

# Infusions - Ordering PCA & Continuous IV Analgesia (Adult and Paediatric) – APMS



This Quick Reference Guide will explain how to:

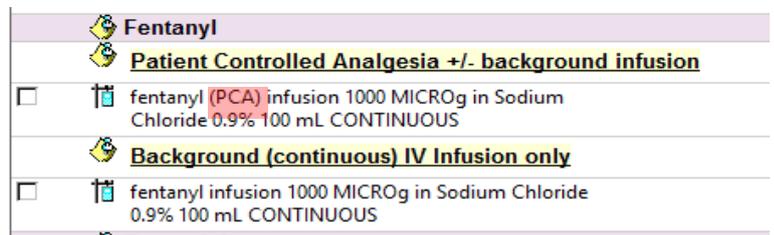
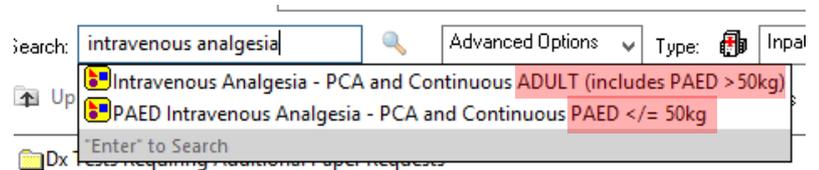
1. Order PCA and Continuous IV Analgesia in Adults and Paediatrics > 50kg
  - a. [Patient Controlled Analgesia +/- Background Infusion](#)
  - b. [Background \(Continuous\) IV Infusion Only](#)
2. Order [PCA and Continuous IV Analgesia in Paediatrics ≤ 50kg](#)

## Definitions:

PCA – Patient Controlled Analgesia

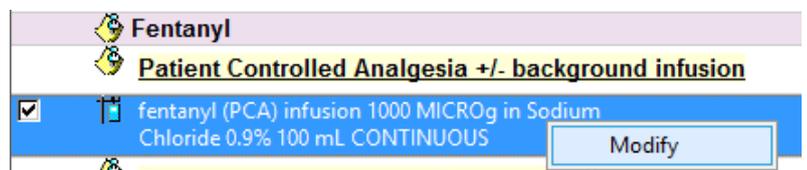
## ORDERSETS

1. Navigate to **Orders** and click **+Add**
2. Search “**Intravenous Analgesia**” or “**PCA**”
3. Select the appropriate orderset
4. Both Adult and Paediatric ordersets contain pre-selected orders for a Pain Service Referral and a Communication Order for nursing staff.
5. Each medication has two orders to select from:
  - “PCA +/- background infusion”
  - “Background (continuous) infusion only”



## ORDERING PCA +/- BACKGROUND INFUSION IN ADULTS AND PAEDS > 50kg

6. Select the required order, then right click and **Modify**





7. The **Details** tab will display.

**\*Note\***: the Lockout Interval has been pre-defined as 5 mins.

8. Complete the mandatory field for “Patient Administered Bolus (microgram)”.

9. Complete other fields as required, e.g.
- “Continuous Infusion Starting Rate (microgram/hr)”
  - “Continuous Infusion Range (microgram/hr)”
  - “Titration Instructions”

*These fields are not required if the patient is only on a PCA without a background infusion.*

10. Review the **Continuous Details** tab.

**\*Note\***: the Rate is predefined as PCA to allow for nursing staff to titrate the infusion as per policy / as per order comments without the doctor having to modify the order each time.

Base Solution	Bag Volume	Rate
Sodium Chloride 0.9% PCA (MICROg)	100 mL	PCA
Additive	Additive Dose	Normalized Rate
fentanyl (additive)	1,000 MICROg	
<b>Total Bag Volume</b>	100 mL	

11. Add **Order Comments** as required.

*These will be visible ‘face up’ on the MAR for nursing staff to see.*

12. Select **Orders For Signature** and review

13. Complete mandatory fields for other orders, (e.g. Pain Service Referral)

14. **Sign** orders and navigate to **MAR / MAR Summary** to review before communicating with nursing staff

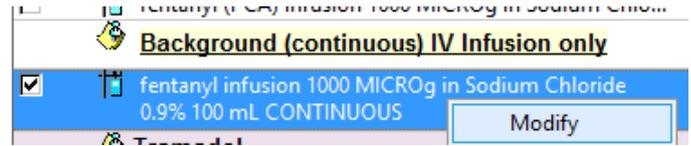
**Continuous Infusions**

fentanyl (additive) 1,000 MICROg  
Sodium Chloride 0.9% PCA (MICROg) 100 mL  
Pt Adm Bolus (microgram): 20, Lockout Interval (min): 5, IV Infusion, Routine,  
First dose 24/10/2020 13:19:00, Rate: PCA  
*\*Example of an Order Comment\**

## ORDERING BACKGROUND (CONTINUOUS) IV INFUSION ONLY

## IN ADULTS AND PAEDS > 50kg

15. Select the required order, then right click and **Modify**



16. The **Continuous Details** tab will display.

**\*Note\***: the Rate has been pre-defined as TITRATE to allow for nursing staff to titrate the infusion as per policy / as per order comments without the doctor having to modify the order each time.

Details for **fentanyl (additive) 1,000 MICROg + So**

Details | **Continuous Details** | Order Comments | Offset Details

Base Solution	Bag Volume	Rate
Sodium Chloride 0.9% infusion 100 mL	100 mL	TITRATE
Additive	Additive Dose	Normalized Rate
fentanyl (additive)	1,000 MICROg	
<b>Total Bag Volume</b>	<b>100 mL</b>	

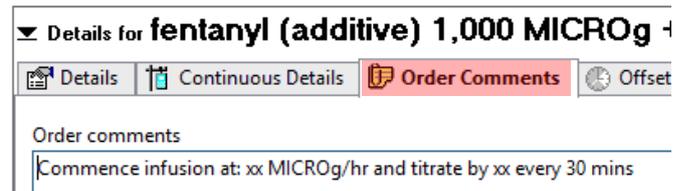
17. Review the **Details** tab and complete fields as required, e.g.

- "Titration Range"
- "Titration Range Unit"
- "Titrate Instructions"

*These fields differ to those of the PCA order.*

18. Add **Order Comments** as required.

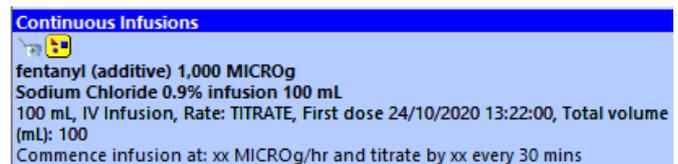
*These will be visible 'face up' on the MAR for nursing staff to see.*



19. Select **Orders For Signature** and review

20. Complete mandatory fields for other orders, (e.g. Pain Service Referral)

21. **Sign** orders and navigate to **MAR / MAR Summary** to review before communicating with nursing staff

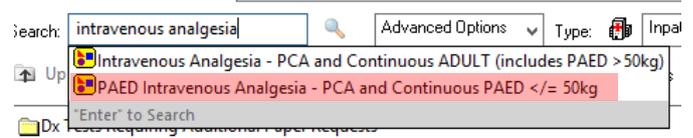


## ORDERING PCA AND CONTINUOUS IV ANALGESIA

### IN PAEDIATRICS ≤ 50kg



1. The instructions above can also be applied when using the PAED orderset, as the design is the same as that of the ADULT orderset. Minor differences are outlined below.



2. The Paed orderset has guidance on prescribing for each medication as per PPG:

**Fentanyl**  
PCA bolus dose 2 mL (0.3 microgram/kg) with lock-out interval of 5 minutes. 1 hour maximum of 10 mL (i.e. 5 boluses per hour).  
**Continuous IV infusion** rate 0 - 8 mL/hour (0 - 1.2 microgram/kg/hour).  
Recommended bolus for pain or painful procedure 1 mL (0.15 microgram/kg) of infusion at intervals of no less than 5 minutes.

**Patient Controlled Analgesia +/- background infusion**

fentanyl (PCA) infusion 15 MICROg/kg in Sodium Chloride 0.9% 100 mL CONTINUOUS - PAED (10-50kg)	Pt Adm Bolus (mL): 2, Lockout Interval (min): 5, IV Infusion, Routine, Rate: PCA *Maximum 10 mL/hr (i.e. 5 bolus doses per hour)*
<b>Background (continuous) IV Infusion only</b>	
fentanyl infusion 15 MICROg/kg in Sodium Chloride 0.9% 100 mL CONTINUOUS - PAED (10-50kg)	100 mL, IV Infusion, Rate: TITRATE

3. When an order is selected, the EMR Dose Calculator will launch to calculate the dose on the patient's documented weight.

*Use the Rounding rule if necessary, or manually override the Final dose.*

**fentanyl (additive)** based

Dose Values

1) Target dose:	15	MICROg/kg	
2) Calculated dose:	150	MICRO	
3) Dose Adjustment:	150	MICRO	100 %
4) Final dose:	150	MICRO	15 MICROg/kg
5) Standard dose:		MICRO	MICROg/kg
6) Rounding rule:	No rounding		

4. When ordering a PCA, the Patient Administered Bolus has been pre-defined as 2 mL, and the Lockout Interval has been pre-defined as 5 mins.

Details for **fentanyl (additive) 150 MICROg + Sodium Chloride 0.9% PCA (mL) 100 mL**

\*Patient Administered Bolus (mL): 2

\*Lockout Interval (min): 5

5. An Order Comment has been added to indicate maximum dosage.

Details for **fentanyl (additive) 150 MICROg**

Order comments

\*Maximum 10 mL/hr (i.e. 5 bolus doses per hour)\*