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

- 1. Trissel's IV Compatibility- Adrenaline. Accessed 06/03/19 via Micromedex 2.0, www.micromedexsolutions.com
- 2. 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.
- 3. 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.
- 4. Minimum Infusion Volumes for fluid restricted critically ill patients. Critical Care Group, UKCPA V 4.4, Dec 2012
- 5. BNF- adrenaline/epinephrine. Accessed 05/08/19 via www.bnf.nice.org.uk
- 6. Medusa IV guide –adrenaline/epinephrine. Accessed 07/08/19 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: August 2019 |
| Authoriser: Lothian Critical Care QIT | |
| editorial group | Authorisation Date: August 2021 |
| Date added to Intranet:18/10/19 | |

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| Key Words/comments | |
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