

# POLICY ■ PROCEDURE

Number: 8720.747



**SOUTHWEST**  
Washington Medical Center

Title: Deep Sedation – Level II

Originating Department: Clinical Practice Committee  
Administration

Approved by: Cathy King, Dan Keteri

Effective: 01/09

Revised:

Reviewed: 01/09

Page: 1 of 9

## GENERAL POLICY

**STATEMENT:** Level II Deep Sedation shall be provided to patients undergoing diagnostic, therapeutic or surgical procedures when deep sedation is clinically indicated. Level II Deep Sedation shall only be administered following identified standards required for non-anesthesiologist physicians as defined in SWMC Medical Staff Bylaws.

*-Administration of planned Level II Deep Sedation is outside of the scope of practice of the Registered Nurse. Registered Cardiovascular Technicians (RCT's) by SWMC organization policy shall not administer planned Level II Deep Sedation.*

**PURPOSE:** To establish standards for the safe and consistent care of patients receiving deep sedation in all settings throughout the continuum of care.

**DEFINITIONS:** **Level II Deep Sedation:** a drug induced depression of consciousness during which patients cannot be easily aroused but respond purposefully\* following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.

(Developed by the American Society of Anesthesiologists; approved by ASA House of Delegates October 27, 2004).

**KEYPOINT:** \* Reflex withdrawal from a painful stimulus is not considered a purposeful response.

**KEYPOINT:** Because sedation is a continuum, it is not always possible to predict how an individual patient will respond. Hence, practitioners intending to produce a given level of sedation should be able to rescue patients whose level of sedation becomes deeper than initially intended.

❖ Individuals administering Level II Deep Sedation should be able to rescue patients who enter a state of general anesthesia.

**Pediatric:** For procedural or deep sedation, a pediatric patient is defined as age 15 or under and 100 lbs. or less.

**Qualified RN or RCT:** All RN/RCT personnel assigned to assist with or monitor a patient during or after procedural sedation shall have successfully completed/demonstrated the specific competency requirements.

**EXCLUSIONS:**

- 1) Does not include oral pre-medication
- 2) Does not apply to administration of narcotics and sedatives for pain or anxiety

- 
- 3) Excludes preoperative medication of patients prior to their transport to the Operating Room
  - 4) Excludes patients receiving inhalation anesthetics
  - 5) Excludes patients who receive continuous IV sedation per protocol to manage conditions requiring mechanical ventilation (e.g., traumatic injury, post-surgical intervention).
  - 6) Excludes patients who are receiving sedation for the purpose of intubation

**PROCEDURE:**

## A. Pre-Procedure

1. Clinicians administering sedation/analgesia should be familiar with sedation-oriented aspects of the patient's medical history and how these might alter the patient's response to sedation/analgesia, including
    - abnormalities of the major organ systems
    - previous adverse experience with sedation/analgesia as well as regional and general anesthesia
    - drug allergies, current medications, and potential drug interactions
    - time and nature of first oral intake; and
    - history of tobacco, alcohol, or substance use or abuse
  - a. Patients presenting for sedation/analgesia should undergo a focused physical examination, including vital signs, auscultation of the heart and lungs, and evaluation of the airway (see Appendix A)
  - b. Pre-procedure laboratory testing should be guided by the patient's underlying medical condition and the likelihood that the results will affect the management of sedation/analgesia
    - 1) These evaluations should be confirmed immediately before sedation is initiated
- 
2. Practitioner Responsibilities for Pre-Procedural Care
    - a. Providers administering deep sedation must be privileged for Level II deep procedural sedation and are responsible to know if the privilege is current
    - b. The following shall be completed by the practitioner and documented in the medical record prior to procedure

**KEYPOINT:** Document assessment on Procedural Sedation Interdisciplinary Progress Record (refer to: Intranet; Forms database; # 2077) or department specific form.

- 1) Assessment:
  - a) An appropriate history and physical assessment with other pertinent information
  - b) An airway assessment immediately prior to the procedure including:
    - i Mallampatti classification using the graphic assessment tool
    - ii Mandible measurement (finger distance from the inner surface of mandible to hyoid bone during neck extension)
    - iii Neck range of motion
    - iv Condition of teeth
  - c) Previous anesthesia history including poor or questionable outcomes
  - d) Physical Status Classification (ASA Score):
    - i Class I:
      - a) Normally healthy individual with no systemic disease
      - b) Patient not at extremes of age

- ii Class II:
  - a) Individual with one system, well-controlled disease
  - b) Mild obesity, alcoholism, and smoking may be incorporated here

**KEYPOINT:** Class I and II are appropriate for deep sedation

- iii Class III:
  - a) Individual with multiple system disease or well controlled major system disease
  - b) Disease status may limit daily activity
  - c) No immediate danger of death from any individual disease

- iv Class IV:
  - a) Individual with severe, incapacitating disease
  - b) Disease state is poorly controlled or end-stage
  - c) Danger of death due to organ failure is always present

- v Class V:
  - a) Patient who is in imminent danger of death
  - b) Patient not expected to live through the next 24 hours

**KEYPOINT:** Class III, IV, and V require additional individual consideration and documentation of rationale for procedure; Class III patients requiring Level II deep sedation shall be considered for anesthesia provider support; Class IV and V patients are not appropriate for deep sedation by non-anesthesia providers.

- 3. Complete the informed consent process for sedation (refer to: Intranet; Forms & Printing; Form # 450 or department specific consent form)  
**KEYPOINT:** Surgical consent form may be used, unless approved department specific consent is standard.
- 4. Complete sedation plan and orders prior to initiating procedure  
**KEYPOINT:** Implement Sedation Plan Interdisciplinary Progress Record: (refer to: Intranet: Forms & Printing: Form #2077) and/or department specific Pre Printed Order: (ED implements Procedural Sedation Flow Record; see Intranet: Forms & Printing: Forms Database #2329).
- 5. RN Responsibilities
  - a. Verify physician privileges for planned procedure and Level II Deep Sedation  
**KEYPOINT:** Refer to the physician privileging website on the SWMC Intranet to identify level of physician sedation privileging. All physicians ordering/performing deep sedation must meet the specific competency requirements identified in the credentialing process.
  - b. Verify completion of:
    - 1) Informed Consent for sedation
    - 2) History and Physical
    - 3) Pre-Procedure Airway Assessment and Plan for Sedation
    - 4) Pre-Procedure Checklist

c. Evaluate and document NPO/fasting status

Ingested Material	Minimum Fasting Period <sup>2</sup>
Clear liquids <sup>3</sup>	2 h
Breast milk	4 h
Infant formula	6 h
Non-human milk <sup>4</sup>	6 h
Light meal <sup>5</sup>	6 h
Regular meal	8 h

<sup>1</sup> These recommendations apply to healthy patients who are undergoing elective procedures. They are not intended for women in labor. Following the guidelines does not guarantee that complete gastric emptying has occurred. Causes of delayed gastric emptying include: diabetes, narcotic use, presence of ascites or other intra-abdominal processes which may make the stomach smaller than normal, significant uremia, chronic significant neurological disease, etc.

<sup>2</sup> The fasting periods noted above apply to all ages.

<sup>3</sup> Examples of clear liquids include water, fruit juices without pulp, carbonated beverages, clear tea, and black coffee.

<sup>4</sup> Since non-human milk is similar to solids in gastric emptying time, the amount ingested must be considered when determining an appropriate fasting period.

<sup>5</sup> A light meal typically consists of toast and clear liquids. Meals that include fried or fatty foods or meat may prolong gastric emptying time. Both the amount and type of foods ingested must be considered when determining an appropriate fasting period.

**KEY POINT:** In emergent situations or when patients are at risk for pulmonary aspiration of gastric contents, appropriate pharmacologic treatment to reduce gastric volume and increase gastric pH may be of benefit prior to sedation and/or airway protection may be required. In emergency situations when pre-procedure fasting is not practical, the targeted level of sedation should be modified (i.e. less sedation should be administered). Consideration should be given for consultation with an anesthesia credentialed practitioner.

d. Assessment: Registered Nurse (RN) responsibility

- 1) Baseline pain assessment
- 2) Baseline sedation score (See Addendum “OAS/S Sedation Scale”)
- 3) Baseline Vital Signs (BP, P, R, T, O<sub>2</sub> sat)
- 4) Height and weight
- 5) Allergies/sensitivities
- 6) Verification of appropriate transportation home shall be obtained (i.e. the patient is not driving) when the patient is expected to be discharged following the procedure

e. Establish IV Access

- 1) Vascular access must be established prior to administration of deep sedation

f. Personnel –Level II Deep Sedation: the Sedation Plan shall determine personnel requirements

- 1) Personnel– Level II Deep Sedation
  - a) Level II deep sedation privileged physician shall be present to administer the sedation and remain present during the entire procedure

---

**KEYPOINT:** This practitioner is independent from the practitioner performing the invasive procedure. Practitioners intending to produce a given level of sedation should be able to rescue patients whose level of sedation becomes deeper than initially intended.

- b) One qualified RN or Registered Cardiovascular Technologist whose primary responsibility during the procedure is to monitor the patient, maintain the airway and be qualified and competent to identify and manage a compromised airway must be present

**KEYPOINT:** The qualified RN or RCT responsible for monitoring the patient may not engage in tasks that would compromise continual assessment.

- c) ACLS certified Respiratory Therapist, ACLS certified RN
- g. Equipment/Supplies for Deep Sedation
    - 1) Continuous oxygen saturation monitor
    - 2) Intravenous access supplies, fluids
    - 3) Supplemental oxygen including nasal cannulas, masks, regulator and equipment to perform positive pressure ventilation (i.e. Ambu bag)
    - 4) Blood pressure monitoring equipment
    - 5) Suction and suction catheters present and set up for immediate use
    - 6) Reversal agents to be at the bedside prior to the start of the procedure
    - 7) Cardiac monitoring
    - 8) Code 199 cart present

**KEYPOINT:** All equipment and supplies must be suitable for the age and size of the patient being treated.

B. Intra-Procedural Care

- 1. Final Verification and Time Out
  - a. The physician performing the procedure, as well as all personnel present, shall participate in completing the final check in the location where the procedure is to be performed, immediately prior to the beginning of the procedure (refer to policy # 8720.103, “Universal Protocol: Patient, Procedure and Site Verification”)
- 2. Medication administration
  - a. Level II Deep Sedation: Physician must administer the IV sedation and remain present during the procedure
  - b. Dosage and rate of administration must be individualized based on patient condition (drug manufacturer’s recommendations, response to previous dose)
  - c. Medication administration is performed incrementally
    - 1) Dosages and rates of administration must be individualized with adequate time between doses to assess full pharmacologic effects
  - d. The administration of each dose is to be documented on the procedural record

**KEYPOINT:** Because sedation is a continuum, it is not always possible to predict how an individual patient will respond. The patient’s age and pre-existing medical conditions may significantly alter the dosing requirements needed for sedation.

  - f) Reversal agents used at the discretion of the Physician
- 3. Airway management
  - a) Supplemental oxygen at 2 liter per nasal cannula (oxygen flow rate may vary according to individual patient assessment and medical condition)

---

**KEYPOINT:** Do not use supplemental oxygen when procedure site is near nares and electrosurgical equipment is being utilized.

4. Patient monitoring
  - a) Continuous visual monitoring with documentation upon initiation and every 5 minutes for the following:
    - 1) Patient's level of consciousness and responsiveness
    - 2) Heart rate
    - 3) Blood pressure
    - 4) Respiratory rate
    - 5) Continuous pulse oximetry
    - 6) ECG
    - 7) End tidal CO<sub>2</sub> (optional consideration if patient is prone or in an area where visual observation of ventilatory function is compromised)

C. Post procedure Care

1. Monitoring
  - a. Monitor and document vital signs and oxygen saturation every 10 minutes or more frequently as indicated by patient response until patient reaches a modified Aldrete Score of 8 (Attachment A)
  - b. Report significant variations in physiologic parameters to the physician immediately including but not limited to:
    - 1) Variation of  $\leq \pm 20\%$  of baseline
    - 2) Arrhythmia
    - 3) Oxygen saturation  $\leq 90\%$  or  $\geq 5\%$  below baseline
    - 4) Dyspnea, apnea, or hypoventilation
    - 5) Diaphoresis
    - 6) Inability to arouse patient
    - 7) Other untoward or unexpected patient response
  - c. When the modified Aldrete score reaches 8 or above obtain vital signs every 15 minutes x 2
  - d. Patient shall not be discharged prior to a minimum of 30 minutes since last dose of sedation medication
  - e. Follow Standard of Care (refer to Post Anesthetic and Post Procedural Care for Non Critical Care, (#2019), Outpatient Surgical or Invasive Procedure (#2033))
2. Documentation for Level II Deep Procedural Sedation
  - a. Immediate post procedure note documented in medical record (Sedation Plan progress note, procedural record, ED record, etc.)
  - b. Physician performing Deep Sedation shall sign the Procedural Sedation Plan Interdisciplinary Progress Record (refer to: Intranet; Forms; Forms database; # 2077), or department specific form/order set
  - c. Patient monitoring documented on the Procedure Sedation Flow Sheet or department specific procedure record
3. Patient Discharge
  - a. Maintain IV access until discharge criteria are met

- b. Discharge Criteria:
    - 1) Return to pre-procedural level of consciousness and activity level
    - 2) Vital Signs within  $\pm$  20% of pre-op/pre-procedural
    - 3) Absence of vomiting, minimal nausea after PO fluids (notify attending physician of vomiting)
    - 4) Able to ambulate with minimal dizziness, sit up unassisted as appropriate for age and/or return to pre-operative status
    - 5) Dressing, if present, dry and intact
    - 6) Responsible adult present to escort/drive patient home
    - 7) When discharge criteria are not met, notify physician for further orders
- KEYPOINT:** Pediatric patients shall demonstrate pre-procedural developmental tasks such as sitting or talking and an adequate state of hydration prior to discharge.
- 8) When a reversal agent is administered, prolonged observation (minimum of two (2) hours from time of administration) is recommended
  - 9) Document time and condition of patient at discharge
  - 10) Provide patient with discharge instructions

D. Quality Improvement

- 1. Random chart audits shall be conducted for compliance with regulatory standards as current
- 2. Adverse events and/or patterns during Procedural Sedation shall be documented and submitted to the appropriate supervisor/manager/director within 24 hours of occurrence
  - a. Adverse events include (not limited to):
    - 1) Adverse patient reaction
    - 2) Administration of a reversal agent
    - 3) Respiratory and cardiac depression requiring Code 199
    - 4) Patient expiration
  - b. Manager/Supervisor/Director investigates the occurrence, completes the documentation and submits to Quality Care Resources for appropriate review (refer to: Intranet; Forms; Forms database; # 050)

E. Competency Requirements

- 1. Physician must maintain privileges and competency requirements as outlined in Medical Staff Bylaws for Level II Deep Sedation
- 2. Staff assisting with monitoring patients receiving Deep Sedation shall have completed the procedural sedation competency and education requirements (refer to: Intranet: Manuals; Competency; Targeted; # 645 - Procedural Sedation)
- 3. Pediatric Procedural Sedation Competency must be completed to be deemed competent to assist with monitoring the pediatric patient undergoing deep sedation  
**KEY POINT:** Supporting Procedural Sedation Competency Reference Manuals are available in designated departments and the Library; the Sedation Simulator is available in the Library, Emergency Department and at Memorial Campus in Pain Management.

**ATTACHMENTS:**

- A. Modified ALDRETE Scoring System, OAS/S Sedation

---

**REFERENCES:**

- Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists:  
Anesthesiology, V 96, No 4, April 2002, pgs, 1004 – 1017
- A Clinical Sign to Predict Difficult Tracheal Intubation, a Prospective Study:  
Journal of Canadian Anesthesia Society, Vol 32, 1985, pg 429 – 434 (Mallampati SR, GATT, SP)
- Continuum of Depth of Sedation Definition of General Anesthesia and Levels of Sedation/Analgesia:  
Approved by ASA House of Delegates on October 13, 1999, and amended on October 27, 2004
- Washington State Nursing Care Quality Assurance Commission Position Statement:  
“Scope of Practice for the Registered Nurse in the Administration of Procedural Sedation and the Management of Patients Receiving Procedural Sedation”

**RELATED POLICIES:**

- 8720.717      Procedural Sedation Reversal  
8720.103      Universal Protocol: Patient, Procedure and Site Verification

**FORMS, STANDARDS OF CARE:**

- |  |                                     |
|--|-------------------------------------|
| Diagnostic Imaging Admission/Intra Procedure Record            | Form #2644                          |
| Emergency Department Procedural Sedation Checklist             | Form #2328                          |
| Endoscopy Consent  | Forms #2213, 2214, 2215, 2216, 2400 |
| Endoscopy Services Procedure Record                            | Form #2126                          |
| Informed Consent for Cardiac Catheterization                   | Form #2623                          |
| Occurrence Report  | Form #50                            |
| Outpatient Surgical or Invasive Procedure                      | Standard of Care #2033              |
| Patient Informed Consent                                       | Form #450                           |
| Post Anesthetic and Post Procedural Care for Non Critical Care | Standard of Care #2019              |
| Procedural Sedation Chart Review                               | Form #2910                          |
| Procedural Sedation Flow Record                                | Form #2097                          |
| Procedural Sedation Flow Records Emergency Department          | Form #2329                          |
| Procedural Sedation Interdisciplinary Progress Record          | Form #2077                          |

---

**Airway Assessment Procedures for Sedation and Analgesia**

Positive pressure ventilation, with or without tracheal intubation, may be necessary if respiratory compromise develops during sedation-analgesia. This may be more difficult in patients with atypical airway anatomy. In addition, some airway abnormalities may increase the likelihood of airway obstruction during spontaneous ventilation. Some factors that may be associated with difficulty in airway management are:

**History:**

- Previous problems with anesthesia or sedation
- Stridor, snoring, or sleep apnea
- Advanced rheumatoid arthritis
- Chromosomal abnormality (e.g., trisomy 21)

**Physical Examination**

**Habitus**

Significant obesity (especially involving the neck and facial structures)

**Head and Neck**

Short neck, limited neck extension, decreased hyoid-mental distance (< 3 cm in an adult), neck mass, cervical spine disease or trauma, tracheal deviation, dysmorphic facial features (e.g., Pierre-Robin syndrome)

**Mouth**

Small opening (< 3 cm in an adult); edentulous; protruding incisors; loose or capped teeth; dental appliances; high, arched palate; macroglossia; tonsillar hypertrophy; nonvisible uvula

**Jaw**




Micrognathia, retrognathia, trismus, significant malocclusion



# GUIDE TO CENTRAL CATHETERS




## Know what type of catheter BEFORE using! Call IV therapy with any questions!

1. Use **only preservative-free** (single dose vial) normal saline for **all** saline flushes.
2. 20 ml NS after each blood draw (**lab draws performed by IV therapy staff except in areas where education of specific staff has been done.**)
3. Filters are required **only** for specific drugs designated by the manufactures. For example, lipids require 1.2 micron filter.
4. All continuous infusions must be regulated with pumps.
5. All lumen ends should be capped with a positive pressure luer-lock cap.
6. Do not force if resistance met, this may indicate a plugged catheter. Call IV therapy for assistance.
7. Care and maintenance for central lines is done by the IV therapy department.
8. No coagulation lab draws from medi-ports or central lines with heparin infusing, values may not be valid.
9. **No Phenytoin (Dilantin®) through any PICC lines, occlusion occurs. May use Fosphenytoin (Cerebyx®)**
10. General use includes all therapies including, but not limited to:

<b>Maintenance fluids</b>	<b>Medications</b>	<b>PCA administration</b>	<b>Blood products</b>	<b>Lab draws</b>
---------------------------	--------------------	---------------------------	-----------------------	------------------

Catheter	Central Venous Catheter Triple Arrow	Peripherally Inserted Central Catheter (PICC)	Introducer
<b>Location</b>	Subclavian or Jugular Tip in SVC	Antecubital or Upper Arm Tip in SVC	Jugular  Tip in subclavian
<b>Length</b>	15-20 cm	55-60 cm	10 cm
<b>Term</b>	Short term	Short or long term	Short term
<b>Tunnel from insertion site to vessel entrance</b>	No	No	No
<b>Number of lumens and Color of lumens with recommended use</b>	Single -Brown General use Double - White (14g) proximal General use -Brown (14g) distal General use CVP reading Triple - White (18g) proximal General use - Blue (18g) middle General use - Brown (14g) distal General use, CVP reading	Single PICC 3 Fr. - Green (20g) General use, NO blood draws (lumen too small) 4 Fr. - Red (19g) General use Double PICC 5 Fr. - White (19g) General use -- Red (19g) General use	Introducer: Remains after Swan-Ganz catheter removed          General use NO blood draws
<b>Flushing Maintenance</b>	5 ml preservative-free NS before & after meds Daily if not in use	5 ml preservative-free NS before & after meds Daily if not in use No heparin flush needed	
<b>Comments</b>	Has "positive pressure" cap, clamp not needed	Inserted by IV Therapy or Radiology Dept Has "positive pressure" cap, clamp not needed No Phenytoin (Dilantin®) May use Fosphenytoin (Cerebyx®)	Discontinue as soon as possible
<b>Picture of Catheter</b>			

Catheter	Power PICC	Power Medi-port (surgically implanted reservoir)
<b>Location</b>	Subclavian or Upper arm Tip in SVC	Upper Chest, Abdominal, or Antecubital Area Tip in SVC
<b>Length</b>	55-60 cm	30-40 cm
<b>Term</b>	Short or Long term	Long term
<b>Tunnel from insertion site to vessel entrance</b>	No	Yes Must be accessed with special Power 90* Huber non-coring needle
<b>Number of lumens</b>  <b>and</b>  <b>Color of lumens with recommended use</b>	Single PICC 4 FR - <u>Purple</u> (18g) General use Power Injectable Single PICC 5 FR - <u>Purple</u> (18g) General use Power injectable Double PICC 5 FR – <u>Red</u> (18g) General use Power injectable <u>Purple</u> (18g) General use Power injectable Triple PICC 6 FR – <u>Red</u> (17g) General use Power injectable <u>Grey</u> (19g) General use only <u>White</u> (19g) General use only	Single Port General use Power injectable
<b>Flushing Maintenance</b>	5 ml preservative-free NS before & after medications  No heparin flush needed when positive pressure cap in use unless patient is using heparin at home as instructed by physician  Daily if not in use	5 ml preservative free NS before & after meds followed by 5 ml heparin (100 units/ml) <b>Must</b> be flushed with heparin after meds if no running IVF When administering multiple intermittent medications in a 24 hour timeframe consider using a continuous infusion of IV fluid at a rate of >20 ml/hr to prevent over-heparinization. When capped off, flushing is only necessary before and after use: 5 ml preservative-free NS followed with 5 ml 100 units/ml heparin for the port used  Once a month if not in use
<b>Comments</b>	Inserted by IV Therapy or Radiology Department Has 'positive pressure' cap, clamp not needed No Phenytoin (Dilantin®) May use Fosphenytoin (Cerebyx®)	Call IV therapy for accessing & de-accessing of medi-ports Prior to power injecting call IV Therapy for identification confirmation
<b>Picture of Catheter</b>		

Catheter	Hickman	Medi-port (surgically implanted reservoir)	Dialysis or Plasmaphoresis Catheter
<b>Location</b>	Subclavian Tip in SVC	Upper Chest, Abdominal, or Antecubital Area Tip in SVC	Subclavian, Groin, Jugular Tip in SVC
<b>Length</b>	10-20 cm	30-40 cm	Variable Short
<b>Term</b>	Long term	Long term	Long Term
<b>Tunnel from insertion site to vessel entrance</b>	Yes Some with and some without Dacron cuff	Yes Accessed with 90° Huber non-coring needle	No
<b>Number of lumens and Color of lumens with recommended use</b>	Single Hickman - White General use  Double Hickman - White General use - Red or White General use	Single Port General use  Double Port General use	Double --Red (arterial)  -Blue (venous)  <u>No labs or infusions</u>  For dialysis or plasmaphoresis only
<b>Flushing Maintenance</b>	5 ml preservative-free NS before & after medications followed with 5cc 10 units/ml heparin  No heparin flush needed when positive pressure cap in use unless patient is using heparin at home as instructed by physician  Daily if not in use	5 ml preservative free NS before & after meds followed by 5 ml heparin (100 units/ml) <b>Must</b> be flushed with heparin after meds if no running IVF When administering multiple intermittent medications in a 24 hour timeframe consider using a continuous infusion of IV fluid at a rate of >20 ml/hr to prevent over-heparinization. When capped off, flushing is only necessary before and after use: 5 ml preservative-free NS followed with 5 ml 100 units/ml heparin for the port used  Once a month if not in use	Only after dialysis by dialysis RN (5000 units heparin in each lumen amount is designated on each lumen) Or as indicated by MD
<b>Comments</b>	Tunneled catheter requires no dressing after tissue grows on Dacron cell at insertion site	Call IV therapy for accessing & de-accessing of medi-ports	<b><u>Never to be use for lab draws or infusions without specific order from patient's Nephrologist</u></b>
<b>Picture of Catheter</b>			

**Know what type of catheter BEFORE using! Call IV therapy with any questions!**