

	<p>Policies and Procedures</p> <p>Title: INTRAVENOUS – PUSH/DIRECT MEDICATION ADMINISTRATION</p> <p>LPN Additional Competency (LPNAC): Intravenous Push/Direct Medication Administration with an established Plan of Care</p> <p>RN - Entry Level Competency</p> <p>I.D. Number: 1089</p>
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HIGH ALERT: If the monitoring requirements cannot be met, do not administer medication IV Push. Refer to the [Saskatchewan Parenteral Manual](#)

DEFINITIONS:

Client- term used to refer to a client, patient or resident

Intravenous Push/Direct medication administration: refers to the manual administration of a relatively small volume of a concentrated solution or medication directly into the venous system via a peripheral or central venous access device.

Speed Shock - a sudden adverse physiological reaction to IV medication or drugs that are administered too quickly. Some signs of speed shock are a flushed face, headache, a tight feeling in the chest, irregular pulse, loss of consciousness, and cardiac arrest.

Established Plan of Care- based on an RN assessment of care needs, the plan of care for IV push/direct medication may be considered established where a scheduled medication is prescribed by IV push/direct route, and following the initial dose of a medication with no adverse reactions, and when IV access is through a peripheral IV or saline lock or through a PICC. The IV push/direct plan of care must be documented in a nursing care plan. The plan of care is no longer considered established if the client is not achieving expected outcomes or if an adverse reaction occurs.

ROLES:

Licensed Practical Nurses (LPNs) LPNs identified by the manager in targeted practice settings will be certified in the LPN Additional Competency: Intravenous – Push/Direct Medication Administration with the following conditions:

- When an established Plan of Care is in place
- For specific medications targeted for the practice setting
- When a written prescriber order specifies that the medication is to be given IV Push/Direct.

Certified LPNs may administer IV Push/Direct medication autonomously via peripheral IV or PICC, (Kidney Health: through accessed Arteriovenous Fistula or Graft) as assigned, for clients who are less complex, more predictable and at lower risk for negative outcomes. If a change is required in the IV push/direct route medication plan of care, the LPN will consult with a RN, RN(NP),RPN or physician and work collaboratively to establish a new plan of care.

Note: Prerequisite:

LPN must have completed the Sask Polytechnic IV Therapy/Blood & Blood Products completer course or equivalent.

Registered Nurse (RN) - may administer an IV push/direct medication by any IV route.

Registered Psychiatric Nurse (RPN) who has the knowledge and skill may administer an IV push/direct medication by peripheral IV or saline lock routes, or by PICC if certified in care and use of PICCs.

1. PURPOSE

- 1.1 To safely administer medications intravenously by IV push/direct route.
- 1.2 The IV push/direct route should be chosen in emergencies or whenever an immediate drug effect is needed.

2. POLICY

- 2.1 Registered Nurses and Registered Psychiatric Nurses will administer IV push/direct medication in accordance with the guidelines of this policy, the nursing units and with the [Saskatchewan Parenteral Manual](#).
- 2.2 Licensed Practical Nurses identified by their manager require certification to administer IV push/direct medication in accordance with the guidelines of this policy, the nursing units and with the [Saskatchewan Parenteral Manual](#). (See LPN role in the previous section for conditions).

Note: Refer to policy [Licensed Practical Nurse Additional Competencies #1071](#) for a list of targeted areas and specific targeted medications.

- 2.3 LPNs certified in this LPNAC will have first completed the following learning modules/activities prior to administering IV push/direct medication:
 - Review of current IV push/direct policy.
 - Review of procedure in the event of adverse or unexpected reaction.
 - Complete the required learning module and quiz (teaching and learning methods may vary e.g. classroom and/or self- study using paper module or on line)

- Complete a skills checklist with an RN, RPN or certified LPN during simulation or during care, to ensure safety checks are followed appropriately.
- Provide documentation of learning module quiz and skills checklist to educator/supervisor

2.4 Prior to administration of IV Push/direct medication, the nurse must refer to the [Saskatchewan Parenteral Manual](#) and be knowledgeable regarding:

- desired therapeutic effects
- possible adverse effects
- appropriate preparation and dilution
- required monitoring parameters
- maximum dosage and rate of administration

Note: Giving a medication too fast can cause speed shock or death

NICU: see appropriate IV medication resource.

2.5 **If the monitoring requirements cannot be met, do not administer medication IV Push.**

If another route or method of administration is not possible, discuss other options with the practitioner.

2.6 The nurse must ensure the following

- Right patient
- Right drug
- Right dosage
- Right route
- Right time
- Right dilution/fluid compatibility
- Right flow rate
- Right monitoring
- Right documentation

2.7 Perform hand hygiene prior to preparing the medication, prior to administering the medication and after medication is administered.

2.8 Withdraw IV push/direct medications from single use glass ampules using a clean blunt filter needle (then discard needle).

Note: Ampule breakers are recommended to avoid injury when the glass vial does not have a rubber stopper.

(Ordering information: Ampule Cracker 1-4 mL - Pharma Systems Inc. Product code: 7372)

2.9 Draw up the medication in an appropriate sized syringe. Dilute medication as directed in package insert or [Saskatchewan Parenteral Manual](#) if required.

Note: Do not use a prefilled saline flush syringe to draw up the medication.

2.10 If the client has a central venous catheter (CVC), administer IV push/direct medication as directed in this policy and refer to Nursing Policy and Procedure:

[Central Venous Catheters-Care of PICCS #1001](#) or [Central Venous Catheters-Short Term, Tunneled, Implanted – Care of #1086](#) for assessment of patency, flushing and locking guidelines.

2.11 If adverse reaction noted, stop the medication administration immediately and withdraw any remaining medication if possible. Notify practitioner immediately.

3. PROCEDURE

3.1 Supplies

- alcohol swabs
- syringe
- medication
- PPE supplies as appropriate
- ampule breaker (if available)
- medication labels
- diluent, if applicable
- 0.9% Sodium Chloride flush

Note: *NICU – use D5W as per protocol*

PICU – as per unit protocol

3.2 Check for client allergies (refer to Allergy/Intolerance Record and Medication Administration Record).

3.3 Perform hand hygiene.

3.4 Prepare medication per IV monograph ensuring compatible diluent and correct dilution. Attach a completed medication label. Refer to Nursing Policy and Procedure: [Medication Administration #1170](#).

Note: *If more than one medication is to be administered and incompatibilities exist, flush with 0.9% Sodium Chloride (NICU – D5W as per protocol) between each medication.*

Note: *A separate syringe must be used for each medication.*

3.5 Examine insertion site and ensure patency

3.5.1 If administering through a running intravenous, observe for free flow of IV solution.

3.5.2 If using a saline lock, assess for any occlusion by ease of flush.

3.5.3 If using a CVC, assess patency and flush as appropriate before and after medication: refer to policy: [Central Venous Catheters-Care of PICC](#) or [Central Venous Catheters-Short Term, Tunneled or Ports](#)).

3.5.4 Ensure the CVC can be easily flushed prior to administering medication with a 10ml syringe filled with 0.9% Sodium Chloride. Once patency has been confirmed using a 10mL flush syringe, administration of the medication can be given in a syringe appropriately sized to measure and administer the required dose.

3.6 Injecting medication through Peripheral Intravenous Tubing Port (Y-Site)

- 3.6.1 IV Push medications cannot be administered with Parenteral Nutrition (PN), continuous medication infusions or blood.
- 3.6.2 Perform hand hygiene.
- 3.6.3 Vigorously scrub Y-site closest to insertion site with alcohol for 15 seconds. Allow to dry.
- 3.6.4 If medication is compatible with the IV solution, attach medication syringe to Y-site port by pushing and twisting until tight. Occlude IV line by pinching tubing just above injection port, inject medication at the correct rate, and then flush port with 0.9% Sodium Chloride.
- 3.6.5 If medication is incompatible with the IV solution, stop the IV infusion, perform hand hygiene, scrub Y-site port with alcohol, flush with 10 mLs 0.9% Sodium Chloride (Pediatrics 5mLs) and inject medication at the correct rate. Scrub Y-site port with alcohol and flush again with 10mLs 0.9% Sodium Chloride (Pediatrics: 5 mLs).

Note: The flush following medication administration must be delivered at the same rate as the medication injection.

- 3.6.6 Re-establish infusion.

3.7 Injecting medication through a Peripheral Saline Lock

- 3.7.1 Perform hand hygiene.
- 3.7.2 Vigorously scrub needleless adapter with alcohol for 15 seconds. Allow to dry.
- 3.7.3 Attach syringe with 0.9% Sodium Chloride to needleless adapter by pushing and twisting until tight and flush (Adults: 3mLs, Pediatrics: 1-2 mLs).
- 3.7.4 Repeat 3.7.2 and attach medication syringe. Inject at correct rate.
- 3.7.5 Repeat 3.7.2 and flush with 0.9% Sodium Chloride. Remove syringe from needleless adapter. (NICU – lock with a minimum of double the lumen volume with 0.9% Sodium Chloride after use and q6h) (PICU – heparin flush as per unit protocol).

3.8 Documentation and Reporting

- 3.8.1 On the Medication Administration Record (or appropriate record) include date, time, name of drug, dosage, route, initials and co-signer initials if medication requires an independent double check. Refer to Nursing Policy and Procedure: [Medication Administration Record \(MAR\) #1091](#).
- 3.8.2 On flow sheet/progress note include rationale for administration and client response.
- 3.8.3 Pediatric Units: record flush solution on the MAR and volume if fluid restricted on daily flow sheet/fluid balance record.

3.8.4 NICU/PICU: record medication and flush volume on IV intake record.

3.8.5 Report any adverse effects immediately to the practitioner.

4. REFERENCES

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