

FOR ICU USE ONLY

ADRENALINE

| | |
|----------------------|---|
| PRESENTATION: | Ampoules containing 1mg/ml of adrenaline. |
| INDICATION: | Inotropic support with variable degree of vasoconstriction and vasodilation. Bronchospasm and anaphylaxis. |

DOSE AND ADMINISTRATION: ICU STANDARD INTRAVENOUS INFUSION

The infusion prepared depends on the dose and infusion rate. See table below.

| Strength | Adrenaline (mg) | Glucose 5% (ml) | Comments |
|---|---------------------|-------------------------|--|
| Single Strength Final concentration 80 micrograms/ml | 8mg 20mg 40mg | 100ml 250ml 500ml | Remove volume of glucose 5% from bag equivalent to volume of adrenaline which is to be added |
| Double strength Final concentration 160 micrograms/ml | 40mg 80mg | 250ml 500ml | |
| Quadruple strength Final concentration 320 micrograms/ml | 80mg 160mg | 250ml 500ml | |

Initially 1-7mls/hour (0.01-0.1 micrograms/kg/min) of single strength titrated to required level.

Infuse through a central venous catheter.

Single Strength may be infused via a large peripheral vein until central venous access is established. Closely monitor the insertion site for the development of phlebitis.

| | |
|-----------------------|---|
| CONCENTRATION: | 80micrograms/ml 160micrograms/ml 320micrograms/ml |
|-----------------------|---|

| | |
|-------------------|--|
| STABILITY: | Physically and chemically stable for 24 hours at room temperature. Protect from light. |
|-------------------|--|

| | |
|--------------------------|---|
| ADDITIONAL NOTES: | Also stable for 24 hours in 0.9% sodium chloride but more stable in glucose 5%. Do not use if discoloured or has a precipitate. |
|--------------------------|---|

References

- Peddicord TE, Olsen KM, Zumbrunnen TL, Warner DJ, Webb L. Stability of high-concentration dopamine hydrochloride, norepinephrine hydrochloride, and nitroglycerin in 5% dextrose injection. Am J Health-Syst Pharm. 1997; 54:1417-9.
- Brustugun J, Kristensen S, Tonnesen HH. Photosensitivity of Sympathomimetic Agents in Commonly Used Infusion Media in the Absence and Presence of Bisulfite. PDA Journal of Pharmaceutical Science and Technology. 2004;58 (6):296-308.
- Minimum Infusion Volumes for fluid restricted critically ill patients. Critical Care Group, UKCPA V 4.4, Dec 2012
- BNF- adrenaline/epinephrine. Accessed 05/08/19 via www.bnf.nice.org.uk
- Medusa IV guide –adrenaline/epinephrine monograph version 9. Accessed 27/09/22 via <https://medusa.wales.nhs.uk/IVGuideDisplay.asp>

| | |
|---|--|
| Title: ADRENALINE | |
| ID: | Authors: Anne Neally |
| Category: | Document Version: 2.0 |
| Status Draft/Final: FINAL | Review Date: October 2024 |
| Authoriser: QIT editorial group | Authorisation Date: August 2021 |
| Date added to Intranet: October 2024 | Written Date: October 2022 |
| Key Words/comments | |

FOR ICU USE ONLY