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Preoperative Management

Jennifer Hah, MD, MS
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Learning Objectives

- Describe the essential components of a thorough preoperative assessment, including medical history, physical examination, and appropriate diagnostic testing.
- Explain the importance of patient education and shared decision-making in the preoperative period, including discussing risks, benefits, and alternative treatment options.
- Outline strategies for optimizing patients' physical status and nutrition before surgery, including addressing pre-existing medical conditions and providing guidance on diet and lifestyle modifications.

Preoperative Assessment-Risk Factors

- **Risk factors for persistent post-surgical pain**
  - Younger age, female sex
  - Preoperative pain (at surgical site, elsewhere)
  - Psychological factors (anxiety, depression, pain catastrophizing)
  - Surgical (thoracic, breast, orthopedic operations)
  - Smoking
  - Obesity
  - Preoperative opioid use

Preoperative Assessment-Risk Factors 2

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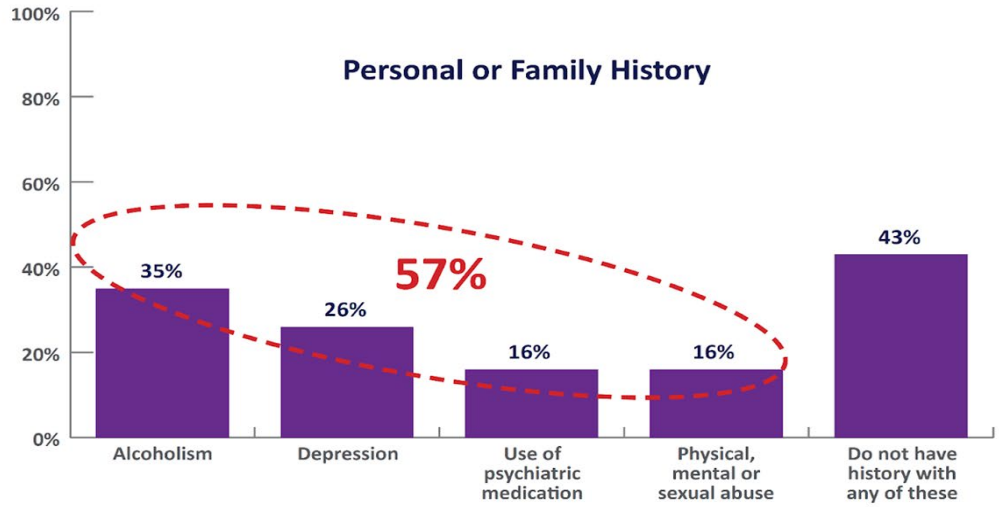
- **Risk factors for persistent post-surgical opioid use**
  - Preoperative Opioid Use
  - Substance use disorders
  - Preoperative pain (at surgical site, elsewhere)
  - Psychological factors (anxiety, depression, pain catastrophizing)
  - Surgical (total knee arthroplasty, lumbar fusion)
  - Smoking

Preoperative Evaluation

- Medical and Psychiatric comorbidities (Neurologic disorders)
- Concomitant Medications
- History of Chronic Pain
- History of Substance Abuse

(FIGURE 6)

Percentage of U.S. Adults With at Least One Risk Factor for OUD[99]



SOURCE: What Americans believe about opioid prescription painkiller use. Presented at the: National Safety Council – Opioid Painkiller Media Briefing. https://www.nsc.org/Portals/0/Documents/NewsDocuments/031115-Public-Opinion-Poll.pdf. Accessed December 16, 2019.

Preoperative Assessment-Risk Factors 3

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- **Risk factors for postoperative complications**
  - Patient-specific: older age, high/low BMI, dependent functional status, smoking
  - Comorbidities: higher American Society of Anesthesiologists Physical Status Classification System (ASA) score, Chronic Obstructive Pulmonary Disease (COPD), diabetes, renal insufficiency
  - Surgical: emergency procedures, complex operations, open procedures

Preoperative Evaluation-History and PE

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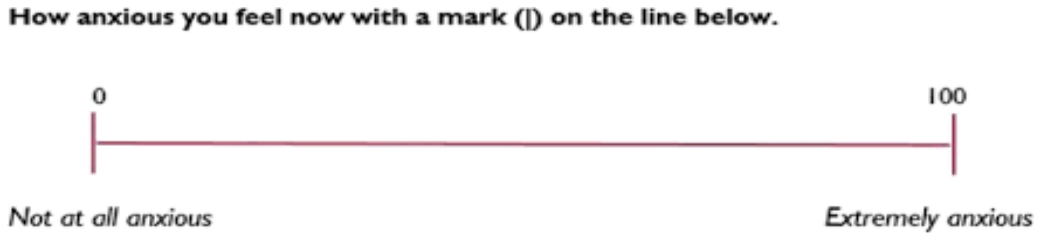
- Assess medical and psychiatric comorbidities
- Concomitant medications
- Medication allergies/intolerances
- Cognitive status
- History of chronic pain
- History of substance use/substance use disorders
- Medical comorbidities
- Prior experience with surgery and postoperative pain regimens (response to prior treatments)
- Patient treatment preferences and goals
- Guides perioperative pain management plan
- PMID:26827847

Preoperative Evaluation-History and PE 2

- **Assess past and current pain history**
  - Use, response to, and preferences for analgesics
- **Medical comorbidities**
  - Bleeding disorders, spinal surgery (possible contraindications to neuraxial techniques)
- **Psychiatric comorbidities**
  - Anxiety Visual Analog Scale (Anxiety VAS)
  - Depression Patient Health Questionnaire (PHQ-2, PHQ-9)



Patient Health Questionnaire 2

Over the past 2 weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3

Prescription Opioid Misuse/Non-medical Use

29% of patients report pain medication misuse

8-12% develop OUD

- A problematic pattern of opioid use, distinct from Opioid Use Disorder (OUD)
- Use of opioids in any way that is different than as directed by a prescriber

Source: Zullo AR, Danko KJ, Moyo P, Adam GP, Riester M, Kimmel HJ, Panagiotou OA, Beaudoin FL, Carr D, Balk EM. Prevention, Diagnosis, and Management of Opioids, Opioid Misuse, and Opioid Use Disorder in Older Adults [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2020 Nov. Report No.: 21-EHC005. PMID: 33211447.

Prescription Opioid Misuse/Non-medical Use 2

Use of any opioid in a manner, situation, amount, or frequency that can cause harm to self or others

- Higher doses than prescribed
- More frequently than prescribed
- Longer duration than prescribed
- For reasons other than indicated
- Without one's own prescription

Positive Predictors:

- **Age 26 or older**
- **Perceiving heroin as easily obtainable**
- **Past methamphetamine use**

Negative Predictors:

- **Age 12-25**
- **Perceiving heroin as a great risk**
- **Past alcohol use**
- **Obtaining pain relievers from a friend or relative**

Source: Matta MS, Janikowski TP. Predictors of Pain Reliever Misuse Among Respondents of the United States 2017 National Survey on Drug Use and Health. Subst Abuse. 2022 Jul 12;16:11782218221111843.

Opioid Misuse Assessment

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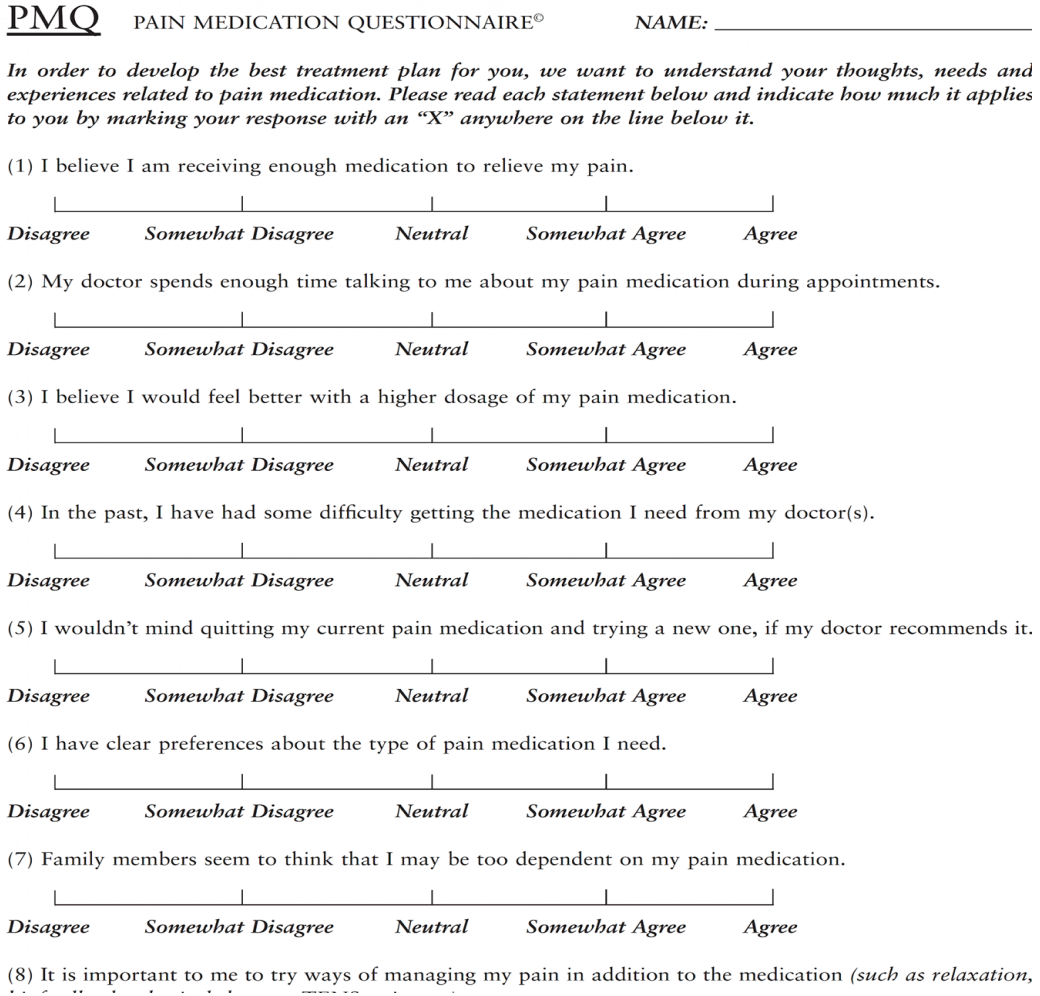
- Accuracy of screening measures to detect future aberrant behaviors is understudied
- Limited ability to discriminate low vs. high risk for OUD
- Screening may change patient behavior and clinician decision-making
- No tools for identifying patients at high risk for developing prescription OUD or for those at low risk

Source: Klimas J, Gorfinkel L, Fairbairn N, Amato L, Ahamad K, Nolan S, Simel DL, Wood E. Strategies to Identify Patient Risks of Prescription Opioid Addiction When Initiating Opioids for Pain: A Systematic Review. JAMA Netw Open. 2019 May 3;2(5):e193365. doi: 10.1001/jamanetworkopen.2019.3365. PMID: 31050783; PMCID: PMC6503484.

Pain Medication Questionnaire (PMQ)

- Self-report screening instrument
- 26 items, 5-point Likert scale
- Predict risk for prescription opioid misuse among patients with chronic pain
- PMQ score assessed at a single time-point is not associated with an increased odds of having an aberrant Urine Drug Test (UDT) result
- Notable risk factor for aberrant UDT: hazardous alcohol use (AUDIT-C >4 for men, >3 for women)

Source: Morasco BJ, Iacocca MO, Lovejoy TI, Dobscha SK, Deyo RA, Cavese JA, Hyde S, Yarborough BJH. Utility of the Pain Medication Questionnaire to predict aberrant urine drug tests: Results from a longitudinal cohort study. Psychol Serv. 2020 Jul 16. doi: 10.1037/ser0000471. Epub ahead of print. PMID: 32673038.



PMQ PAIN MEDICATION QUESTIONNAIRE© NAME: _____

In order to develop the best treatment plan for you, we want to understand your thoughts, needs and experiences related to pain medication. Please read each statement below and indicate how much it applies to you by marking your response with an "X" anywhere on the line below it.

(1) I believe I am receiving enough medication to relieve my pain.

Disagree *Somewhat Disagree* *Neutral* *Somewhat Agree* *Agree*

(2) My doctor spends enough time talking to me about my pain medication during appointments.

Disagree *Somewhat Disagree* *Neutral* *Somewhat Agree* *Agree*

(3) I believe I would feel better with a higher dosage of my pain medication.

Disagree *Somewhat Disagree* *Neutral* *Somewhat Agree* *Agree*

(4) In the past, I have had some difficulty getting the medication I need from my doctor(s).

Disagree *Somewhat Disagree* *Neutral* *Somewhat Agree* *Agree*

(5) I wouldn't mind quitting my current pain medication and trying a new one, if my doctor recommends it.

Disagree *Somewhat Disagree* *Neutral* *Somewhat Agree* *Agree*

(6) I have clear preferences about the type of pain medication I need.

Disagree *Somewhat Disagree* *Neutral* *Somewhat Agree* *Agree*

(7) Family members seem to think that I may be too dependent on my pain medication.

Disagree *Somewhat Disagree* *Neutral* *Somewhat Agree* *Agree*

(8) It is important to me to try ways of managing my pain in addition to the medication *(such as relaxation,*

Screener and Opioid Assessment for Patients with Pain - Revised (SOAPP-R)

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- 14-items, 5-point Likert scale
- Not useful to discriminate high vs. low risk of OUD
- Assess antisocial behavior, substance abuse history, doctor-patient relationship, medication-related behaviors
- Cutoff score of ≥18, sensitivity was 0.80 (95% CI, 0.70 to 0.89) and specificity was 0.68 (95% CI, 0.60 to 0.75) for identification of any aberrant drug-related behavior
- Does not discriminate between high vs. low risk of abnormal UDT results

Figure 1. List of SOAPP-R questions

1. How often do you have mood swings?
2. How often have you felt a need for higher doses of medication to treat your pain?
3. How often have you felt impatient with your doctors?
4. How often have you felt that things are just too overwhelming that you can't handle them?
5. How often is there tension in the home?
6. How often have you counted pain pills to see how many are remaining?
7. How often have you been concerned that people will judge you for taking pain medication?
8. How often do you feel bored?
9. How often have you taken more pain medication than you were supposed to?
10. How often have you worried about being left alone?
11. How often have you felt a craving for medication?
12. How often have others expressed concern over your use of medication?
13. How often have any of your close friends had a problem with alcohol or drugs?
14. How often have others told you that you have a bad temper?
15. How often have you felt consumed by the need to get pain medication?
16. How often have you run out of pain medication early?
17. How often have others kept you from getting what you deserve?
18. How often, in your lifetime, have you had legal problems or been arrested?
19. How often have you attended an AA or NA meeting?
20. How often have you been in an argument that was so out of control that someone got hurt?
21. How often have you been sexually abused?
22. How often have others suggested that you have a drug or alcohol problem?
23. How often have you had to borrow pain medications from your family or friends?
24. How often have you been treated for an alcohol or drug problem?

Source: Chou R, Fanciullo GJ, Fine PG, et al. Opioids for chronic noncancer pain: prediction and identification of aberrant drug-related behaviors: a review of the evidence for an American Pain Society and American Academy of Pain Medicine clinical practice guideline. J Pain. Feb 2009;10(2):131-146.

Opioid Risk Tool

- Maximum score=26
- Aberrant drug-related behaviors were identified in 6% of patients categorized as low risk, 28% of patients categorized as moderate risk, and 91% of those categorized as high risk
- Subsequent research has not replicated initial findings
- Not useful for risk assessment for the development of prescription OUD

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

Current Opioid Misuse Measure (COMM)

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- 17-items
- Self-Report
- A score of 9 or higher on the COMM has 77% sensitivity and 68% specificity to identify opioid misuse among patients prescribed opioids for pain
- Assesses behaviors within the past 30 days

Current Opioid Misuse Measure (COMM)®

Please answer each question as honestly as possible. Keep in mind that we are only asking about the **past 30 days**. There are no right or wrong answers. If you are unsure about how to answer the question, please give the best answer you can.

Please answer the questions using the following scale:	**Never**	**Seldom**	**Sometimes**	**Often**	**Very Often**
	0	1	2	3	4
1. In the past 30 days, how often have you had trouble with thinking clearly or had memory problems?	O	O	O	O	O
2. In the past 30 days, how often do people complain that you are not completing necessary tasks? (i.e., doing things that need to be done, such as going to class, work or appointments)	O	O	O	O	O
3. In the past 30 days, how often have you had to go to someone other than your prescribing physician to get sufficient pain relief from medications? (i.e., another doctor, the Emergency Room, friends, street sources)	O	O	O	O	O
4. In the past 30 days, how often have you taken your medications differently from how they are prescribed?	O	O	O	O	O
5. In the past 30 days, how often have you seriously thought about hurting yourself?	O	O	O	O	O
6. In the past 30 days, how much of your time was spent thinking about opioid medications (having enough, taking them, dosing schedule, etc.)?	O	O	O	O	O

Source: Butler SF, Budman SH, Fernandez KC, et al. Development and validation of the Current Opioid Misuse Measure. Pain 2007;130:144-56.1950245.

Next Steps in Opioid Misuse Assessment

Preoperative Evaluation-Substance Use

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- Tobacco, Alcohol, Prescription Medication, and Other Substance Use (TAPS) Tool
- 4-item screening tool is more effective than review of Electronic Health Records (EHR) documentation in identifying substance use in surgical patients
- Has identified 30.8% of patients with alcohol misuse compared to 0% in clinician documentation (PMID:38814073)

1. In the PAST 12 MONTHS, how often have you used any tobacco product (for example, cigarettes, e-cigarettes, cigars, pipes, or smokeless tobacco)?
   ☐ Daily or Almost Daily ☐ Weekly ☐ Monthly
   ☐ Less Than Monthly ☐ Never

2. In the PAST 12 MONTHS, how often have you had 5 or more drinks containing alcohol in one day? One standard drink is about 1 small glass of wine (5 oz), 1 beer (12 oz), or 1 single shot of liquor. (Note: This question should only be answered by males).
   ☐ Daily or Almost Daily ☐ Weekly ☐ Monthly
   ☐ Less Than Monthly ☐ Never

3. In the PAST 12 MONTHS, how often have you had 4 or more drinks containing alcohol in one day? One standard drink is about 1 small glass of wine (5 oz), 1 beer (12 oz), or 1 single shot of liquor. (Note: This question should only be answered by females).
   ☐ Daily or Almost Daily ☐ Weekly ☐ Monthly
   ☐ Less Than Monthly ☐ Never

4. In the PAST 12 MONTHS, how often have you used any drugs including marijuana, cocaine or crack, heroin, methamphetamine (crystal meth), hallucinogens, ecstasy/MDMA?
   ☐ Daily or Almost Daily ☐ Weekly ☐ Monthly
   ☐ Less Than Monthly ☐ Never

5. In the PAST 12 MONTHS, how often have you used any prescription medications just for the feeling, more than prescribed or that were not prescribed for you? Prescription medications that may be used this way include: Opiate pain relievers (for example, OxyContin, Vicodin, Percocet, Methadone) Medications for anxiety or sleeping (for example, Xanax, Ativan, Klonopin) Medications for ADHD (for example, Adderall or Ritalin)
   ☐ Daily or Almost Daily ☐ Weekly ☐ Monthly
   ☐ Less Than Monthly ☐ Never

Preoperative Assessment and Perioperative Planning

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- Identify risk factors for Persistent Post Surgical Pain (PPSP), Persistent Postoperative Opioid Use (PPOU), Complications
- Optimization of modifiable factors
- Creation of an individualized pain management plan: prescribing non-opioid agents, cessation of sedatives that increase the risk of opioid-related adverse events
- Patient education
- Possible referral to SUD programs, methadone/buprenorphine initiation
- Possible referral to pain specialist
- Possible referral for psychological services, relaxation therapy

Comprehensive Acute & Perioperative Pain Management

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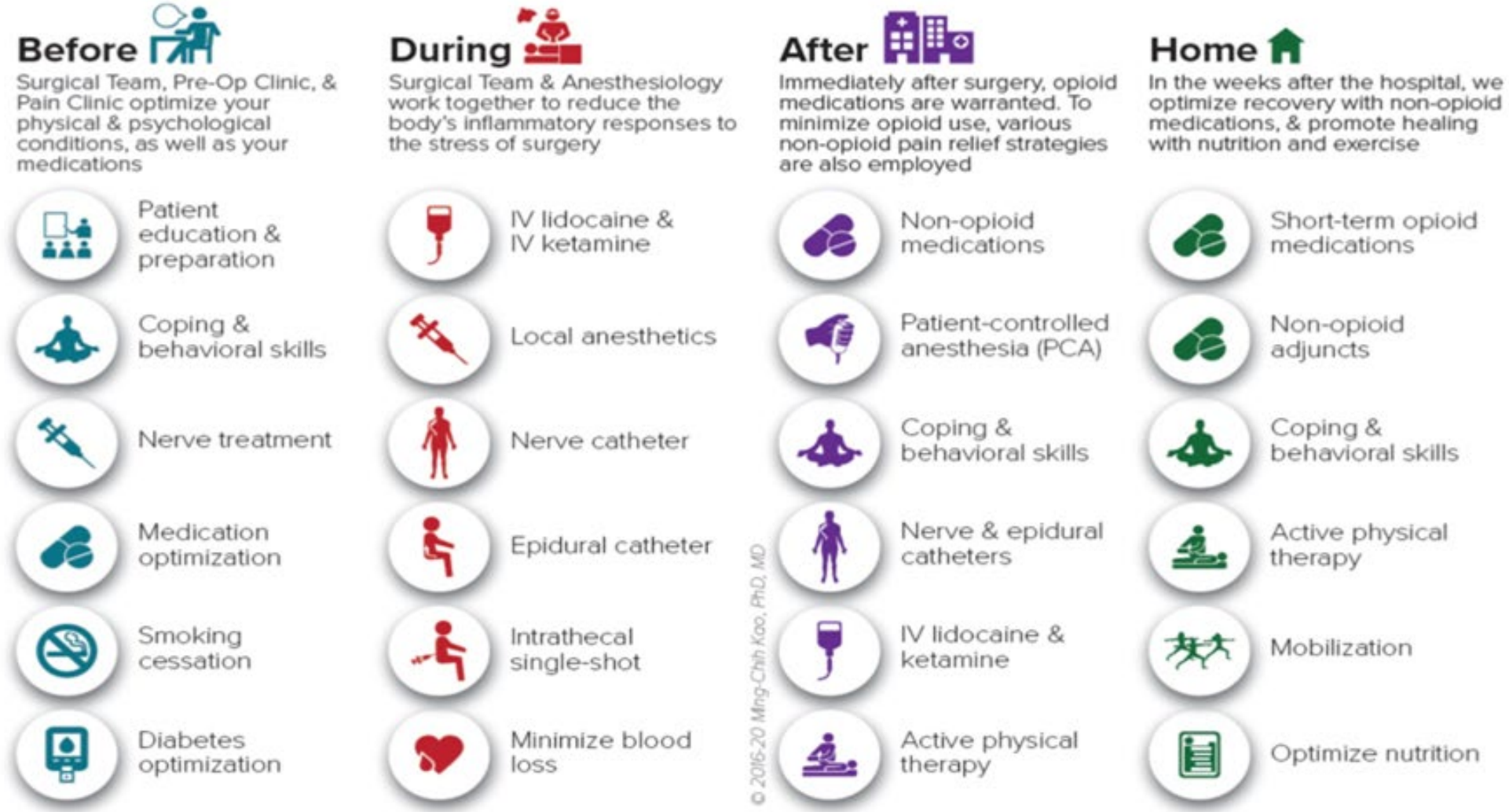

Patient and Family Education

- Provide patient and family-centered, individually tailored education to the patient (and/or caregiver)
- Review treatment options for management of postoperative pain
- Document the plan and goals for postoperative pain management
- Benefits those with intensive needs: reduces postoperative opioid consumption, preoperative anxiety, requests for sedatives, and postoperative length of hospital stay
- Reduces length of Intensive Care Unit (ICU) stay and improves mood after cardiac surgery

Patient and Family Education-Formats

- Single episode face-to-face instruction
- Written materials
- Videos
- Audio
- Web-based educational information
- Individualized and supervised exercise, education, and phone calls
- Age-appropriate
- Tailored to health literacy, cultural and linguistic competency
- Leave time for questions

Patient and Family Education-Content

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- Changes in medication use (discontinuation of anticoagulants)
- Continuation of medications to avoid withdrawal (opioids, benzos, gabapentinoids, baclofen)
- **Insufficient evidence to recommend decreasing or discontinuing opioids before surgery**
- Addition of nonopioid adjuvants for patients with chronic opioid use
- How pain is assessed, when to report pain
- Multimodal pharmacologic and nonpharmacologic pain management
- Pregnant women: effects of pain treatment options on breastfeeding exposure to analgesics

Patient and Family Education-Content 2

- Expectations for surgery, anesthesia, postoperative pain management (anticipated dietary intake, physical rehabilitation regimen, and mobility targets after surgery)
- Normal physiology of postoperative healing emphasizing period of rest and limited work and social responsibilities to accelerate recovery

Patient and Family Education-Content 3

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- Expectations for how meaningful improvement will be measured after surgery (function rather than pain intensity) and length of opioid therapy required
- Expectations to keep pain at manageable level rather than pain-free (overtreatment of pain may mask early signs of postoperative complications)
- Discuss role of opioids in postoperative pain management, discuss long-term risks and adverse effects of opioid therapy, and emphasize multimodal analgesia options

Patient and Family Education-Content 4

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- Discuss post-surgical pain management options
- Clarifying role of clinicians in pain management
- Sleep hygiene
- Nutritional adjustments before surgery (Around 1.2-1.5 g/kg/d of protein with oral dietary supplementation throughout one to two weeks for colorectal surgery)
- Relaxation Techniques
- Psychological Preparation

Patient and Family Education-Content 5

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- Discuss post-surgical pain management options
- Clarifying role of clinicians in pain management
- Sleep hygiene
- Nutritional adjustments before surgery (Around 1.2-1.5 g/kg/d of protein with oral dietary supplementation throughout one to two weeks for colorectal surgery)
- Relaxation Techniques
- Psychological Preparation

Resources:

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- UCLA Guided Meditation, Mindfulness, Relaxation, Stress Management
- Free online Mindfulness based stress Reduction Course
- Biofeedback Provider Search

Relaxation and Pain Management Apps

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- **Curable:** Neuroscience education, brain retraining, meditation and expressive writing.
- **Breathe2Relax** is a personalized stress management tool which provides detailed information on the effects of stress on the body and diaphragmatic breathing.
- **Headspace** teaches you the basics of meditation and mindfulness in just 10 minutes a day.
- **Kardia Deep Breathing** is a hands-on paced breathing exercise. Capitalizing on touch-screen technology, as user can vary their breath rate by simply swiping on the screen.
- **The Mindfulness App** has a large variety of meditations for both relaxation and mindfulness exercises.

Pain and Stress Management Books

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- Pain Survival Guide by Turk and Winters
- Managing Pain Before it Manages You – by Caudill
- Full Catastrophe Living – by Jon Kabat-Zinn
- Living Beyond Your Pain- JoAnne Dahl & Tobias Lundgren
- Bouncing Back: Skills for Adaptation to Injury, Aging, Illness, and Pain- by Richard Wanlass

Patient and Family Education-Evidence

- **Preoperative pain neuroscience education in Total Knee Arthroplasty (TKA) or Total Hip Arthroplasty (THA): low to moderate certainty for improving pain intensity, catastrophizing, kinesiophobia, and disability in a systematic review of 2 studies (n=147) (PMID: 39593417)**
  - Teaching includes neurobiological and neurophysiological processes involved in pain experience with biopsychosocial approach to promote understanding of pain and change in maladaptive thoughts and cognitions

Source: Salazar-Méndez J, Gajardo KG, Muñoz-Tapia MF, Sepúlveda-Urrutia C, Viscay-Sanhueza N, Mendez-Rebolledo G. Efficacy of preoperative pain neuroscience education in physical therapy on clinical outcomes in patients undergoing arthroplasty: A systematic review of randomized clinical trials. J Bodyw Mov Ther. 2024 Oct;40:109-116. doi: 10.1016/j.jbmt.2024.04.007. Epub 2024 Apr 5. PMID: 39593417.

Shared Decision Making

- **General surgery patients (excluding those with pain management pathways, anorectal, endoscopic, multiple procedures, no opioid prescribing)**
- **Residents and staff surgeons counseled patients on postoperative pain expectations and management with a standardized handout**
  - Acetaminophen, ibuprofen, cold and heat therapy, mindfulness
- **Patients offered opportunity to choose the number of oxycodone pills they would be prescribed within a range**

Shared Decision Making 2

- Patients provided Pain Management Plan at discharge and number of Oxycodone pills chosen, acetaminophen, ibuprofen
- 131 patients, average prescription decreased from 12.29 oxycodone pills to 6.8 pills after instituting pathway
- Decreased percentage of unused pills from 70.5% to 48.5%
- Patient satisfaction was significantly higher with surgery involving the pathway compared to prior surgeries

Source: Ciampa ML, Liang J, O'Hara TA, Joel CL, Sherman WE. Shared decision-making for postoperative opioid prescribing and preoperative pain management education decreases excess opioid burden. Surg Endosc. 2023 Mar;37(3):2253-2259. doi: 10.1007/s00464-022-09464-8. Epub 2022 Aug 2. PMID: 35918546.

Shared Decision Making 3

- Multicenter randomized controlled noninferiority trial
- Individualized opioid-prescription protocol (IOPP) and shared decision making vs. fixed opioid quantity at discharge (20 tablets, 5mg oxycodone)
- IOPP: Recommendations based on opioid use in 24 hours before discharge, and patients selected quantity of discharge tablets after educational module and SDM
- N=5,521 Uncomplicated cesarean birth
- IOPP and SDM non-inferior for post-cesarean analgesia at 1 week, few prescribed tablets median 14(4-20) vs. 20 tabs, $p<0.001$ through 90 days postpartum

Shared Decision Making-Intervention Details

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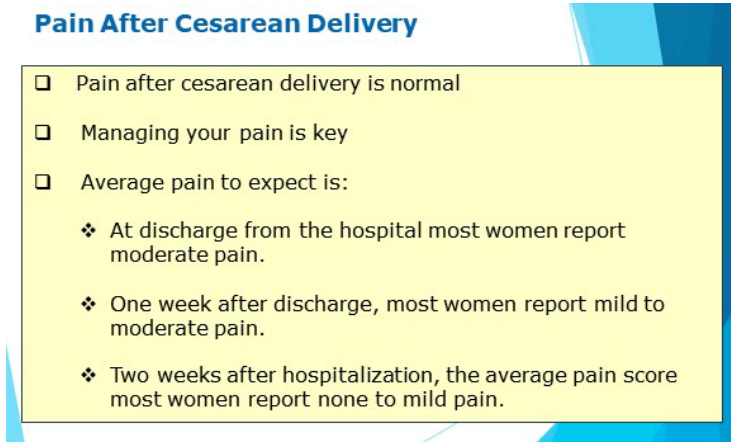
- Scripted counseling by a trained research nurse with a study pamphlet OR
- 5-minute video on postcesarean pain and opioid use modified from published SDM intervention



MME	Recommended IOPP Rx
0.0 - 3.7	0
3.8 - 4.6	1
4.7 - 5.8	2
5.8 - 7.3	3
7.4 - 9.1	4
9.2 - 11.2	5
11.3 - 11.4	6
11.5 - 14.0	7
14.1 - 14.3	8
14.4 - 17.5	9
17.6 - 17.8	10
17.9 - 18.7	11
18.8 - 21.9	12
22.0 - 22.3	13
22.4 - 23.4	14
23.5 - 26.2	15
26.3 - 27.4	16
27.5 - 27.9	17
28.0 - 29.2	18
29.3 - 32.8	19
≥32.9	20

Source: Smid MC, Clifton RG, Rood K, Srinivas S, Simhan HN, Casey BM, Longo M, Landau R, MacPherson C, Bartholomew A, Sowles A, Reddy UM, Rouse DJ, Bailit JL, Thorp JM Jr, Chauhan SP, Saade GR, Grobman WA, Macones GA; for the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Maternal-Fetal Medicine Units (MFMU) Network*. Optimizing Opioid Prescription Quantity After Cesarean Delivery: A Randomized Controlled Trial. Obstet Gynecol. 2024 Aug 1;144(2):195-205. doi: 10.1097/AOG.0000000000005649. Epub 2024 Jun 10. PMID: 38857509; PMCID: PMC11257794.

Preadmission Rehabilitation/Prehabilitation

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- Decreased rates of pulmonary & cardiac complications and morbidity for patients who had prehabilitation before abdominal surgery
- Preoperative Physical Therapy (PT) can have positive effects on post-surgical pain, length of hospital stay, functional recovery, opioid consumption, but still some inconsistent results and limited by costs

Preadmission Rehabilitation/Prehabilitation 2

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- **Smoking Cessation** (addresses cardiopulmonary complications, wound infection, impaired wound healing, bone fusion, prolonged hospitalization)
- **Even 24-48 hours of cessation reduces risk**
- **Prescribe nicotine replacement therapy prior to surgery**
- **Heavy Alcohol Use** (5 drinks per day)
  - Increased postoperative pain and opioid requirements
  - Consider referral to addiction medicine

Resources for Movement

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- Find a Certified Tai Chi Teacher (Tai Chi for Health Institute)
- Find a Certified Yoga Therapist (International Association of Yoga Therapists)
- The National Institute of Aging, Exercise and Physical Activity
- YMCA Health and Fitness Videos
- Audio guided Feldenkrais - Awareness through Movement performed by Dr. Deborah Bowes
- Free Movement Classes on Zoom through Stanford

Nutrition

- Mediterranean diet: shown to be effective at reducing inflammation. Naturally incorporates helpful fatty acids into the diet. Also has been studied as helpful in migraine.
  - Sala-Climent M, López de Coca T, Guerrero MD, Muñoz FJ, López-Ruíz MA, Moreno L, Alacreu M, Dea-Ayuela MA. The effect of an anti-inflammatory diet on chronic pain: a pilot study. Front Nutr. 2023 Jul 13;10:1205526. doi: 10.3389/fnut.2023.1205526. PMID: 37521415; PMCID: PMC10381948.
  - Mediterranean-Ketogenic Diet (n=23)
  - Protein: 2g/kg fat free mass by bioimpedance analysis
  - Carbohydrate: less than 25g/day
  - Ketogenic ratio >1.5 (ratio of fat to combined carbohydrates and protein)

Nutrition 2

- Eliminating glutamate and aspartame: These food-additives are excitatory neurotransmitters involved in pain states. There is conflicting evidence but some studies show this may be helpful.
  - Holton KF, Taren DL, Thomson CA, Bennett RM, Jones KD. The effect of dietary glutamate on fibromyalgia and irritable bowel symptoms. Clin Exp Rheumatol. 2012 Nov-Dec;30(6 Suppl 74):10-7. Epub 2012 Dec 14. PMID: 22766026.
  - *Examples* of neuro-excitatory containing foods:
    - MSG (monosodium glutamate) or potassium glutamate
    - sodium guanylate or inosinate
    - gelatin
    - hydrolyzed oat flour
    - hydrolyzed vegetable protein (any kind… soy, corn, wheat, etc)
    - plant protein extract
    - soy (or whey) protein concentrate or isolate
    - smoke flavoring
    - bouillon, broth, stock
    - "natural flavoring" as listed on an ingredient list
    - carrageenan
    - soy sauce, fish sauces
    - parmesan and other aged cheeses

Preoperative -Chronic Opioid Therapy

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- Continuation of opioid medications to avoid withdrawal (eg. Fentanyl patch, Methadone)
- Document name of contact info for chronic opioid therapy prescriber, check Prescription Drug Monitoring Program (PDMP), take morning dose on day of surgery
- Treat pre-existing chronic pain
- Optimize medication doses
- Rotate opioids
- Continuing/ Adding non-opioid medications
- Timing chronic pain interventions (increased periprosthetic joint infection risk with corticosteroid injections within 3 months before

(TSA PMID: 39791093)

Preoperative Special Considerations- Cannabinoids

- Insufficient evidence to assess effectiveness for treatment of acute postoperative pain PMID: 39878042
- Counsel patients that use of dispensary cannabinoids can complicate anesthesia, contribute to increased postoperative pain, and increase risk of cerebrovascular events, no evidence that cannabinoids can treat acute pain
- **Abstain at least 72 hours prior to surgery from non-pharmaceutical cannabis**
- Discourage inpatient use and monitor for cannabis withdrawal syndrome
- Acutely intoxicated may exhibit more violent emergence from anesthesia

Preoperative Special Considerations- Cannabinoids 2

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- High-THC content cannabinoids may cause fever, tachycardia, hypertension (HTN)
- **Delaying surgery for patients with angina or hx of coronary artery disease (CAD) for at least an hour after last use reduces risk of MI and cerebrovascular events**
- Intraop: Higher induction doses of propofol, higher tolerance to inhaled anesthetics
- Postop: 30-95% experience cannabis withdrawal syndrome (irritability, insomnia, decreased appetite, depressed mood, restlessness, anxiety)
- Unclear whether FDA-approved synthetic cannabinoids like dronabinol or nabiximol are helpful to treat withdrawal

Preoperative Medication for Addiction Treatment

- Methadone, buprenorphine, naltrexone (alcohol, weight loss)
- Split home doses to three times daily
- Increased needs for adequate pain control
- Acetaminophen (APAP), non steroidal anti inflammatory drugs (NSAID), gabapentinoids, alpha-2 agonists, ketamine, intravenous (IV) lidocaine

Conclusions

- A comprehensive preoperative evaluation is essential for identifying patients at-risk for persistent post-surgical pain, persistent post-surgical opioid use, and surgical complications
- General patient education regarding postoperative pain management and shared decision making can help patients optimize analgesia, reduce opioid use, and improve satisfaction with the surgical experience
- Mental health, nutrition, and exercise resources can complement resources to optimize patients' physical status before surgery and can be continued after surgery as part of a comprehensive pain management plan


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Upcoming Events

Compass SHARP

Caring for patients with Substance Use Disorders in the Perioperative Space

- June 11th, 12:10 - 12:50 pm CT

Postoperative Management

- July 9th, 12:10 - 12:50 pm CT

Intraoperative Considerations: Regional and Neuraxial Anesthesia

- August 13th, 12:10 - 12:50 pm CT

Resources

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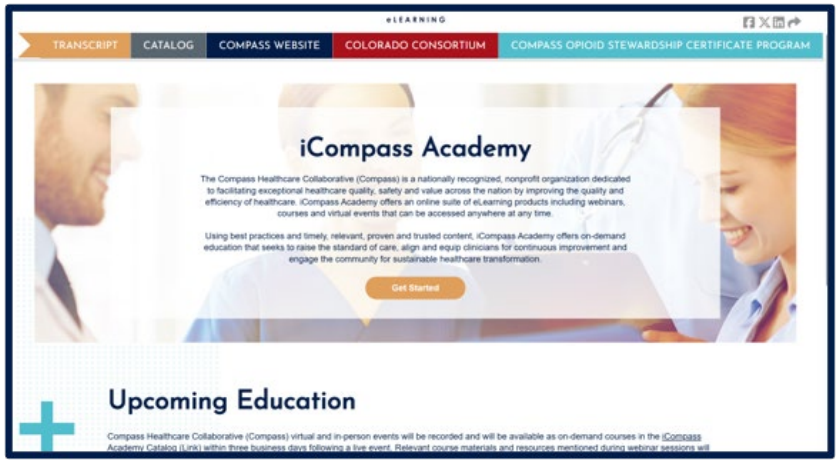

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Reach The Program

Jillian Schneider, MHA, CPPS
Program Director
Compass Healthcare Collaborative
schneiderj@compasshcc.org

Sharmie Russell, ACEA
Project Support Specialist
Compass Healthcare Collaborative
russells@compasshcc.org

Melissa Perry, MSW, LCSW
Project Coordinator
Compass Healthcare Collaborative
perrym@compasshcc.org

Amanda Dolon, BSN, RN, CDCES, CPHQ, CPPS
Clinical Improvement Consultant
Compass Healthcare Collaborative
dolona@compasshcc.org

Thank you

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