

## Who can administer

Administration RESTRICTED - see [Appendix 1](#)

## Important information

- **Consider cyanide toxicity** if patients with hepatic or renal impairment, or in rates exceeding 3 micrograms/kg/minute for more than 72 hours <sup>(ref 1)</sup>
- Unlicensed preparation
- The hypotensive effect of Sodium nitroprusside is seen within a minute or two after the start of the adequate infusion, and it dissipates almost as rapidly after the infusion is discontinued
- For Y-site compatibility [see below](#)

## Available preparations

Sodium Nitroprusside 50mg per 2ml vial (Armas, SlateRun brands)

## Reconstitution

**Dilute further prior to administration**

## Infusion fluids

Glucose 5% **only**

## Methods of intravenous administration

**Continuous intravenous infusion (administer using an electronically controlled infusion device)**

- Add 50mg to 250ml infusion fluid (200 micrograms/ml)
- The infusion device, and the **giving set must be covered to protect the drug from light** - silver wrapping is provided in the pack to allow this
- Administer at a suitable rate as per 'dose' below
- The prepared solution has a very faint brownish tint - if it is highly coloured it should be discarded
- **Fluid restriction:** can prepare a 1mg per 1ml solution (central line only) <sup>(ref 3,4)</sup>

## Dose in adults

Using a 50mg in 250ml strength															
Dose in micrograms/kg/minute	0.1	0.3	0.5	1	1.5	2	2.5	3	3.5	4	5	6	7	8	
Weight in kg (below)	Rate below is in ml per hour														
<b>40kg</b>	1.2	3.6	6	12	18	24	30	36	42	48	60	72	84	96	
<b>45kg</b>	1.4	4.1	6.8	13.5	20.3	27	33.8	40.5	47.3	54	67.5	81	94.5	108	
<b>50kg</b>	1.5	4.5	7.5	15	22.5	30	37.5	45	52.5	60	75	90	105	120	
<b>55kg</b>	1.7	5	8.3	16.5	24.8	33	41.3	49.5	57.8	66	82.5	99	115.5	132	
<b>60kg</b>	1.8	5.4	9	18	27	36	45	54	63	72	90	108	126	144	
<b>65kg</b>	2	5.9	9.8	19.5	29.3	39	48.8	58.5	68.3	78	97.5	117	136.5	156	
<b>70kg</b>	2.1	6.3	10.5	21	31.5	42	52.5	63	73.5	84	105	126	147	168	
<b>75kg</b>	2.3	6.8	11.3	22.5	33.8	45	56.3	67.5	78.8	90	112.5	135	157.5	180	
<b>80kg</b>	2.4	7.2	12	24	36	48	60	72	84	96	120	144	168	192	
<b>85kg</b>	2.6	7.7	12.8	25.5	38.3	51	63.8	76.5	89.3	102	127.5	153	178.5	204	
<b>90kg</b>	2.7	8.1	13.5	27	40.5	54	67.5	81	94.5	108	135	162	189	216	
<b>95kg</b>	2.9	8.6	14.3	28.5	42.8	57	71.3	85.5	99.8	114	142.5	171	199.5	228	
<b>100kg</b>	3	9	15	30	45	60	75	90	105	120	150	180	210	240	
<b>105kg</b>	3.2	9.5	15.8	31.5	47.3	63	78.8	94.5	110.3	126	157.5	189	220.5	252	
<b>110kg</b>	3.3	9.9	16.5	33	49.5	66	82.5	99	115.5	132	165	198	231	264	
<b>115kg</b>	3.5	10.4	17.3	34.5	51.8	69	86.3	103.5	120.8	138	172.5	207	241.5	276	
<b>120kg</b>	3.6	10.8	18	36	54	72	90	108	126	144	180	216	252	288	

#### Hypertensive crisis (doses are in micrograms/kg/minute)

- Initial dose is normally within the range of 0.3 to 1.5 micrograms/kg/minute <sup>(ref 2)</sup>
- This can be adjusted in increments of 0.5 micrograms/kg/minute every three to five minutes <sup>(ref 5)</sup>
- Dose range 0.5 to 8 micrograms/kg/minute (average dose required 3 micrograms/kg/minute)
- Higher doses up to 10 microgram/kg/minute may be needed for a maximum time of 10 minutes
- Action occurs within 1 to 2 minutes
- Excessive hypotension resulting in compromised perfusion of vital organs must be avoided

## Monitoring

- Monitor patients for signs of cyanide toxicity - which may present as symptoms of hypothyroidism

## Storage

- Store below 25°C
- Following reconstitution, protect the bag from light by covering with aluminium foil (supplied with product) or other opaque material as soon as possible. Under these conditions the 50mg in 250ml glucose 5% infusion is stable for 24 hours
- Discard the bag if the solution develops a strong discolouration (a faint brown tint is acceptable to use).

## References

SPC Slate Run August 2020, Armas July 2023

1. Uptodate accessed online 12/03/2025
2. Martindale accessed online 12/03/2025
3. Minimum infusion volumes UKCPA version 4.4 December 2012
4. Injectable Medicines Guide, Medusa accessed online 12/03/2025
5. American Heart Association ACLS core drugs 2006

## Therapeutic classification

Vasodilator antihypertensive