

Evaluating and Improving Anesthetic Management of Patients on Medication for Opioid Use Disorder (MOUD)

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Introduction and Background

- Opioid Use Disorder (OUD) is a significant public health epidemic, with overdose as one of the leading injury-related causes of death in the United States. ~2.7 million Americans are affected by OUD¹.
- Medication Assisted Treatment (MAT) is used interchangeably with Medications for Opioid Use Disorder (MOUD) and includes prescriptions such as methadone, buprenorphine, or naltrexone for treatment².
- Anesthesia Providers (APs) face unique challenges in managing patients taking MOUD with pain control, avoiding withdrawal, and risking relapse³.
- Guidelines for anesthetic management of patients taking MOUD are lacking and current recommendations for practices are derived from expert opinions or case reports⁴.

Problem and Purposes

- Problem:** A Midwest academic institution identified an opportunity to enhance anesthesia care for patients on MOUD. The institution recognized the potential benefits of implementing interdisciplinary quality improvement (QI) efforts to promote more consistent anesthesia practices for this patient population.
- Purposes:**
 - Evaluation:* Identify the strengths, weaknesses, and gaps in anesthesia management of patients taking MOUD and provide recommendations for a QI initiative to optimize care.
 - QI Component:* Use findings from evaluation to improve the interdisciplinary management of patients on MOUD using evidence-based resources.

Environmental Context

- A large, academic medical center serving a diverse patient population, with commitment and support to QI, along with Magnet designation, created a supportive environment for this initiative.
- The Electronic Medical Record (EMR) offers a standardized platform to document the preoperative anesthesia assessment and identify history.
- The Substance Use Intervention Team (SUIT) is composed of interdisciplinary specialists working collaboratively to identify and address patients vulnerable to opioid and substance-related hazards.

Frameworks and Methods/ Implementation

Evaluation Framework

- CDC Framework for Program Evaluation Methods
- System surveillance of electronic resources
- Semi-structured interviews (SSI) with APs (7), SUIT
- Thematic Analysis

Improvement Framework

- Plan-Do-Study-Act (PDSA) Methods
- Formation of multidisciplinary team
- Literature review for evidence-based practices
- Education on QI initiatives

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Evaluation Project Results and Recommendations

- Common themes from AP interviews and system surveillance:
 - A gap in the current system process for identifying patients taking MOUD
 - Inconsistencies in AP approaches in managing patients taking MOUD
 - A deficiency in resources available to APs for managing patients taking MOUD.

Other findings and recommendations:

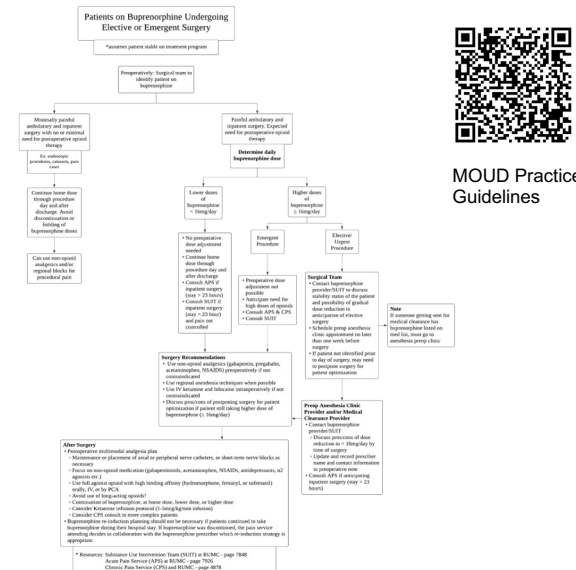
Finding	Recommendation
Preoperative assessment in the EMR does not provide documentation for patients who are taking MOUD or receiving MAT	Edit EMR to contain section specific to MOUD/ MAT
No standard reference or guideline within the institution in anesthesia management for patients taking MOUD	Create and implement evidence-based reference materials and guidelines into the system for providers to access when encountering a patient receiving treatment for OUD presenting for surgery (MOUD/ MAT)
2021: Discussion with DOA and SUIT to create a workflow titled, "Substance use disorder with treatment undergoing surgery."	Integrate SUIT's contact information in reference material or guideline for prompt referral

Quality Improvement (QI) Initiative

- Preoperative Identification Tool Implementation:** A preoperative extension was designed and integrated into the EMR with the help of an IT anesthesia specialist to systematically identify patients taking MOUD.
- Multidisciplinary Guideline Development:** A team of APs, an addiction medicine specialist, chronic pain specialist, and DNP students focusing on QI collaborated to develop evidence-based guidelines for pain management in patients on MOUD undergoing surgery at the institution.
- Educational Interventions:** APs received education on the newly developed guidelines and preoperative identification extension through a Grand Rounds presentation, an EMR Newflash, and a department-wide email highlighting the practice changes when providing anesthesia for patients on MOUD.

Preoperative Identification Tool in EMR

Practice Guideline: Buprenorphine



MOUD Practice Guidelines

Recommendations for Next Steps

- Expand Collaboration with Surgical Teams:** Engage diverse surgical specialties throughout the institution to foster broad awareness, strengthen interdisciplinary cooperation, and maximize the project's impact.
- Preoperative Optimization for Buprenorphine Patients:** Implement an automated system at surgical clinics to route patients on Buprenorphine to the anesthesia preoperative clinic. This ensures medication optimization consultations occur before surgery, allowing for tailored pain management strategies to be developed, ultimately enhancing patient outcomes.

References

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