

PHENOBARBITAL (PHENOBARBITONE)

PRESENTATION:		Ampoules containing 30mg/ml, 60mg/ml or 200mg/ml of phenobarbital.
INDICATION:		Epilepsy and Refractory Status Epilepticus.
DOSE AND ADMINISTRATION:		<p>If previously on oral phenobarbital use the same dose intravenously. If being used as part of Critical Care guideline for status epilepticus give loading dose of 10mg/kg intravenously up to a maximum of 1000mg (see table below), followed by a maintenance dose of 120mg once daily intravenously. Administer at a maximum of 100mg/minute to avoid hypotension, sedation and apnoea.</p> <p>Preferably administer via a central venous catheter due to extreme pH and osmolality. Where this is not possible, a large vein should be used, flush well and monitor the site.</p> <p>ICU STANDARD INFUSION</p> <p>Dilution is required prior to administration. Each 1ml of phenobarbital injection should be diluted to 10ml of water for injection, i.e. add 9ml of water for injection. For a 120mg dose: Dilute 120mg (2ml of 60mg/ml ampoule) with 18ml water for injection to give a final volume of 20ml. Administer over at least 2 minutes.</p> <p>For the loading dose: Select the total loading dose depending on weight bandings in the table below.</p>
Patient weight	Total loading dose	Syringes to prepare to deliver loading dose, use 60mg/ml strength.
40-45kg	420mg	2 syringes of 210mg (3.5 ml of 60mg/ml, diluted with 31.5ml water for injection to give final volume of 35ml). Administer each syringe over 5 minutes.
45-50kg	480mg	2 syringes of 240mg (4ml of 60mg/ml, diluted with 36ml water for injection to give final volume of 40ml). Administer each syringe over 5 minutes.
51-56kg	540mg	2 syringes of 270mg (4.5ml of 60mg/ml, diluted with 40.5ml water for injection to give final volume of 45ml). Administer each syringe over 5 minutes.
57-63kg	600mg	2 syringes of 300mg (5 ml of 60mg/ml, diluted with 45ml water for injection to give final volume of 50ml). Administer each syringe over 5 minutes.
64-68kg	660mg	2 syringes of 240mg (4ml of 60mg/ml, diluted with 36ml water for injection to give final volume of 40ml). 1 syringe of 180mg (3ml of 60mg/ml, diluted with 27ml water for injection to give final volume of 30ml). Administer each syringe over 5 minutes.
69-74kg	720mg	3 syringes of 240mg (4ml of 60mg/ml, diluted with 36ml water for injection to give final volume of 40ml). Administer each syringe over 5 minutes.
75-80kg	780mg	2 syringes of 300mg (5 ml of 60mg/ml, diluted with 45ml water for injection to give final volume of 50ml). 1 syringe of 180mg (3ml of 60mg/ml, diluted with 27ml water for injection to give final volume of 30ml). Administer each syringe over 5 minutes.
81-85kg	840mg	2 syringes of 300mg (5 ml of 60mg/ml, diluted with 45ml water for injection to give final volume of 50ml). 1 syringe of 240mg (4ml of 60mg/ml, diluted with 36ml water for injection to give final volume of 40ml). Administer each syringe over 5 minutes.
86-89kg	870mg	2 syringes of 300mg (5 ml of 60mg/ml, diluted with 45ml water for injection to give final volume of 50ml). 1 syringe of 270mg (4.5ml of 60mg/ml, diluted with 40.5ml water for injection to give final volume of 45ml). Administer each syringe over 5 minutes.
90-93kg	930mg	3 syringes of 270mg (4.5ml of 60mg/ml, diluted with 40.5ml water for injection to give final volume of 45ml). 1 syringe of 120mg (2 ml of 60mg/ml, diluted with 18ml water for injection to give final volume of 20ml). Administer each syringe over 5 minutes.
94-97kg	960mg	4 syringes of 240mg (4ml of 60mg/ml, diluted with 36ml water for injection to give final volume of 40ml). Administer each syringe over 5 minutes.

Critical Care Guidelines
FOR ICU USE ONLY

98-100kg	990mg	3 syringes of 270mg (4.5ml of 60mg/ml, diluted with 40.5ml water for injection to give final volume of 45ml). 1 syringe of 180mg (3ml of 60mg/ml, diluted with 27ml water for injection to give final volume of 30ml). Administer each syringe over 5 minutes.
CONCENTRATION		6mg/ml
STABILITY:		Physically and chemically stable for 24 hours at room temperature.

References:

1. Summary of Product Characteristics, Phenobarbital sodium 200mg/ml. Martindale Pharma. Last updated on emc, 23/01/2018. Accessed www.medicines.org.uk on 06/04/2021.
2. Medusa Injectable Guide. Phenobarbital sodium. Published 22/07/2020. www.injguide.nhs.uk. Accessed 06/04/2021.
3. Legriel S., Bedos J.P., Azoulay E. (2008) Managing Critically ill Patients with Status Epilepticus. In: Yearbook of Intensive Care and Emergency Medicine. Yearbook of Intensive Care and Emergency Medicine, vol 2008. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-540-77290-3_76

Title: Phenobarbital	
ID:	Authors: Claire Hannah, Gráinne Smyth
	Document Version:2.0
Status Draft/Final: FINAL	Review Date: May 2023
Authoriser: Lothian Critical Care QIT Editorial Board.	Authorisation Date: May 2021
Date added to Intranet	
Key Words	