Critical Care Guidelines FOR CRITICAL CARE USE ONLY



DOBUTAMINE

PRESENTATION:	Vials containing 250mg in 50ml (5mg/ml) dobutamine
INDICATION:	Inotropic support in severe heart failure, cardiogenic shock and septic shock
DOSE & ADMINISTRATION :	ICU STANDARD INTRAVENOUS INFUSION
	50ml of ready to use (UNDILUTED) dobutamine 250mg in 50ml. Spike vial and administer via volumetric infusion pump.
	Initially, 2.5microgram/kg/min (2.1ml/hour for a 70kg patient) titrated to required level. Tachycardia may limit therapy.
	Doses up to 40microgram/kg/min (33.6ml/hr for a 70kg patient) have been used.
	Infuse through a central venous catheter.

Example calculation table using a 250mg in 50ml (5mg in 1ml) dobutamine dilution: the following table gives examples of the infusion rate (ml per hour) required for different doses and patient weights.

Dosage	Patient's body weight					
(microgram/kg/minute)	40kg	60kg	80kg	100kg	120kg	140kg
2.5	1.2ml/hr	1.8ml/hr	2.4ml/hr	3ml/hr	3.6ml/hr	4.2ml/hr
5	2.4ml/hr	3.6ml/hr	4.8ml/hr	6ml/hr	7.2ml/hr	8.4ml/hr
7.5	3.6ml/hr	5.4ml/hr	7.2ml/hr	9ml/hr	10.8ml/hr	12.6ml/hr
10	4.8ml/hr	7.2ml/hr	9.6ml/hr	12ml/hr	14.4ml/hr	16.8ml/hr
15	7.2ml/hr	10.8ml/hr	14.4ml/hr	18ml/hr	21.6ml/hr	25.2ml/hr

NB: If the rate includes a 0.05 figure, the rate should be rounded UP to the next decimal place when setting the infusion pump, e.g. 5.25ml/hour should be rounded up to 5.3ml/hour.

CONCENTRATION:	5mg/ml
STABILITY:	Physically and chemically stable for 24hours at room temperature
ADDITIONAL INFORMATION:	Do NOT dilute
	Dose should be gradually decreased when discontinuing therapy

Critical Care Guidelines FOR CRITICAL CARE USE ONLY

References:

- **1.** Dobutamine 5mg/ml solution for infusion. Hameln. Summary of Product Characteristics. https://www.medicines.org.uk/emc/product/6462/smpc Accessed 13/01/2020
- **2.** Dobutamine, Medication concentration in adult critical care areas. Intensive Care Society. Accessed 13/01/2020
 - https://ics152.files.wordpress.com/2017/02/ics-standard-medication-concentrations-2016.pdf
- 3. Dobutamine, The UK Injectable Medicine Guide, Adopted for use in NHS Lothian, Updated April 2019, Accessed February 2020.
 - http://intranet.lothian.scot.nhs.uk/Directory/MedicinesManagement/DrugsTherapeutics/Documents/Guidelines/NHS%20Lothian%20UK%20IV%20Guide.pdf

Title: Dobutamine	
ID:	Authors: Mairi Cromarty
Category:	Document Version: 2
Status Draft/Final: FINAL	Review Date: May 2022
Authoriser: Lothian Critical Care QIT	
Editorial Board	Authorisation Date: May 2020
Date added to Intranet: 27th May 2020	
Key Words	
Comments	