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| **Policy Title:** | **Administration of IV Opioids via Authorized Agent Controlled Analgesia (AACA)** | | |
| **Location:** | Nursing Practice Manual | **Department:** | Intensive Care Unit |
| **Policy Number:** | Policy Number | **Review Date:** |  |
| **Original Effective Date:** | February 2014 | **Current Effective Date:** |  |

**Key Words: Opioids, AACA, and Authorized Agent Controlled Analgesia**

1. **Scope:**

Throughout the Intensive Care Unit Only

1. **Purpose:**

To control pain by administering an opioid analgesic via a programmable, tamper resistant device that allows an authorized agent to administer prescribed doses.

The indications for AACA are mechanically ventilated patients, comfort care, and for the patient requiring as needed narcotic doses more than once per hour or once per hour for four (4) consecutive hours.

1. **Definitions:**

Programming parameters include the following:

1. **Dose** is the dose the patient will receive when the button is pressed. Also referred to as the bolus or demand dose.
2. **Lockout interval** is the time period, in minutes, during which the device will not deliver an AACA dose. This is determined by the primary team or pain service managing the patient’s pain control regimen.
3. **Continuous or Basal** is the mode used to deliver a continuous dose of drug per hour. Continuous mode may be used alone or in combination with the bolus dose mode. Also referred to as the basal dose.
4. **PCA** is referred to in the policy as the equipment, not to indicate patient controlled analgesic. Such examples of PCA working include, but are not limited to: PCA Device, PCA Tubing, PCA Syringe, and PCA Key. Theses items are labeled as PCA only as a matter of consistency in naming the device.
5. **Authorized Agent Controlled Analgesia (AACA)** is a method of pain control in which a consistently available and competent individual is authorized by a prescriber and properly educated to activate the dosing button of an analgesic infusion pump when a patient is unable, in response to that patient’s pain.
6. **Policy:**

# Upon order by a Licensed Independent Practitioner (LIP), a RN may initiate, maintain and monitor an intravenous infusion of an opioid analgesic.

# Authorized Agent Controlled Analgesia utilizes a tamper resistant device to administer intravenous opioid analgesic.

* **Only the authorized agent, defined as the Intensive Care RN, should push the AACA button**. Patient and/or patient visitors should not push the AACA dose delivery button.
  + - The nurse should assess the patient for the appropriateness of AACA therapy.
    - A **Basal** or **Continuous** dose must be approved by the ICU Fellow or Attending.
    - The class of drugs administered via the AACA device is Opioid Analgesic.
    - Specific drugs include:

Morphine

Hydromorphone (Dilaudid)

Fentanyl (Sublimaze)

* When loading or unloading the syringe, ensure the tubing is clamped to prevent accidental administration.
* The RN who acts as the authorized agent must document in the Medication Administration Record (MAR) with each administration of the AACA. A pre and post Cognitively Impaired Pain Assessment Score and/or RASS Score must be documented in the in the electronic medical record. . The RN administering will chart the medication with the use of the quick chart, under the PCA syringe, using the bolus dose
* Upon initiation of AACA therapy, document pain and/or sedation every 1-hour.
* Every 4 hours, document the patient assessment and history on the pump in the medical record, and the patient history on the pump cleared.
* Documentation and clearing of the pump should also occur before the following interventions, but not limited to:
  + Upon initiation of AACA
  + Dose or rate change
  + Medication change
  + Discontinuation
  + Change of caregiver

| **AACA Documentation Requirements** | |
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| Document every 1 hour x 4 upon initiation, then every 4 hours.  MUST CLEAR the patient history on the pump. | * + PCA Settings * Number of Attempts * Number of Injections * Vital Signs * Pain Assessment * PCA Neurological * PCA Respiratory * PCA Gastrointestinal |
| Documentation and clearing of the pump should also occur before the following interventions, but not limited to: | * Upon initiation of AACA * Dose or rate change * Medication change * Discontinuation * Change of caregiver * Patient transfer |
| Document with each AACA medication administration. | * Pre and Post Pain and/or RASS score must be documented to support the use of the AACA mode. |

**Guidelines for Transporting the Patient with AACA Therapy**

* + - Transporting of the patient with an AACA to off-unit testing, the critical care RN must be in attendance with the transport. During the time of transport and testing, the Critical Care Nurse may utilize the AACA mode. Documentation must be complete as stated in the above requirements.
    - The AACA mode must be discontinued before the patient can be transferred out of the Intensive Care or Critical Care area.
* Transporting of the patient with a AACA to the OR
  + If the patient is on the AACA pump, this treatment must be discontinued.

1. **Equipment:**

* AACA Orders
* PCA Key
* PCA Delivery Device
* PCA Tubing
* PCA Syringe
* Pre-Filled - Medication syringe from Pharmacy:
* Morphine 1mg/ml (Pyxis)
* Fentanyl 50 mcg/1 ml (Pyxis)
* Hydromorphone (Dilaudid) 1mg/ml (Pyxis)
* Morphine 5mg/ml (Pharmacy)
* Fentanyl 10mcg/1ml (Pharmacy)
* Hydromorphone (Dilaudid) 2mg/ml (Pharmacy)

Note: Those indicated (Pharmacy) or other concentrations must be ordered from the Pharmacy using Form 51 or the medication request function in Cerner.

1. **Procedure**

| COURSE OF ACTION | POINTS OF EMPHASIS |
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| 1. Review Authorized Agent Controlled Opioid Analgesia Orders as prescribed by Licensed Independent Practitioner. | The prescribing LIP or service is responsible for the following:   * + Writing AACA orders.   + AACA will be utilized in the Intensive Care Unit only.   . |
| 1. RN reviews completed AACA orders. |  |
| 1. Obtain PCA pump and PCA tubing. |  |
| 1. Remove PCA syringe from Pyxis or sign out from Narcotic Lock Box on the Controlled Substance Sheet. Obtain PCA key from Pyxis. | If the PCA syringe is not available in Pyxis, obtain the prescribed drug using the narcotic request Form 51 or using the medication request function in Cerner.  Refer to Nursing Practice Policy 319: *Handling Controlled Substances*. |
| 1. Verify patient information according to policy. | Review allergies.  Refer to Identification, Patient in Hospital Practice Policies |
| 1. Follow infection control procedure according to policy. | Refer to section 401: Intravenous Access, Insertion and Maintenance in the Policies and Procedures of Patient Care Services Manual |
| 1. Establish IV access and maintenance fluids at minimal of KVO (keep vein open). |  |
| 1. Program the AACA pump as ordered. Program and administer the loading dose, if ordered. | Two (2) RNs must verify initiation of AACA at the patient’s bedside to include verification of medication order and pump settings. Two (2) RNs must document in the medical record. |
| 1. Connect medication syringe to PCA tubing. | PCA tubing changed every 4 days per Policy #401. All tubing will be labeled with a “CHANGE day of the week” label (e.g. CHANGE Monday). The label will include date and time tubing was hung and initials of the RN placing the label. |
| 1. Insert PCA medication syringe into pump. Be sure to have slide clamp in clamped position when placing syringe into pump, disconnect tubing from patient. | PCA syringe is equipped with information that identifies drug and concentration of the medication. |
| 1. Flush “Y” port tubing with saline flush. Attach maintenance fluids or KVO to “Y” port of PCA tubing. Attach PCA tubing to the injection port as primary line. | **Clamp PCA tubing** when pump is unlocked (i.e., initiating cartridge, changing cartridge, reprogramming pump). |
| 1. Prime the PCA tubing using the prime mode on PCA pump. | Always disconnect the PCA set from patient during priming cycles (it may take 2 full cycles to complete priming of the PCA tubing). |
| 1. After set-up, turn the key to the locked position on the PCA pump and return PCA key to Pyxis. |  |
| 1. Disinfect injection port with alcohol prep or swab cap. | Refer to policy #401. |
| 1. Start the infusion. | Ensure PCA tubing is unclamped.  Make sure lockbox is locked using the appropriate pump key. |
| 1. Pump Settings must be verified by two (2) RNs against LIP order and documented in the medical record:    1. Upon initiation of therapy    2. At the beginning of each shift or transfer of care    3. Any change in settings    4. Any change in syringe    5. Discontinue syringe |  |
| 1. After initiation of AACA, assess and document in the medical record the following every 1 hour x 4 hours and then every 4 hours thereafter unless otherwise ordered:    1. Type of assessment    2. Mode    3. AACA Medication    4. Concentration    5. Concentration Unit of Measure    6. AACA Loading Dose\*    7. Continuous Basal Rate Dose\*    8. Continuous Basal Rate Dose Unit of Measure\*    9. Demand Dose    10. Demand Dose Unit of Measure    11. Lockout Interval (minutes)    12. Number of Injections (Delivered)    13. PCA Med Total Dose Infused (mg)    14. PCA Med Total Dose Infused (mcg)    15. Pain assessment    16. Pump related activities\*   \*If applicable | An order may be added for “PCA Management” which will generate a reminder on the “Task List” in the medical record for the assessment and documentation frequency.  The RN must notify LIP of any of the following:   * Inadequate pain relief * Excessive sedation or change of mental status * Fever or temperature >38.5°C * Flush, rash or persistent itch   The patient history must be cleared every 4 hours. |
| 1. Documentation of the following must also be done at a minimum of every 4 hours:    1. Vital Signs    2. PCA Neurological    3. PCA Respiratory    4. PCA Gastrointestinal |  |
| 1. LIP order is required for changing AACA program parameters, administering a supplemental bolus dose of opioid using PCA device, renewing AACA narcotics per the Controlled Substance Policy and discontinuing PCA. | Document the amount of any supplemental bolus doses in the medical record. |
| **Maintenance** | |
| * 1. Clamp PCA tubing with clamp on tubing when pump is unlocked (i.e., initiating syringe into pump cassette, changing syringe, reprogramming pump settings). |  |
| * 1. Replace new PCA syringe when empty and every 24 hours, and attach to tubing, as necessary. Discard empty syringe in appropriate container. | If the infusion is changed before all opioid is infused, waste remainder per hospital policy.  -To waste PCA syringe, follow “waste” procedure in Pyxis Medstation. Two RN’s must verify the waste. The contents of the container will be wasted by squirting content in the sharps syringe. Remove patient information and discard in appropriate container.  -Partially used PCA syringes prepared in the Pharmacy will be wasted by squirting content in the sharps container. The volume wasted will be documented in the medical record with the 2 RN’s signatures. Remove patient information and discard in appropriate container.  Refer to Nursing Practice Policy 319: Handling Controlled Substances. |
| * 1. Document in the medical record that a new PCA container syringe has been placed in the pump. | The total amount of drug infused is to be recorded **every 4 hours** in the column marked “PCA Med Total Dose Infused” along with the “Number of Injections.” |

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| **Discontinuation** | |
| * + 1. If infusion is discontinued per order, documenting the opioid analgesic received by the patient via the PCA device in the medical recordand follow waste procedures for any amount remaining in container syringe by documenting in the medical record and Controlled Substance waste sheet or Pyxis per unit policy. | Documentation upon wasting must requires a 2nd RN witness and must include the following documentation parameters in the medical record:  a.) Type of Assessment, indicating “Discontinuation”;  c.) AACA Medication  d.) Concentration  e.) Concentration Unit of Measure  f.) AACA Med Total Dose Infused (mg)  g.) AACA Med Total Dose Infused (mcg)  h.) Pain assessment |

1. **Attachments:**

[Alaris IV Pump Helpful Hints 2013](http://www.gwstaff.com/p15695.html)

1. **References**

Alaris® PCA module pocket guide. 2011 CareFusion Corporation. Carefusion.com

[American Society for Pain Management Nursing position statement with clinical practice guidelines:authorized agent controlled analgesia.](https://mail.uhsinc.com/OWA/redir.aspx?C=CEaqET3U7kqT_ShghYz9qR9ZZP5k8dBI6jaDhs8DrQJaf156l7aRaHLXxbzvVT26cF79By4qQC4.&URL=http%3a%2f%2fwww.ncbi.nlm.nih.gov.proxygw.wrlc.org%2fpubmed%2f23972869) Cooney MF, Czarnecki M, Dunwoody C, Eksterowicz N, Merkel S, Oakes L, Wuhrman E. Pain Manag Nurs. 2013 Sep;14(3):176-81. doi: 10.1016/j.pmn.2013.07.003. PMID:  23972869  [PubMed - in process]

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ISMP (Institute for Safe Medicine Practices). Medication Safety Alert May 30, 2013. Vol 18, Issue 11. *Fatal PCA adverse events continue to happen… Better patient monitoring is essential to prevent harm*. www.ismp.org

The Joint Commission: Sentinel Event Alert. *Safe use of opioids in hospitals*. Issue 49, August 8, 2012. www.jointcommission.org

McCaffery, M. & Pasero, C. (2011) *Pain Assessment and Pharmacologic Management.* MO: Mosby- Elsevier, Inc. pp. 313-322.

Infusion Nurses Society. (2011). *Policies and Procedures for Infusion Nursing*, 4th Edition.

1. **Related UHS References**

Nursing Practice Policy 312: *Administration of IV Opioids via Patient Controlled Analgesia (PCA) Device*

Nursing Practice Policy 319: *Handling Controlled Substances*

Nursing Practice Policy 401*: Intravenous Access, Insertion and Maintenance*

Nursing Practice 401a Chart: *Intravenous Access, Insertion and Maintenance*

Nursing Practice Policy 601: *Preparation of the Pre-Operative Patient.*

Hospital Practice Policy: *Controlled Substance*

Hospital Practice Policy: *Identification, Patient*

*See hard copy for signature.*

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