
Guideline

Nasal diamorphine for children

Reason for development

- To standardise/improve patient care.

1 Scope

- Patients in the emergency department of Addenbooke's Hospital

2 Aim

- This guideline is to help the clinician assessing children need nasal diamorphine

3 Guidelines for the administration of nasal diamorphine.

Introduction

Nasal diamorphine is a fast acting analgesic for the relief of moderate to severe pain (BNF, 2004). Giving drugs by the nasal route is well described and has several advantages

Indication for use

Initial analgesia for traumatic injuries e.g. fractures, burns/scalds, finger tip injuries and suturing.

Very useful in situations such as no cannula in-situ, or when other methods of pain relief are not suitable or adequate e.g. PR medications in the older child

Contraindications

- Children <10kg
- Administration of other opiates prior
- Known Allergy
- Children with a head injury / neurological problem
- Epistaxis
- Airway / respiratory problem

Administration

Please follow all steps of administration and ensure that the procedure is explained fully to the child and parent / carer

1. Weigh the child
2. Take baseline pulse, SaO₂, resps, assess and document pain score
3. Dose used 0.1mg/kg
4. Use the chart provided to determine the amount of dilutant (0.9% Normal Saline) required

The smaller the child the larger the amount of dilutant

5. Use a 1ml syringe to add the amount of 0.9% Normal saline required
6. Discard all but 0.2ml

All children receive 0.2ml regardless of age / size

7. Draw the remaining 0.2ml of solution into a syringe, attach syringe to a mucosal atomizer

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8. Ask the child to gently tip his/her head back, occluding one nostril gently place the atomizer into the nostril
 9. Push the contents of the syringe into the nostril at the same time ask the child to sniff. Once in remove the syringe but not the atomizer, draw air into the syringe and then flush through the atomizer with the air
 10. Not all children will co-operate but this is a painless quick method of pain relief. Children may sneeze after administration and or have a funny taste in their mouth

Absorption

Absorption can be as fast as iv route, therefore the same side effects can occur. Optimum effects last for 20 minutes but pain relief is often experienced for much longer. No cases of respiratory depression have been documented using this method at these doses **BUT THAT DOES NOT MEAN IT WILL NEVER OCCUR** therefore repeat assessment of observations is necessary for up to one hour after administration.

Paediatric Analgesia: Nasal Diamorphine - dose : 0.1mg/kg*

PLEASE CHECK THE STRENGTH OF DIAMORPHINE CAREFULLY BEFORE USE

Follow each step carefully:

- Dilute **5 mg** powder of diamorphine with specified volume of Normal Saline (**V*** - see below)
- Instil / spray **0.2mls** of the resulting solution into the child's nose
- This 0.2mls will contain 0.1mg/kg of diamorphine

Weight	Estimated Age	(V*)Volume of Normal Saline
12kg	2	0.8mls
15kg	4	0.7mls
20kg	6	0.5mls
25kg	8	0.4mls
30kg	10	0.35mls
35kg		0.3mls
40kg		0.25mls
50kg		0.2mls

Notes:

- Volume of dilutant (V*) = 10 / weight (kg)
- Always administer 0.2ml of solution

Reference:

Kendall JM, Reeves BC Latter VS Multicentre randomised controlled trial of nasal diamorphine for analgesia in children and teenagers with clinical fractures BMJ 2001;322:261-5

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