

PAEDIATRIC NURSING PRACTICE MANUAL  
SECTION 2

DRUG AND INTRAVENOUS (IV) THERAPY



2.5 TECHNIQUES FOR ADMINISTRATION OF PARENTERAL MEDICATIONS

2.5.4 ADMINISTRATION OF INTRAVENOUS MEDICATIONS USING A  
SPRINGFUSOR® INFUSION DEVICE

**Aim**

To administer a prescribed intravenous medication safely using a Springfusor® infusion device so as to minimise risk.

**Background Information**

<p>The Springfusor® is a spring driven syringe pump.</p> <p>It consists of a re-useable spring unit available in two volumes (10mL and 30mL).</p> <p>Infusion rates are controlled by the flow control tubing, which is available in a range of different flow rates.</p>	
<p><b>Contraindications</b></p> <p>Not recommended for use where;</p> <ul style="list-style-type: none"> <li>accurate infusion of a drug is required</li> <li>a low flow rate could have serious clinical consequences (because of the potential risk of tube occlusion from particulates)</li> <li>frequent flow rate adjustment is required eg. dose titration</li> </ul> <p><b>Relative Contraindications</b></p> <p>As care must be taken not to drop the device, it may not be suitable for use with unpredictable patients.</p>	

**Key points**

- This procedure uses [aseptic non touch technique](#).<sup>1, 2</sup>
- Central venous access is preferred for infusing medications using a Springfusor at PMH.
- For flushing Central Venous Access Devices (CVADs) and peripheral lines refer to [PNPM 2.3.8](#).
- The Springfusor® **must only be used** with Go Medical Flow Control Tubing.
- Change Flow Control Tubing every 72 hours or sooner if it becomes contaminated.

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Administration of Intravenous Medications using a  
Springfusor® Infusion Device  
Techniques for Administration of Parenteral Medications  
Paediatric Nursing Practice Manual (PNPM)  
Princess Margaret Hospital  
Perth, Western Australia

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## Equipment

Injection tray- cleaned with sporacidal detergent wipes and allowed to dry  
 PPE: non sterile gloves/plastic apron  
 Medication sheet  
 Prescribed medication  
 Diluent as required  
 Sterile 0.9% sodium chloride for injection  
 Appropriate syringe in appropriate size (ie. Springfusor® or **Braun** luer lock)  
 Drawing up needles  
 Springfusor® device of appropriate size  
 Flow Control Tubing of appropriate infusion rate required  
 +/- 3-way tap  
 +/- needle free bung  
 2% chlorhexidine/70% isopropyl alcohol swabs

PROCEDURE	ADDITIONAL INFORMATION
Obtain written prescription and follow procedure for checking drugs as per <a href="#">PNPM 2.1.2</a> .	
Immediately prior to use, prepare medication as per manufacturer's instruction using aseptic non touch technique.  <b>Note;</b> Use an appropriate sized syringe and do not fill beyond capacity.	Refer to <a href="#">PNPM 2.5.1</a> Preparation and Administration of IV Medications.  Use a Braun® luer-lock syringe.
Prior to access, vigorously scrub the IV access port with 2%chlorhexidine/alcohol swab.  Allow to air dry.	Strict adherence to hand washing and protection of 'key parts' and 'key sites' is essential to maintain asepsis throughout the procedure. <sup>1, 2</sup>
<b>For peripheral lines:</b> Turn the 3-way tap off to patient  Clamp the lines as close to the patient as possible.  <b>For Central Venous Access Devices,</b> clamp over the reinforced clamping sleeve.	Note: Springfusor® is not routinely used with peripheral lines.  If not already in situ, attach a primed 3-way tap to the patient's intravenous access.  Attach needle free bung to the tap ports.
Select appropriate flow-rate tubing; Attach the tubing to the appropriate syringe and prime tubing.	Note: If Springfusor must be used with a peripheral line always use red labelled (15 minute) control tubing.
Attach control tubing to the 3-way tap.	

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PROCEDURE	ADDITIONAL INFORMATION
Place the syringe in appropriate sized Springfusor® device. Twist to lock into position.	<b>Do not</b> place syringe in Springfusor® prior to attaching to 3-way tap as it will empty the syringe.
Position syringe nozzle height within +/- 30cm of injection site height. Turn on 3-way tap. Unclamp the line.	To ensure accuracy of infusion.  To allow administration of medication.
When the infusion is complete turn 3-way tap off to the patient. Clamp the line as close to the patient as possible.	For Broviac® Central Venous Access Devices clamp over the reinforced clamping sleeve.
Remove syringe from Springfusor® device. Disconnect syringe from control tubing.	If there is any fluid left in syringe remove syringe from Springfusor® device <b>prior</b> to disconnection from the line.
<b>Flushing the line</b> Replace the medication syringe with a syringe of 0.9% sodium chloride and appropriate sized Springfusor® device. Turn on the tap and unclamp line.	Refer to <a href="#">PNPM 2.3.8</a> for appropriate flushing amounts.
When the saline infusion is complete turn the 3-way tap off. Clamp line as close to the patient as possible.	
Remove syringe and Springfusor® device.	If there is any fluid left in syringe remove syringe from Springfusor® prior to disconnection from the line.
<b>Flushing the Intravenous Access device:</b> Using a push-pause technique, flush the IV access device with normal saline or heparinised saline. Clamp under positive pressure to prevent blood reflux and occlusion. <sup>3</sup>	Refer to; <a href="#">PNPM 2.3.8</a> for whether heparin is required for the Central Venous Access Device. Note. If Maxplus® positive displacement device in situ on CVAD- clamp <b>after</b> removing the flush syringe.
Wipe clean the exterior of the Springfusor® with a mild detergent or disinfectant eg. Tuffie wipe.	Do not use alcohol based products to clean. Do not clean interior; dispose of if contaminated.

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