

## **DOBUTAMINE**

<b>Indication</b>	To increase cardiac output in shock states																								
<b>Dose</b>	2.5-10microgram/kg/minute  (Dose range 0.5–40 micrograms/kg/minute has been used)  Start at an initial rate of 2.5microgram/kg/min and increase in 2.5microgram/kg/minute increments. Allow 5 minutes following dose adjustments.																								
<b>Preparation</b>	Each 50ml vial contains 250mg dobutamine (5mg/ml)  <b>For peripheral use: 500mg in 250mls 2 milligrams per ml: max concentration peripherally</b>  <ul style="list-style-type: none"> <li>• Withdraw 100mls fluid from a 250ml bag of 0.9% sodium chloride or 5% glucose.</li> <li>• Draw up 100mls of dobutamine (250mg in 50mls) and add to bag.</li> <li>• Label bag with contents, date of preparation and initials of staff preparing and checking infusion.</li> </ul> <b>FOR CENTRAL USE ONLY:</b> Draw up 250mg (50ml) of Dobutamine into a 50ml syringe																								
<b>Administration</b>	Standard strength solutions may be given via peripheral or central line using the Baxter pump.  High Strength solutions must only be infused via a central line.  When stopping infusion, reduce the rate gradually.																								
<b>Shelf-life</b>	24 hours at room temperature																								
<b>Additional information</b>	Contact the ward or oncall Pharmacist if unsure of the calculations  Glucose 5% can be used as a diluent if hypernatraemia is a problem  Tachycardia is the most common adverse reaction																								
<b>Sample Label</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: yellow;"> <th colspan="4" style="text-align: center;"><b>DRUGS ADDED TO THIS INFUSION</b></th> </tr> </thead> <tbody> <tr> <td colspan="3">                     PATIENT  <i>A. Patient (A. Number)</i> </td> <td>                     WARD  <i>CCU</i> </td> </tr> <tr> <td>                     DRUG  <i>Dobutamine</i> </td> <td>                     AMOUNT  <i>500mg</i> </td> <td>                     ADDED BY                 </td> <td>                     CHECK BY                 </td> </tr> <tr> <td colspan="2"> <i>In 250ml sodium chloride 0.9%/glucose 5%</i> </td> <td> <i>2mg/ml</i> </td> <td> </td> </tr> <tr> <td>                     DATE ADDED                      TIME ADDED                 </td> <td>                     EXP. DATE                      EXP. TIME                 </td> <td colspan="2">                     BATCH No.                 </td> </tr> <tr style="background-color: yellow;"> <td colspan="4" style="text-align: center;"><b>DISCONTINUE IF CLOUDINESS OR PRECIPITATE DEVELOPS</b></td> </tr> </tbody> </table>	<b>DRUGS ADDED TO THIS INFUSION</b>				PATIENT <i>A. Patient (A. Number)</i>			WARD <i>CCU</i>	DRUG <i>Dobutamine</i>	AMOUNT <i>500mg</i>	ADDED BY	CHECK BY	<i>In 250ml sodium chloride 0.9%/glucose 5%</i>		<i>2mg/ml</i>		DATE ADDED TIME ADDED	EXP. DATE EXP. TIME	BATCH No.		<b>DISCONTINUE IF CLOUDINESS OR PRECIPITATE DEVELOPS</b>			
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**Dobutamine Dose Checker**  
**(Only for use with 2mg per ml Infusions)**  
 All rates are in ml per hour.

Ideal Body Weight (kg)	Dose of dobutamine in micrograms per kg per minute											
	Increasing inotropic effect →											
	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30
	All rates below in ml per hour (Only valid for 2mg/ml solutions)											
45	3.4	6.8	10.1	13.5	16.9	20.3	23.6	27.0	30.4	33.8	37.1	40.5
50	3.8	7.5	11.3	15.0	18.8	22.5	26.3	30.0	33.8	37.5	41.3	45.0
55	4.1	8.3	12.4	16.5	20.6	24.8	28.9	33.0	37.1	41.3	45.4	49.5
60	4.5	9.0	13.5	18.0	22.5	27.0	31.5	36.0	40.5	45.0	49.5	54.0
65	4.9	9.8	14.6	19.5	24.4	29.3	34.1	39.0	43.9	48.8	53.6	58.5
70	5.3	10.5	15.8	21.0	26.3	31.5	36.8	42.0	47.3	52.5	57.8	63.0
75	5.6	11.3	16.9	22.5	28.1	33.8	39.4	45.0	50.6	56.3	61.9	67.5
80	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0	72.0
85	6.4	12.8	19.1	25.5	31.9	38.3	44.6	51.0	57.4	63.8	70.1	76.5
90	6.8	13.5	20.3	27.0	33.8	40.5	47.3	54.0	60.8	67.5	74.3	81.0
95	7.1	14.3	21.4	28.5	35.6	42.8	49.9	57.0	64.1	71.3	78.4	85.5
100	7.5	15.0	22.5	30.0	37.5	45.0	52.5	60.0	67.5	75.0	82.5	90.0
105	7.9	15.8	23.6	31.5	39.4	47.3	55.1	63.0	70.9	78.8	86.6	94.5
110	8.3	16.5	24.8	33.0	41.3	49.5	57.8	66.0	74.3	82.5	90.8	99.0

**Written by Dominic Moore (Advanced Pharmacist –Specialist Medicine) August 2016**  
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**Reviewed by: Hester Smail (Advanced Pharmacist - Cardiology) November 2023**  
**Approved by Dr Damian Kelly – Lead Cardiologist**  
**Medical Division 15/3/19**

**For review November 2026**

**References**

SmPC. <http://www.emc.medicines.org.uk>. Accessed November 2023  
 ASHP Injectable Drug Information. Accessed November 2023  
 UKCPA Minimum infusion volumes document. 4th edition. December 2012