PARENTERAL DRUGS FOR SYMPTOM CONTROL and END OF LIFE CARE IN PANDEMIC COVID-19

**SYMPTOM CONTROL FOR PATIENTS WITH COVID 19 WHO ARE DETERIORATING AND WHERE ESCALATION TO VENTILATORY SUPPORT IS NOT INDICATED SUBCUTANEOUS ROUTE**

**COVID symptom control and end of life care: parenteral medications ( patients needing subcutaneous route)**

A brief synopsis of advice for symptom control of those patients with significant symptoms from COVID.

* It is aimed for patients in any care setting – home, hospital, nursing home and the hospice
* All patients need an individual assessment and individualised prescribing.
* Once decision has been made that escalation to ventilatory support is not indicated this should be clearly recorded on a TEP to clearly indicate to the team that an approach of best symptom control is appropriate should the patient develop rapidly increasing symptoms.
* **Specialist palliative care advice is available 24/7 via the Palliative Care Advice line on 01736 757707** and you should seek advice if unsure about what drugs or dosages to prescribe.
* Key is to consider whether the patients requires parenteral (sub cut) medications or non parenteral (oral, rectal, topical, sublingual routes). This guidance considers the parenteral group. Guidance is available for the non-parenteral group.
* If the patient is currently on regular analgesia, benzodiazepines or antiemetic medications and can no longer take these by mouth please take this into account in prescribing as they may need higher or regular doses subcutaneously.
* This guidance addresses symptoms respiratory distress, agitation, pain, nausea and retained secretions. This is not an exhaustive list and individual patients may have other troublesome symptoms which need attention and may need specialist advice. All patients at end of life will need attention given to skin and mouth care, bladder and bowel symptoms and may need appropriate prescribing to address these.

Palliative Care contact for advice (all services working together to ensure telephone support available, please use the services):

* 24/7 advice line (consultant pall med) **01736 757 707**
* Community team Monday to Sunday, 9am-5pm **01208 251300**
* Hospital palliative care nursing team Monday to Sunday 8am to 4pm via **bleep 3055**

For those patients who have been recognised as not for escalation to ventilatory support who are going home, a **Subcutaneous COVID symptom control pack for the dying** has been produced alongside the Pharmacy teams. When this has been diagnosed/recognised by a senior clinician in primary or secondary care, the medications are held in RCHT and identified community pharmacies for ease of access.

Morphine 10mg over 24 hours increasing to 30mg hours in 24 hours for pain and breathlessness

Midazolam 10mg over 24 hours, increasing to 30mg in 24 hours for agitation and breathlessness

Haloperidol 3mg over 24 hours, increasing to 5mg in 24 hours for nausea and delirium

Glycopryrronium bromide 600 micograms over 24 hours, increasing to 1.2mg over 24 hours for chest secretions.

There is also a supply of subcutaneous prn medications for each symptom.

**For patients with significant symptoms, please consider starting a subcutaneous syringe pump/24hrs of:**

**\*\* For those patients already on opioids, please see APG and opioid conversion table below**

Morphine\*\* 10mg + midazolam 10mg OR

Oxycodone 5mg + midazolam 5mg (if eGFR <15)

Add haloperidol 2.5 – 5mg or levomepromazine 12.5 if delirium or nausea/vomiting

Add hyoscine hydrobromide 1.2–2.4mg or hyoscine butylbromide

(Buscopan®) 60mg (if eGFR>15) or glycopyrronium 0.6-1.2mg (if eGFR<15) if chest secretions

**IMMEDIATE SYMPTOM CONTROL FOR ACUTE RESPIRATORY DISTRESS**

**This symptom requires immediate attention.**

**Give 5mg morphine SC and 5mg midazolam SC.**

**Frequently review patient and repeat medication administration every half an hour until the patient is comfortable.**

**If possible, a member of staff should stay with the patient.**

**Do not withhold opiates for patients with uncontrolled respiratory symptoms. In this situation, opiates will not cause respiratory depression, but are a recognised treatment for symptom control of breathlessness.**

**IMMEDIATE SYMPTOM CONTROL FOR AGITATION**

**In patients with deteriorating symptoms and hypoxia, agitation, anxiety and confusion are likely to be present.**

**These symptoms can be alleviated using medication when standard approaches (quiet environment, re-orientation, address anxiety, address urinary retention etc.) have not worked**

**Start by giving PRN medications and assess patient response**

**E.g. levomepromazine 6.25-12.5mg sc**

**Or haloperidol 1.5 – 3mg sc**

**Or midazolam 5mg sc**

**Again if the patient is rapidly deteriorating, these medications can be given with increased frequency. If frequent or repeated doses are need to support a patient to be comfortable these should be added to the syringe driver.**

**ALL OTHER SYMPTOMS**

**Cough – SC opioid as per tables below.**

**Pyrexia - Use paracetamol oral or PR 1g up to QDS.**

**Ensure all patients have PRN medication prescribed for:**

* **Breathlessness/pain**
* **Nausea and vomiting**
* **Agitation and delirium**
* **Respiratory secretion****s**

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| **Symptom** | **Drug** | **PRN subcutaneous dose for anticipatory symptoms, as needed** | **Starting dose range over 24 hours in syringe driver (subcutaneous) if needed** | **Vial Strengths** | **Maximum dose over 24 hours** |
| **1. Pain/Breathlessness**  NB If already on oral opioids, see below for conversion**. If severe renal impairment, seek specialist advice** | **Diamorphine (if available)** | 2.5mg 1 hourly if opioid naïve or 1/6th of 24 hr subcutaneous opioid dose**\*\*** | 7.5mg-15mg  (if not already taking opioids) | 5,10,30 or 100mg amps | No upper limit |
| **Morphine (first line)** | 2.5mg-5mg 1 hourly prn if opioid naïve or 1/6th of 24 hr subcutaneous opioid dose**\*\*** | 10mg-20mg  (if not already taking opioids) | 10mg/ml | No upper limit |
| **2. Nausea/vomiting**  Opioid or centrally induced | **Haloperidol and/or** | 1.5mg-3mg bd | 3mg-5mg | 5mg/ml | 10mg |
| **Cyclizine** | 50mg tds (if not on regular cyclizine) | 150mg | 50mg/ml | 150mg |
| Prokinetic | **Metoclopramide** | 10mg tds | 30mg-60mg | 10mg/2ml | 80mg |
| Second Line | **Levomepromazine** | 6.25mg qds | 6.25mg-12.5mg | 25mg/ml | 25mg |
| **3. Agitation**  +anxiety (1st line) | **Midazolam** | 2.5mg-5mg initially 1 hourly prn**\*\*** | 10mg-30mg | 10mg/2ml | 60mg |
| +hallucinations or confusion | **Haloperidol** | 1.5mg-3mg bd**\*\*** | 3mg-5mg | 5mg/ml | 10mg |
| **Levomepromazine** | 6.25-12.5mg (max qds)**\*\*** | 6.25mg-12.5mg | 25mg/ml | 100mg |
| **4. Noisy breathing due to respiratory tract secretions** | **Glycopyrronium Bromide** | 200 microgram 4 hourly | 600microgram – 1200 microgram | 600mcg/3ml | 1200 microgram |
| **Hyoscine Butylbromide** | 20mg 4 hourly | 60mg-100mg | 20mg/ml | 120mg |
| **Hyoscine Hydrobromide** | 400 microgram 4 hourly | 1.2mg-2.4mg | 400mcg/ml | 2.4mg |

**\*\* During the Covid-19 Pandemic the frequency of PRN subcutaneous doses for anticipatory symptoms may need to change to half hourly in response to rapidly changing symptoms including medications for breathlessness, acute respiratory distress or agitation.**

**Opioid dose conversion**

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| **Oral Morphine** | | | **Subcutaneous Morphine** | | **Subcutaneous Diamorphine** | | **Oral Oxycodone** | | | **Subcutaneous Oxycodone** | | **Fentanyl Transdermal** | **Subcutaneous Alfentanil** | |
| **4hr dose (mg)** | **12hr SR dose (mg)** | **24 hr total dose (mg)** | **4hr dose (mg)** | **24hr total dose (mg)** | **4hr dose (mg)** | **24hr total dose (mg)** | **4hr dose (mg)** | **12hr SR dose (mg)** | **24hr total dose (mg)** | **4hr dose (mg)** | **24hr total dose (mg)** | **Patch strength (micrograms)** | **4hr dose (mg)** | **24hr total dose (mg)** |
| 5 | 15 | 30 | 2.5 | 15 | 1.25 | 10 | 2.5 | 7.5 | 15 | 1.25 | 7.5 | 12mcg | 0.125 | 1 |
| 10 | 30 | 60 | 5 | 30 | 2.5-5 | 20 | 5 | 15 | 30 | 2.5 | 15 | 25mcg | 0.25 | 2 |
| 15 | 45 | 90 | 7.5 | 45 | 5 | 30 | 7.5 | 25 | 50 | 3.75 | 25 | 25mcg | 0.5 | 3 |
| 20 | 60 | 120 | 10 | 60 | 7.5 | 40 | 10 | 30 | 60 | 5 | 30 | 37mcg | 0.75 | 4 |
| 30 | 90 | 180 | 15 | 90 | 10 | 60 | 15 | 45 | 90 | 7.5 | 45 | 50mcg | 1 | 6 |
| 40 | 120 | 240 | 20 | 120 | 12.5 | 80 | 20 | 60 | 120 | 10 | 60 | 75mcg | 1.25 | 8 |
| 50 | 150 | 300 | 25 | 150 | 15 | 100 | 25 | 75 | 150 | 12.5 | 75 | 75mcg | 1.5 | 10 |
| 60 | 180 | 360 | 30 | 180 | 20 | 120 | 30 | 90 | 180 | 15 | 90 | 100mcg | 2 | 12 |
| 70 | 210 | 420 | 35 | 210 | 25 | 140 | 35 | 105 | 210 | 17.5 | 100 | 125mcg | 2.5 | 14 |
| 80 | 240 | 480 | 40 | 240 | 27.5 | 160 | 40 | 120 | 240 | 20 | 120 | 125mcg | 2.5 | 16 |
| 90 | 270 | 540 | 45 | 270 | 30 | 180 | 45 | 135 | 270 | 22.5 | 135 | 150mcg | 3 | 18 |
| 100 | 300 | 600 | 50 | 300 | 35 | 200 | 50 | 150 | 300 | 25 | 150 | 150mcg | 3.5 | 20 |
| 110 | 330 | 660 | 55 | 330 | 37.5 | 220 | 55 | 165 | 330 | 27.5 | 165 | 175mcg | 3.75 | 22 |
| 120 | 360 | 720 | 60 | 360 | 40 | 240 | 60 | 180 | 360 | 30 | 180 | 200mcg | 4 | 24 |

This is to be used as a guide rather than a set of definitive equivalences. Most data on doses is based on single dose studies so it is not necessarily applicable in chronic use, also individual patients metabolise different drugs at varying rates. The advice is always to calculate doses using Morphine as standard and to adjust them to suit the patient and the situation. Some of these doses have by necessity been rounded up or down to fit in with the preparations available.(Reproduced with kind permission of Margaret Gibbs, St Christopher’s Hospice 2nd edition 2006)

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| **Drug** | **Drug dose** | **Approximate codeine equivalence** | **Approximate oral morphine equivalence** |
| BuTrans 5 | 5 micrograms/**hour** | 60mg/**24 hours** | 10mg/ **24 hours** |
| BuTrans 10 | 10 micrograms/**hour** | 120mg/**24 hours** | 20mg/ **24 hours** |
| BuTrans 20 | 20 micrograms/**hour** | 240mg/ **24 hours** | 40mg/ **24 hours** |

*Guidance for anticipatory prescribing guidance. Authors: B Medlock (GP partner), J Gibbins, C Campbell, R Newman, K Scott, M Huddart, D Stevens (Consultants in Palliative Medicine, Cornwall Hospice Care).****V7****. Due for review April 2021* ***CHA 3602***