

DOBUTAMINE

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

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 (microgram/kg/minute)	Patient's body weight					
	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 :	<p>Do NOT dilute</p> <p>Dose should be gradually decreased when discontinuing therapy.</p> <p>Do not allow the infusion to run out. A new infusion should be prepared promptly when the previous one is due to finish.</p> <p>Tolerance may develop if continues longer than 72 hours, requiring an increase in doses.</p>

Critical Care Guidelines
FOR CRITICAL CARE USE ONLY

	<p>Solutions may have a pink colouration which may become darker with time, resulting from a slight oxidation of the drug. There is no significant loss of drug potency within the recommended storage time for solution of the drug.</p> <p>Protect ampoules and vials from light in the outer container.</p>
--	--

References:

1. Dobutamine 5mg/ml solution for infusion. Hameln. Summary of Product Characteristics. <https://www.medicines.org.uk/emc/product/6462/smpc> Accessed 08/09/2022
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 Reviewed by: Laura Kirkpatrick
Category:	Document Version: 3.0
Status Draft/Final:	Review Date: October 2024
Authoriser: Lothian Critical Care QIT Editorial Board	Authorisation Date: October 2022
Date added to Intranet:	
Key Words Comments	