

# Symptom Management for Adults with Palliative Care or End of Life Care Needs, including those with COVID 19

This document has been developed to apply across all settings in Leicester, Leicestershire and Rutland and is based on:

1. UK Association Palliative Medicine COVID-19 and Palliative, End of Life and Bereavement Care in Secondary Care Role of the specialty and guidance to aid care 22 March 2020
2. NHSI: Clinical guide for the management of palliative care in hospital during the coronavirus pandemic documents 27 March 2020
3. NICE updates rapid COVID-19 guideline on critical care 25<sup>th</sup> March 2020

Version 1: 30/03/2020

# Background

- COVID 19 is likely to affect large numbers of people. For all patients, supportive care and symptom management will be essential
- Managing symptoms in the last days and hours may be more difficult if usual medications and resources become more challenging to access
- Seek early specialist palliative care advice if symptoms are very severe or they persist despite using these medications or there is uncertainty about their use
- Many of the medications and routes recommended are unlicensed and their effectiveness will need to be assessed on an individual basis
- In certain situations, such as renal failure, where opiate doses may need to be reduced or alternative medications used and Parkinson's Disease, where alternative anti-emetics may need to be considered, please seek specialist advice
- Please refer to LOROS website and UHL INSITE for additional information about prescribing in the last days and hours of life
- This document is intended to be applicable for staff across all settings who deliver care to adults patients with palliative care or end of life care needs including those with COVID-19

Contact details for LOROS 0116 2313771

Integrated Community Specialist Palliative Care Teams 0300 5255255

UHL SPCT –please check palliative care page on INSITE as contact details change throughout week

On call palliative care consultant advice available via LOROS or UHL switch

Symptom	Reversible causes to consider and treat where possible	Non pharmacological approaches for all symptomatic patients	Symptom management	Medications in the last days or hours of life	Alternative routes and medications when syringe driver or injectable medications are unavailable or if non clinicians need to provide medication in the last days
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Dyspnoea</p>	<ul style="list-style-type: none"> <li>bacterial infection</li> <li>heart failure</li> <li>Asthma, COPD</li> <li>Pleural effusion</li> <li>PE</li> <li>Anaemia</li> <li>Check blood oxygen levels</li> </ul>	<ul style="list-style-type: none"> <li>Positioning (See figure)</li> <li>Calm and reassure the patient</li> <li>Relaxation techniques – music, relaxation CD</li> <li>Reduce room temperature</li> <li>Cool flannel applied to the face</li> <li>Open the window</li> <li>Guided breathing techniques (not all patients will be familiar with these)</li> <li>NB: Portable fans <b>are not advised in Covid-19</b></li> </ul>	<p>Trial of oxygen if SaO<sub>2</sub> &lt;92%</p> <p>Opioids may reduce the perception of breathlessness:</p> <ul style="list-style-type: none"> <li>Morphine sulphate modified release 5mg bd PO (titrate up to maximum 30mg daily for breathlessness)</li> <li>Oral morphine solution 2.5mg - 5mg PO PRN up to hourly (1mg - 2mg morphine sulphate via a subcutaneous injection up to hourly if unable to swallow)</li> <li>If a patient is taking regular opiates, the PRN opiate dose for breathlessness is ½ of the PRN dose for pain (e.g. morphine sulphate MR 30mg BD breakthrough dose for pain is 1/6 of total 24 hour dose, or 10mg oral morphine solution. Breakthrough dose for dyspnoea is 5mg oral morphine solution)</li> <li>Prescribe a PRN antiemetic in opioid naïve patients (e.g. levomepromazine 2.5mg - 5mg via a subcutaneous injection PRN or levomepromazine 6.25mg oral once to twice daily) as well as a laxative</li> </ul> <p>Anxiolytics may be needed for anxiety associated with dyspnoea if non-pharmacological approaches do not work:</p> <ul style="list-style-type: none"> <li>Lorazepam 500microgram- 1mg oral or sublingual prn, max 4mg in 24h</li> <li>Midazolam 2.5mg - 5mg via subcutaneous injection PRN for associated agitation or distress up to hourly</li> </ul>	<p>‘As needed’ (PRN) medication:</p> <ul style="list-style-type: none"> <li>Morphine sulphate 2.5mg-5mg via a subcutaneous injection prn up to hourly</li> <li>Midazolam 2.5mg-5mg via a subcutaneous injection prn up to hourly for anxiety or distress</li> </ul> <p>Regular medication for background symptom control:</p> <ul style="list-style-type: none"> <li>Consider a subcutaneous infusion of morphine sulphate 10mg and / or midazolam 10mg via a syringe driver over 24hours, starting at the lowest dose and titrating to effect</li> </ul>	<p>‘As needed’ (PRN) medication:</p> <ul style="list-style-type: none"> <li>Concentrated oral morphine solution (20mg/ml) at a dose of 2mg-6mg (0.1-0.3ml) drawn up in a oral syringe. Please ensure that the prescribed dose can be measured easily. Put in the mouth between the cheek and lower gums. Slowly administer half the liquid in the syringe then repeat on the other side. Rub cheek to aid buccal absorption.</li> </ul> <p><b>When a syringe driver is not available AND regular medication is required:</b></p> <ul style="list-style-type: none"> <li>Methadone 0.5mg via a subcutaneous injection once daily</li> </ul>



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<p style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 2em; font-weight: bold;">Cough</p>	<ul style="list-style-type: none"> <li>• Bacterial infection</li> <li>• Heart failure</li> <li>• Asthma, COPD</li> <li>• Pleural effusion</li> <li>• PE</li> <li>• Reflux</li> <li>• Post nasal drip</li> </ul>	<ul style="list-style-type: none"> <li>• Humidify room air if possible</li> <li>• Oral fluids</li> <li>• Honey &amp; lemon in warm water</li> <li>• Suck cough drops / hard sweets</li> <li>• Elevate the head when sleeping with pillows</li> <li>• Avoid smoking</li> </ul>	<ul style="list-style-type: none"> <li>• Codeine linctus 30mg - 60mg PO QDS</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>• Oral morphine solution 2.5mg PO 4 hourly</li> </ul> <p><b>Or</b></p> <ul style="list-style-type: none"> <li>• Methadone 1mg liquid at night</li> </ul> <p><b>OR</b></p> <p><b>Limited evidence: derived from use for cough from primary lung cancers, lung metastases or malignant pleural effusion- keep under review</b></p> <ul style="list-style-type: none"> <li>• Consider adding Pregabalin 50mg nocte PO</li> <li>• Unlikely suitable for COVID only cough</li> </ul>	<p>‘As needed’ (PRN) medication:</p> <ul style="list-style-type: none"> <li>• Morphine 2.5mg – 5mg via subcutaneous injection PRN up to hourly</li> </ul> <p>Regular medication for background symptom control:</p> <ul style="list-style-type: none"> <li>• Consider a subcutaneous infusion of morphine sulphate 10mg via a syringe driver over 24 hours</li> </ul>	<ul style="list-style-type: none"> <li>• Concentrated oral morphine solution (20mg/ml) at a dose of 2mg-6mg (0.1-0.3ml) drawn up in a oral syringe. Please ensure that the prescribed dose can be measured easily. Put in the mouth between the cheek and lower gums. Slowly administer half the liquid in the syringe then repeat on the other side. Rub cheek to aid buccal absorption.</li> </ul> <p><b>When a syringe driver is not available AND regular medication is required:</b></p> <ul style="list-style-type: none"> <li>• Methadone 0.5mg via a subcutaneous injection once daily</li> </ul>



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Fever	<ul style="list-style-type: none"> <li>Only treat if fever is causing patient discomfort</li> </ul>	<ul style="list-style-type: none"> <li>Reduce room temperature</li> <li>Loose clothing</li> <li>Cooling face with a tepid flannel</li> <li>Oral fluids</li> <li>Avoid alcohol</li> <li><b>Avoid portable fans in COVID-19</b></li> </ul>	<ul style="list-style-type: none"> <li>Paracetamol 500mg - 1000mg PO QDS, using the lower dose where patients have a weight &lt;50kg. In hospital, this can be given IV up to QDS</li> <li><b>Renal impairment has been reported in COVID-19, leading to concerns about using NSAIDs in these patients. Avoid where possible, although patients already established on these for pain may express a wish to continue to take them.</b></li> </ul>	<ul style="list-style-type: none"> <li>If a patient is close to death, it may be appropriate to consider the use of NSAIDs (e.g. parecoxib 40mg SC OD-BD; maximum 80mg in 24 hours)</li> </ul>	<p>'As needed' (PRN) medication:</p> <ul style="list-style-type: none"> <li>Paracetamol and Ibuprofen 'melts' may be suitable</li> </ul>

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Delirium	<p><b>Prevention is better than treatment</b></p> <p>Consider and manage possible causes including :</p> <ul style="list-style-type: none"> <li>• Sepsis</li> <li>• Hypoxia</li> <li>• Electrolyte imbalance,</li> <li>• Urinary retention</li> <li>• Faecal impaction</li> <li>• Dyspnoea</li> <li>• Pain</li> </ul>	<ul style="list-style-type: none"> <li>• Spiritual support</li> <li>• Music</li> <li>• Calm atmosphere</li> <li>• Avoid multiple moves</li> <li>• Complete a profile with family help e.g. what usually helps the person. Do they have a profile such as ‘all about me’ which might help staff understand their usual responses</li> <li>• Ensure glasses and hearing aids are being used</li> <li>• Avoid constraints, or interventions that cause distress</li> <li>• Encourage mobilisation,</li> <li>• DoLS assessment</li> <li>• Use calendars/ clocks, photos</li> <li>• Aim for continuity with ward staff</li> <li>• Promote nutrition</li> </ul>	<ul style="list-style-type: none"> <li>• Aim to <u>use verbal and non-verbal de-escalation measures</u> prior to prescribing any medications.</li> <li>• Consider 1-1 supervision.</li> <li>• Regularly update carers / family members with progress/ treatment plan.</li> </ul> <p><b><u>Sedatives may also cause delirium – use carefully</u></b></p> <ul style="list-style-type: none"> <li>• <b>ONLY to be used to manage dangerous or distressing symptoms; allows tests or treatment to be given:</b></li> <li>• <b>Haloperidol</b> is the preferred option: Dosage: 500microgram PO – up to 2 hrly. Max dose: 5mg / 24hrs.</li> <li>• <b>AVOID HALOPERIDOL IN LEWY BODY DEMENTIA AND PARKINSON’S DISEASE -</b> Lorazepam 500microgram -1mg orally stat may be given as an alternative.</li> <li>• If agitation continues, consider adding Olanzapine tablet orally 2.5mg-5mg daily</li> </ul>	<p>‘As needed’ (PRN) medication:</p> <ul style="list-style-type: none"> <li>• Midazolam 2.5mg-5mg via a subcutaneous injection prn 1-2 hourly</li> <li>• Levomepromazine sc 6.25mg-12.5mg 2-4 hourly prn, up to maximum daily dose of 50mg,</li> <li>• Haloperidol 1.0-2.5mg via subcutaneous injection prn, maximum of 5mg in 24hours,</li> </ul> <p>Regular medication for background symptom control:</p> <ul style="list-style-type: none"> <li>• Consider a subcutaneous infusion of midazolam 10-30mg/24hours via a syringe driver, starting at the lowest dose and titrated to effect</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>• Consider a subcutaneous infusion of levomepromazine 12.5mg-50mg via a syringe driver 24 hours</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>• If Haloperidol PRN is effective, convert total 24 hour PRN doses to a syringe driver.</li> </ul>	<p>‘As needed’ (PRN) medication:</p> <ul style="list-style-type: none"> <li>• Pre-filled midazolam buccal oromucosal solution 2.5mg/0.5ml 0.5ml (2.5mg) prn 2 hourly drawn up in an oral syringe. Put in the mouth between the cheek and lower gums. Slowly administer half the liquid in the syringe then repeat on the other side. Rub cheek to aid buccal absorption.</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>• Olanzapine orodispersible melts or tablet 2.5mg-5mg orally once to twice daily</li> </ul> <p><b>When a syringe driver is not available AND regular medication is required:</b></p> <ul style="list-style-type: none"> <li>• Olanzapine 2.5-10mg as a subcutaneous injection once daily</li> </ul>

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Restlessness/ anxiety	<ul style="list-style-type: none"> <li>• Fear of dying</li> <li>• Spiritual distress</li> <li>• Dyspnoea</li> </ul>	<ul style="list-style-type: none"> <li>• Consider relaxation CDs, breathing exercises</li> <li>• Spiritual support</li> <li>• Music</li> <li>• Calm atmosphere</li> <li>• Human presence/virtual presence</li> </ul>	<ul style="list-style-type: none"> <li>• Lorazepam 500 micrograms PO or sublingual PRN 1-2 hourly, maximum 4mg in 24 hours</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>• midazolam 2.5mg-5mg via subcutaneous injection prn 1-2 hourly</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>• Consider a subcutaneous infusion midazolam 10mg-30mg via a syringe driver over 24hours, starting at the lowest dose and titrated to effect</li> </ul>	<p>‘As needed’ (PRN) medication:</p> <ul style="list-style-type: none"> <li>• midazolam 2.5mg-5mg via a subcutaneous injection prn 1-2 hourly</li> </ul> <p>Regular medication for background symptom control:</p> <ul style="list-style-type: none"> <li>• Consider a subcutaneous infusion of midazolam 10mg - 30mg via a syringe driver over 24hours, starting at the lowest dose and titrate to effect</li> </ul>	<p>‘As needed’ (PRN) medication:</p> <ul style="list-style-type: none"> <li>• lorazepam 500micrograms PO/SL prn 1-2 hourly, maximum 4mg in 24 hours</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>• Pre-filled midazolam buccal oromucosal solution 2.5mg/0.5ml 0.5ml (2.5mg) prn 2 hourly drawn up in an oral syringe. Put in the mouth between the cheek and lower gums. Slowly administer half the liquid in the syringe then repeat on the other side. Rub cheek to aid buccal absorption.</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>• Levomepromazine 6.25mg (1/4 25mg tablet) placed under tongue as needed up to 1 hourly</li> </ul>

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Nausea and vomiting	<ul style="list-style-type: none"> <li>Medications (e.g. antibiotics, anticholinergic drugs)</li> <li>Low sodium, elevated calcium</li> <li>Raised intracranial pressure</li> </ul>	<ul style="list-style-type: none"> <li>Consider drug causes and electrolyte disturbances such as hyponatraemia or hypercalcaemia</li> <li>reduce cooking or other odours</li> <li>Small meals, snacks</li> <li>ice chips or sips of cold water</li> <li>accupressure bands</li> </ul>	<p><b>Metabolic/drug induced:</b></p> <ul style="list-style-type: none"> <li>Haloperidol 500microgram - 1mg oral or via subcutaneous injection once to twice daily</li> </ul> <p><b>Raised intracranial pressure:</b></p> <ul style="list-style-type: none"> <li>Cyclizine 50mg oral three times per day</li> </ul> <p><b>Gastric stasis</b></p> <ul style="list-style-type: none"> <li>Metoclopramide 10mg oral three times per day</li> </ul> <p><b>Second line when haloperidol / cyclizine / metoclopramide have not worked, or where the cause of nausea and vomiting is unclear:</b></p> <ul style="list-style-type: none"> <li>Levomopromazine 6.25mg oral or via subcutaneous injection once to twice daily</li> </ul>	<p>If already established on an antiemetic, and this is controlled symptoms, convert to the SC route</p> <p><b>If symptoms are not controlled.</b> ‘As needed’ (PRN) medication:</p> <ul style="list-style-type: none"> <li>Levomopromazine 6.25mg -12.5mg via subcutaneous injection prn, converted to a continuous infusion via a syringe driver if effective 6.25mg-12.5mg over 24hours</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>Haloperidol 0.5mg - 1mg sc prn hourly, maximum 5mg/24 hours or as a continuous infusion haloperidol 3mg-5mg via a syringe driver over 24 hours</li> </ul>	<ul style="list-style-type: none"> <li>Prochlorperazine buccal tablet 3mg three times per day</li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>Ondansetron 4-8mg PO 4 hourly prn (orodispersible tablets or orodispersible film) or SC prn, maximum 16mg/24 hours</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Olanzapine orodispersible tablets 5-10mg (dissolve 10mg tablet in 2ml water and use half volume for 5mg dose). Drawn up in a syringe. Put in the mouth between the cheek and lower gums. Slowly administer half the liquid in the syringe then repeat on the other side. Rub cheek to aid buccal absorption.</li> </ul> <p>or</p> <p><b>When a syringe driver is not available and regular medication is required:</b></p> <ul style="list-style-type: none"> <li>Levomopromazine 12.5mg SC as a single daily dose</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Hyoscine hydrobromide patches 1mg/72 hours (can use up to 2 patches at once)</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Granisetron 3.1mg/24hrs. Change patch every 5 – 7 days</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Olanzapine 2.5-10mg as a subcutaneous injection once daily</li> </ul>



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Seizures		<ul style="list-style-type: none"> <li>Continue regular oral medications</li> </ul>	<ul style="list-style-type: none"> <li>Midazolam 5mg - 10mg via subcutaneous injection prn up to hourly</li> <li>Note: due to risk of viral transmission in faeces the PR route is not routinely recommended</li> </ul>	<ul style="list-style-type: none"> <li>Continuous subcutaneous infusion of midazolam 20mg-30mg via a syringe driver over 24 hours</li> </ul>	<ul style="list-style-type: none"> <li>Pre-filled midazolam buccal oromucosal solution 10mg/2ml prn drawn up in an oral syringe. Repeat after 10 minutes.</li> <li>Put in the mouth between the cheek and lower gums. Slowly administer half the liquid in the syringe then repeat on the other side. Rub cheek to aid buccal absorption.</li> </ul>

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Pain	<ul style="list-style-type: none"> <li>Coexisting pain such as arthritis, pressure sores, cancer pain</li> </ul>	<ul style="list-style-type: none"> <li>Positioning</li> <li>Heat pads over affected area</li> <li>Massage</li> </ul>	<ul style="list-style-type: none"> <li>Start <b>regular</b> paracetamol (usual dose 1 gram four times a day), reducing dose where weight &lt;50kg</li> <li><b>NSAIDS are not recommended in COVID-19</b></li> </ul> <p><b>Starting strong opioids, oral route:</b></p> <ul style="list-style-type: none"> <li>Start immediate release oral morphine solution liquid 2.5 - 5mg PO PRN up to hourly and titrate to response</li> <li>If pain control is achieved, consider conversion to morphine sulphate modified-release (MR) twice daily (total MR dose is the same as 24-hour total e.g. oral morphine solution 5mg QDS is the equivalent of morphine sulphate MR 10mg bd)</li> <li>PRN dose is 1/6 total daily dose of opiate e.g. morphine sulphate MR 30mg bd, PRN oral morphine solution is 1/6 of 60mg so 10mg up to 1 hourly</li> </ul> <p><b>Titrating oral opiates:</b></p> <ul style="list-style-type: none"> <li>Monitor the patient closely for effectiveness and side effects</li> <li>Dose increments should not exceed 33-50% every 24 hours</li> <li>Titration of the dose of opioid should stop when either the pain is relieved or side effects occur</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>Always prescribe laxatives alongside strong opioids</li> <li>Always prescribe an antiemetic regularly or prn, e.g. levomepromazine 6.25mg-12.5mg oral or via subcutaneous injection prn or haloperidol 500microgram-1mg oral or via subcutaneous injection prn</li> <li>If analgesic requirements are stable - consider transdermal patches (e.g. buprenorphine, fentanyl)</li> <li>Seek advice if eGFR&lt;30</li> </ul>	<ul style="list-style-type: none"> <li>Morphine is the first line strong opioid for subcutaneous use, except for patients who have been taking oral oxycodone or those with severe renal impairment</li> <li>Prescribe morphine sulphate 2.5-5mg via subcutaneous injection prn up to hourly</li> <li>Subcutaneous infusion of morphine sulphate 10mg via a syringe driver over 24 hours</li> <li>To convert from oral to subcutaneous morphine, divide by 2: oral morphine 10mg ≈ subcutaneous morphine 5mg</li> <li>prn dose is 1/6 of regular 24-hour opioid dose and should be prescribed up to hourly (e.g. a patient on a continuous subcutaneous infusion of morphine 90mg via a syringe driver over 24h requires 15mg morphine via subcutaneous injection prn up to hourly)</li> </ul>	<ul style="list-style-type: none"> <li>Buprenorphine transdermal patches starting at 5-10microgram/hour every 7 days (equivalent to 10-20mg oral morphine/24 hours)</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>Immediate release Concentrated oral morphine solution (20mg/ml) at a dose of 2.5mg-5mg (0.125-0.25ml) drawn up in an oral syringe. Put in the mouth between the cheek and lower gums. Slowly administer half the liquid in the syringe then repeat on the other side. Rub cheek to aid buccal absorption.</li> </ul> <p><b>When a syringe driver is not available AND regular medication is required:</b></p> <ul style="list-style-type: none"> <li>Buprenorphine transdermal patches starting at 5-10microgram/hour every 7 days (equivalent to 10-20mg oral morphine/24 hours)</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>Fentanyl patch 12microgram/hour every 72 hours (equivalent to approx 40mg oral morphine over 24 hours)</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>Methadone 2.5mg via subcutaneous injection once daily</li> </ul>

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Terminal respiratory tract secretions	<p>Noisy respiratory tract secretions can be a normal part of dying but is distressing to hear for those observing. Patients are often unaware and not distressed by this symptom. It is often a difficult symptom to treat. Consider whether they are troublesome or need treating at all.</p>	<ul style="list-style-type: none"> <li>Positioning of the patient to allow gravity to move secretions</li> <li>Stop or reduce volume of IV or PEG feeds</li> <li>Stop or reduce volume of IV or SC fluids</li> </ul>	<p>-To date (March 2020) palliative care experience of treatment of respiratory secretions has mostly been in unconscious patients, where the patient is usually unaware of the secretions, but the family or those observing the dying process can find it distressing,</p> <p>-early local and UK experience in COVID-19 deaths suggests that some patients who die with COVID-19 have large volumes of secretions and can be conscious. It is recommended therefore that secretions are treated in the COVID-19 setting, although the efficacy of these usual drugs is not yet known and guidance may therefore change.</p>	<ul style="list-style-type: none"> <li>Give glycopyrronium 200 micrograms by subcutaneous injection as required, up to every four hours (maximum dose 1.2mg in 24 hours)</li> <li>consider starting a subcutaneous infusion of 600 - 1200micrograms glycopyrronium via syringe driver over 24 hours</li> </ul>	<ul style="list-style-type: none"> <li>Hyoscine butylbromide 20mg sc prn or a continuous subcutaneous infusion 60-180mg over 24 hours</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>*Hyoscine hydrobromide transdermal patch 1mg/72 hours, maximum 2mg/72 hours</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>*Hyoscine hydrobromide 400micrograms prn or a continuous subcutaneous infusion 1200-2400micrograms over 24 hours</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>*Atropine 1% PF single use ophthalmic drops 1-2 drops sublingually every 2-4 hours</li> </ul> <p>*can all increase confusion or delirium</p>

# Opioid conversions

Buprenorphine patch (microgram/hr)	Approximate 24 hour oral morphine dose (mg)	Breakthrough oral morphine solution dose (mg)	Fentanyl patch (microgram/hr)
5	10	1.5	-
10	20	3	-
20	40	5	12
35	90	15	25
52.5	130	20	37
70	180	30	50
	270	40	75
	360	60	100

If you need further advice about a drug conversion, contact the palliative care team, LOROS or medicines management services

Opioid dose	Conversion factor from other opioid to oral morphine	Equivalent oral morphine dose
Oral codeine or oral dihydrocodeine 240mg/24hrs	Divide by 10	≈ 24mg Oral morphine/24hrs
Tramadol 400mg/24hrs	Divide by 10	≈ 40mg Oral morphine/24hrs
Morphine 5mg subcutaneous injection	Multiply by 2	10mg Oral Morphine
Diamorphine 3mg subcutaneous injection	Multiply by 3	10mg Oral Morphine
Oral oxycodone 5mg	Multiply by 2	10mg Oral Morphine
≈ SC oxycodone 2mg to 3mg	Multiply by 4	10mg Oral Morphine
≈ SC alfentanil 1mg	Multiply by 30	30mg Oral Morphine