

# Intranasal Fentanyl Protocol:

## Indications:

### Transient pain control for adult and paediatric injuries and painful procedures:

- Anytime pain control is needed but oral medication is either too challenging to administer and/or will take time to become effective, for example the distressed child or adult patient with learning disability in severe pain.
- Ambulatory orthopaedic limb trauma requiring painful reduction and splinting
- Burn and other painful dressing changes
- Re-packing wounds such as abscesses.
- Any time you consider the IM route for pain control

***IN works as well or better with faster onset and no pain on delivery***

## Dosing and method:

1. Follow existing departmental procedural sedation policy when administering Fentanyl
2. Administer simple pain medications (NSAIDS, Paracetamol/Codeine preparations) as soon as possible with the nasal medication. This way as the effect of the nasal drug tapers off, the effect of the oral medication begins to have an effect.
3. Fentanyl is not an appropriate drug to *treat pain*, but is highly appropriate to *manage* intense, transient exacerbations of pain, when a rapid-onset / rapid-offset **analgesic adjunct** is required.
4. Reasonable IN starting dose for painful procedures: Fentanyl: 2-3 ug/kg (comes in 50 ug/ml)
5. Administer half the dose into each nostril
6. ¼ to ½ ml per nostril is ideal but can push up to 1 ml per nostril though some will run off. If you need more than 2 ml total, consider titration with second dose in 10min.
7. Be alert at all times to respiratory depression – monitor patients at all times with pulse oximetry and close observation whenever using these very powerful opiate medications, be even more careful when used in combination with Midazolam.
8. Titration to pain is often necessary and is entirely appropriate – repeat dosing (1/2 dose) every 10min until desired effect is achieved. Give IN Fentanyl time to work, it will start to work very quickly, but remember it's peak effect takes about 6-10minutes

*Be aware of the "dead space" within the device - Be certain to draw up that extra 0.1ml volume into the syringe to account for the dead space that will remain.*

## Fentanyl dosing table

**Fentanyl is more appropriate for children than adults.** Volumes required for children and adults over 45kg often leak from the nose. Consider multi-modal analgesia for all adult patients.

Weight estimation: **Weight (Kg) = (Age in years) x2**

**Dosing Plan: Fentanyl concentration - 0.1ml = 5 mcg (50 mcg/ ml)**

Patient weight	Fentanyl dose in micrograms (at 2mcg/ kg)	Fentanyl volume (+ 0.1 ml for dead space)*
3-5 kg	10 mcg	0.2 + 0.1 ml
6-10 kg	20 mcg	0.4 + 0.1 ml
11-15 kg	30 mcg	0.6 + 0.1 ml
16-20 kg	40 mcg	0.8 + 0.1 ml
21-25 kg	50 mcg	1.0 + 0.1 ml
26-30 kg	60 mcg	1.2 + 0.1 ml
31-35 kg	70 mcg	1.4 + 0.1 ml
36-40 kg	80 mcg	1.6 + 0.1 ml
41-45 kg	90 mcg	1.8 + 0.1 ml
46-50 kg	100 mcg	2.0 + 0.1 ml*
51-55 kg	110 mcg	2.2 + 0.1 ml*
56-60 kg	120 mcg	2.4 + 0.1 ml*
61-70 kg	140 mcg	2.8 + 0.1 ml*
71-80 kg	160 mcg	3.2 + 0.1 ml*
81-90 kg	180 mcg	3.6 + 0.1 ml*
91-100 kg	200 mcg	4.0 + 0.1ml*

You should draw up the additional appropriate dead space of the delivery device. In this table the 0.1 ml represents the typical dead space in a 1 ml syringe and atomizer.

\* Volumes in this range should be divided in half and administered 5-10 minutes apart to reduce run-off.