

HNE AREA Intensive Care

Approved For: JHH ICU only

Prostacyclin Cont nebulised

Trade Name: Epoprostenol(Flolan)

Presentation: 500mcg vial

Indications: Severe ARDS to improve oxygenation and pulmonary hypertension . Must be discussed with Intensive Care specialist. One 500mcg vial can be located in after hours pharmacy and ICU.

Administration: Administered continuously via ultrasonic nebuliser - refer to associated procedure. Epoprostenol 500mcg is diluted to 50ml(conc 10mcg/ml or 10,000nanog/ml))(Note for higher concentration dilute 500mcg in 25ml only). Eposprostenol is unstable in solution and syringe must be changed 12 hourly.

Do not stop nebulization abruptly , wean at 2nanog/kg/min every 15 minutes.

Infusion rate in ml/hr for Prostacyclin solution of 500mcg/50ml (Note the total fluid volume delivered into nebuliser per hour should be 12mls, made up of prostacyclin solution and 2nd syringe of normal saline - see P&P help library)

DOSE;	Body Weight in kg						
	40	50	60	70	80	90	100
ng/kg/min							
5	1.2	1.5	1.8	2.1	2.4	2.7	3
10	2.4	3	3.6	4.2	4.8	5.4	6
15	3.6	4.5	5.4	6.3	7.2	8.1	9
20	4.8	6	7.2	8.4	9.6	10.8	12
25	6	7.5	9	10.5	12		

Dose 10 to 30nanog/kg/min nebulised . A reasonable dose to commence is at 15nanog/kg/min (approx 5ml/hour of standard dilution)

Precautions Monitor oxygenation and BP - may cause vasodilation

Monitor FBC and coagulation profile

Monitor for bleeding - has antiplatelet effects but appears less so when nebulised compared to iv delivery

Compatibilities: ref: Randomised controlled trial of aerosolized prostacyclin therapy in children with acute lung injury: P Dahlem et al crit care med 2004(32) 1055-1060

Inhaled Epoprotenol: P Lusardi AJN 2003(103)

Nebulized prostacyclin in ards: impact of primary and secondary disease on gas exchange response. G Domenighetti et al; crit care med 2001(29)57-62

Sydney West area health service evidence based practice guidelines 2009

Created: 17-Jul-09 by K Havill Reviewed: 10-Aug-09 by K havill Guideline to be reviewed before : 17-Sep-09

These guidelines are intended for and to be used only by experienced critical care staff under direct supervision of Hunter Health Area Intensive Care Specialists in designated Hunter Health Area Critical Care Areas. The Authors will not be responsible for inappropriate use of these guidelines