	Person in recovery, person in long-term recovery

You can help erase the stigma of addiction.
Learn more at shatterproof.org

A large body of research shows that providers' exposure to stigmatizing language can lead to bias against patients, more negative attitudes towards, differential health care and treatment, and poorer health outcomes.[1, 2]

RISK ASSESSMENT

Risk Assessment

- **All patients can benefit from risk assessment, even if they are opioid naïve.**
- Assessing risk factors that predispose patients to opioid abuse can help surgical teams identify patients who need preoperative interdisciplinary consultation.[1]
- **High-risk patients should be referred for interdisciplinary consultation.**[1]

Risk Assessment

TABLE 1.
PATIENT RISK FACTORS FOR OPIOID ABUSE

	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Prescription drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Prescription drugs	5	5
Age between 16 and 45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
Attention-deficit disorder, obsessive-compulsive disorder, bipolar disorder, schizophrenia	2	2
Depression	1	1
Scoring total		

Source: Opioid Risk Tool measuring risk of future opioid abuse: low-risk (<3), moderate-risk (4–7), or high-risk (>8).

Essential components of risk assessment:[1]

- Prior mental health and substance use history
- Knowledge of pharmacologic treatments for substance use
- Family history of substance use

Additional components:[1]

- Presence of minors in the household
- Any relationships the patient has with someone who has a Substance Use Disorder

Framing the Assessment Conversation

- Explain how **complete health information** is required to create the best, most effective anesthesia and pain management plans.
- Communicate in a nonjudgmental tone; **use active listening.**[1]
- Invite the patient to include their **sponsor, family member, or someone they trust**, if appropriate.
- Explain to the patient that **complete medical history** can help to:[2]
  - Avoid dangerous interactions with various medications and other substances.
  - Identify medical issues (e.g., severe liver disease) that contraindicate or alter dosing approaches for OUD pharmacotherapies.
  - Reveal chronic pain issues that may be insufficiently treated.

https://www.aana.com/docs/default-source/practice-aana-com-web-documents-(all)/analgesia-and-anesthesia-for-the-substance-use-disorder-patient.pdf?sfvrsn=3e6b7548_2

Screening Tools

- Factors to consider when selecting a screening tool:
  - Length of screen
  - Substances included in the screen (alcohol, tobacco, illicit drugs, prescription drugs used non-medically)
  - Who is performing the screening?
  - When and where does screening take place?
  - What are the referral mechanisms for a patient with SUD or a chronic pain condition?
  - How is the screen documented in the patient's record?

Screening Tools

- Review the National Institute on Drug Abuse evidence-based Screening and Assessment Tools Chart for validated tools to assist in risk assessment.[1]
- Review the Substance Abuse and Mental Health Services Administration list of tools.[2]
- Consider the NIDA quick screen:[3]
  - Asks patient about drug use in the past year
  - Briefest
  - Can be used universally to determine which patients need additional screening

For Patients With History of Prior Substance Use

Assure the patient your questions will not be used to bring criminal charges.

Ask about history to help determine severity of use, including:[1]

- Age at first use.
- Routes of ingestion (e.g., injection).
- History of tolerance, withdrawal, drug mixing, and overdose.
- Patterns of use (which drugs; comorbid alcohol and tobacco use; frequency, recency, and intensity of use).

**Buprenorphine and methadone can cause complications for patients who misuse or have SUDs involving alcohol or benzodiazepines. Take specific histories on the use of these substances.

PATIENT-PROVIDER COMMUNICATION AND COUNSELING

Goals of Pain Management[1]

- **Educate** the patient and their loved ones about appropriate expectations for pain management.
- **Optimize** use of a multimodal approach to pain control.
- **Minimize** preventable post-operative complications including long-term dependence on pain control modalities in the post-operative course.
- **Provide** clear post-operative expectations for the post-operative course so that patients, their loved ones, and their outpatient providers understand:
  - realistic expectations about pain
  - post-operative and discharge treatment plan
  - pain management weaning instructions
  - clear delineation of duration of pain management

Patient Counseling Components

- Comprehensive patient education is effective at:
  - decreasing the need for postoperative opioid medication[1]
  - improving patient satisfaction[2]
- Michigan OPEN names the following key components of patient counseling.[3] Decide when counseling takes place, and which member of the care team covers the following:

1. Set expectations
2. Set norms
3. Address non-opioids
4. Discuss appropriate use
5. Address adverse effects
6. Discuss safe disposal

Patient Counseling Scripting Suggestions

1. Set expectations:

- **Patients should understand:**
  - expected level of pain
  - the expected trajectory and duration of pain
  - how quickly pain interventions should work
  - when to request additional or other pain treatment options
- "Pain is a natural occurrence after any intervention. Our goal is to reduce the pain sufficiently to allow you to move."[1]
- "A little bit of pain is OK."[2]
- "For this procedure, expect the pain to be worst in the first 24 hours."

Patient Counseling Scripting Suggestions

2. Set norms:

- "Half of patients who have this procedure take under 10-15 pills."[1]

3. Address non-opioids:

- **"**You will manage your pain after surgery by taking acetaminophen (Tylenol) and ibuprofen (Motrin or Advil) around the clock while you are awake. Alternating these medications allows you to get the best pain control."[2]

4. Discuss appropriate use:

- "These pills are for pain from your surgery, and should not be used to treat pain from other conditions."[2]

Patient Counseling Scripting Suggestions

5. Address adverse effects:

- "Opioids are strong prescription pain medications with many possible side effects (e.g., dizziness, respiratory and nervous system depression, itching, nausea, vomiting). Opioid use puts you at risk of dependence, addiction or overdose if taken accidentally, or for longer than a week."[1, 2]

6. Discuss safe disposal:

- "Never share your prescription opioids with anyone. If you have leftover pills, find a Drug Take-Back location to dispose of them safely using this website: https://apps.ddap.pa.gov/GetHelpNow/PillDrop.aspx."[3]

Other Counseling Practices

- **Use shared decision-making** (SDM). SDM encourages the patient to play an active role in their pain management plan, and may reduce the amount of opioids prescribed postoperatively.[1, 2]
  - Supplemental Content 1 in the below article (Prabhu et. al, 2017) illustrates a decisional aid for opioid prescribing after cesarean delivery.[1]
  - Listen to this 22-minute interview on SDM with Dr. Michael Barry (President, Foundation for Informed Medical Decision Making).[3] (14:22: how decision aids in surgery might reduce unwanted practice variation.)

Other Counseling and Education Practices

- **Involve families of patients in the preoperative discussion**. This strategy may reduce a patient's pain and anxiety, and may increase the use of positive coping strategies.[1]
- **Reinforce with educational materials** that address both opioid use and pain management, including:
  - Take-home brochures and pamphlets, including:
    - Materials from the American College of Surgeons and MI-OPEN
    - PENNJ-SOS print patient education materials
  - Videos, including:
    - The PENNJ-SOS video on prescription opioids and managing pain
    - The CDC's video on the risks of prescription opioids

PENNJ-SOS Patient Education Materials

- **PENNJ-SOS patient education materials were developed with expert consultation from surgeons and surgical nurses.**
  - Development considered best practices for health literate communication, and engaged patient reviewers to provide feedback.
  - All materials are available on the PENNJ-SOS website and include space for co-branding.
- **Print materials: pennj-sos.org/for-patients-caregivers**
- **Patient education video: pennj-sos.org/video**

PRESCRIBING GUIDELINES

Procedure-Specific Guidelines

- Various opioid prescribing guidelines exist for surgical providers*:
  - Michigan OPEN[1]
  - Johns Hopkins[2]
  - The City of Philadelphia[3]

*Other guideline sets, such as the Centers for Disease Control and Prevention's prescribing guidelines for chronic pain patients, also exist but may be targeted to other patient populations.

PENNJ-SOS Guidelines

- PENNJ-SOS compared existing guideline sets and established prescribing guidelines for the 13 commonly performed procedures.
- PENNJ-SOS NSQIP* hospitals are also collecting opioid data on these procedures.

Guidelines for Opioid-Naïve Patients	
Procedure	**# Pills to be Prescribed at Discharge†** (Oxycodone 5 mg. or Hydromorphone 2 mg.)
Appendectomy	
▪ Minimally Invasive	0-10
▪ Open	0-10
Cholecystectomy	
▪ Minimally Invasive	0-10
▪ Open	0-10
Colectomy	
▪ Minimally Invasive	0-10
▪ Open	10-20
Hiatal hernia	
▪ Minimally Invasive	0-10
▪ Open	0-10
Inguinal hernia	
▪ Minimally Invasive	0-10
▪ Open	0-10
Ventral hernia	
▪ Minimally Invasive	0-10
▪ Open	10-20
Hysterectomy	
▪ Minimally Invasive	0-10
▪ Open	10-20
Total hip arthroplasty	10-20
Total knee arthroplasty	10-20
Spine	10-20
Nephrectomy	
▪ Minimally Invasive	0-10
▪ Open	10-20
Aortoiliac surgery	
▪ Endovascular	0-10
▪ Open	10-20
Peripheral vascular bypass	
▪ Endovascular	0-10

*National Surgical Quality Improvement Program

MULTIMODAL PAIN MANAGEMENT

Multimodal Alternatives

- Review the consensus guidelines for non-narcotic postoperative pain management (selected recommendations below):

Recommended Therapy Type	Evidence Quality
Multimodal analgesia	High
NSAIDS and acetaminophen for patients without contraindications	High
Transcutaneous electrical nerve stimulation	Moderate
Cognitive-behavioral modalities	Moderate
Oral over intravenous opioid administration for postoperative analgesia when possible	Moderate
Preoperative dose of celecoxib for adult patients without contraindications	Moderate
Gabapentin or pregabalin	Moderate

Multimodal Alternatives

Some PENNJ-SOS member hospitals also consider offering or discussing alternate strategies for pain management with patients, including:

- Regional blocks
- Physical modalities, including physical and occupational therapy
- Heat or cold
- Relaxation
- Positive distraction and channeling activities
- Mindfulness, including breathing exercises and meditation
- Touch therapies, including massage and reiki
- Acupuncture

DISCHARGE AND FOLLOW-UP

Discharge Management Plan

Discharge instructions should reinforce messaging from counseling and include (Part 1):[1]

- An expected time course of their pain
- A clear plan for weaning opioid medications
- How and when to take non-opioid medications
- Specific instructions on when to take opioids
- Side effect management
- Potential drug interactions (including other medications that can cause sleepiness such as sleep medicines, anxiety medicines, cough and cold medicines)

Discharge Management Plan

(Part 2):

- Education on non-pharmacological ways to manage pain
- Activity precautions like working, driving, and operating heavy machinery
- Diet precautions
- Recognizing signs of dependence
- Safe storage and disposal of unused opioids
- How to reach someone who can help with pain questions or concerns at any time
- When to expect a follow-up visit or call

SAFE STORAGE AND DISPOSAL PRACTICES

Does Your Hospital Have:

- A drug takeback site?
  - Find out here: https://apps.ddap.pa.gov/GetHelpNow/PillDrop.aspx
- Patient counseling about safe opioid storage and disposal?
- Patient educational materials about safe opioid storage and disposal?
  - MI-OPEN
  - Partnership for Drug-Free Kids (downloadable brochure)
- A Healthcare Worker Diversion Prevention Program?
  - Learn how to structure one.
- More disposal resources*:* **ISQIC: Opioid Stewardship Webinar #10**: *"National Prescription Drug Take Back Day – The Role of Health Care Systems in Promoting Safe Disposal"*

CONTINUING EDUCATION RESOURCES

Continuing Education courses

- Pennsylvania Medical Society courses:
  - Addressing PA's Opioid Crisis: What the Health Care Team Needs to Know (CME)[1]
  - Managing the Chronic Pain Patient (CME)[2]
- National Institute on Drug Abuse
  - List of CME/CE activities for opioids, overdose, opioid prescribing and pain[3]
- ISQIC: Opioid Education modules (no associated credit)[4]
  - For physicians
  - For nurses
  - For pharmacists

Pennsylvania/New Jersey Surgical Opioid Stewardship (PENNJ-SOS)

Remember to visit the PENNJ-SOS website to see all program resources!

The AmerisourceBergen®
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