| CLINICAL GUIDELINE | |
|---|---|
| **Resuscitation Medication and Fluids** | |
| **Scope (Staff):** | Nursing and Medical Staff |
| **Scope (Area):** | NICU KEMH, NICU PCH, NETS WA |

**This document should be read in conjunction with this DISCLAIMER**

## Adrenaline

If HR remains < 60/min despite adequate ventilation and > 60 seconds of coordinated cardiac compressions and ventilation give:

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| **DOSE** | > 2.0 Kg (> 34 weeks) give 1.0 mL of 1:10,000 solution<br>< 2.0 Kg (≤ 34 weeks) give 0.5 mL of 1:10,000 solution<br>Refer to Neonatology Medication Protocols: Adrenaline |
| **ROUTE** | The quickest effective route of administration is via the ETT. This route has been questioned in the latest ILCOR guidelines and where possible the UVC is a preferred route of administration. If initial administration is via ETT, subsequent doses should be given via the UVC. Other routes of administration are not acceptable. |

## Volume Expansion

This again remains controversial. The local policy is to err on the side of volume expansion with a recommendation that any infant who is not responding to an initial dose of Adrenaline receive a 10 mL/Kg bolus of normal saline via a UVC. This is based on the possibility of covert blood loss and the fact that in a shocked state the circulating volume may be functionally deficient without blood loss.

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| **FLUID** | Normal saline is the most convenient and safest volume replacement.<br>When overt blood loss has occurred, O Negative blood is ideal and is available in the recovery/ theatre blood fridge.<br>Volume loading with normal saline should not be delayed.<br>Refer to Neonatology Clinical Guideline. |
| **ROUTE** | Umbilical venous catheter.<br>**NB**: If a full resuscitation is anticipated a UVC should be prepared prior to the birth. |
| **VOLUME** | 10 mL/Kg given as bolus over 1-2 minutes. May be repeated. |

## Naloxone

Naloxone is a second line resuscitation drug that is only indicated under specific circumstances and after other resuscitative measures.

Consider if:

- The mother has received narcotics within 4 hours of delivery.
- The mother is not an illicit user of narcotics.
- There is continued respiratory depression after positive pressure ventilation has restored a normal heart rate and colour. i.e. Should not be administered in the first 5 minutes of life.

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| **DOSE** | 100 micrograms/Kg<br>Refer Neonatology Medication Protocols: Naloxone |
| **ROUTE** | IV. Dose may be repeated. Naloxone has traditionally been given IM but there is no evidence to support efficacy.<br>Infants receiving naloxone should be closely monitored and admitted to the SCN. |

## Sodium Bicarbonate

Sodium bicarbonate should **not** be given as a first line drug during resuscitation. It may be given if an arrest is going more than 10-15 minutes, or if the infant is not responding to adrenaline and volume.

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| **DOSE** | 1-2 mmoL/kg of 4.2% solution (8.4% diluted 1:1 with sterile water)<br>Refer to Neonatology Medication Protocols: Sodium Bicarbonate |
| **ROUTE** | Umbilical venous catheter. |

**Related CAHS internal policies, procedures and guidelines**

Neonatology Guideline

- Critical Bleeding Protocol (CBP) - Neonatal
- Resuscitation Algorithm for the Newborn
- Resuscitation Emergency Transfusion of O-Negative Blood in Theatre
- Resuscitation Neonatal

Neonatology Medication Protocols

- Adrenaline
- Naloxone
- Sodium Bicarbonate

WNHS: Obstetrics and Gynaecology Guideline

- Labour: Neonatal team attendance at birth

This document can be made available in alternative formats on request for a person with a disability.

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