

Supplementary Materials to: Choo J, Yap, J, Ismail A, Hon JS, Ruan W, Low A, Lim T, Tan

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Initial preparation and planning

Medical criteria

Group 1 Pulmonary Hypertension (PH)

On maximum tolerable doses of Phosphodiesterase-5 inhibitors and Endothelin-1 receptor antagonists

Progressive symptoms

Preparation

Counselling by PH nurse

Written information/online video given to patient/carers

Patient put in touch with fellow IV epoprostenol users

Telephone Follow up – obtain agreement from patient to start IV epoprostenol therapy

Training session by PH nurse with simulation on preparation of IV epoprostenol, ambulatory pump and Hickman line care

Weekly review of training and competency

Planning

Obtain elective date from Department of Radiology for Hickman line insertion

Discontinue Warfarin 3 days prior (if on)

Arrange for elective admission

Hickman line insertion

High Dependency bed

Inpatient initiation of IV epoprostenol

Day	1	2	3	4	5
Setting	High Dependency	General Ward Step up to High dependency if SBP <90mmHg or SpO2 <90%			
Intervention	Post central line insertion CXR	Change to ambulatory pump by PH nurse	Full blood count		Full blood count
	Prophylactic IV metoclopramide 10 mg before initiation then TDS PRN	PH Nurse reinforce education on: Operating the ambulatory pump and troubleshooting, and dilution of medication and changing of cassette			
Dosing	Start IV epoprostenol at 1 ng/kg/min then increase by 1 ng/kg/min 4 hours later	Aim 1ng/kg/min increment per day Titrate down if adverse effects experienced and inform PH team. Re attempt up titration as ordered PH team.			
Target	1-2 ng/kg/min	3-4 ng/kg/min	6 ng/kg/min	8 ng/kg/min	10 ng/kg/min
Monitoring	Obtain baseline vital signs (BP, Heart Rate, SpO2) Hourly parameters for 2 hours after every up titration of dosage, subsequently if no more further titration then 6hourly Monitor for bleeding over Hickman line site				

	<p>Adverse effects (To contact PH team if any adverse effect observed)</p> <p>Nausea, vomiting, headache, jaw pain are expected - treat symptomatically</p> <p>Hypotension</p> <p>Dizziness</p> <p>Flushing</p> <p>Chest pain</p> <p>Abdominal pain</p> <p>If febrile, to do septic work up and inform PH team</p>
Discharge	<p>Aim for discharge when patient able to reach 8-10 ng/kg/min on ambulatory pump</p> <p>Discharge with 2 set of ambulatory pump (Loan Set), while waiting for the purchased pump</p> <p>Prescribe anti-emetics, analgesia and diarrhoea medications upon discharge</p> <p>List of items to obtain</p> <p>VELETRI Package Bundle</p> <p>Reservoir bag 100 mL, Filter and line 20's</p> <p>Basic Dressing set x10</p> <p>Sterile gloves x1 box (Optional)</p> <p>Omron Blood pressure monitoring</p> <p>Syringes luer lock – 50 mL & 5 mL</p> <p>Needles, 16G & 21G x1 box</p> <p>Sodium Chloride 0.9% 20ml solution</p>

<p>Sodium Chloride 0.9% 500mls solution</p> <p>Alcohol swab x1 box</p> <p>Microclave connector clear</p> <p>Micropore tape</p> <p>Tegaderm dressing (CHG & Advance)</p> <p>Disinfectant wipes x1</p> <p>Alcohol based hand rub x1</p> <p>Discharge Package Information for patient</p> <p>Ambulatory pump troubleshooting guide</p> <p>IV epoprostenol patient guide book</p> <p>Hand-outs on care of Central venous catheter site; sign and symptom of site infection</p> <p>Contact details during emergency</p> <p>Information to convey to operator when seeking for medical attention</p> <p>Follow up call the next day by Pulmonary Hypertension nurse</p> <p>See Pulmonary Hypertension clinic in 1 week with FBC, LFT, renal panel check</p> <p>See Pulmonary Hypertension Nurse in 1 week for dressing</p> <p>Remove stitches of Hickman line 3 weeks in PH or PHT Nurse clinic</p>
