JERSEY COMMUNITY HOSPITAL AREA EMS SYSTEM
ADDITIONAL PROCEDURES

JERSEY COMMUNITY HOSPITAL EMS SYSTEM
POLICY AND PROCEDURE

ADDITIONAL APPROVED MEDICATIONS/EQUIPMENT

I. Purpose: To identify medications/equipment utilized in the JERSEY COMMUNITY HOSPITAL EMS System that are not standard equipment and have received conditional approval.

A. Must be approved by IDPH

B. Require additional inservice training

II. Additional medications:

A. Amiodarone (ALS transfer only – see A-6)

B. Heparin drip (ALS transfer only – See A-3)

C. Glycoprotein IIb/IIIa receptor inhibitors (Aggrastat, Integrilin and Reopro) (ALS transfer only – See A-5)

D. Nitroglycerin drip (ALS transfer only – See A-4)

E. Nitroglycerin topical ointment (addition to EMS drug box M-1.23)

F. IVs containing potassium (*ALS transport only. (See A-8)*

G. Diltiazem (Cardizem) ALS transport only (See A-9)

III. Additional equipment:

A. Arterial line sheath (ALS transfer only (see A-2)

B. Emergency use of central venous access devices (see A-7)

IV. Documentation

A. Documentation on the Illinois PCR form *the same as any other medication*

B. Conditional drugs – equipment form *should be completed if any issues arise during the transport.*

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John Palcheff, DO, EMS Medical Director

CONDITIONAL DRUGS AND EQUIPMENT FORM
QA & I

Date: _____ Account #: _____ PCR Form #: _____

Patient Name: _____ Diagnosis: _____

Conditional drug/equipment administered/used:

- ☐ Amiodarone drip
- ☐ Arterial line sheath
- ☐ Central Venous Access Devices
- ☐ Glycoprotein receptor inhibitors (Aggrastat, Integrilin, Reopro)
- ☐ Heparin drip
- ☐ Nitroglycerin drip
- ☐ Nitroglycerin paste
- ☐ *Potassium*
- ☐ *Diltiazem*

Complications

- ☐ None
- ☐ **Bleeding
- ☐ **Hypotension
- ☐ **Change in level of consciousness
- ☐ **Other

Details regarding the complication:

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Outcome:

- ☐ No problems during transport
- ☐ **Patient stabilized
- ☐ **Other

Details regarding the outcome:

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_____

Person completing the report: _____

Forward all reports to~~-~~ Sonny Renken, NAEMTP, Jersey Community Hospital EMS Department ~~--~~
Fax 618-498-84~~91~~49 Email: srenken@jch.org

CONDITIONAL DRUGS AND EQUIPMENT FORM
QA & I

Date: _____ PCR Form #: _____

Patient Name: _____ Diagnosis: _____

Conditional drug/equipment administered/used:

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- ☐ Heparin drip
- ☐ Nitroglycerin drip
- ☐ Nitroglycerin paste
- ☐ *Potassium*
- ☐ *Diltiazem*

Complications

- ☐ None
- ☐ **Bleeding
- ☐ **Hypotension
- ☐ **Change in level of consciousness
- ☐ **Other

Details regarding the complication:

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_____

Outcome:

- ☐ No problems during transport
- ☐ **Patient stabilized
- ☐ **Other

Details regarding the outcome:

_____

_____

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_____

Person completing the report: _____

Forward all reports to Sonny Renken, Jersey Community Hospital EMS Department ---
Fax 618-498-8491, Email srenken@jch.org

JERSEY COMMUNITY HOSPITAL AREA EMS SYSTEM
POLICY AND PROCEDURE

TRANSFER OF PATIENTS WITH ARTERIAL LINES

I. Paramedics who have completed additional instruction in the management of patients with arterial lines may transfer patients receiving this therapy.

II. Prior to moving a patient to the ambulance stretcher, the following must be completed:

- A. The paramedic will have a R.N. check all connections and confirm that they are tight.
- B. The paramedic will assess circulation in the extremity and document the color, pulse intensity, capillary refill, and sensation.
- C. The paramedic will inspect the puncture site, noting any swelling or bruising.
- D. The paramedic will examine the pressure bag to assure it is working properly.

III. During the transfer, the paramedic will:

- A. Check all connections every 30 minutes and document the findings
- B. Check circulation in the extremity as in II.B. every 30 minutes and document the findings
- C. Check the puncture site every 30 minutes and document.
- D. Maintain 300 mmHg of pressure at all times in the pressure bag for adults. (For pediatrics, request pressure limit from RN or physician.)

IV. If blood backs up into the line:

- A. Check the position of all stopcocks.
- B. Check all connections.
- C. Check the bag pressure to assure 300 mmHg of pressure (adults).
- D. Flush the catheter using the fast flush valve (valve with white plastic hand) until the line is cleared.
- E. Do not allow the valve to remain open causing the patient to receive too much fluid.
- F. Do not flush with a syringe.
- G. Do not allow blood to back up to transducer dome. If it does, notify the receiving hospital upon arrival.

V. Should an assessment reveal a loss or weakening of pulse distal to the site or a loss of warmth, sensation or mobility below the site, Notify the receiving hospital immediately.

VI. Apply direct pressure to the site should the catheter become dislodged or if you note a hematoma forming.

VII. Should an air embolism be suspected due to an empty IV container, air in the tubing or loose connections as evidenced by a decrease in blood pressure, weakness, rapid pulse, or cyanosis of the affected extremity:

- A. Check the line for leaks.
- B. Notify the receiving hospital or medical control immediately.
- C. Check vital signs.
- D. Administer O2 as ordered.
- E. Provide care as ordered.

TRANSFER OF PATIENTS WITH ARTERIAL LINES (CONTINUED)

VIII. If air bubbles appear in the line:
- A. Check for leaks and loose connections in the line
- B. Flush air through an open stopcock

IX. Notify the receiving hospital of any complications encountered during transport

JERSEY COMMUNITY HOSPITAL EMS SYSTEM
POLICY AND PROCEDURE

TRANSFER OF PATIENTS WITH ARTERIAL LINES

I. Paramedics who have completed additional instruction in the management of patients with arterial lines may transfer patients receiving this therapy.

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- A. The paramedic will have a R.N. check all connections and confirm that they are tight.
- B. The paramedic will assess circulation in the extremity and document the color, pulse intensity, capillary refill, and sensation.
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- B. Check circulation in the extremity as in II.B. every 30 minutes and document the findings
- C. Check the puncture site every 30 minutes and document.
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- E. Do not allow the valve to remain open causing the patient to receive too much fluid.
- F. Do not flush with a syringe.
- G. Do not allow blood to back up to transducer dome. If it does, notify the receiving hospital upon arrival.

V. Should an assessment reveal a loss or weakening of pulse distal to the site or a loss of warmth, sensation or mobility below the site, notify the receiving hospital immediately.

VI. Apply direct pressure to the site should the catheter become dislodged or if you note a hematoma forming.

VII. Should an air embolism be suspected due to an empty IV container, air in the tubing or loose connections as evidenced by a decrease in blood pressure, weakness, rapid pulse, or cyanosis of the affected extremity:

- A. Check the line for leaks.
- B. Notify the receiving hospital or medical control immediately.
- C. Check vital signs.
- D. Administer O2 as ordered.
- E. Provide care as ordered.

TRANSFER OF PATIENTS WITH ARTERIAL LINES (CONTINUED)

VIII. If air bubbles appear in the line:
- A. Check for leaks and loose connections in the line
- B. Flush air through an open stopcock

IX. Notify the receiving hospital of any complications encountered during transport

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John Palcheff, DO, EMS Medical Director

JERSEY COMMUNITY HOSPITAL EMS SYSTEM
POLICY AND PROCEDURE

TRANSFER OF PATIENTS RECEIVING IV HEPARIN

I. Inservice

A. Paramedics and Prehospital RN's may transfer patients with heparin maintenance infusions after completing additional inservice training consisting of:
   1. Review PowerPoint (transfer, medication, arterial line sheath and CVAD)
   2. Complete quiz with minimum score of 90%.

II. Drug action/Use

A. Anticoagulant used to help prevent clots from forming by inactivating the enzyme thrombin

B. Used in the prevention and treatment of emboli and thrombi

III. Potential adverse effects

A. The chief complication is hemorrhage, which can occur at virtually any site in patients receiving heparin.

B. Any unexplained change, symptom or hypotension in your patient should be a clue to assess further for a possible bleed.

C. Other effects include local irritation at the IV site and hypersensitivity.

IV. Procedure

A. Obtain patient report from the RN caring for the patient at the transferring facility with special attention to the following:
   1. Patient condition including recent vital signs
   2. All drugs currently being infused – know rate of infusion for each
   3. Transfer orders

B. The Heparin drip MUST BE maintained on an IV pump at all times during transport.

C. Check the infusion frequently to ensure it is infusing at the correct rate.

D. Observe the IV site for signs of infiltration – if this occurs, discontinue the site and apply a pressure dressing. Restart the line as soon as possible and continue with the same rate of infusion. Make note of the length of time the infusion was stopped and report to staff at the receiving facility.

E. Contact Medical Control or the receiving facility if any problems or questions regarding the heparin infusion while enroute.

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John Palcheff, DO, EMS Medical Director

JERSEY COMMUNITY HOSPITAL EMS SYSTEM
POLICY AND PROCEDURE

TRANSFER OF PATIENTS RECEIVING IV HEPARIN

I. Inservice

A. Paramedics and Prehospital RN's may transfer patients with heparin maintenance infusions after completing additional inservice training consisting of:
   1. Review PowerPoint (transfer, medication, arterial line sheath and CVAD)
   2. Complete quiz with minimum score of 90%.

II. Drug action/Use

A. Anticoagulant used to help prevent clots from forming by inactivating the enzyme thrombin

B. Used in the prevention and treatment of emboli and thrombi

III. Potential adverse effects

A. The chief complication is hemorrhage, which can occur at virtually any site in patients receiving heparin.

B. Any unexplained change, symptom or hypotension in your patient should be a clue to assess further for a possible bleed.

C. Other effects include local irritation at the IV site and hypersensitivity.

IV. Procedure

A. Obtain patient report from the RN caring for the patient at the transferring facility with special attention to the following:
   1. Patient condition including recent vital signs
   2. All drugs currently being infused – know rate of infusion for each
   3. Transfer orders

B. The Heparin drip MUST BE maintained on an IV pump at all times during transport.

C. Check the infusion frequently to ensure it is infusing at the correct rate.

D. Observe the IV site for signs of infiltration – if this occurs, discontinue the site and apply a pressure dressing. Restart the line as soon as possible and continue with the same rate of infusion. Make note of the length of time the infusion was stopped and report to staff at the receiving facility.

E. Contact Medical Control or the receiving facility if any problems or questions regarding the heparin infusion while enroute.

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John Palcheff, DO, EMS Medical Director

JERSEY COMMUNITY HOSPITAL EMS SYSTEM
POLICY AND PROCEDURE

TRANSFER OF PATIENTS RECEIVING IV NITRO

I. In-service

A. Paramedics and prehospital RN's may transfer patients with nitroglycerin infusions after completing additional inservice training consisting of:
   1. Review Powerpoint (transfer, medication, arterial line sheath and CVAD)
   2. Complete quiz with minimum score of 90%

II. Drug action/Use.

A. Drug Action: relaxation of vascular smooth muscle with dilation of peripheral arteries and veins.

B. Use: unstable angina, acute myocardial infarction, congestive heart failure, to decrease blood pressure/workload on the heart.

III. Adverse effect

A. Adverse effects with this drug are usually dose related and almost all reactions are a result of vasodilator properties:
   1. Headache
   2. Lightheadedness related to drop in blood pressure
   3. Hypotension

IV. Procedure:

A. Obtain patient report from the RN caring for the patient at the transferring facility with special attention to the following:
   1. Patient condition including recent vital signs
   2. All drugs currently being infused – know rate of infusion for each
   3. Transfer orders – the order should specifically indicate whether the nitroglycerin infusion is to be titrated according to pain and the blood pressure parameters to be maintained.

B. The nitroglycerin drip must be maintained on an IV pump at all times during transport.

C. Check the infusion frequently to ensure that it is infusion at the correct rate. If titrating the infusion, the nitroglycerin rate table should be used to increase or decrease dosage.

D. Monitor the patient's vital signs every 15 minutes if stable and every 5 minutes if unstable.

E. If the patient experiences a drop in blood pressure you should:
   1. Lower the head of the stretcher and administer a 200 ml fluid bolus if not contraindicated (i.e. pulmonary edema).
   2. If the blood pressure does not return to the minimum systolic parameter listed in the transfer orders (or 90 systolic if no minimum indicated), stop the infusion and contact Medical Control or the receiving facility.

V. Other

A. Special tubing may or may not be utilized depending upon the transferring facilities policies. (Note: Blessing Hospital does not require special tubing for nitroglycerin administration.)

B. Do not administer other medications through the nitroglycerin line.

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John Palcheff, DO., EMS Medical Director

JERSEY COMMUNITY HOSPITAL AREA EMS SYSTEM
POLICY AND PROCEDURE

TRANSFER OF PATIENTS RECEIVING IV NITRO

I. In-service

A. Paramedics and prehospital RN's may transfer patients with nitroglycerin infusions after completing additional inservice training consisting of:
   1. Review Powerpoint (transfer, medication, arterial line sheath and CVAD)
   2. Complete quiz with minimum score of 90%

II. Drug action/Use.

A. Drug Action: relaxation of vascular smooth muscle with dilation of peripheral arteries and veins.

B. Use: unstable angina, acute myocardial infarction, congestive heart failure, to decrease blood pressure/workload on the heart.

III. Adverse effect

A. Adverse effects with this drug are usually dose related and almost all reactions are a result of vasodilator properties:
   1. Headache
   2. Lightheadedness related to drop in blood pressure
   3. Hypotension

IV. Procedure:

A. Obtain patient report from the RN caring for the patient at the transferring facility with special attention to the following:
   1. Patient condition including recent vital signs
   2. All drugs currently being infused – know rate of infusion for each
   3. Transfer orders – the order should specifically indicate whether the nitroglycerin infusion is to be titrated according to pain and the blood pressure parameters to be maintained.

B. The nitroglycerin drip must be maintained on an IV pump at all times during transport.

C. Check the infusion frequently to ensure that it is infusion at the correct rate. If titrating the infusion, the nitroglycerin rate table should be used to increase or decrease dosage.

D. Monitor the patient's vital signs every 15 minutes if stable and every 5 minutes if unstable.

E. If the patient experiences a drop in blood pressure you should:
   1. Lower the head of the stretcher and administer a 200 ml fluid bolus if not contraindicated (i.e. pulmonary edema).
   2. If the blood pressure does not return to the minimum systolic parameter listed in the transfer orders (or 90 systolic if no minimum indicated), stop the infusion and contact Medical Control or the receiving facility.

V. Other

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_____ 9-2015

John Palcheff, DO, EMS Medical Director

JERSEY COMMUNITY HOSPITSL AREA EMS SYSTEM
POLICY AND PROCEDURE

TRANSFER OF PATIENTS RECEIVING GLYCOPROTEIN IIb/IIIA RECEPTOR INHIBITORS

(AGGRASTAT, INTEGRILIN, REOPRO)

I. Inservice

A. Paramedics and Prehospital RN's may transfer patients with approved glycoprotein receptor inhibitor maintenance infusions after completing additional inservice training consisting of:
   1. *Review PowerPoint (transfer, medication, arterial line sheath and CVAD)*
   2. Demonstrate proficiency in assessment for complications
   3. Complete quiz with minimum score of 90%

II. Drug Action/Use

A. Used in the treatment of cardiac patients with signs/symptoms of ischemia or AMI. Also used in cardiac catheterization labs to reduce complications.

B. These drugs are reversible antagonists of fibrinogen binding to prevent platelet aggregation.

C. They coat platelets causing "slickness" and prevent platelet aggregation.

III. Procedure for transfer

A. Obtain patient report from the RN caring for the patient in the transferring facility with special attention to the following:
   1. Patient condition including recent vital signs
   2. All drugs being infused – know rate of infusion for each
   3. Transfer orders – including measures to be taken if bleeding occurs which cannot be controlled with direct pressure.

B. Assess the patient for any signs of bleeding

C. The glycoprotein inhibitor infusion MUST BE maintained on an IV pump at the ordered rate of infusion.

D. Check the infusion frequently to ensure it is infusing at the correct rate.

E. Observe the IV site for any signs of infiltration – if this occurs, discontinue the site and apply a pressure dressing. Restart the line as soon as possible and continue with the same rate of infusion. Make note of the length of time the infusion was stopped and report to staff at the receiving facility.

F. Monitor the patient for any potential hemorrhage especially at infusion sites, other needle stick sites and mucous membranes. If bleeding or suspected bleeding is noted which cannot be controlled with direct pressure, follow transfer orders or contact Medical Control for instructions.

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John Palcheff, DOEMS Medical Director

JERSEY COMMUNITY HOSPITAL AREA EMS SYSTEM
POLICY AND PROCEDURE

TRANSFER OF PATIENTS RECEIVING AMIODARONE

I. Inservice

A. Paramedics and Prehospital RN's may transfer patients with amiodarone maintenance infusions after completion of amiodarone inservice training.
1. *Review PowerPoint (transfer, medication, arterial line sheath and CVAD)*
2. Complete quiz with a minimum of 90% accuracy

II. Drug Action/Use

A. Drug action: Antiarrhythmic with effects on sodium, calcium and potassium channels. Possesses both alpha and beta adrenergic blocking properties.

B. Use: A maintenance drip is utilized after conversion from dysrhythmia.

III. Dose/Administration

A. Maintenance drip: Usual dose is 0.5-1.0 mg/minute (Maximum dose 2.2 grams/24 hours).

B. Due to the potential for drug incompatibilities, other drugs should NOT be administered through the same IV line.

IV. Potential adverse effects/side effects:

A. Hypotension is the most common side effect.

B. Bradycardia and AV blocks.

C. CHF

D. Arrhythmia/cardiac arrest

V. Procedure

A. Obtain patient report from the RN caring for the patient at the transferring facility with special attention to the following:
1. Patient condition including recent vital signs
2. All drugs currently infusing, infusion rates for each
3. Transfer orders

B. The amiodarone infusion must be maintained on an IV pump during the transport.

C. Check the infusion frequently to ensure it is infusing at the correct rate.

D. Observe the IV site for signs of infiltration. If infiltration occurs, restart the IV line as soon as possible. Continue the drug at the ordered infusion rate.

E. Contact Medical Control or the receiving facility if any problems or questions regarding the amiodarone infusion while enroute.

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John Palcheff, DO EMS Medical Director

JERSEY COMMUNITY HOPSITAL AREA EMS SYSTEM
POLICY AND PROCEDURE

TRANSFER OF PATIENTS RECEIVING AMIODARONE

I. Inservice

A. Paramedics and Prehospital RN's may transfer patients with amiodarone maintenance infusions after completion of amiodarone inservice training.
   1. *Review PowerPoint (transfer, medication, arterial line sheath and CVAD)*
   2. Complete quiz with a minimum of 90% accuracy

II. Drug Action/Use

A. Drug action: Antiarrhythmic with effects on sodium, calcium and potassium channels. Possesses both alpha and beta adrenergic blocking properties.

B. Use: A maintenance drip is utilized after conversion from dysrhythmia.

III. Dose/Administration

A. Maintenance drip: Usual dose is 0.5-1.0 mg/minute (Maximum dose 2.2 grams/24 hours).

B. Due to the potential for drug incompatibilities, other drugs should NOT be administered through the same IV line.

IV. Potential adverse effects/side effects:

A. Hypotension is the most common side effect.

B. Bradycardia and AV blocks.

C. CHF

D. Arrhythmia/cardiac arrest

V. Procedure

A. Obtain patient report from the RN caring for the patient at the transferring facility with special attention to the following:
   1. Patient condition including recent vital signs
   2. All drugs currently infusing, infusion rates for each
   3. Transfer orders

B. The amiodarone infusion must be maintained on an IV pump during the transport.

C. Check the infusion frequently to ensure it is infusing at the correct rate.

D. Observe the IV site for signs of infiltration. If infiltration occurs, restart the IV line as soon as possible. Continue the drug at the ordered infusion rate.

E. Contact Medical Control or the receiving facility if any problems or questions regarding the amiodarone infusion while enroute.

9-2015

John Palcheff, EMS Medical Director

JERSEY COMMUNITY HOSPITAL AREA EMS SYSTEM
POLICY AND PROCEDURE

EMERGENCY USE OF CENTRAL VENOUS ACCESS DEVICES (CVADs)

I. Purpose: Previously established central lines and other access ports may be utilized during an emergency in the event that a peripheral IV line cannot be established.

Emergency situations include:

1. Cardiac arrest
2. Major trauma
3. Life-threatening situation requiring immediate need for medication or fluid therapy

II. Level of provider to perform this advanced skill:

A Paramedic

B. Prehospital RN

III. Important information

A. Heparinized lines
   1. Some CVADs utilize a heparin flush to maintain line patency.
   2. Heparin is not compatible with many drugs, therefore it is important to flush the line with normal saline before and after medication administration.
   3. Dialysis catheters or other access devices that have been heparinized should be aspirated to remove the 3 cc of Heparin prior to flushing the line. In a dire emergency, if you cannot aspirate, you may proceed with flushing the line.
   4. In the prehospital setting we will not “re-lock” the line with Heparin after access. Therefore, a continuous Normal Saline IV will be established using the CVAD to maintain patency.

B. Risks
   1. There is a risk of air embolism when a central IV system is open to the air. To help eliminate this risk:
      a. Use a needle to access through the injection port cap (or utilize needless access system if available) for medication administration.
      b. Clamp the line whenever you remove the injection port cap to attach or disconnect a syringe or IV fluids.
   2. Risk of Infection:
      a. Good aseptic technique must be utilized to help prevent risk of infection.
      b. Preferred method would be to utilize sterile technique when possible.

C. Use a 5 - 12 cc syringe when aspirating from or flushing the line. Smaller syringes have greater pressure and could force a clot through the line or even rupture the line.

D. Following is a table outlining the various types of access devices and related information:

CENTRAL VENOUS CATHETER – QUICK REFERENCE CHART

CATHETER	DESCRIPTION	MED ADM. - LINE FLUSHING	MISCELLANEOUS
Percutaneous CVC Multiple lumen catheter	▪ A silicone catheter inserted percutaneously into the subclavian or internal jugular vein.	▪ Flush with 3 cc NS before and after infusing medications ▪ OR resume continuous fluids.	▪ All lumens can be used to deliver medications or IV fluids.
Single lumen catheter	▪ 2-5 inches in length, inserted into the subclavian or internal jugular vein.	▪ Flush with 3 cc NS before and after infusing medications ▪ OR resume continuous fluids.	
Tunneled CVAD Hickman catheter	▪ A surgically inserted catheter which is tunneled under subcutaneous tissue into the central venous system. ▪ Can be single or double lumen. ▪ Has dacron cuff.	▪ Flush with 3cc NS before and after medications OR resume continuous fluids.	
Broviac catheter	▪ Similar to Hickman ▪ Frequently used in children	▪ Flush with 3cc NS before and after medications ▪ OR resume continuous fluids.	
Groshong catheter	▪ Similar to Hickman ▪ Tip of catheter has a pressure sensitive valve.	▪ Flush with 10cc NS before and after medications ▪ OR resume continuous fluids.	▪ Flush briskly to maintain valve integrity

Implanted Ports Port A Cath or Infus A Port	▪ The device is placed surgically under subcutaneous tissue with a tunneled catheter that extends into the central venous system.	▪ Flush with 10cc NS before medications. ▪ Check for blood return before instilling fluids/medications. ▪ Flush with 20ccNS after medications ▪ Or resume continuous fluids.	▪ Must use a "Gripper" needle and extension set or another type of "non-coring" needle specified for the port.
Peripheral Central Catheter P.I.C.C. catheters	▪ Small silicone catheter inserted percutaneously into the basilic or cephalic vein in the antecubital space ▪ Advanced until it rests in the central venous system.	▪ Flush with 10cc NS before and after medications ▪ Or resume continuous fluids.	▪ Use 10-12 cc syringes ▪ Do not use vacutainers
Dialysis Catheter Ash Catheter tunneled Quinton catheter temporary	▪ The Ash catheter – same as Broviac; 2 tailed straight. ▪ Quinton is a non-tunneled, non-cuffed 2 tailed curved catheter inserted into the central venous system. Always sutured in place.	▪ Aspirate 3 cc blood to remove heparin ▪ Flush with 10cc NS before and after medications ▪ Or resume continuous fluids. ▪ Maintain the fluids at a KVO rate so as not to overload the dialysis patient with fluid.	▪ In an emergency, if you cannot aspirate the 3 cc of heparin, it is OK to go ahead and flush.

IV. Documentation

A. Document procedure on PCR form as with any other procedure. Include type of CVAD, authorization for access, time and what you administered through the line.

B. Conditional drug / equipment use
   1. Field personnel: complete the conditional drug/equipment use form and submit to the EMS System Coordinator.
   2. EMS Office: Complete quarterly reports for conditional drugs/equipment and submit to IDPH.

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John Palcheff, DO EMS Medical Director

JERSEY COMMUNITY HOSPITAL AREA EMS SYSTEM
POLICY AND PROCEDURE

Interfacility Transfer of Patients Receiving Standard Crystalloid Solutions and IV Solutions Containing Potassium

I. Inservice: Paramedics and Prehospital RNs may transfer patients with crystalloid solution infusions and potassium-containing IV solutions after completing inservice training consisting of:

A. *Review PowerPoint (transfer, medication, arterial line sheath and CVAD)*

B. Complete quiz with a minimum of 90% accuracy.

II. Solutions:

A. The paramedic or PreHospital RN may monitor and adjust the following IV crystalloid solutions:
1. Dextrose 5% in Water (D5W)
2. Ringer's Lactate solution (LR)
3. ½ Normal Saline (1/2NS)
4. Dextrose 5% in Water and ½ Normal Saline (D51/2NS)
5. Dextrose 5% in Water and ¼ Normal Saline (D51/4 NS)
6. Normosol R, Normosol M

NOTE: **All of the solutions mentioned above can contain up to 20 mEq of potassium. Use caution**.

B. The paramedic or Prehospital RN may monitor solutions containing 20 mEq of potassium or less.

III. Potential adverse effects

A. Fluid overload if fluids are allowed to infuse too quickly

B. Hyperkalemia if potassium containing fluids are allowed to infuse off the pump.
1. Signs of hyperkalemia: Numbness and tingling, weakness, bradycardia, hypotension, ECH changes such as tall peaked T waves and widened QRS complex.

IV. Procedure:

A. Obtain patient report from the RN caring for the patient at the transferring facility with special attention to the following:
1. Patient condition including recent set of vital signs
2. All drugs and IV solutions currently being infused – know rate of infusion for each.
3. Transfer orders

B. Solutions containing potassium MUST be maintained on an IV pump at all times during the transport.

C. Check the infusion frequently to ensure that it is infusing at the correct rate.

D. Observe the IV site for signs of infiltration – if this occurs, discontinue the site and apply a dressing. Restart the line as soon as possible and continue with the same rate of infusion. Do not try to "catch up" on the infusion. Make note of the time the infusion was stopped and restarted. Report this to staff at the receiving facility. Document appropriately.

E. IV solutions containing potassium are not compatible with many drugs including epinephrine, atropine sulfate and diazepam. Do not administer drugs through the IV line that contains potassium.

F. Contact Medical Control or the receiving facility if any problems or questions regarding the IV infusion while enroute.

John Palcheff, DO., EMS Medical Director

JERSEY COMUNITY HOSPITAL AREA EMS SYSTEM
POLICY AND PROCEDURE

TRANSFER OF PATIENTS RECEIVING IV CARDIZEM

I. In-service

A. Paramedics and Prehospital RN's may transfer patients with heparin maintenance infusions after completing additional inservice training consisting of:
   1. Review PowerPoint (transfer, medication, arterial line sheath and CVAD)
   2. Complete quiz with minimum score of 90%.

II. Drug action/Use

A. Used in the prevention and treatment of rapid atrial fibrillation

III. Potential adverse effects

A. The chief complication are hypotension, acute MI, pulmonary congestions, lactation

B. Other effects include local irritation at the IV site and hypersensitivity.

IV. Procedure

A. Obtain patient report from the RN caring for the patient at the transferring facility with special attention to the following:
   1. Patient condition including recent vital signs
   2. All drugs currently being infused – know rate of infusion for each
   3. Transfer orders

B. The Diltizem drip MUST BE maintained on an IV pump at all times during transport.

C. Check the infusion frequently to ensure it is infusing at the correct rate.

D. Observe the IV site for signs of infiltration – if this occurs, discontinue the site and apply a pressure dressing. Restart the line as soon as possible and continue with the same rate of infusion. Make note of the length of time the infusion was stopped and report to staff at the receiving facility.

E. Contact Medical Control or the receiving facility if any problems or questions regarding the heparin infusion while enroute.

DILTIAZEM (CARDIZEM)

CLASS:	Antiarrhythmic
ACTION	Decreases SA and AV conduction and prolongs AV node effective and functional refractory perios. Also decreases myocardial contractility and peripheral vascular resistance.
INDICATIONS:	Rapid atrial fibrillation
SIDE EFFECTS/ADVERSE REACTIONS:	Hypotension, Acute MI, pulmonary congestions, lactation.
CONTRAINDICATIONS:	Hypotension, acute MI, pulmonary congestion, lactation
CAUTION:	Safety and effectiveness in children have not been determined. The half-life may be increased in geriatric patients. Use with caution in hepatic disease and in CHF.
DOSAGE:	20mg IV bolus over 2 min. If converted start drip at 10mg/hr NOTE: Not approved in children

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John Palcheff, DO, EMS Medical Director

ADDITIONAL