Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS		
	Community Health Nursing		
TITLE:		**SECTION:**	**POLICY NUMBER:**
Administering Medications – IV Direct		Pharmacy	09-008-00
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APPLIES TO:			
Community Health Nurses			

POLICY:

A registered nurse may administer medications directly into an intravenous below the drip chamber in accordance with the *Nunavut Formulary* and *The Ottawa Hospital Parenteral Drug Therapy Manual*. The nurse must have specialized competence to give medications IV direct.

DEFINITIONS:

Intravenous direct refers to the administration of a medication directly into the intravenous line below the drip chamber or into a saline lock, over at least 60 seconds.

PRINCIPLES:

Refer to *The Ottawa Hospital Parenteral Drug Therapy Manual* for medications that are approved, instructions on maximum dose, dilution, vesicant properties, compatibility, rate of administration and special equipment such as tubing or filter.

Review "Parenteral Medication pages 573-627, Potter and Perry (2010) *Clinical Nursing Skills & Techniques 7th edition*" for further steps in ensuring safe IV medication administration.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Policy 09-004-00 Medication Administration – Nursing practice
Guideline 09-004-01 Guidelines for Administering Medications
Policy 09-006-00 Administering or Dispensing Medications – Documentation
Pharmacy & Therapeutics Committee. *Nunavut Formulary*
Potter and Perry (2010) *Clinical Nursing Skills & Techniques 7th edition*"

Considerations

1. Administer medications IV direct in accordance with *The Ottawa Hospital Parenteral Drug Therapy Manual*.

2. Do not administer IV medications through tubing that is infusing blood or blood products.

3. Assess vein patency for saline locks prior to administration of IV direct medication by injection of sterile saline. Assess vein patency of an infusing IV line, by site inspection and observation of a freely flowing IV with no client discomfort. Assess IV site for signs of phlebitis/infiltration prior to IV direct administration. If present a new site must be initiated.

4. Check client's history of allergies.

5. Assess client's understanding of purpose of medication.

6. Instruct client to report untoward symptoms during medication administration.

7. If *The Ottawa Hospital Parenteral Drug Therapy Manual* does not specify a rate of administration, the medication is to be administered over at least 60 seconds.

8. Maintain sterility of IV tubing between intermittent infusions. New sterile lever/threaded lock cannula must be placed on the end of reusable IV administration set that has been removed from a primary administration set, saline lock or IV catheter hub and left hanging in between use.

9. Primary and secondary continuous administration sets are to be changed every 72 hours and immediately upon suspected contamination or when the integrity of the product or system has been compromised.

10. Primary intermittent administration sets shall be changed every 24 hours and immediately upon suspected contamination or when the integrity of the product or system has been compromised.

11. Central Venous Access Device (CVAD): PICC lines are flushed and maintained according to Policy 11-001-02.

12. Provide ongoing assessment while the client is receiving medication through the appropriate device.

Equipment:

- Alcohol swabs
- Labelled Medication Syringe
- Syringes with sterile 0.9 % sodium chloride (or compatible sterile flushing solution if medication incompatible with normal saline)
- Blunt Plastic Cannulas (if unavailable use sterile needle)
- Lever or Threaded Lock Cannula (if unavailable secure needle or cannula with tape)

Procedure:

1. Refer to *The Ottawa Hospital Parenteral Administration Manual* for approved medication(s), dosage, dilution, rate of administration and compatibility.

2. Perform hand hygiene.

3. Verify client Identification and allergy status.

4. Administer medication as follows:

Saline lock

1. Clean injection port with alcohol swab.

2. Assess patency by flushing saline lock with 3 ml. normal saline as per Consideration # 3, remove flush syringe.

3. Clean injection port with alcohol swab.

4. Connect syringe containing medication to saline lock using blunt plastic cannula.

5. Inject medication within amount of time recommended using a watch to time administration.

6. After administering medication withdraw syringe.

7. Clean injection port with alcohol swab.

8. Flush:
   a) For peripheral saline lock, attach syringe with normal saline and inject 3 ml normal saline flush.
   b) If PICC catheter, follow the flushing protocol as per Guideline 11-001-02.
   c) Monitor client response to medication.

Infusing IV-Compatible with medication:

1. Select injection port closest to client.

2. Assess for patency as per Consideration #3.

3. Clean injection port with alcohol swab.

4. Connect syringe containing medication to IV line using blunt plastic cannula (or needle if blunt cannula not available)

5. Release tubing and inject medication within time recommended using a watch to time administration. IV tubing may be pinched while pushing medication and released when not pushing medication.

6. After injecting medication, withdraw syringe and recheck fluid administration rate.

7. Monitor client response to medication.

Infusing IV-Incompatible with medication

1. Select injection port closest to client.
2. Assess for patency as per Consideration #3.
3. Clamp IV tubing using roller clamp or slide clamp.
4. Clean injection port with alcohol swab.
5. Pre flush with 3 ml of sterile compatible solution for **peripheral lines**, 20 ml for **central lines**.
6. Connect syringe containing medication to IV line using blunt plastic cannula.
7. Inject Medication within time recommended using a watch to time.
8. After injecting medication, withdraw syringe and clean injection port with alcohol swab.
9. Post- flush with 3 ml of sterile compatible solution for peripheral lines.
10. Re-establish appropriate intravenous rate.
11. Monitor client response to medication.

Pediatric Considerations

- Therapeutic dosage of IV direct medications for infants and children is often small and difficult to accurately prepare, even with a tuberculin syringe.
- Where IV direct infusions are permitted, you need to infuse these medications slowly and in small volumes because of the risk for fluid volume overload.

Documentation

Document in the client's health record.

Client Education

Teach client the purpose of the medication and side effects to report.

References

The Canadian Intravenous Nurses Association [1999] Intravenous Therapy Guidelines.

The Ottawa Hospital Parenteral Therapy Administration Manual.

Perry, A. & Potter, P. (2010) *Clinical Nursing Skills & Techniques (7th ed.)*. St. Louis: Mosby.

Weinstein, S. (2007) *Plummer's Principles & Practice of Intravenous therapy* (8th ed.). Philadelphia: Lippincott

Intravenous Nurses Society (2006) Infusion Nursing Standards of Practice. *Journal of Intravenous Nursing*, 29(1S) S22, S23, S 25, S 27,S 28, S 29, S 48

Registered Nurses Association of Ontario (2005). *Care and Maintence to reduce vascular access complications*. Toronto: author.

Registered Nurses Association of Ontario (2004). *Assessment and device selection for vascular access*. Toronto: author

Approved by:	Effective Date:
11 FEB 2011 **Chief Nursing Officer** **Date**	April 1, 2011
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