

This Operations Manual was developed for PANC hospitals participating in the Pennsylvania Opioid Surgical Stewardship Enterprise (POSSE)

1. Eight (8) custom fields have been developed for POSSE in the ACS NSQIP platform and are to be abstracted for any of the surgical procedures listed below as defined by NSQIP targeted procedure CPT codes.
2. PANC hospitals are to collect and submit data only for the surgical procedures that they are currently collecting in NSQIP.
3. To locate documentation specific to opioids and other pain management prescriptions, please review:
 - a. Prescription Drug Monitoring Program (PDMP)
 - b. History & Physical (H&P)
 - c. Screening forms, such as an opioid risk tool
 - d. Surgical Clearance
 - e. Surgical anesthesia H&P and Records
 - f. After-visit summary
 - g. Discharge Summary
 - h. Medication Administration Record (MAR)
 - i. Phone encounters
 - j. Clinic notes
 - k. Discharge instructions
4. Hospitals should begin data collection on cases performed on or after September 1, 2019. The Steering Committee suggests ramping up with entering cases from the POSSE CPT code list on even days to start. Alternately, entering cases on alternate 8-day cycles would be acceptable.

CPT® Code Inclusion List

Procedures	CPT codes
General procedures	
Appendectomy	44950, 44960, 44970
Cholecystectomy	47562, 47563, 47564, , 47600, 47605, 47610, 47612, 47620
Colectomy	44140, 44141, 44143, 44144, 44145, 44146, 44147, 44150, 44151, 44160, 44204, 44205, 44206, 44207, 44208, 44210
Hiatal Hernia Repair (Para esophageal)	43281, 43282, 43332, 43333, 43334, 43335, 43336, 43337
Inguinal hernia Repair	49505, 49507, 49520, 49521, 49525, 49557, 49650, 49651
Ventral Hernia Repair	49560, 49561, 49565, 49566, 49570, 49572, 49585, 49587, 49590, 49652, 49653, 49654, 49655, 49656, 49657
Gynecology	
Hysterectomy/Myomectomy	58140, 58145, 58146, 58150, 58152, 58180, 58200, 58210, 58240, 58260, 58262, 58263, 58267, 58270, 58275, 58280, 58285, 58290, 58291, 58292, 58293, 58294, 58541, 58542, 58543, 58544, 58545, 58546, 58548, 58550, 58552, 58553, 58554, 58570, 58571, 58572, 58573, 58575, 58940, 58943, 58950, 58951, 58952, 58953, 58954, 58956
Orthopedics	
Total knee arthroplasty (TKA)	27447, 27486, 27487
Total hip arthroplasty (THA)	27125, 27130, 27132, 27134, 27137, 27138
Neurosurgery	
Spine	22100, 22101, 22102, 22110, 22112, 22114, 22206, 22207, 22210, 22212, 22214, 22220, 22222, 22224, 22318, 22319, 22325, 22326, 22327, 22526, 22532, 22533, 22548, 22551, 22554, 22556, 22558, 22586, 22590, 22595, 22600, 22610, 22612, 22630, 22633, 22800, 22802, 22804, 22808, 22810, 22812, 22818, 22819, 22830, 22849, 22850, 22852, 22855, 22856, 22857, 22858, 22861, 22862, 22864, 22865, 22867, 22869, 63001, 63003, 63005, 63011, 63012, 63015, 63016, 63017, 63020, 63030, 63040, 63042, 63045, 63046, 63047, 63050, 63051, 63055, 63056, 63064, 63075, 63077, 63081, 63085, 63087, 63090, 63101, 63102, 63170, 63172, 63173, 63180, 63182, 63185, 63190, 63191, 63194, 63195, 63196, 63197, 63198, 63199, 63200, 63250, 63251, 63252, 63265, 63266, 63267, 63268, 63270, 63271, 63272, 63273, 63275, 63276, 63277, 63278, 63280, 63281, 63282, 63283, 63285, 63286, 63287, 63290, 63300, 63301, 63302, 63303, 63304, 63305, 63306, 63307
Urology	
Nephrectomy	50220, 50225, 50230, 50234, 50236, 50240, 50543, 50545, 50546, 50548
Vascular surgery	
Aortoiliac Bypass	35331, 35351, 35355, 35361, 35363, 35521, 35533, 35537, 35538, 35539, 35540, 35558, 35563, 35565, 35621, 35623, 35637, 35638, 35646, 35647, 35654, 35661, 35663, 35665, 34707, 34708, 37220, 37221, 37222, 37223
Lower Extremity Bypass	35556, 35566, 35571, 35583, 35585, 35587, 35656, 35666, 35671, 37224, 37225, 37226, 37227, 37228, 37229, 37230, 37231, 37232, 37233, 37234, 37235

1. Variable Name: Preoperative Opioid Use

Intent of Variable: To capture whether the patient had a preoperative **diagnosis compatible with opioid use**, such as a diagnosis of fibromyalgia, chronic pain syndrome and substance use disorder.

Definition: The patient had a documented diagnosis prior to surgery which can be used to coordinate postoperative pain management. At-risk diagnoses included for this metric are fibromyalgia, chronic pain syndrome and substance use disorder. The diagnosis must accompany opioid use.

Criteria: Report if the patient has documented preoperative opioid use **along with an associated diagnosis**. If yes, select documented diagnosis of fibromyalgia, chronic pain syndrome and/or substance use disorder. Select “No” if there is no documented diagnosis.

Options:

- **Yes** - if yes, select fibromyalgia, chronic pain syndrome and/or substance use disorder from the list (multi-select)
- **No**

Scenarios to Clarify (Assign Variable):

- The following ICD-10 codes are used for fibromyalgia, chronic pain syndrome and/or substance use disorder:

Diagnosis	ICD-10 Codes
Fibromyalgia	M79.7
Chronic Pain Syndrome	G89.4
Substance Use Disorder	F10-F19

- If a patient has documentation of a prior diagnosis of substance abuse/use.
- Patients may be using opioids for arthritic or cancer pain. Include these patients as chronic pain syndrome.
- **Sickle Cell Anemia patients may also be included as chronic pain syndrome if using opioids for pain management.**

Scenarios to Clarify (Do Not Assign Variable):

Notes:

- **Clarification and definition of chronic pain:**
 1. **Chronic Pain:** Ongoing pain that usually lasts more than 6 months.
 - **Sub-Acute pain:** pain lasting 3-6 months
 - **Acute Pain:** Pain < 3 months



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2. **Syndrome:** a group of symptoms which consistently occur together
 3. **Chronic Pain Syndrome:** Pain that lasts longer than 6 months, accompanied by psychological and emotional factors such as depression, anger, hopelessness, anxiety, disability, etc.
- Use the Patient medical record to obtain the information. If there is no documentation of fibromyalgia, chronic pain syndrome, substance use disorder or substance abuse, “No” is the default answer. If the condition of fibromyalgia, chronic pain syndrome and/or substance use disorder is not documented in the surgical clearance, H&P, diagnosis coding, or Anesthesia clearance (H&P) then assume the patient does not have the diagnosis.

2. Variable Name: Pre-op Opioid Prescriptions (180 Days)

Intent of Variable: To identify if the patient filled any opioid prescriptions within 6 months (180 days) prior to the Primary Procedure to determine if someone is opioid naïve or not.

Definition: Screening for at-risk behaviors such as prior opioid prescriptions can be used to coordinate postoperative pain management. Below is a list of opioid medications.

Generic Name	Brand Name
Codeine	Tylenol 1, 2, 3, or 4
Hydrocodone	Hysingla, Lorcet, Lortab, Norco, Vicodin, Zohydro ER
Hydromorphone	Dilaudid, Exalgo
Oxycodone	OxyContin, Percocet, Roxicodone, Endocet
Tramadol	ConZip, Rybix ODT, Ryzolt, Ultram, Ultram ER
Oral Morphine	Roxanol, MS Contin

Criteria: SCR to check the PDMP. Record if the patient filled opioid prescriptions within 180 days prior to the Primary Procedure. Please record all prescription MME's totaled that are filled in the 180 days prior to the Primary Procedure.

Options:

- Yes
 - If yes, select if the prescription was filled,
 - the name of the opioid,
 - Codeine (Tylenol 1, 2, 3, or 4)
 - Hydrocodone (Hysingla, Lorcet, Lortab, Norco, Vicodin, Zohydro ER)
 - Hydromorphone (Dilaudid, Exalgo)
 - Oxycodone (OxyContin, Percocet, Roxicodone, Endocet)
 - Tramadol (ConZip, Rybix ODT, Ryzolt, Ultram, Ultram ER)
 - Oral Morphine (Roxanol, MS Contin)
 - Other – please specify
 - and enter the Morphine Milligram Equivalents (MMEs).

Note:

- 1) At this time, the number of MME's option can only be entered with a maximum of 200. If you have total MME's of 200 or greater, enter 200 as the max until this can be corrected in the registry.
- 2) The dose and amount of pills should be an optional field, so this does not have to be recorded.
- 3) Only one prescription can be recorded at this time, please enter the prescription with the largest MMEs until this issue can be amended in the registry.

- No

Scenarios to Clarify (Assign Variable):

- If a patient is taking a chronic opioid medication and given a short term opioid medication prior to the surgical procedure, record the chronic medication only.

Scenarios to Clarify (Do Not Assign Variable):

- Do not assign if no prescriptions have been filled in the six months (180 days) before surgery.

Notes:

- SCR to use the PDMP and the Patient Medical Record.
- **If unable to retrieve MMEs, See Appendix A: Calculating Total Daily Dose of Opioids.*

- MME rounding guidelines:

- If the tenths place value of the total MMEs is greater than or equal to 0.5 then round up
- If the tenths place value of the total MMEs is less than or equal to 0.4 then round down

Check other states that are available in the PDMP if the patient and/or the physician are not in Pennsylvania.

3. Variable Name: Pre-op Benzodiazepine Prescription

Intent of Variable: To identify if the patient has an **ACTIVE** prescription for a benzodiazepine medication.

Definition: Screening for at-risk behaviors such as an active benzodiazepine prescription can be used to coordinate postoperative pain management. “Active” refers to an existing prescription. If the patient has a benzodiazepine listed in their current medication list or as a currently filled prescription in the PDMP, this would denote an active prescription. Below is a non-exhaustive list of benzodiazepine medications.

Generic Name	Brand Name
Alprazolam	Xanax
Chlorazepate	Tranxene
Chlordiazepoxide	Librium
Clonazepam	Klonopin
Diazepam	Valium
Flurazepam	Serax
Lorazepam	Ativan
Oxazepam	
Temazepam	Restoril
Triazolam	Halcion

Criteria: Report if the patient has a current “active” benzodiazepine prescription.

Options:

- **Yes** - If yes, choose which benzodiazepine (Multi-select).
 - Alprazolam (Xanax)
 - Chlorazepate (Tranxene)
 - Chlordiazepoxide (Librium)
 - Clonazepam (Klonopin)
 - Diazepam (Valium)
 - Flurazepam
 - Lorazepam (Ativan)
 - Oxazepam (Serax)
 - Temazepam (Restoril)
 - Triazolam (Halcion)
 - Other – please specify
- **No**

Scenarios to Clarify (Assign Variable):

- Check other states **that are available** in the PDMP if the patient and/or the physician are not in Pennsylvania.

Scenarios to Clarify (Do Not Assign Variable):

- Do not assign if no prescriptions have been filled in the six months (180 days) prior to surgery.

Notes: Use the PDMP and the Patient Medical Record (H&P) to capture this information.

4. Variable Name: Intra-op Opioid Use

Intent of Variable: To capture opioids used intraoperatively.

Definition: Opioids that are administered during the primary procedure as reported by the anesthesia provider. The opioids included in this measure are as follows:

- Alfentanil
- Anileridine
- Fentanyl
- Hydromorphone
- Remifentanil
- Sufentanil

Criteria: Report if the patient received opioid medications intraoperatively, as reported by the anesthesia provider.

Options:

- **Yes** – If yes, select those that apply from the drop down box. (Multiselect)
 - Alfentanil
 - Anileridine
 - Fentanyl
 - Hydromorphone
 - Remifentanil
 - Sufentanil
- **No**

Scenarios to Clarify (Assign Variable):

- Assign even if opioids were utilized for intraoperative blocks.

Scenarios to Clarify (Do Not Assign Variable):

- Do not assign if only nonopioid anesthetic agents are utilized.

Notes: This information will be found in the Anesthesia Record and/or the Medication Administration Record.

5. Variable Name: Intra-op Block Administered

Intent of Variable: To capture whether a form of regional anesthesia (Block) was employed intraoperatively for postoperative pain control.

Definition: Regional anesthesia/blocks that are administered during the primary procedure as reported by the anesthesia provider or the surgeon. The blocks included in this measure are as follows:

- Epidural
- Spinal
- Chest
- Abdominal
- Extremity

Criteria: Indicate whether a form of regional anesthesia was employed during the primary procedure.

Options:

- **Yes** – If yes, select which block
 - Epidural
 - Spinal
 - Chest
 - Abdominal
 - Extremity

- **No**

Scenarios to Clarify (Assign Variable):

- TAP blocks are “abdominal”
- Thoracic epidural is “epidural”
- Intrathecal is “spinal”
- OnQ Pump would be included as a type of regional anesthesia
- Assign if an intraoperative block was used as the only method of anesthesia.

Scenarios to Clarify (Do Not Assign Variable):

- Do not assign if local anesthetic is injected. Local anesthetic is infiltrated in the skin and subcutaneous tissues.
- Subcutaneous local wound injection of bupivacaine liposome injectable suspension/bupivacaine/lidocaine would not be included as a type of regional anesthesia.

Notes:

- A thoracic epidural is placed in the T1-T12 levels, and is used for infusion of anesthetics or opioids (e.g., bupivacaine, lidocaine, mepivacaine, fentanyl, morphine) into the epidural space for pain control during and after surgery. A thoracic epidural is indicated for an open case.
- Intrathecal (spinal) anesthesia is a single dose of intrathecal opioid and or anesthetic (e.g. morphine, fentanyl and/or lidocaine, procaine, ropivacaine) administered once prior to surgery.



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- TAP blocks are performed under ultrasound guidance, where local anesthetic medication (e.g. ropivacaine, bupivacaine) is injected into the space between the internal oblique and transverse abdominis muscles to anesthetize the nerves supplying the anterior abdominal wall (T6 to L1). TAP blocks are performed prior to or at the end of the procedure by either the anesthesiologist or the surgeon and are usually indicated for laparoscopic surgery. **TAP block will be clearly documented in the record.**

6. Variable Name: Type of Multi-Modal Pain Management

Intent of Variable: To capture whether multimodal approaches to pain management were utilized in the perioperative phase of care (preoperative, intraoperative, & postoperative).

Definition: Multimodal pain management refers to use of non-opioid analgesics to reduce opioid-related side effects. Below is a list of multi-modal medications included in this metric.

Generic Name	Brand Name
Non-steroid anti-inflammatory drugs (NSAIDS)	Ibuprophen, Celebrex, ketorolac
Acetaminophen (oral)	Tylenol
Acetaminophen (IV)	Ofimev
Gabapentinoids (gabapentin or pregabalin)	Neurotin, Lyrica
Ketamine	Ketalar
Lidocaine (IV infusion)	Xylocaine
Clonidine	Catapres

Criteria: Indicate whether a multimodal (2 or more medications) approach to pain management was used in the postoperative period.

Options:

- **Yes** – If yes, select those that apply from the drop down box. (Multiselect)
 - Non-steroid anti-inflammatory drugs (NSAIDS)
 - Acetaminophen (oral)
 - Acetaminophen (IV Tylenol)
 - Gabapentinoids (gabapentin or pregabalin)
 - Ketamine
 - Lidocaine (IV infusion)
 - Clonidine
 - Other(s) – please specify
- **No**

Scenarios to Clarify (Assign Variable):

- Assign variable in patients who also have received opioids.
- Assign even if also assigned for the similar Enhanced Recovery variable.
- Assign even if the patient receives only one dose of a drug and must be a standing order. For example, If a patient received Gabapentin and Acetaminophen preoperatively, assign “Yes”.

Scenarios to Clarify (Do Not Assign Variable):

- PRN orders for these medications would not qualify.

Notes:

- Combination opioid medications which include acetaminophen, do not count as a dose of acetaminophen

7. Variable Name: Postop Opioid Prescription at Discharge

Intent of Variable: To capture all opioid prescriptions given to the patient at the point of discharge for pain related to the surgical procedure.

Definition: This question refers to medications prescribed to the patient at the point of discharge for pain related to the selected surgical procedure. Below is a list of opioid medications included in this metric.

Generic Name	Brand Name
Codeine	Tylenol 1, 2, 3, or 4
Hydrocodone	Hysingla, Lorcet, Lortab, Norco, Vicodin, Zohydro ER
Hydromorphone	Dilaudid, Exalgo
Oxycodone	OxyContin, Percocet, Roxicodone, Endocet
Tramadol	ConZip, Rybix ODT, Ryzolt, Ultram, Ultram ER
Oral Morphine	Roxanol, MS Contin

Criteria: SCR to check the PDMP and the medical record. Indicate if a postop opioid prescription was given to the patient at the point of discharge and record total Morphine Milligram Equivalents (MMEs).

Options:

- **Yes**
 - If yes, select which opioid was prescribed,
 - Codeine (Tylenol 1, 2, 3, or 4)
 - Hydrocodone (Hysingla, Lorcet, Lortab, Norco, Vicodin, Zohydro ER)
 - Hydromorphone (Dilaudid, Exalgo)
 - Oxycodone (OxyContin, Percocet, Roxicodone, Endocet)
 - Tramadol (ConZip, Rybix ODT, Ryzolt, Ultram, Ultram ER)
 - Oral Morphine (Roxanol, MS Contin)
 - Other: Please Specify.
 - enter the total Morphine Milligram Equivalents (MMEs) and
 - Did patient fill opioid prescription at discharge within 30 days:
 - Yes
 - No

Note:

- 1) At this time the number of MME's option can only be entered with a maximum of 200. If you have total MME's of 200 or greater, enter 200 as the max until this can be corrected in the registry.
- 2) The dose and amount of pills should be an optional field, so this does not have to be recorded.
- 3) Only one prescription can be recorded, please enter the prescription with the largest MMEs until this issue can be amended in the registry.

- **No**

Scenarios to Clarify (Assign Variable):

- Assign even if the PDMP indicates that the prescription was not filled.

Scenarios to Clarify (Do Not Assign Variable):

- Do not assign if nonopioid alternatives were the only medication(s) prescribed.
- Do not assign if the patient was instructed to continue preop opioid pain regimen. A prescription must be given to the patient to be assigned.

Notes:

Use the following sources to obtain this information:

- PDMP
- EMR (discharge summary discharge instructions, or postop clinic notes)
- **If unable to retrieve MMEs, See Appendix A: Calculating Total Daily Dose of Opioids.*

MME rounding guidelines:

- If the tenths place value of the total MMEs is greater than or equal to 0.5 then round up
- If the tenths place value of the total MMEs is less than or equal to 0.4 then round down

8. Variable Name: Postop Opioid Refill

Intent of Variable: To identify whether or not a patient refilled their postop opioid prescription.

Definition: To capture if the patient refilled any opioid prescription that was given at the point of discharge, for pain related to the primary procedure. Opioids included in this measure are:

- Codeine (Tylenol 1, 2, 3, or 4)
- Hydrocodone (Hysingla, Lorcet, Lortab, Norco, Vicodin, Zohydro ER)
- Hydromorphone (Dilaudid, Exalgo)
- Oxycodone (OxyContin, Percocet, Roxicodone, Endocet)
- Tramadol (ConZip, Rybix ODT, Ryzolt, Ultram, Ultram ER)
- Oral Morphine (Roxanol, MS Contin)
- Other – please specify

Criteria: SCR to check the PDMP. Indicate whether the patient refilled their discharge opioid prescription anytime within 30 days postoperatively. Include all refills in the 30 day period. Record the total Morphine Milligram Equivalents (MMEs).

Options:

- **Yes**
 - If yes, select which opioid was refilled
 - Codeine (Tylenol 1, 2, 3, or 4)
 - Hydrocodone (Hysingla, Lorcet, Lortab, Norco, Vicodin, Zohydro ER)
 - Hydromorphone (Dilaudid, Exalgo)
 - Oxycodone (OxyContin, Percocet, Roxicodone, Endocet)
 - Tramadol (ConZip, Rybix ODT, Ryzolt, Ultram, Ultram ER)
 - Oral Morphine (Roxanol, MS Contin)
 - Other – please specify
 - enter the total Morphine Milligram Equivalents (MMEs).

Note:

- 1) At this time the number of MME's option can only be entered with a maximum of 200. If you have total MME's of 200 or greater, enter 200 as the max until this can be corrected in the registry.
- 2) The dose and amount of pills should be an optional field, so this does not have to be recorded.
- 3) Only one prescription can be recorded, please enter the prescription with the largest MMEs until this issue can be amended in the registry.

- **No**

Scenarios to Clarify (Assign Variable):

Check other states that are available in the PDMP if the patient and/or physician are not in Pennsylvania.

Scenarios to Clarify (Do Not Assign Variable):

Notes:

- Source of data is the PDMP.
- **If unable to retrieve MMEs, See Appendix A: Calculating Total Daily Dose of Opioids.*

MME rounding guidelines:

- If the tenths place value of the total MMEs is greater than or equal to 0.5 then round up
- If the tenths place value of the total MMEs is less than or equal to 0.4 then round down

Appendix A: Calculating Total Daily Dose of Opioids

1. Determine the total daily amount of the opioid the patient takes (Dose).
2. Convert to Opioid Oral Morphine Milligram Equivalents (MMEs): Multiply the dose for the opioid by the conversion factor (*see table*).

Sample Case: Your patient is prescribed oxymorphone 10mg four (4) times a day.

1. Daily dose = 40mg per day
2. Convert to MMEs: (oxymorphone conversion factor = 3), $40 \times 3 =$ **120 MME (daily)**

Opioid Oral Morphine Milligram Equivalent (MME) Conversion Factors

<u>Type of Opioid (strength units)</u>	<u>MME Conversion Factor</u>
Codeine (mg)	0.15
Fentanyl transdermal (in mcg/hr)	2.4
Hydrocodone (mg)	1
Hydromorphone (mg)	4
Methadone	
• 1-20 mg/day	4
• 21-40 mg/day	8
• 41-60 mg/day	10
• \geq 61-80 mg/day	12
Morphine (mg)	1
Oxycodone (mg)	1.5
Oxymorphone (mg)	3
Tramadol (mg)	0.1

MME rounding guidelines:

- If the tenths place value of the total MMEs is greater than or equal to 0.5 then round up
- If the tenths place value of the total MMEs is less than or equal to 0.4 then round down

References:

<https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/Opioid-Morphine-EQ-Conversion-Factors-Aug-2017.pdf>

https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf

https://www.aafp.org/dam/AAFP/documents/patient_care/pain_management/conversion-table.pdf