# Infusions - Ordering PCA & Continuous<sup>®</sup> IV Analgesia (Adult and Paediatric) – APM

Digital Health Quick Reference Guide

**Digital Health** 



- 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
- 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"

| Search: | intravenous analgesia   | ٩       | Advanced | Options | V Type: | <b>e</b> | Inpa |
|---------|---|---------|----------|---------|---------|----------|------|
| 🛧 Up    | Intravenous Analgesia - PCA and Continuous ADULT (includes PAED<br>PAED Intravenous Analgesia - PCA and Continuous PAED = 50kg</td <td>kg)</td> |         |          |         |         |          | kg)  |
| Dx 1    | "Enter" to Search   | nequest | ,        |         |         |          |      |

| ୍ 🏈 | Fentanyl  |
|-----|---|
| ٩   | Patient Controlled Analgesia +/- background infusion  |
| 1   | fentanyl <mark>(PCA)</mark> infusion 1000 MICROg in Sodium<br>Chloride 0.9% 100 mL CONTINUOUS |
| 3   | Background (continuous) IV Infusion only  |
| İ   | fentanyl infusion 1000 MICROg in Sodium Chloride<br>0.9% 100 mL CONTINUOUS                    |

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

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

| ٩          | Fentanyl                                  |                   |
|------------|---|-------------------|
| ٩          | Patient Controlled Analgesia +/- bac      | ckground infusion |
| Ť          | fentanyl (PCA) infusion 1000 MICROg in So | dium              |
| <br>       | Chloride 0.9% 100 mL CONTINUOUS           | Modify            |
| <u> 78</u> |   |                   |





\_ Details for fentanyl (additive) 1,000 MICROg + Sodium Chloride 0.9% PCA (MICROg) 100 m

🔁 Details 👖 Continuous Details 📗 Order Comments 🛞 Offset Details 🕼 Diagnoses

🕇 🖀 In. 🛛 🕹 🎽

Patient Administered Bolus (microgram):

Clinician Administered Bolus (microgram): Clinician Bolus Minimum Interval (min):

\*Lockout Interval (min):

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

\*Note\*: the Lockout Interval has been predefined as 5 mins.

- 8. Complete the mandatory field for "Patient Administered Bolus (microgram)".
- Complete other fields as required, e.g. 9.
  - "Continuous Infusion Starting Rate 0 (microgram/hr)"
  - "Continuous Infusion Range 0 (microgram/hr)"
  - "Titration Instructions" 0

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.

### 11. Add Order Comments as required.

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

| ▪ Details for fentanyl (additive) 1,000 MICROg + Sodiun |   |                                  |  |  |  |  |  |
|---|---|----------------------------------|--|--|--|--|--|
| Order Comments  | () Offset Details   |                                  |  |  |  |  |  |
|   |   |                                  |  |  |  |  |  |
| Pag Valuma  |   | Data                             |  |  |  |  |  |
| bag volume  | •   | ndle<br>DCA                      |  |  |  |  |  |
| 100 mL  | 6   | PCA                              |  |  |  |  |  |
| Additive Dose   |   | Normalize                        | ed Rate  |  |  |  |  |
| 1,000 MICROg  | 1   |                                  |  |  |  |  |  |
|   | 00  |                                  |  |  |  |  |  |
| 100 mL  |   |                                  |  |  |  |  |  |
|   | Bag Volume<br>100 mL<br>Additive Dose<br>1,000 MICROg<br>100 mL | Ve) 1,000 MICR<br>Order Comments | We) 1,000 MICROg + S   Order Comments Offset De   Bag Volume Rate   100 mL PCA   Additive Dose Normalize   1,000 MICROg Image: Comment and the set of th |  |  |  |  |

| 😭 Details                     | 🛗 Continuous Details | 🗊 Order Comments |  |  |  |  |  |
|-------------------------------|----------------------|------------------|--|--|--|--|--|
| Order comments                |                      |                  |  |  |  |  |  |
| *Example of an Order Comment* |                      |                  |  |  |  |  |  |

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

# **ORDERING BACKGROUND (CONTINUOUS)** IV INFUSION ONLY

Continuous Infusions जि 🔚 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\*







### IN ADULTS AND PAEDS > 50kg

each time.

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

|   |     | remanyi (i cey in asion 1000 mix | atog in sourcenteries. |  |
|---|-----|----------------------------------|------------------------|--|
|   | ٩   | Background (continuous) IV       | Infusion only          |  |
| • | Ť   | fentanyl infusion 1000 MICROg i  | n Sodium Chloride      |  |
|   |     | 0.9% 100 mL CONTINUOUS           | Modify                 |  |
|   | 100 | Tanana dal                       |                        |  |

### 

| Details                       |   |     | 🔢 Order Comm | ent | s   🕑 Offs | et Detail: |
|-------------------------------|---|-----|--------------|-----|------------|------------|
|                               |   |     |              |     |            |            |
| Base Solutio                  | n | Bag | Volume       |     | Rate       |            |
| Sodium Chloride 0.9% infusion |   |     | mL           | e0  | TITRATE    |            |
| Additive                      |   |     | itive Dose   |     | Normalized | Rate       |
| Fentanyl (additive)           |   |     | 0 MICROg     | 8   |            |            |
| 1                             |   |     |              | 00  |            |            |
| Total Bag Volume              |   |     | mL           |     |            |            |
|                               |   |     |              |     |            |            |

- 17. Review the **Details** tab and complete fields as required, e.g.
  - o "Titration Range"
  - o "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

## 🛨 Details for fentanyl (additive) 1,000 MICROg +

😭 Details | 🞁 Continuous Details 🛛 😥 Order Comments 🖉 Offset

Order comments

Commence infusion at: xx MICROg/hr and titrate by xx every 30 mins

Continuous Infusions fentanyl (additive) 1,000 MICROg Sodium Chloride 0.9% infusion 100 mL 100 mL, IV Infusion, Rate: TITRATE, First dose 24/10/2020 13:22:00, Total volume (mL): 100 Commence infusion at: xx MICROg/hr and titrate by xx every 30 mins

### **ORDERING PCA AND CONTINUOUS IV ANALGESIA**

IN PAEDIATRICS ≤ 50kg





| Bearch: | intravenous analgesia   | ٩ | Advanced Options | v | Туре: | 8 | Inpa |  |
|---------|---|---|------------------|---|-------|---|------|--|
| 🛧 Un    | Intravenous Analgesia - PCA and Continuous ADULT (includes PAED > |   |                  |   |       |   |      |  |
| un ob   | PAED Intravenous Analgesia - PCA and Continuous PAED = 50kg</p    |   |                  |   |       |   |      |  |
| C Dy 1  | "Enter" to Search   |   |                  |   |       |   |      |  |

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**Quick Reference Guide** 

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

| ()<br>()    | Fentanyl<br>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).<br>Continuous IV infusion rate 0 - 8 mL/hour (0 - 1.2 microgram/kg/hour).<br>Recommended bolus for pain or painful procedure 1 mL (0.15 microgram/kg) of infusion at intervals of no less than 5 minutes. |  |  |  |  |  |  |
|-------------|--|--|--|--|--|--|--|
| ≥ 1ĭ        | Patient Controlled Analgesia +/- background infusion<br>fentanyl (PCA) infusion 15 MICROg/kg in Sodium<br>Chloride 0.9% 100 mL CONTINUOUS - PAED (10-50kg)   | Pt Adm Bolus (mL): 2, Lockout Interval (min): 5, IV Infusion, Routine, Rate: PCA<br>*Maximum 10 mL/hr (i.e. 5 bolus doses per hour)* |  |  |  |  |  |
| <u> (</u>   | Background (continuous) IV Infusion only   |  |  |  |  |  |  |
| <b>≧</b> †₫ | fentanyl infusion 15 MICROg/kg in Sodium Chloride<br>0.9% 100 mL CONTINUOUS - PAED (10-50kg)   | 100 mL, IV Infusion, Rate: TITRATE   |  |  |  |  |  |

 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.

|   |                     |             |               | Do        |  |  |  |  |  |  |
|---|---------------------|-------------|---------------|-----------|--|--|--|--|--|--|
| 1 | fentanyl (additive) |             |               |           |  |  |  |  |  |  |
|   | 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 |               | ¥         |  |  |  |  |  |  |
|   |                     |             |               |           |  |  |  |  |  |  |

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

| • | Details  | for  | fe   | ntanyl (addi        | tive)   | 150 MICI      | ROg + S    | odiu    | m Chlorid   | e 0.9% P | CA (mL) | 100 mL |
|---|----------|------|------|---------------------|---------|---------------|------------|---------|-------------|----------|---------|--------|
| Ľ | P Detail | s    | ľ    | Continuous Details  | 0       | rder Comments | 🕒 Offset 🛙 | Details | 📄 Diagnoses |          |         |        |
|   | + %      | lh.  |      | *                   |         |               |            |         |             |          |         |        |
|   | ,        | 'Pat | ient | t Administered Bolu | s (mL): | 2             |            |         |             |          |         |        |
|   |          |      |      | *Lockout Interval   | (min):  | 5             |            |         |             |          |         |        |
|   |          |      |      |                     |         |               |            |         |             |          |         |        |
|   |          |      |      |                     |         |               |            |         |             |          |         |        |

| 포 Details fo | <sup>"</sup> fentanyl (addi | tive) 150 MICR   | ( |
|--------------|-----------------------------|------------------|---|
| Petails      | 🛗 Continuous Details        | 🗊 Order Comments | 1 |

Order comments

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