# Interventional Recovery Unit (IRU) Addendum

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## Consent and Refusal of Consent for Procedures

For additional information (including age of consent, competence, and allowed disclosures refer to full Policy: *Consent and Refusal of Consent for Procedures* in PolicyStat

Medical Center Staff Responsibility

1. Informed Consent (PARQ) is the responsibility of the provider.
2. Informed Consent (PARQ) must occur before the hospital consent form is signed.
3. The initial Informed Consent, at times, may not be done by the actual performing proceduralist (i.e., OB Informed Consents may be done in the physician's office, but an on-call physician does the procedure).
4. The actual performing proceduralist, if different from the initial physician that provided the PARQ, must re-PARQ prior to the commencement of the procedure.
5. The Informed Consent must be documented prior to the commencement of the procedure but not necessarily prior to signing the consent form.

G. Documentation on the hospital consent form will include:

1. The name of the procedure(s) is/are entered on the consent form by the RN or provider.
2. The only acceptable source for transcribing the procedure is the provider order.
3. The procedure(s) shall be entered without using abbreviations.
4. Careful attention must be given to laterality; "right" and "left".
5. All physicians/proceduralists and LIPs performing significant procedures, as defined in the Professional Staff Bylaws, will have their name listed.
6. There must be a separate consent form signed EACH time a procedure is done.

## Vascular Sheath Management and Post Procedural Care

For additional information refer to full Policy: *PSVMC: Vascular Sheath Management and Post-Procedural Care for a Patient with a Femoral Sheath, Arterial and Venous, and Use of Compression Devices (Adult)* in PolicyStat

**Sheath removal must be performed by clinical caregivers that have demonstrated competency. Sheath maintenance and post-removal care will be performed by Registered Nurses (RN). Do not perform unless you have a documented competency on file**

1. IF catheter exit site is bleeding, THEN apply pressure for 5 minutes and notify LIP
2. IF there is a change in assessment, THEN notify LIP, restart neurovascular checks from beginning and maintain bedrest/limb precautions
    a. NOTE: To prevent limb ischemia, do not leave the artery blocked for more than 3 minutes
3. IF the patient is obese or has large hips, THEN consider the use of manual pressure
    a. NOTE: Placement of the system may not be suitable on large patients or patients with very wide hips as the belt may be too short
4. IF hematoma (e.g. pain or tenderness and swelling at the access site) develops, THEN apply firm pressure to site and hold or the originally estimated time (start over), follow the same steps and reassess for hemostasis, notify LIP, mark area and continue to monitor site
5. IF femoral compression device needed for long periods of time, THEN a brief interruption using manual compression is completed at least every 3 hours
6. IF retroperitoneal hematoma is suspected (e.g. hypotension, tachycardia, pallor, lower abdominal pain, back pain, significantly decreased hematocrit or neurovascular changes in the leg with the puncture), THEN notify LIP
7. IF pseudoaneurysm is suspected (e.g. painful palpable pulsatile mass and positive bruit), THEN apply manual pressure and notify the LIP
8. IF vessel occlusion is suspected (e.g. sudden onset of pain, possible paresthesia, limb is cyanotic and cool to touch, diminished or absent pulses), THEN notify the LIP
    a. NOTE: If compression device in place, remove device and hold manual pressure while assessing limb for return of circulation
9. IF the patient has a vasovagal response (e.g. pallor, bradycardia, hypotension or emesis), THEN place the patient in Trendelenburg and notify the LIP
10. IF arteriovenous fistula is suspected (e.g. swelling of extremity and continuous bruit at the access site), THEN apply manual pressure and notify the LIP
11. IF access site infection (e.g. high fever, femoral abscess), THEN notify the LIP

Documentation

1. Vascular Sheath LDA
2. Time hemostasis achieved
3. Groin site assessment
4. Vital signs prior, during and post-sheath removal
5. Neurovascular and peripheral vascular status of the affected extremity every 15 minutes x 4, every 30 minutes x 2, every hour x 4, then per LIP order
6. Discontinuation of vascular sheath
    a. Method used (e.g., Manual compression vs. Femoral Compression Device)
    b. Date and time of initial application of device
    c. Patient tolerance of procedure
    d. Record VS, cardiac rhythm, puncture site assessments, distal pulses, neurovascular assessments, periodic deflation and any repositioning of the device
    e. Length of time the device was in place and the appearance of the site after removal
7. Occurrence of unexpected outcomes

# Removal and Post-Procedural Care of a Patient with a Brachial Sheath

For additional information refer to full Policy: *Removal and Post Procedural Care of a Patient with a Brachial Sheath in Adult* in PolicyStat

SPECIAL CONSIDERATIONS:

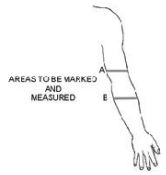
A. Assess risk factors for bleeding (age, obesity, agitation, history bleeding disorders, PVD, pharmacological therapy, hypertension, blood clotting factors increased PT/PTT, CBC.ACT).

B. At anytime during procedure or recovery, notify provider immediately for bleeding, increased pain, pressure, swelling, increase circumference of arm, numbness, decreased perfusion.

ESSENTIAL STEPS IN PROCEDURE/KEY POINTS:

A. PREPARATION:

1. Provide patient with rationale and importance of immobility.
2. Inform patient to alert RN immediately with feelings of wetness, warmth, discomfort, pressure, pain, numbness tingling of affected arm.
3. Assure patient functioning IV.
4. Apply automatic BP cuff on wrist of opposite arm. Apply oximeter on finger of arm with sheath.
   Record base line vital signs, ECG.
5. Allow visualization of both arms for comparison.
6. Mark and record baseline arm circumference with tape measure. (both upper arm and forearm). See illustration:




7. Ensure arm remains comfortable and supported with pillow.
8. Assess extremity distal to sheath for quality and strength of pulse, color, temperature, sensation and movement.
9. Locate radial/ulnar pulse with Doppler and secure probe over pulse.

B. REMOVAL

Only Interventional Cardiologist or Cardiovascular Technician to remove Brachial Sheath and obtain hemostasis. Nurse credentialed in sheath removal to remain in attendance for post removal monitoring and care.

1. Immobilize arm if physician orders.
2. Instruct patient not to move or lift arm, maintain support and comfort with pillow.
3. After hemostasis achieved apply pressure dressing secured with elastic wrap (Coban).

C. Ongoing assessment will be done until homeostasis is achieved. Document every 15 minutes x 4, every 30 minutes x 4, then every 1hr x 4 hours

D. Post Removal

Assessment: To ensure prolonged monitoring of site as the brachial arteries frequently may bleed hours after sheath removal.

1. Vital signs per unit standards.
2. Assess puncture site for hematoma formation or bleeding
3. Assess Color, temperature, sensation, movement of hands fingers.
4. Assess capillary refill (less than 3 seconds).
5. Measure, mark, record, upper arm with tape measure.
6. Radial /ulnar pulse palpable or Doppler.
7. Keep exposed for constant observation.

E. Treatment for frank bleeding, hematoma formation, increase in arm girth.

1. Direct pressure until homeostasis is achieved.
2. Notify physician.
3. Bed rest as ordered by provider.
4. Patient's pain/symptoms and intervention.
5. Description of puncture site, hematoma size, pressure method.
6. Complete unusual event report (Datix).
7. Keep exposed for constant observation.

F. Ongoing care

1. No blood pressures lab sticks in affected arm for 24hrs.
2. Patient to remain on bed rest for 4 hrs if no bleeding, HOB elevated to patient comfort.
3. Affected arm to remain immobile for 6 hrs.
    1. If ordered, use arm immobilizer and or wrist immobilizer.
4. Use sling support for affected arm during mobilization for next 12 hours.

G. Discharge Preparation

1. In am remove pressure dressing and replace band-aid.
2. No excessive movement or lifting of arm for next 24-48hrs.
3. Routine interventional instructions.

# Malignant Hyperthermia

## For additional information refer to full Policy: *Malignant Hyperthermia* in PolicyStat

C. Implementation of Protocols for an acute event:

1. Nurse or designee institutes emergency code as directed by anesthesia provider and/or physician.
2. Call RRT, Code Blue and/or main OR as appropriate per facility. Designated person brings malignant hyperthermia cart into room.
3. Nursing leadership and pharmacy are notified.
4. Assign additional support staff as necessary to assist anesthesia and circulator.
5. Contact the Malignant Hyperthermia Association of the United States (MHAUS) Hotline at (800) 644-9737 per anesthesia provider.

D. Treatment of Symptoms: Anticipate need for prescribed medications.

1. Dantrolene: Reconstitute (Dantrium/Revonto/Ryanodex)
    a. Locate on the malignant hyperthermia cart.
    b. Reconstitute only with preservative free sterile water, 2.5 mg/kg rapidly
    c. Shake Dantrium/Revonto vial well, until clear; Ryanodex is a suspension that does not clear.
    d. Repeat until signs of MH are reversed
2. Additional Medications: Prepare medications as required such as: sodium bicarbonate; IV glucose and insulin; calcium chloride; anti-arrhythmic agents. When Ryanodex is used, mannitol should be available.
3. Thermoregulation Measures:
    a. Obtain refrigerated saline or ice, if "patient cooling" is indicated.
    b. Use cold saline for I.V.'s. Note: Do not use IV Lactated Ringer's solution.
    c. Surface cooling may be indicated using ice, cold wet cloths, a hypothermia blanket and/or misting the patient with cool water per spray bottles. In addition a fan may be used to assist in the cooling process.
    d. Implement protective measures to prevent skin/tissue injury due to thermal sources.
    e. Consider internal cavity lavage per MHAUS recommendations (peritoneal or thoracic cavity lavage supported. Gastric or rectal lavage not supported per 2019 edition).
    f. Extracorporeal circulation and heat exchanger (femoral to femoral).
    g. Stop cooling if temperature <38 degrees C and falling to prevent hypothermia
4. Blood Specimen tubes should be collected per following guidelines (in order of draw):

| TEST ORDERED | TUBE TYPE | EXPECTED TAT for RESULTS |
|---|---|---|
| Blood Cultures | Set of 2 bottles, Aerobic and Anaerobic | |
| PT, APTT, D Dimer, Fibrinogen | Blue Top | 30 minutes |
| TSH, Free T4 | Yellow SST | 24 hours |
| CMP, LDH, CK, CKMB | Mint Green top | 45 minutes |
| Myoglobin | Mint Green top | 2 hours |
| CBC with or without Diff, PLT | Purple top | 30 minutes |
| Lactate | Grey top | 30 minutes |

*Blood cultures are very useful and should be included to rule out bacteremia.

5. Urine collection for myoglobin level may be indicated if blood is positive on the UA dipstick. Pigmenturia (e.g., brown or red urine) indicates that renal protection is mandated. When the urine is centrifuged or allowed to settled, and the sample shows clear supernatant, i.e., the coloration is due to red cells in the sample.
6. Admit patient to appropriate Intensive Care Unit.
7. Educational materials will be provided to the patient and patient's family.

E. Documentation

1. Assessments and care given will be documented by the procedural or circulator RN on the intra-operative or appropriate procedural record.
2. A Datix Event Report will be filled out and sent to the unit manager and Quality Management.

## Universal Protocol for Invasive Procedures

For additional information refer to full Policy: *Universal Protocol for Invasive Procedures* in PolicyStat

| SAFE SURGERY CHECKLIST: PROVIDENCE OREGON | | |
|---|---|---|
| **BRIEFING** | **TIMEOUT** | **DEBRIEF** |
| **Verify prior to induction of Anesthesia** | **Immediately before procedure start. All team members *suspend activity* & verbally participate.** | **At the end of the case and before the SURGEON leaves the OR.** |
| **Before patient enters OR, CIRCULATOR confirms:**<br>❑ Room thermostat temperature confirmed<br>❑ Implants / Specials are available | **SURGEON / PROCEDURALIST leads the timeout & begins by stating:**<br>❑ Patient Name<br>❑ Procedure planned | **CIRCULATOR confirms with SURGEON:**<br>❑ Counts are correct<br>❑ Actual procedure performed |
| **Upon patient entry to OR, CIRCULATOR & SCRUB pause and verify:**<br>❑ Patient identified using 2 unique identifiers matched to consent<br>❑ Procedure & laterality confirmed with patient & matched to consent<br>❑ Site marking confirmed per policy<br>❑ Allergies verified<br>❑ Active warming / SCD devices available | ❑ Laterality *<br>❑ Confirms visible site marking *<br>❑ Confirms review of recent labs and display of relevant images * | ❑ Wound class<br>❑ Specimens verified and labeled |
| | **ANESTHESIA PROVIDER states:**<br>❑ Antibiotic given *<br>❑ Patient glucose * | **ANESTHESIA PROVIDER confirms with SURGEON:**<br>❑ Estimated blood loss (EBL)<br>❑ Patient glucose * |
| | **SCRUB continues by stating:**<br>❑ Instruments ready & medications labeled<br>❑ Confirms plan for management of heat generating devices, including cautery holster location | **SCRUB verifies with CIRCULATOR:**<br>❑ Local medication administered<br>❑ Implanted items |
| **CIRCULATOR & ANESTHESIA PROVIDER verify:**<br>❑ Special anesthesia equipment present<br>❑ Blood product availability addressed * | **CIRCULATOR continues by stating:**<br>❑ Patient name & procedure match consent form<br>❑ Are there any other concerns?<br>❑ **"THE TIMEOUT IS COMPLETE"**<br>Note: A colored towel covers the instrument tray until the CIRCULATOR states that the "TIMEOUT IS COMPLETE" | * *as applicable by policy, protocol or procedure*<br>  |

Process for site marking, all invasive procedures:

- The Proceduralist marks the site prior to surgery/invasive procedure.
- The site is marked with patient involved, awake and aware, if possible.
- The marking pen ink will be sufficiently permanent to remain visible after skin prep and draping.
- The mark is made at or near the procedure site or the incision site.
- For sites below the neck, the site is marked with the Proceduralist's first and last name initials. If the Proceduralist's initials are "N.O." their middle initial needs to be included at the time the site is marked.
- For sites above the neck an arrow may be used to point to the intended incision or insertion point.
- For spinal procedures, the mark is made on the skin at the approximate spinal level intended for surgery. Laterality is indicated if intended for the procedure. Additional intraoperative internal marking techniques may be used to confirm the exact spinal level.
- For procedures with laterality of paired internal organs performed via a midline incision or laparoscopically, skin marking is required indicating the intended side.

# SAFEGUARD FOCUS Cool™ Compression Device Management

For additional information refer to full Policy: *SAFEGUARD FOCUS Cool™Compression Device Management* in PolicyStat

## PURPOSE:

To provide guidelines for use of the SAFEGUARD FOCUS Cool™ Compression Device.

## DESCRIPTION:

The SAFEGUARD FOCUS Cool™ Compression Device is a sterile, single use disposable device that has a clear window over a saline-filled compression balloon. It provides compression over closed surgical sites to achieve targeted hemostasis to pacemaker and ICD pockets in the immediate post-operative period.

## INDICATIONS FOR USE:

The SAFEGUARD FOCUS Cool™ Compression Device is used for patients requiring targeted hemostasis to pacemaker and ICD pockets in the immediate post-operative period.

## RESPONSIBLE PERSON:

**Application of Device**: Trained Registered Nurses (RN), Advanced Practice Providers (APP), Physicians, and procedural technicians can apply the SAFEGUARD FOCUS Cool™ Compression Device

**Removal of Device**: Trained Registered Nurses (RN), Advanced Practice Providers (APP), and Physicians can remove the SAFEGUARD FOCUS Cool™ Compression Device

## SPECIAL CONSIDERATIONS:

A. Standard deflation (removal of saline) timing is outlined in this procedure. Any frequency listed outside this procedure standard must be written out by the provider in a separate order (see **Addendum A**).

B. Do not leave the SAFEGUARD FOCUS Cool™ Compression Device on for greater than 24 hours with > 30mL in the compression balloon as tissue damage may occur.

C. Over-instillation of fluid (greater than 60mL), the balloon may burst, detach, or compromise the adhesive or fastening properties of the device.

D. Do not attempt to reposition adhesive once applied. Adhesive only sticks properly on first application.

| Bleeding Risk | Recommended SAFEGUARD FOCUS Cool™ Compression Device Deflation Timing | Total Time (estimated) |
|---|---|---|
| Low | Starting ***60 minutes (1-hour)*** after bandage placed, ***remove 20mL**** of fluid from the compression device ***every hour*** until all fluid is removed<br><br>***Standard Order – Per Protocol*** | 3 hours (180 minutes) |
| Medium | Starting at ***120 minutes (2-hours)*** after bandage is placed, ***remove 20mL**** of fluid from the compression device ***every hour*** until all the fluid is removed | 4 hours (240 minutes) |
| High | Starting at ***120 minutes (2-hours)*** after bandage is placed, ***remove 20mL**** of fluid from the compression device ***every 2 hours*** until all the fluid is removed | 6 hours (360 minutes) |
| Severe | Starting at ***240 minutes (4-hours)*** after bandage is placed, ***remove 20mL**** of fluid from the compression device. After ***480 minutes (8-hours)*** after the bandage is placed, ***remove 10mL of fluid (leaving 30mL in the balloon).***<br><br>At ***24-hours*** from application, assess the incision and if appropriate, gradually ***remove the remainder of the 30ml fluid.*** | 24 hours (1440 minutes) |

*If oozing/bleeding persists, add increments of 5mL of saline every 1-2 minutes until oozing/bleeding stops, up to a maximum of 60mL in device

## Verbal and Telephone Orders

For additional information refer to full Policy: *Verbal and Telephone Orders* in PolicyStat

A. To ensure patient safety, verbal and telephone orders are not to be used as routine methods of communication.
B. Verbal orders:
    1. Are not appropriate when the prescriber is present or has access to the patient's EHR
    2. May be acceptable in urgent clinical situations or when functioning in a sterile environment.
C. Telephone orders shall be limited to urgent clinical situations in which it is impossible or impractical for the prescriber to access the patient's EHR or to fax the order.

Procedure

A. The prescriber identifies self, specifies the correct patient using 2 patient identifiers (per policy *Patient Identification and Verification*), and communicates the order.
B. The receiver of a verbal/telephone order will immediately enter the order in the patient's EHR.
    1. If the patient's EHR is not available (e.g. during EHR downtime), the order is to be written on a blank provider order form that is identified with the patient's name and an additional patient identifier.
C. The prescriber must wait until the order is entered into the patient's EHR.
D. The patient's name, additional identifier, and the order are read back by the receiver from the EHR or paper order form during downtime.
E. Following the read back, the prescriber will give verbal confirmation that the complete order is correct as read back.
F. In emergency situations where the order cannot be immediately entered or written, the receiver will repeat the order back to the prescriber. The prescriber will acknowledge that the order is correct. The order will then be entered into the patient's chart as soon as possible.
G. The required elements of a complete written verbal/telephone order are:
    1. Patient name and an additional identifier per policy *Patient Identification and Verification*
    2. Date and time order is received
    3. Origin of order
        A. Differentiate between telephone and verbal order; "TO" and "VO" are acceptable abbreviations for this purpose.
    4. Prescriber's name and professional category (e.g. MD)
    5. Receiver's signature and professional category (e.g., RN)
    6. Medication orders require drug name (brand or generic), dose, route and frequency.
    7. PRN (or "as needed") medication orders must include an indication for use.
H. All verbal and telephone orders will be authenticated/signed electronically within 48 hours.
I. The receiver may refuse to accept or implement a verbal/telephone order, if the order is deemed incomplete or unsafe. In such cases, processes outlined in policy *Administrative Chain of Command-Acute Patient Care Issues* must be followed.

## Labeling of Medications and Solutions

For additional information refer to full Policy: *Labeling of Medications and Solutions* in PolicyStat

A. Labeling occurs when any medication or solution is transferred from the original packaging to another container, unless it is administered immediately by the person who prepares the medication or solution. If the medication or solution that has been removed from its original container will be used over the course of the procedure, the receiving container (including syringes) must be labeled.

B. All solutions and medications used will be in containers that legibly and correctly identify the current contents.

1. Medications and solutions both on and off the sterile field are labeled even if there is only one medication being used.
2. Containers that have not been appropriately labeled will not be used. Any medication or solution found without proper identification will be discarded.
3. The contents must be identified by a label on the main body of the container (i.e. not the lid).
4. A handwritten label or tape may be used.

C. Labels will include:

1. Name of the solution/medication/substance;
2. Strength of solution/medication;
3. Quantity
4. Diluent and volume if not apparent from container;
5. Expiration date when not used within 24 hours
6. Expiration time when expiration occurs in less than 24 hours
   (Expiration date and time are not necessary for short procedures).

D. Medication containers do not need to be labeled if immediately prepared and administered by the same person.

1. If the provider preparing the medication or solution participates in another function before administration, the container must be labeled.
2. If more than one medication is prepared by the provider, each medication container must be labeled.

E. If two or more people participate in the preparation and administration of the medication or solution, a two-person verbal and visual verification of the label's accuracy is required. (Medications prepared and labeled by a pharmacist do not require a second person verification).

F. At the conclusion of an operative or non-operative procedure, all supplies including the contents of any medication(s) or solution(s) will be appropriately discarded. This applies to multi-dose vials unless the vial was accessed outside of the patient room or procedural area. Refer to CDC link under References for information on dating multi-dose vials utilized outside of the immediate patient treatment area.

## Temporary Pacemakers and Epicardial Pacemakers

For additional information refer to full Policy: *Temporary Pacemakers Transvenous and Epicardial Pacemakers* in PolicyStat

**RN RESPONSIBILITIES:**

A. Patient with temporary pacing wires connected to a pacemaker generator may not shower. If the generator is not attached to the pacing wires, they may shower if the wires are covered with an aqua guard.
B. All temporary epicardial pacing wires must be insulated and always dressed. *Dressing will be changed per central line standards.*
C. When epicardial wires are not in use, the wires should be secured in 4x4 gauze and loosely taped to the patient's chest wall
D. Epicardial wires must be easily retrieved and not taped occlusively
E. Exposed epicardial wires should be secured in insulated material (e.g., finger cots, glove, plastic needle cap, ear plugs).
F. Gloves must be worn when handling the pacer wires.
G. Patients with temporary pacemakers in use should have pacing thresholds assessed and documented every 24 hours in Epic (preferably on dayshift) or per unit protocol (e.g., once per shift). Verify temporary pacemaker settings are ordered by LIP.
H. Patients with temporary pacemakers applied and in use will have the battery changed daily by the nurse caring for the patient. The change will be documented in the patient record and a piece of tape placed on the pack of the pacemaker with the nurse's initials, date, and time of battery change and will document in Epic (located under *Pacer Interventions*)
I. Pacemaker settings will be documented in Epic at change of shift and with any changes. Settings shall include the mode, rate, mA's, and mV's if indicated.
J. Pacemaker dependent patients will have a second temporary pacing generator readily available in the patient's room (CICU only)
K. A provider order is required before turning off the pulse generator
    1. Temporary pacing generators are to remain attached to the pacing wires until they have not been required for the past 24 hours
    2. Temporary pacing generators and extension cables are to remain the room, with the patient until the wires have been discontinued. At which time, the generator will be cleaned, removed from the room, and placed back in the designated storage area.
L. Patients with femoral transvenous pacemakers will remain on bedrest (CICU only)
M. Transvenous pacing wires will be always connected to a temporary pacer box even when the pacemaker is not in operation and power is off.
N. Epicardial pacing wires are to be removed by the surgeon or surgical assistant

**TRANSFER CRITERIA TO CARDIOLOGY:**

A. Temporary pacemaker with an underlying rhythm that is life-sustaining

Must be transferred to a monitored cardiology unit (Cardiology A or Cardiology B only)

## Pregnancy Testing in the Female Perioperative Patient

For additional information refer to full Policy: *Pregnancy Testing in the Female Perioperative Patient* in PolicyStat

### PROCEDURE

A. All female patients aged 12 to age 55 and/or menarche that are undergoing elective and urgent procedures requiring anesthesia, will be presented with the option to undergo routine urine HCG or serum BHCG testing prior to surgery within 24 hours of surgery, unless the surgeon or proceduralist denies the order or the patient falls into the exceptions list:

   1. Existing known pregnancy or admitted for incomplete abortion, missed abortion or ectopic pregnancy
   2. Previous hysterectomy
   3. Trauma case

B. Surgeon/Proceduralist and Anesthesia to be notified if patient or guardian refuses HCG testing.

C. Patients that undergo the urine HCG or serum BHCG test, will not be admitted to the operating room until the results are known.

D. Surgeon/Proceduralist will be notified of positive results.

E. Surgeon/Proceduralist will communicate the positive result to the patient alone first, and for patients below the age of 15 the surgeon will also talk to parents or guardian separately.

# Latex Sensitivity

For additional information refer to full Policy: *Latex Policy* in PolicyStat

## POLICY STATEMENT

1. Providence is a latex-**reduced** environment.
2. Providence approved latex gloves are the only type of latex-containing glove permitted in Providence Oregon facilities and are used in departments such as: Operating rooms, to include c-section rooms and cardiac catheterization labs or wherever a sterile surgical procedure is performed.
3. Non-sterile latex exam gloves should not be purchased or used.
4. Latex balloons are not permitted in Providence Oregon facilities.
5. Where alternatives are available, departments will evaluate alternate products that do not contain latex to possibly replace latex containing products.
6. During test procedures, departments will avoid, whenever possible, use of any product containing latex, e.g. not use latex tourniquets, syringes with rubber gasket, latex tubing, etc.

## DEFINITIONS

**High Risk Populations** include:

1. Individuals with spina bifida/spinal cord injury.
2. Individuals with history of chronic or recurrent infections of the genitourinary tract.
3. Individuals with occupational exposure to latex.
4. Individuals with multiple allergies to medications and/or environmental allergens, e.g., food allergies to bananas, avocados, tropical fruits, kiwi, and nuts.
5. Individuals with a history of a local reaction (urticaria or contact dermatitis) to latex

**Latex** means natural rubber latex (NRL) manufactured from the milky sap of the rubber tree *Hevea brasiliensis*.

**Latex paint** does not contain the latex protein. It is not linked to latex sensitivity and is not covered by this policy.

**Latex-reduced** environment is an environment that minimizes contact and aerosolized latex allergen exposure.

## RESPONSIBILITIES

### Managers

a. Implement this policy within the department.

b. Ensure latex-free products are used whenever possible.

c. Do not order latex products outside the system to replace latex-free products available through the system.

### Caregivers

a. Complete the latex questionnaire provided by Caregiver Health during the initial health screening.

b. Do not bring latex containing products, including latex balloons, into Providence facilities.

c. Report known or suspected latex sensitivity/allergy to Caregiver Health via the EHS Hotline (503- 216-3200 )

d. Caregivers who experience signs and symptoms that may be associated with latex products, or symptoms that interfere with their ability to perform essential job functions will report to their supervisor, file an incident report and/or a Job Accommodation Request via the Sedgwick Portal.

e. Caregivers who are sensitized to latex will:

- Seek to minimize contact with latex containing products.
- Follow policies and procedures for latex sensitive individual.
- Collaborate with their core leader and HR Client Manager to discuss the need for accommodation.

### Caregiver Health

a. Direct caregivers to the Sedgwick Portal for reporting of health issues related to Latex sensitivity or to submit a Job Accommodation Request.

# Lidocaine with Epinephrine Injection after Femoral Sheath Removal

For additional information refer to full Policy: *Percutaneous Vascular Management: Lidocaine with Epinephrine Injection after Femoral Sheath Removal* in PolicyStat

## SAFETY CONSIDERATIONS:

- This procedure is intended only for femoral sheath sites.
- Do NOT use for radial sheath sites
- Do NOT use if hematoma or arterial bleeding present

## ESSENTIAL STEPS IN PROCEDURE:

1. Verify LIP order for injection of Lidocaine-Epinephrine into femoral sheath site
2. Verify patient is not allergic to Lidocaine or Epinephrine
3. Provide patient education regarding injection of Lidocaine-Epinephrine to femoral site
4. Withdraw 5-8 mL of Lidocaine-Epinephrine into a 10 mL syringe
5. Remove needless adaptor and replace with a 25 gauge 1 1/2 inch needle 

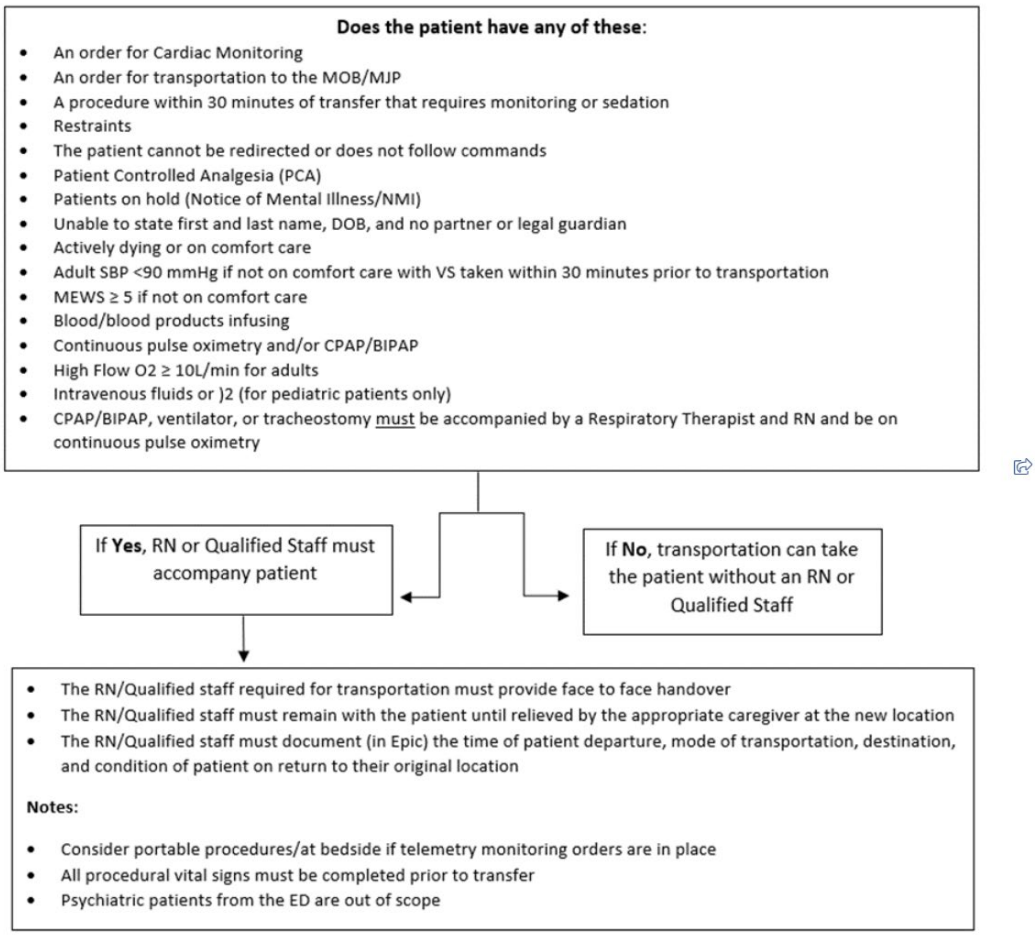
6. Cleanse site with Chloraprep and allow to dry for at least 30 seconds
7. Apply sterile gloves and PPE
8. Retract skin taut about 1/4-inch to 1/2-inch from the puncture site. Note: Injections will occur in 4 places around the puncture site -at 12 O'Clock; 3 O'Clock; 6 O'Clock; 9 O'Clock
9. Insert the needle at a 45-degree angle until the bevel of the needle is just below the skin (about 1/2-inch to 1-inch deep)
10. Aspirate the syringe, **if blood is aspirated, withdraw the needle, and replace it with a new sterile 25 gauge 1 1/2 inch needle**, and repeat the procedure.
11. Without removing the needle from the initial insertion, inject 2 mL of Lidocaine-Epinephrine as the needle is being withdrawn. Use a 2x2 gauze to absorb any blood from the injection site
12. Repeat the above injection process around the puncture site using aseptic technique for a total of 8 mL or per LIP order.

**Post-Procedure**

- Redress the site with 2x2 gauze and tegaderm
- Wait 5-15 minutes to observe if oozing has stopped. Notify LIP if oozing continues.
- Monitor the patient for changes in neurovascular status and monitor blood pressure and pulse to promptly recognize an adverse reaction
- Document Lidocaine-Epinephrine injection in the electronic medical record
- Document patient response in the electronic medical record

## Transportation of Patients

For additional information refer to full Policy: *Transportation of Patients* in PolicyStat



# Resuscitation and Emergency Interventions During Hospitalization

For additional information refer to full Policy: *Resuscitation and Emergency Interventions During Hospitalization* in PolicyStat

## OBJECTIVES

A. To promote proactive decision making and effective communication between providers, professional staff, patients, and families about emergency interventions.

B. To foster respect for patient autonomy and dignity, particularly at the end of life.

C. To provide a standardized approach and clear format for designating the level of emergency intervention for all patients admitted to the hospital and for those undergoing surgery.

## POLICY STATEMENT

A. Decision Making
Consistent with the mission and values of Providence Health & Services the decision to initiate resuscitation and emergency interventions should be based on whether:

- Consistent with clinical standards of care
- Likely to benefit proportionate to the burdens entailed
- Consistent with patient/surrogate wishes
- Can be performed safely and feasibly

1. The decision for resuscitation and emergency interventions can and should be made before a medical crisis arises.
2. Consultation with the patient or their health care representative as the primary decision-maker is an essential component of decision making.
3. Consideration must be given to previous related documents and decisions, including POLST and/or Advance Directives.
4. When there are unresolved ethical and/or medical concerns regarding the orders for resuscitation and emergency interventions, the following resources are available to assist with communication, conflict resolution, and decision making:
    - Ethics Consult Team/Ethics Committee
    - Ethicist
    - Specialty Unit Medical Director
    - Departmental Chairperson or Director

B. Provider Orders

1. Resuscitation orders should be used to specify levels of responses to cardiopulmonary arrest and instability, based on the overall goal of therapy and patient preference.
    a. When the goal is to cure, full resuscitation and emergency interventions are employed.
    b. When the goal is support of organ function and/or medical stabilization, emergency interventions may be limited as specified in the orders.
    c. When the goal is comfort care, no **(emergency)** aggressive interventions to prolong life are initiated.
2. The attending provider is responsible for facilitating the decision making, writing the orders and documenting the discussions and plan of care in the medical record.
3. During the hospital stay, significant changes in the patient's condition may necessitate re-evaluation of the decision and new orders.

C. Resuscitation Orders During the Peri-Operative Period

1. Where appropriate, the provider should discuss with the patient/patient's health care representative whether, and to what extent, (**limited**) resuscitation orders should be modified during surgery. The provider is to document the decision on the orders.
    a. In some cases, patients with limited resuscitation orders who have surgery may temporarily be re-classified to receive full resuscitation and emergency interventions until they have completed the post-anesthesia recovery phase.
    b. In other cases, the patient may wish to limit resuscitation efforts even during anesthesia and surgery. The provider should discuss this decision ahead of time with the anesthesia provider, and document this discussion. A specific order for limiting resuscitation during surgery must be written by the provider in the medical record.

## PROCEDURE

Copy Link

A. The attending provider will facilitate the decision regarding the appropriate resuscitation and emergency interventions as early in the hospitalization as possible.

B. Once the decision is reached, orders will be entered into the electronic health record (EHR).

C. The attending provider will document related discussion in the medical record.

D. Communication to pertinent caregivers will occur as appropriate and according to the nursing unit practice.

E. Upon discharge, a POLST form should be completed, if indicated. See General Operating Policy, Physician Orders for Life-Sustaining Treatment (POLST).

F. The interventions used to initiate resuscitation and emergency measures are based on the clinical scenario and the ACLS algorithm for managing that scenario.

# Procedural Sedation

## Moderate & Deep Procedural Sedation by Non-Anesthesia LIP - Adult

For additional information refer to full Policy: *Moderate & Deep Procedural Sedation by Non-Anesthesia LIP* - Adult

### POLICY STATEMENT:

A. This policy outlines procedures and guidance for adults requiring moderate or deep procedural sedation.
B. **Moderate Procedural Sedation**: Only a licensed independent practitioner (LIP) privileged in moderate sedation OR a moderate sedation trained RN may administer moderate procedural sedation.
C. **Deep Procedural Sedation**: Only a LIP privileged in deep sedation OR a deep sedation trained RN may administer deep procedural sedation.
D. A sedation privileged LIP OR a sedation trained RN must be present at the patient's bedside throughout the administration of sedation.
E. The RN administering moderate or deep procedural sedation must be trained.
F. The RN monitoring a patient receiving moderate or deep procedural sedation:
    a. The patient must be monitored continuously without interruption for the duration of the procedural sedation.
    b. Should have no competing responsibilities that would compromise continuous monitoring and assessment of the patient during a sedation episode.
    c. The RN may not leave the patient unattended or perform other tasks that would compromise patient monitoring.
    d. If the sedation trained RN needs assistance with the procedure, a second team member is to be assigned to the patient (NOTE: The second member does NOT need to be trained in procedural sedation but must be able to effectively recognize patient decompensation resulting from procedural sedation and provide rescue interventions within scope of practice).
G. If post-procedure care and safe transportation home cannot be arranged, the procedure may be canceled except for urgent/emergent procedures according to the established definitions for such procedures.

## Pre-Procedure

A. The sedation privileged Provider is responsible for:
    a. Obtaining informed consent and PARQ (Procedure, Alternatives, Risk, and Questions) for the patient receiving moderate or deep sedation
    b. Documenting the history and physical, noting vital signs, airway assessment, patient anesthesia experience, medications, allergies, and any pertinent diagnostic data.
    c. Documenting the pre-sedation assessment
    d. Documenting and assessing the patient's risk for obstructive sleep apnea using STOP-BANG (Snoring, Tiredness, Observed Apnea, Pressure, Body Mass Index, Age, Neck Circumference, and Gender) assessment
    e. Documenting the Mallampati assessment
    f. Documenting the ASA assessment
B. The sedation trained RN is responsible for:
    a. Verifying and documenting NPO status based on the ASA Fasting Guidelines
    b. Documentation of time-out procedure
    c. Vital signs (e.g., blood pressure (BP), respiratory rate (RR), heart rate (HR), rhythm), pain, sedation level using the Ramsay or Richmond Agitation Sedation Scale (RASS) scale, end-tidal CO2 (ETCO2) and pulse oximetry (O2 sat) are evaluated, documented, and communicated to the LIP immediately prior to initiation of sedation.
    d. Patent IV access

e. Emergency Life Support Cart *(Code Cart)* with defibrillator and intubation supplies will be immediately available.
f. Equipment required: Airway management tools (e.g. Supplemental oxygen source, nasal cannulas, simple masks, bag/valve mask, suction with suction cannulas) and cardiac monitoring equipment.
g. Reversal agents are to be at the patient's bedside prior to beginning the procedure. (NOTE: Not all sedation medications have reversal agents).
h. *Planned outpatient procedure only*: Verification of a designated lay caregiver to escort the patient home
i. Patient education
j. Plan of care
k. An adult with an ASA score of 3 or greater, a BMI > 40, and/or a Mallampati score of 3 or 4 have higher risk for respiratory compromise and may require closer monitoring and/or additional support. The provider and registered nurse must consider whether sedation and monitoring would be more appropriately managed by an anesthesiologist/CRNA based upon patient's individual care needs.

## Intra-Procedure Monitoring and Documentation

| SUMMARY: INTRA-PROCEDURE MONITORING & DOCUMENTATION | |
|---|---|
| **MONITORING** | **FREQUENCY** |
| • Electrocardiogram (ECG)<br>• Heart rate<br>• Ventilatory status, including respiratory rate, oxygen saturation, and end-tidal carbon dioxide (ETCO2).<br>• Blood pressure (e.g. Every 5 min)<br>• Sedation status (Ramsay or RASS scale)<br>**Continuous monitoring must be plainly visible to the person responsible for monitoring the patient** | Continuously |
| **DOCUMENTATION** | **FREQUENCY** |
| HR, BP, RR, O2 sat, ETCO2 | Every 5 min |
| **AND** | |
| Sedation level (Ramsay or RASS scale) **pre-goal** | Every 5 min |
| Sedation level (Ramsay or RASS scale) **at goal** | Every 5 min |
| If change in patient condition: HR, BP, RR, O2 sat, ETCO2 AND Sedation level (Ramsay or RASS scale) | Every 5 min until patient condition stabilizes |

## Post-Procedure Monitoring and Documentation

| SUMMARY: POST PROCEDURE MONITORING & DOCUMENTATION | |
|---|---|
| **MONITORING** | **FREQUENCY** |
| • Electrocardiogram (ECG)<br>• Heart rate<br>• Ventilatory status, including respiratory rate, oxygen saturation, and end-tidal carbon dioxide (ETCO2)<br>• Blood pressure (e.g., Every 5 min)<br>• Sedation level (Ramsay or RASS scale) | Continuously |
| **DOCUMENTATION** | **FREQUENCY** |
| HR, BP, RR, O2 sat, ETCO2, sedation level (Ramsay or RASS scale), ECG (when included in plan of care) | Every 15 min |
| Aldrete score | Every 15 min |

**Discharge after Sedation:**

A. Patient may be discharged from the procedural area (e.g., transfer to inpatient unit) when:
   a. Aldrete score of at least 8 or greater (or pre-procedure score if baseline is < 8).
   b. Patient is alert and oriented (or mental status returned to baseline level or orientation).
   c. Protective reflexes have returned to pre-procedure function
   d. Vital signs and respiratory functions are stable (pre-procedure range) with adequate end-tidal CO2 and O2 saturation.

B. Patient may be discharged from the facility (e.g., home) when:
   a. Drinking liquids and/or eating a light snack without nausea or vomiting
   b. Ambulating without dizziness
   c. Voiding without problems
   d. Post-procedure pain plan in place
   e. If reversal agent is used, a sufficient duration of monitoring completed to ensure re-sedation does not recur (e.g., approximately 2-hours or more, based upon patient condition).
   f. Patient is discharged to the care of designated lay caregiver who will accompany/drive them home and be able to report any post-procedure complications

## Moderate & Deep Sedation by Trained RN

**Pertinent Policies**: For additional information, review the following policies once you are ON-SITE (these require a PSJH login to access):

Moderate & Deep Procedural Sedation by Non-Anesthesia LIP - Adult

Emergency Department Protocol for Moderate (Conscious) Procedural Sedation- Ketamine (Hood River) (only for use at Hood River site)

Moderate Sedation for Pediatric Population

Deep Procedural Sedation for Pediatric Patients

- All RNs administering procedural sedation will be trained to do so.
- All RNs will comply with the Oregon State Board of Nursing Interpretive Statement on procedural sedation (**can** be accessed without a PSJH login).
- Complete online Modules (**can** be access without a PSJH login):
    - Module: Procedural Sedation (Moderate and Deep) - Adult
    - Module: Procedural Sedation (Moderate and Deep) - Pediatric
- Any RN providing continuous patient monitoring during a procedural sedation episode will complete and maintain BLS and ACLS certification. In areas where pediatric patients receive sedation, PALS certification is required. In areas where pediatric patients are exclusively treated, ACLS is not required.