

INTRANASAL FENTANYL PROTOCOL

Indications

Moderate to severe pain in stable pediatric patients >10kg

Dosing

- Initial dose **1.5mcg/kg** (max 100mcg per dose) – see page 2 for dosing table
- May repeat 0.5-1.5mcg/kg at 5-10 minutes to max 3mcg/kg total

If pain not controlled after total dose of 3mcg/kg, consider alternative analgesic

Pharmacokinetics

Onset 2-10mins, duration 30-60mins

Initial dose equiv to 1mcg/kg IV (70% bioavailable)

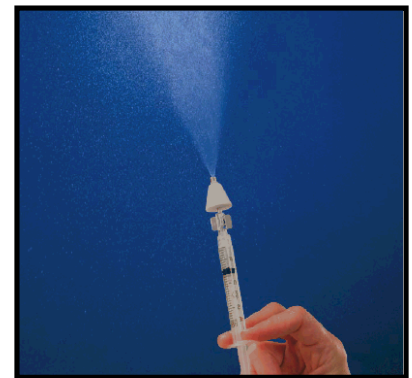
Contraindications/Precautions

Epistaxis or bilateral blocked nares

Known hypersensitivity to fentanyl

MAOI use in past 2 weeks

Unstable hemodynamics or altered LOC



MED-RX nasal atomizer device

Administration

Patient may be sitting or supine

Administer via MED-RX nasal atomizer device with 1cc or 3cc syringe

Use standard IV formulation (50ug/kg) fentanyl

Prime with 0.1cc (5mcg) to account for atomizer 'dead space' (see page 2 for dosing table)

Apply to nare in one rapid push, aiming syringe toward lateral aspect nare

Split dose between nares if total volume >1cc

Monitoring

Initial BP, O2 sat, HR, RR

No specific monitoring after administration

May discharge 30 mins post administration if patient alert and ambulatory

Sample dose calculation for 13kg patient

$$13\text{kg} \times 1.5\text{mcg/kg} = 19.5\text{ug}$$

$$19.5\text{mcg}/(50\text{mcg/mL}) = 0.39\text{mL}$$

$$0.39\text{mL} + 0.1\text{mL to account for dead space} = 0.49\text{mL} \approx 0.5\text{mL}$$

INTRANASAL FENTANYL DOSING TABLE

INITIAL DOSE: Fentanyl 1.5mcg/kg (maximum 100mcg) MAY REPEAT 0.5-1.5mcg/kg AT 5-10MINS			
Patient weight (kg)	Fentanyl dose (mcg)	Volume of fentanyl 50 ug/mL	
		Fentanyl volume (mL)	Total volume (mL) including 0.1mL for atomizer dead space
10-12	15	0.3	0.4
13-15	20	0.4	0.5
16-18	25	0.5	0.6
19-21	30	0.6	0.7
22-25	35	0.7	0.8
26-28	40	0.8	0.9
29-31	45	0.9	1.0
32-34	50	1.0	1.1
35-37	55	1.1	1.2
38-40	60	1.2	1.3
41-45	65	1.3	1.4
46-48	70	1.4	1.5
49-51	75	1.5	1.6
52-55	80	1.6	1.7
56-58	85	1.7	1.8
59-61	90	1.8	1.9
62-64	95	1.9	2.0

Younge et al *Emergency Medicine Australasia* (1999) 11:90-4.

Borland et al *Burns* (2005) 31(7):831-7.

Borland et al *Annals of EM* (2007) 49(3):335-40.

Cole et al *Emergency Medicine Australasia* (2009) 21(5):395-400.

Borland et al *Emergency Medicine Australasia* (2011) 23(2): 202-8.

Mudd et al *Journal of Pediatric Health Care* (2011) 25(5):316-22.

Princess Margaret Hospital Perth Australia *Emergency Department Intranasal Fentanyl Clinical Practice Guidelines* September 2010

Lions Gate Hospital *Pediatric Intranasal Fentanyl Documentation* April 2011

March 20, 2012