INTRA-NASAL FENTANYL FOR PAEDIATRICS - Full Clinical Guideline

Reference no.:CG-CH/4074/22

1. Introduction

To provide timely effective pain relief to children in severe pain or acute procedural pain, without immediate intravenous access.

2. Aim and Purpose

Intranasal fentanyl can be used to provide pain relief to children with injuries such as suspected limb fractures, burns and fingertip injuries severe enough to require opiates to relieve the pain. It can also be used for painful procedures such as dressing changes.

3. Definitions, Keywords

- Weight <7kg
- Age < 1 year
- Known sensitivity to fentanyl
- Blocked nostrils or upper respiratory tract infection
- Rhinorrhoea (nasal discharge)
- Reduced conscious level and / or significant head injury
- Epistaxis

4. Main body of Guidelines

- For use in ED at QHB and CED at RDH

- Record the child's initial pain score intranasal fentanyl should generally be considered where a child is in severe pain.
- In Derby CED this equates to a pain score of "8-10" when recorded on Lorenzo,
- At Burton QHB ED it equates to "3 – severe pain" on Patient Track.
- There may be other indications for the use of intranasal fentanyl where pain is not deemed severe but these will be at the clinician's discretion.

- Explain the procedure to the child and family or carers

Dosing table (using 100mcg/2ml fentanyl)

NB. Doses prescribed on MediTech (QHB ED) will differ slightly as the system uses the entered patient weight and rounds the dose to the nearest 0.1ml

Weight estimate (kg)	Initial dose (1.5micrograms/kg)	Volume – initial dose (ml) Divided between both nostrils	Top-up dose (0.75 – 1.5 micrograms/kg)	Volume – top-up dose (ml) Divided between both nostrils
7	10 micrograms	0.2ml	5 micrograms	0.1ml
10	15 micrograms	0.3ml	7.5-15micrograms	0.15-0.3ml
12	18 micrograms	0.35ml	9-18 micrograms	0.2-0.35ml
14	20 micrograms	0.4ml	10-20 micrograms	0.2-0.4ml
16	24 micrograms	0.5ml	12-24 micrograms	0.25-0.5ml
18	27 micrograms	0.55ml	13.5-27 micrograms	0.25-0.55ml
20-24	30 micrograms	0.6ml	15-30 micrograms	0.3-0.6ml
25-29	37.5 micrograms	0.75ml	18.75-37.5 micrograms	0.35-0.75ml
30-34	45 micrograms	0.9ml	22.5-45 micrograms	0.45-0.9ml
35-39	52.5 micrograms	1.05ml	26.5-52.5 micrograms	0.5-1.05ml
40-44	60 micrograms	1.2ml	30-60 micrograms	0.6-1.2ml
45-49	67.5 micrograms	1.35ml	32.5-67.5 micrograms	0.65-1.35ml
>50	75 micrograms	1.5ml	37.5-75 micrograms	0.75-1.5ml

http://www.rch.org.au/clinicalguide/guideline_index/Intranasal_fentanyl/#dosage-schedule

Procedure

- Use 100mcg/2ml strength fentanyl solution for intravenous use
- Draw up appropriate dose for weight (see table above / follow dose on MediTech)
- Attach atomiser (MAD device WolfeTory ®) to the 1ml syringe
- Position patient either sitting up at 45° or with head to one side
- For all doses, , split the dose between both nostrils to prevent loss of solution by sneezing or swallowing
- Administer dose by inserting into nostril loosely and aim for centre of nasal cavity prior to squirting
- Depress the plunger quickly
- Hold atomiser in place for further 5 seconds to prevent medication from dribbling out of nostril
- **If after 10 minutes a top-up dose is required, follow the above procedure using the top-up dose shown in the table**

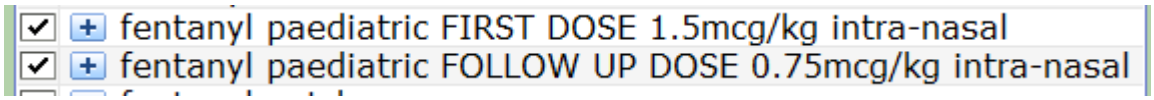
Record and monitor the pain score, respiratory rate and oxygen saturations every 5 mins for 30 mins. These observations should be documented on CED observation sheet or Lorenzo in CED at RDH or patient track when in Burton QHB.

Review the requirement for further analgesia after 30-40 minutes. If further analgesia is required, this should be administered via the oral or intravenous route as appropriate.

Prescribing

QHB ED - prescribe on MediTech.

Check that patient weight is already entered, then use "New Med" to search fentanyl. Select BOTH the following options



The next screen will show the calculated dose for the weight of the patient. This is based on the weight entered on the system and is rounded to the nearest 0.1ml for ease of measuring and administration.

- Select and submit BOTH doses -the follow up dose should only be administered if patient is still in pain 10 minutes after the first dose

RDH CED - prescribe on Lorenzo as a STAT dose using the dosing table above. If a top-up dose is required, prescribe this separately when needed, using the dosing table able

Common side effects

- Respiratory depression
- Reduced conscious level
- Nausea / vomiting
- Pruritis (itching)

Additional notes - on-going care

- Immobilise any injured limb to achieve analgesia if appropriate
- Apply local anaesthetic gel to a suitable IV site and prepare for intravenous cannulation as soon as is feasible
- Prescribe additional basic analgesia
- Any unused fentanyl should be destroyed as per Trust CD policy

5. References (including any links to NICE Guidance etc.)

http://www.rch.org.au/clinicalguide/guideline_index/Intranasal_fentanyl/#dosage-schedule
accessed 22.4.21

LRI Emergency department: Intranasal analgesia (Fentanyl and Diamorphine) for Children in Emergency Department June 2021 Trust Ref C46/2018 Review June 2024. *Copy held by paediatric pharmacists, UHDB*

6. Documentation Controls (these go at the end of the document but before any appendices)

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Version / Amendment History	Version	Date	Author	Reason
	1	Oct 22		Brief reference / description as to why an amendment has been made
Intended Recipients: State who the Clinical Guideline is aimed at – staff groups etc.				
Training and Dissemination: How will you implement the Clinical Guideline, cascade the information and address training				
Development of Guideline: **Job Title:**				
Consultation with:				
Linked Documents: State the name(s) of any other relevant documents				
Keywords:				
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Review Date			November 2025	
Contact for Review			Paediatric Audit Coordinator	

7. Appendices