

Guideline For The Administration Of Intranasal Fentanyl In The  
Paediatric Emergency Department

Guideline Author	Paediatric Emergency Department
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## Emergency Paediatrics

### Guideline For The Administration Of Nasal Fentanyl

#### 1.0 Introduction

Nasal fentanyl is a fast acting analgesic for the relief of moderate to severe pain  
The nasal route for opiate administration is now well recognized as having several advantages over the intravenous route in Paediatric Emergency Medicine

#### 2.0 Scope

This guideline applies to all medical staff in the Paediatric Emergency Department who will be administering intranasal fentanyl for the pain management of acutely presenting patients.

#### 3.0 Indication for use

Initial analgesia for traumatic injuries e.g. fractures, burns/scalds, fingertip injuries  
Procedures: suturing, painful dressing changes.

#### 4.0 Contraindications

Children <10kg  
Administration of other opiates within previous 4 hours  
Known Allergy  
Children with a head injury / decreased GCS  
Epistaxis  
Airway / respiratory problem

#### 5.0 Procedure For Administration

Please follow all steps of administration

- Weigh the child and obtain written consent from parent/carer
- Take baseline pulse, SaO<sub>2</sub>, respiratory rate; document visual analogue pain score
- **Dose - 1.5 micrograms/kg** (this equates to a 1 microgram/kg intravenous dose)
- **Preparation - Fentanyl Injection 50 micrograms/ml**
- Depending on the dose, use either a 1ml syringe or a 2.5ml syringe attached with a mucosal atomizer
- Ask the child to gently tip his/her head back, occluding one nostril gently place the atomizer into the nostril
- 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
- 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. Younger children will require the parent/carer to position them correctly, and drug administration is synchronized to breathing pattern.
- Visual analogue pain scores should be documented at 5 and 30 minutes.

## 6.0 Absorption

Absorption can be as fast as i.v route with therapeutic serum levels obtained within 2 minutes, therefore the same side effects can occur. Optimum effects last for 30 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.

## 7.0 Audit

The administering clinician is responsible for ensuring that an audit form is completed each time intranasal fentanyl is given within the Paediatric ED. The form should be returned to Dr D Harris, Consultant in Emergency Medicine.

## 8.0 Consultation

This Guideline document has been circulated for review by Consultants in the Departments of Anaesthetics (Dr Ravalia, Dr Landes & Dr Stableforth), Paediatrics (Dr Winrow) and Emergency Medicine (Mr Goel, Dr Lelo), as well as senior nursing staff in the Paediatric Emergency Department (Sister Matthews, Sister Hart).

## 9.0 References

**Borland M et al:** A Randomized Controlled Trial Comparing Intranasal Fentanyl To Intravenous Morphine For Managing Acute Pain In Children In The Emergency Department. *Annals of Emergency Medicine*. 2007; 49 (3): 335-340

**Borland M et al.** Intranasal Fentanyl Is An Equivalent Analgesic To Oral Morphine In Paediatric Burns Patients For Dressing Changes: A Randomised Double Blind Crossover Study. *Burns* 2005; 31 (7): 831-837

**British Association For Emergency Medicine, Clinical Effectiveness Committee:** Guideline For The Management Of Pain In Children.

[http://www.emergencymed.org.uk/BAEM/CEC/assets/cec\\_pain\\_in\\_children.pdf](http://www.emergencymed.org.uk/BAEM/CEC/assets/cec_pain_in_children.pdf)

**Young P et al.** A Prospective Randomised Pilot Comparison Of Intranasal Fentanyl And Intramuscular Morphine For Analgesia In Children Presenting To The Emergency Department With Clinical Fractures. *Emergency Medicine* 1999; 11 (2): 90-4

**Emergency Paediatrics**

**Audit Form For Administration Of Intranasal Fentanyl**

- Date:
  
- Patient I.D sticker
  
- Indication for use
  
- Time administered
  
- Visual pain analogue score:
  - Pre-administration
  
  - At 5 minutes
  
  - At 30 minutes
  
- Additional analgesia given
  
- Complications
  
- Disposal of patient: (circle)    Home                      Admitted                      Transferred
  
- Time of discharge
  
- Parent / carer satisfaction score (/10)

All audit forms to be returned to Dr D Harris, Consultant in Emergency Medicine