

DRUG:	ALPROSTADIL (PROSTAGLANDIN E1)
PRESENTATION:	Ampoule: 500 microgram/mL
ACTION & INDICATION:	Promotes dilatation of all arterioles Used to maintain patency of ductus arteriosus in neonates with congenital heart defects dependent on ductal shunting for oxygenation and perfusion until corrective surgery can be performed. (Cyanotic heart disease, duct dependant lesions)
DOSE:	Initially: 0.05 microgram/kg/minute (50 nanograms/kg/min) If effective within 30 minutes reduce to 0.025 microgram/kg/minute. Maintenance dose : May be as low as 0.01microgram/kg/minute
PREPARATION:	Use solution prepared by Pharmacy if available. Diluent: 5% Glucose, sodium chloride 0.9% To prepare an infusion solution to deliver 0.05 microgram/kg/minute (ie 50 nanograms/kg/minute) at a rate of 1mL/hr. Volume of diluent required (mL) = $\frac{167}{\text{Baby's weight (kg)}}$ Add 500 micrograms alprostadil to this volume. The infusion solution may be further diluted if required.
ADMINISTRATION:	For continuous intravenous/arterial infusion via syringe pump
ADVERSE EFFECTS:	May cause apnoea in infants especially in the first hour of infusion Consider intubation and ventilation when using on WANTS transports Flushing, bradycardia, tachycardia, hypotension, apnoea, fever, seizures, hypothermia Avoid in HMD/RDS Contraindicated in infants with PFC (persistent foetal circulation) or anomalous pulmonary venous return. Neonates receiving alprostadil for more than 120 hours, or maintained on high doses, should be closely monitored for evidence of antral hyperplasia, gastric outlet obstruction and cortical hyperostosis (eg widening fontanelles).
COMMENTS:	Maximum effectiveness within 96 hours of birth No evidence of incompatibility with heparin Infusion solution stable for 24 hours
REFERENCES:	BNF for Children 2009 Neofax 2008
DATE:	January 2011