UNIVERSITY HOSPITALS OF DERBY & BURTON NHS FOUNDATION TRUST DRUG MONOGRAPH FOR USE ON ADULT INTENSIVE CARE UNITS

MILRINONE

Indication	Short-term treatment of congestive heart failure unresponsive to conventional maintenance therapy Acute heart failure including low-output states following cardiac surgery					
Dose	Loading dose: 50microgram/kg administered over a period of 10 minutes Continuous infusion: Titrate dosage between 0.375 microgram /kg/min and 0.75 microgram /kg/min according to haemodynamic and clinical response but should not exceed 1.13mg/kg/day total dose *****DOSES ARE BASED ON ACTUAL BODY WEIGHT UPTO A MAXIMUM OF 120KG ****					
Preparation	Infusion solutions should be freshly prepared before each use. The infusion should be examined visually, and it should not be used if there is any particulate contamination or discolouration. <u>200micrograms/ml solution</u> Take the contents of a 10ml ampoule of milrinone 10mg in 10ml and add 40ml of one of the compatible diluent fluids (see section below) to create a 200micrograms/ml solution. <u>400micrograms/ml solution</u> Take the contents of 2 x 10ml ampoules of milrinone 10mg in 10ml and add 30ml of one of the compatible diluent fluids (see section below) to create a 400micrograms/ml solution.					
	Administer via a CENTRAL VENOUS ACCESS DEVICE to avoid potential venous irritation as the infusion has a low ph. For detailed dosing information see appendix 1					
Shelf-life	Use Immediately					
Common Compatibility Issues	Compatible with sodium chloride 0.9%, glucose 5%, sodium chloride 0.45%.					
Additional information	Fluid Restricted Patients See appendix 1, table 2 for dosing information in fluid restricted patients					

	DRUG	DRUGS ADDED TO THIS INFUSION						
	A. Patient (A. Nun	PATIENT A. Patient (A. Number)						
Sample Label	DRUG Mílrínonoe	AMOUNT 10mg ín 50mL (200mcg/mL)	ADDED BY	CHECKED BY				
	DATE ADDED TIME ADDED	EXP. DATE EXP. TIME		BATCH No.				

For review May 2026

Documentation Controls

Development of Guideline:	Pharmacist – Critical Care & Theatres
Consultation with:	Pharmacy Department
Approved By:	ICU Sister's Meeting: June 2023
	ICU Risk & Quality Meeting: August 2023
	Surgical Division
Review Date:	May 2026
Key contact:	Pharmacist – Critical Care & Theatres

References

BMA & Pharmaceutical Press. British National Formulary June 2018.

https://www.medicinescomplete.com/mc/bnf/current/index.htm Accessed October, 2019 Summary of Product Characteristics. http://www.emc.medicines.org.uk. Accessed October, 2019

Trissel, L.A. Handbook on Injectable Medicines 18th Edition.

https://www.medicinescomplete.com/mc/hid/current/index.htm Accessed October, 2019 Brayfield A (ed), Martindale: The Complete Drug Reference. [online] London: Pharmaceutical Press <<u>http://www.medicinescomplete.com/</u>> (accessed October, 2019).

*** End of Monograph ***

APPENDIX 1: DOSING TABLES

Dose body weight (microgram/	Table 1 . Using a 10mg in 50mL (200micrograms in 1mL) milrinone solution the following specifies the infusion rate (mL per hour) required for different doses and patient weights									
kg/minute)	40kg	50kg	60kg	70kg	80kg	90kg	100kg	110kg	120kg	
0.375	4.5 mL/hr	5.6 mL/hr	6.8 mL/hr	7.9 mL/hr	9mL/hr	10.1mL/hr	11.3mL/hr	12.4mL/hr	13.5mL/hr	
0.400	4.8mL/hr	6 mL/hr	7.2 mL/hr	8.4mL/hr	9.6mL/hr	10.8mL/hr	12mL/hr	13.2mL/hr	14.4mL/hr	
0.500	6 mL/hr	7.5 mL/hr	9 mL/hr	10.5mL/hr	12mL/hr	12mL/hr	15mL/hr	16.5mL/hr	18mL/hr	
0.600	7.2 mL/hr	9 mL/hr	10.8 mL/hr	12.6mL/hr	14.4mL/hr	16.2mL/hr	18mL/hr	19.8mL/hr	21.6 mL/hr	
0.700	8.4 mL/hr	10.5 mL/hr	12.6 mL/hr	14.7mL/hr	16.8mL/hr	18.9mL/hr	21mL/hr	23.1mL/hr	25.2mL/hr	
0.750	9 mL/hr	11.3 mL/hr	13.5 mL/hr	15.8mL/hr	18mL/hr	20.2mL/hr	22.5mL/hr	24.8mL/hr	27mL/hr	

Dose body weight (microgram/	Table 2. Using a 20mg in 50mL (400micrograms in 1mL) milrinone solution the following specifies the infusion rate (mL per hour) required for different doses and patient weights FOR FLUID RESTRICTED PATIENTS ONLY								
kg/minute)	40kg	50kg	60kg	70kg	80kg	90kg	100kg	110kg	120kg
0.375	2.3mL/hr	2.8ml/hr	3.4mL/hr	3.9ml/hr	4.5mL/hr	5.1ml/hr	5.6mL/hr	6.2ml/hr	6.8mL/hr
0.400	2.4mL/hr	3ml/hr	3.6mL/hr	4.2ml/hr	4.8mL/hr	5.4ml/hr	6mL/hr	6.6ml/hr	7.2mL/hr
0.500	3mL/hr	3.8ml/hr	4.5mL/hr	5.3ml/hr	6mL/hr	6.8ml/hr	7.5mL/hr	8.3ml/hr	9mL/hr
0.600	3.6mL/hr	4.5ml/hr	5.4mL/hr	6.3ml/hr	7.2mL/hr	8.1ml/hr	9mL/hr	9.9ml/hr	10.8mL/hr
0.700	4.2mL/hr	5.3ml/hrr	6.3mL/hr	7.4ml/hr	8.4mL/hr	9.5ml/hr	10.5mL/hr	11.5ml/hr	12.6mL/hr
0.750	4.5mL/hr	5.6ml/hr	6.8mL/hr	7.9ml/hr	9mL/hr	10.2ml/hr	11.3mL/hr	12.3ml/hr	13.5mL/hr