NORTHERN IRELAND PALLIATIVE CARE RESOURCE FOLDER FOR PHARMACISTS

Developed by the MACMILLAN PALLIATIVE CARE PHARMACY SERVICE IMPROVEMENT PROJECT

May 2019
Palliative Care Resource Pack for Pharmacists

This resource pack can be used as a quick reference guide, providing some general information on palliative care. It is produced in a ring binder format so you can easily add any other palliative resources you obtain. You can also easily remove any of the resources to photocopy them, if you need.

The pack has been developed by the Macmillan Palliative Care Service Improvement Pharmacy Team with the input of pharmacists, nurses and doctors working in specialist palliative care and general practice. An electronic version is available to access on the Northern Ireland Formulary website http://niformulary.hscni.net

General Principles of Palliative Care

When you look around society in Northern Ireland, you can see much passion surrounding palliative care. From fundraising events for local hospices, the provision of voluntary services, to the extra mile that many healthcare professionals go, to ensure that patients and carers receive the best possible care. This is rarely easy but many people report how important this work is to them and the satisfaction they feel from being able to help at what is a very difficult time for most families.

Definitions and commonly used terminology

The World Health Organisation defines palliative care as:

“An approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.”

It is holistic and goes much further than management of physical symptoms. It is about quality of life and living well until the end.

“You matter because you are you, and you matter to the end of your life. We will do all we can not only to help you die peacefully, but also to live until you die.”

Dame Cicely Saunders, founder of the modern palliative care movement.

Common terminology also used within palliative care includes ‘end of life care’, ‘terminal care’ and ‘last days of life’ or ‘end stage’. These are often used interchangeably however there are important differences.

A patient may be considered to have palliative needs if they have a life-limiting illness - for example metastatic cancer or motor neurone disease yet they may not be approaching end of life.

Palliative care requires a multidisciplinary approach to care and can particularly benefit those with:

- Physical symptoms including pain
- Difficulties managing their usual daily tasks
- Strain in their relationship with others
- Psychological or spiritual distress
Palliative Care aims to:

• Affirm life and regard dying as a normal practice
• Neither hasten nor postpone death
• Provide relief from pain and other distressing symptoms
• Integrate the psychological and spiritual aspects of care
• Offer a support system to help patients live as actively as possible until death
• Offer a support system to help the families of patients cope during the patient’s illnesses and in their own bereavement

Illnesses that may benefit from a palliative care approach:

• Cancer
• End stage respiratory disease – COPD, pulmonary fibrosis
• End stage cardiac failure
• End stage renal failure
• Dementia
• Diseases of the nervous system e.g. Motor Neurone Disease, Parkinson’s disease, Multiple Sclerosis
• AIDS/HIV

End of life care is for people who are considered to be in the last year of life but it is acknowledged that this can be difficult to predict. Last days of life or end stage is the final period or phase in the course of a progressive disease leading to person’s death.

Importance of Pharmacy

In Living Matters Dying Matters, the palliative and end of life care strategy for adults in Northern Ireland (2010), the importance of pharmacy is acknowledged and the vital role of community pharmacy in ensuring access to medications for all patients with palliative care needs. It also recommends that all pharmacists should have education and training in palliative care and that they should be included in specialist multidisciplinary teams.

How pharmacists can contribute to palliative and end of life care:

• Support and inform patients and their carers about their palliative medicines
• Ensure prompt access to palliative medicines or advise how this might be possible
• Signpost patients and carers on to other support services that may benefit them
• Be familiar with the regional guidance on palliative and end of life care and be proactive to ensure the use of palliative medication is optimised

Palliative Care in Northern Ireland

All healthcare professionals can adopt a palliative care approach. Palliative care may be appropriate for life-limiting conditions from the time of diagnosis depending on condition and prognosis, but it is definitely needed in the last year of life. In Northern Ireland, the End of Life Care Operational System (ELCOS), see below, is used as a tool to encourage identification and appropriate care of patients. It uses “The Surprise Question” as a tool to aid identification.

The Surprise Question

Would you be surprised if this person were to die in the next year? If you would not be surprised, what should you do to ensure that everything is ready in case they deteriorate quickly?
Palliative Care in Northern Ireland

Approximately 15,000 people die in Northern Ireland each year and it is estimated that 11,000 of those would benefit from palliative care. The main causes of death are circulatory diseases (35%), cancer related deaths (26%) and respiratory diseases (14%). Preferred place of care at the end of life is very important to patients and their families and 75% of people would prefer to die at home, however approximately 50% die in hospital. It is estimated that 40% of deaths in hospital could have occurred elsewhere. As healthcare professionals, we should aim to support people so they die in their preferred place of care.

End of Life Care Operational System

Probable / Estimated Life Expectancy

A. “should/maybe years”

B. “could be the last year”

C. “possibly months or weeks”

D. “probably last few days/hours”

“Bereavement”

Patient Journey

Slow deterioration over time, more dependent, frequent admissions

Prognostic indicators suggest possibly entering last year of life

Discuss at multi-disciplinary team

Communicate/discuss with patient, family or carer

Information/Education

‘The Surprise Question’

Advanced Care Planning

Palliative Care Clinical Pathways

Continual Review of Palliative Status

Care of the Dying Plan

Death

Probable / Estimated Life Expectancy

Would you be surprised if this person were to die in the next year?’ (see Prognostic Indicators). If you wouldn’t be surprised, what should you do to ensure that everything is ready, just in case they deteriorate quickly?

Recorded Place of Death Comparison (NI)

- Hospital
- Nursing Home
- Home
- Hospice
- All other places

2006
2011
2014
Palliative care services can be divided into general and specialist palliative care.

**General Palliative Care** is delivered by healthcare professionals, including GPs, district nurses, pharmacists, and allied health professionals in primary care settings, and hospital wards. This is the level of care required by most people and is provided by non-palliative and end of life care specialists.

**Specialist Palliative Care** involves the management of unresolved symptoms and more demanding care needs including complex psychosocial, end of life and bereavement issues. It is provided by specialist personnel with expert knowledge, skills and competences in palliative care.

It is estimated that 70% of cancer deaths and 20% of non-cancer deaths will require some specialist palliative care involvement. Patients can be referred to community specialist palliative care services by their GP, district nurse or hospital team (on discharge). These specialist services include hospice community nurse specialists who visit patients in their own homes and make prescribing recommendations to GPs. Information on how to contact the nurse specialists, if you have any queries around medication, is in the useful contacts section in this resource.

**Palliative Care Keyworker**

The Palliative Care Keyworker is a healthcare professional (normally a district nurse) who is a named individual with responsibility for helping to plan and co-ordinate care for individual patients likely to be in their last year of life. They can be a key person for pharmacists to contact regarding medication and plans for care. Their role is extensive but includes:

- Acting as main point of contact for the person and providing practical and emotional support to both the individual and those important to them
- Co-ordinating assessments, referrals and multidisciplinary team care planning
- Co-ordinating appropriate care in the last weeks and days of life with the aim of facilitating the person to be cared for in their preferred place
- Co-ordinating bereavement follow up
General Information

The goal of prescribing in palliative care is to provide symptom control so that quality of life can be improved. Drug therapy needs to be balanced against the risk of polypharmacy as palliative patients can find themselves on large numbers of medicines to manage symptom burden in combination with ongoing chronic illnesses.

More information on prescribing palliative medicines for symptom control can be found in the Palliative Adult Network Guidelines book, available online at www.book.pallcare.info. These guidelines have been adopted for use in Northern Ireland and are used extensively across the region.

Deprescribing

Deprescribing is ‘the process of tapering, or discontinuing medicines to reduce potentially problematic polypharmacy’. Pharmacists are well placed for ongoing review of medication and can have a real impact on deprescribing. We have described below how this can occur in palliative care.

Shared decision-making is essential to deprescribing and patients and those close to them should be involved in the process. The main influencing factors for deprescribing are:

- Risk of the medication outweighing the benefit
- Administration or monitoring is challenging
- Drug adherence/compliance is difficult
- Unclear or inappropriate indication for medication

Prognosis will also have an influence on decision-making in deprescribing

- Last days of life. NICE guidance for care of dying adults in the last days of life (NG31) recommends any medication not providing symptomatic benefit should be stopped.
- Longer prognosis e.g. last year of life. Continually review medication to avoid polypharmacy. Many medicines may be unnecessary in shortened life expectancy.

Some published guidance is available on stopping potentially inappropriate medicines towards the end of life (see below).

1. **STOPPFrail Deprescribing Tool** *(Age and Ageing 2017; 46: 600–607)*
   **Developed for:** Older persons ≥65 years old with end-stage irreversible pathology, poor one year survival prognosis, severe functional/cognitive impairment and where symptom control is the priority.

2. **OncPal Deprescribing Tool** *(Supportive Care in Cancer 2015; 23(1):71-8)*
   **Developed for:** Palliative cancer patients
Summary of Deprescribing Guidance (reproduced with permission)

The guidance in STOPPFrail and OncPal is summarised in the table below. This can be used as an evidence base to aid deprescribing decisions, conversations with other healthcare professionals or when counselling patients or carers about medication changes.

A tick ✓ indicates where the tool considers a medicine may be appropriate for deprescribing. An empty box indicates the medicine was not addressed by that tool, rather than endorsing its continued use e.g. theophylline was only considered by STOPPFrail and ACE inhibitors only by OncPal.

<table>
<thead>
<tr>
<th>Potentially Inappropriate Medicines</th>
<th>STOPPFrail</th>
<th>OncPal</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiovascular</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspirin</td>
<td>✓</td>
<td>✓</td>
<td>In primary prevention, little risk of stopping</td>
</tr>
<tr>
<td>Statins or other lipid lowering agents</td>
<td>✓</td>
<td>✓</td>
<td>Long-term benefits at population level. Little short or intermediate term risk of stopping</td>
</tr>
<tr>
<td>Alpha blockers for hypertension</td>
<td>✓</td>
<td></td>
<td>Can cause adverse effects and stringent BP control not needed</td>
</tr>
<tr>
<td>ACE inhibitors, ARBs, Beta blockers, Calcium channel blockers, Thiazide diuretics</td>
<td>✓</td>
<td></td>
<td>Continue in underlying disease e.g. heart failure, arrhythmia. If mild/moderate hypertension or secondary prevention, ongoing therapy often unnecessary. Monitor BP after stopping</td>
</tr>
<tr>
<td><strong>Gastro-Intestinal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPIs, H2 Antagonists</td>
<td>✓</td>
<td>✓</td>
<td>Continue in concomitant use of NSAIDs and steroids. Review if prolonged course at full therapeutic dose and no evidence of persistent symptoms, bleeding etc.</td>
</tr>
<tr>
<td>Antispasmodics</td>
<td>✓</td>
<td></td>
<td>Anti-cholinergic side effects, review unless frequent relapse of colic</td>
</tr>
<tr>
<td><strong>Endocrine</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral Hypoglycaemics</td>
<td>✓</td>
<td>✓</td>
<td>Aim for monotherapy. Stringent glycaemic control unnecessary</td>
</tr>
<tr>
<td>ACE inhibitors, ARBs</td>
<td>✓</td>
<td></td>
<td>Review if only for prevention of diabetic neuropathy</td>
</tr>
<tr>
<td><strong>Musculoskeletal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisphosphonates</td>
<td>✓</td>
<td>✓</td>
<td>Unlikely to be of benefit in osteoporosis. Continue in cancer-related bone metastases</td>
</tr>
<tr>
<td>Long term NSAID or corticosteroids</td>
<td>✓</td>
<td></td>
<td>Risk of side effects. Review unless specific indication – frequently used in cancer. Withdraw steroid gradually.</td>
</tr>
<tr>
<td><strong>Respiratory</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theophylline</td>
<td>✓</td>
<td></td>
<td>Risk of adverse events due to interactions and narrow therapeutic index</td>
</tr>
<tr>
<td>Leukotriene antagonists</td>
<td>✓</td>
<td></td>
<td>Only indicated in asthma, review in other indications</td>
</tr>
<tr>
<td><strong>Central Nervous System</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroleptic Antipsychotics</td>
<td>✓</td>
<td></td>
<td>In dementia, reduce dose gradually and discontinue if taking ≥ 12 weeks and no behavioural and psychiatric symptoms</td>
</tr>
<tr>
<td>Memantine</td>
<td>✓</td>
<td></td>
<td>Discontinue and monitor unless clear improvement in behavioural and psychiatric symptoms</td>
</tr>
</tbody>
</table>
### Urogenital

<table>
<thead>
<tr>
<th>Medicines</th>
<th>Discontinue if patient catheterised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamsulosin, dutasteride, solifenacin type medicines</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Miscellaneous

<table>
<thead>
<tr>
<th>Medicines</th>
<th>Review for cellulitis or UTI due to lack of evidence for preventing recurrent infection</th>
<th>Discontinue if for prophylaxis rather than treatment</th>
<th>No evidence of effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prophylactic antibiotics</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Vitamins, minerals, nutritional supplements</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Complementary or alternative medicines</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The NI network of pharmacists with a special interest in older people (NIPOP) have developed some very useful information in relation to medication review in older people. The guidance focuses on medicines to consider stopping to reduce the risk of falls, reduce anticholinergic burden, and those medicines for whom there is a limited evidence base. The document is available to download from the Pharmacy Forum website [http://forum.psni.org.uk](http://forum.psni.org.uk)

### Mouth Care

Dry or painful mouth can be common and distressing towards the end of life. At a time when family and carers may feel they want to help, but feel there is little they can do, mouth care is one aspect they can be encouraged to assist with.

- **If conscious,** the mouth can be moistened with drops of water from an oral syringe or teaspoon
- **Teething wipes** or baby toothbrushes can be used to clean the mouth
- **Mesh ‘lollipops’** more often seen for teething can be used to put frozen fruit, pineapple, or ice chips in to soothe or clean the mouth.
- **Single use pink sponge sticks** soaked briefly in water can be used cautiously. Advise family to ensure the head is firmly attached to prevent choking
- **Moisten lips** using a water-based lubricant
Anticipatory Prescribing

Anticipatory prescribing involves prescribing subcutaneous ‘as required’ medicines for symptom control at the end of life, in advance of their need. It:

- Ensures medication is available to relieve symptoms as soon as they occur
- Prevents prescribing delays or difficulties accessing medication, especially out of hours
- Provides reassurance to family that the necessary medicines are available
- Is a key recommendation of the NICE guidance for the management of symptoms in the last days of life (2015)

**Think ahead.** If you know that patients are approaching end of life, recommend anticipatory prescribing to the district nurse or GP using the guidance below.

The following symptoms are common at end of life although an individualised approach is recommended, based on which symptoms are present or may occur.

<table>
<thead>
<tr>
<th>INDICATION</th>
<th>DRUG AND STRENGTH TO PRESCRIBE</th>
<th>DOSE AND FREQUENCY</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>Morphine Sulfate injection 10mg/ml x 10amps</td>
<td>2mg-5mg SC 2-4Hourly PRN</td>
<td>If on an existing opioid, refer to Guidance on Symptom Management in Last Days of Life (2018)</td>
</tr>
<tr>
<td>Nausea and Vomiting</td>
<td>Cyclizine injection 50mg/ml x 10amps</td>
<td>50mg SC 8Hourly PRN</td>
<td>May also consider levomepromazine 5mg SC 4-6Hourly PRN 25mg/ml x 10amps.</td>
</tr>
<tr>
<td>Anxiety, delirium and agitation</td>
<td>Midazolam injection 10mg/2ml x 10amps</td>
<td>2mg-5mg SC 4Hourly PRN - may occasionally be used more frequently</td>
<td>Consider levomepromazine 5-15mg 6Hourly SC PRN if poor response to Midazolam</td>
</tr>
<tr>
<td>Noisy respiratory secretions</td>
<td>Glycopyrronium Bromide injection 200micrograms/ml x 10 amps</td>
<td>200micrograms SC 4-6Hourly PRN</td>
<td>Hyoscine hydrobromide 400micrograms or hyoscine butylbromide 20mg SC 4-6 Hourly PRN are also options.</td>
</tr>
<tr>
<td>Breathlessness</td>
<td>Morphine Sulfate injection 10mg/ml x 10amps</td>
<td>1mg-2mg SC 4Hourly PRN</td>
<td>May also consider Midazolam 2mg SC 4Hourly PRN if breathless and anxious.</td>
</tr>
</tbody>
</table>

For patients within community, subcutaneous when required medicines are normally administered by a district nurse or Marie Curie nurse. Family members should be made aware of who to contact for medication to be administered.

For full guidance on anticipatory prescribing see Guidance for the Management of Symptoms in Adults in the Last Days of Life.
GUIDANCE FOR THE MANAGEMENT OF SYMPTOMS IN ADULTS IN THE LAST DAYS OF LIFE

The focus of this guidance is on administration by subcutaneous (SC) injection and SC syringe pump over 24 hours, recognising that the dying person may be unable to take or tolerate oral medicines. It includes the management of the following five symptoms:

- **Pain**
- **Breathlessness**
- **Nausea and vomiting**
- **Anxiety, delirium and agitation**
- **Noisy respiratory secretions**

When it is recognised that a person may be entering the last days of life:

- Review their current medicines.
- Stop any prescribed medicines not providing symptomatic benefit or that may cause harm.
- Discuss and agree any medication changes with the dying person and those important to them (as appropriate).

Anticipatory prescribing by the subcutaneous route to cover the five symptoms above ensures a supply of medicines are available to relieve symptoms as soon as they occur.

- These recommendations are a GUIDE, and should be used as such. They may differ from other recommendations but have been chosen to reflect expert opinion, best evidence and safety.
- Users are advised to monitor patients carefully for side effects and response to treatment. Responsibility for the use of these recommendations lies with the healthcare professional(s) managing each patient.
- When prescribing, **always start with the lowest dose** in the range specified in this guide.
- Seek specialist advice in moderate to severe renal or hepatic impairment or those with complex needs.
- Consider the non-pharmacological management of symptoms at the end of life.

Further information is available from your Specialist Palliative Care Team, the Palliative Adult Network Guidelines (PANG) Book 2016 and at www.book.pallcare.info
• Ensure you are familiar with the following characteristics of that medicine and formulation: usual starting dose, frequency of administration, standard dosing increments, symptoms of overdose, common side effects.

• Confirm the most recent opioid dose, formulation, frequency of administration and any other analgesics prescribed for the patient.

• Ensure where a dose increase is intended, the calculated dose is safe for the patient (e.g. generally by a third but not normally more than 50% higher than the previous dose). Use caution in higher doses.

• When making a planned opioid switch, if there is no stated opioid equivalent, usual practice is to convert to the oral morphine equivalent and then to the chosen opioid.

• Consider reduced doses in elderly, cachectic and debilitated patients. In renal or significant hepatic impairment, seek further advice.*

• When switching opioids it is recommended that a 25 - 50% reduction of the calculated dose of the new opioid should occur. This is to allow for cross tolerance, where tolerance to a currently administered opioid may not extend completely to other opioids. The new regimen may need to be increased or decreased accordingly. Monitor patients closely, especially at higher doses.

• The addition of adjuvant analgesia may require reduction of the opioid dose.

• Before prescribing opioids or increasing doses:
  • All patients should be made aware of the potential risks, side-effects and potency of opioids. Patient information available at http://niformulary.hscni.net
  • When considering prescribing opioids for persistent non-malignant pain, medication will achieve a 30-50% pain reduction at best. The risk of harm increases substantially above daily doses of oral morphine sulfate 120mg (or equivalent), without significant benefit. Suitable pain self management should also be explored www.paintoolkit.org

• Transdermal Opioid Conversion
  • Transdermal patches are NOT appropriate when rapid titration of opioids is required e.g. acute pain. Use in stable pain.
  • On first applying or increasing patch, systemic therapeutic levels are not reached for at least 12 hours. Doses should not be changed more regularly than every 48 hours.
  • On removal of an opioid patch a reservoir of the drug remains under the skin with levels falling by 50% (half-life) approximately every 18 to 24 hours.
  • For information on initiating, changing or stopping transdermal opioids refer to Palliative Adult Network Guidelines www.book.pallcare.info
Prescribing Opioid Analgesics

Morphine is the first line choice of strong opioid.

*In severe renal impairment or dialysis patients, buprenorphine, fentanyl or alfentanil may be the preferred opioid. Prescribe oral, transdermal and transmucosal opioids by brand name and injections generically.

Remember to ensure you are clear on the duration of action when prescribing branded products:

- Short-acting preparations e.g. Oramorph®, Sevredol®, Shortec®†, Oxynorm® or Palladone® approximately 4 hours.
- Long-acting preparations e.g. MST®, Longtec®†, OxyContin® or Palladone® SR approximately 12 hours.
- Opioid patches e.g. Mezolar®†, Durogesic®, replace every 3 days. Butec®†, BuTrans®, replace every 7 days. Transtec® replace twice weekly (every 3 or 4 days).

In persistent non-malignant pain, patients should not routinely require breakthrough analgesia except prior to events likely to cause pain e.g. dressing changes.

Breakthrough Analgesia in Palliative Care

In palliative care the standard dose of a strong opioid for breakthrough pain is usually one-sixth of the regular 24 hour dose, repeated every 4 to 6 hours as required.

The BNF prescribing in palliative care guidance also supports use (outside the product licence) every 2 to 4 hours as required (up to hourly may be needed if pain is severe or in the last days of life).

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**Table 1. Opioid Conversions**

<table>
<thead>
<tr>
<th>PO (Oral) to PO</th>
<th>SC (Subcutaneous) to SC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Morphine to Oral Oxycodone - Divide by 2 Eg. 30mg Oral Morphine = 15mg Oral Oxycodone</td>
<td>SC Morphine to SC Diamorphine – Divide by 1.5 Eg. 15mg SC Morphine = 10mg SC Diamorphine</td>
</tr>
<tr>
<td>Oral Codeine / Dihydrocodeine / Tramadol to Oral Morphine - Divide by 10 Eg. 240mg Oral Codeine = 24mg Oral Morphine</td>
<td>SC Morphine to SC Oxycodone – Divide by 2 Eg. 20mg SC Morphine = 10mg SC Oxycodone</td>
</tr>
</tbody>
</table>

**Table 2. Transdermal Patch Conversions**

<table>
<thead>
<tr>
<th>Fentanyl Patch (micrograms/hr)</th>
<th>Oral Morphine Dose over 24 hours (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>30-59</td>
</tr>
<tr>
<td>25</td>
<td>60-89</td>
</tr>
<tr>
<td>37</td>
<td>90-119</td>
</tr>
<tr>
<td>50</td>
<td>120-149</td>
</tr>
<tr>
<td>62</td>
<td>150-179</td>
</tr>
<tr>
<td>75</td>
<td>180-239</td>
</tr>
<tr>
<td>100</td>
<td>240-299</td>
</tr>
<tr>
<td>125</td>
<td>300-359</td>
</tr>
<tr>
<td>150</td>
<td>360-419</td>
</tr>
<tr>
<td>175</td>
<td>420-479</td>
</tr>
<tr>
<td>200</td>
<td>480-539</td>
</tr>
</tbody>
</table>

**Buprenorphine Patch eg. Butec®, BuTrans® Replace patch every 7 DAYS**

<table>
<thead>
<tr>
<th>Patch Strength (micrograms per hr)</th>
<th>Oral Morphine Dose over 24 hours (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>–10 - 12</td>
</tr>
<tr>
<td>10</td>
<td>–20 - 24</td>
</tr>
<tr>
<td>20</td>
<td>–40 - 48</td>
</tr>
</tbody>
</table>
Morphine Sulfate is the first line choice of strong opioid in non-specialist settings.

**Recommended strengths and pack size to prescribe**

<table>
<thead>
<tr>
<th>Opioid Type</th>
<th>Pack Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine Sulfate 10mg/ml</td>
<td>Pack of 10</td>
</tr>
<tr>
<td>Morphine Sulfate 30mg/ml</td>
<td>Pack of 10</td>
</tr>
</tbody>
</table>

* Breakthrough analgesia is usually worked out as 1/6th of the total 24 hour opioid dose, but can also be given as 1/10th of the total 24 hour opioid dose. Refer to BNF “Prescribing in Palliative Care” section.
# Pain

**Patient currently experiencing pain**

(patient unable to take oral analgesia)

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## No regular analgesia prescribed

- Give stat SC PRN dose of **Morphine Sulfate** 2mg–5mg

  **AND**

- Prescribe **Morphine Sulfate** 5mg – 10mg by SC syringe pump over 24 hours

  **AND**

- Prescribe **Morphine Sulfate** 2mg – 5mg SC 2-4 hourly PRN for breakthrough pain*

  (This can be given more frequently with medical discussion and/or palliative care input)

## Already on Oral Morphine Sulfate or other opioid (See Table 1)

- Use Table 1 to change from total daily oral opioid dose to SC opioid. Prescribe by SC syringe pump over 24hrs. If on a long-acting twice daily oral opioid e.g. MST®, start the pump 8 hours after last dose.

  **AND**

- Prescribe for breakthrough pain* SC 2-4 hourly PRN i.e. divide new total daily SC opioid dose by 6. Give a stat dose.

  **Review regularly**

- If two or more PRN doses are given in 24 hours increase syringe pump dose by 30% to 50% to control pain. Increase SC PRN dose accordingly.

## Already on Fentanyl Patch or Buprenorphine patch (See Table 2)

- Give stat **Morphine Sulfate** SC PRN dose (Use Table 2. This gives oral morphine equivalence – further conversion to SC required, see Table 1).

  **AND**

- Continue prescribing patch

  **AND**

- Add additional **Morphine Sulfate** (or other opioid) for uncontrolled pain by SC syringe pump over 24 hours (equivalent of 2 breakthrough doses* of **Morphine Sulfate**)

  **AND**

- Prescribe SC **Morphine Sulfate** for breakthrough pain* (1/6th of total 24 hour opioid dose) and give 2-4hourly PRN

---

* Breakthrough analgesia is usually worked out as 1/6th of the total 24 hour opioid dose, but can also be given as 1/10th of the total 24 hour opioid dose. Refer to BNF “Prescribing in Palliative Care” section.
Nausea and Vomiting

No Symptoms Present

Prescribed regular oral antiemetics?

No

Anticipatory prescribing

Prescribe Cyclizine SC PRN (see Table 3)

(i.e. symptoms controlled by current prescription)

Stop oral antiemetics. Prescribe current antiemetic by SC syringe pump over 24hrs.

AND

Suitable SC antiemetic PRN

Review every 24 hours

If nausea and vomiting not controlled go to ‘Symptomatic’ column

Yes

Symptomatic

Give stat dose of suitable SC antiemetic. (see Table 3)

AND

Start a SC syringe pump over 24hrs.

AND

Prescribe SC antiemetic for breakthrough symptoms

If nausea/vomiting persist, use maximum dose of current antiemetic

If nausea/vomiting persists, replace antiemetic drugs in syringe pump with Levomepromazine

(A combination of Cyclizine & Haloperidol may also be used)

AND

Prescribe Levomepromazine PRN SC for breakthrough nausea

No Yes

Prescribed regular oral antiemetics?

Give stat dose of suitable SC antiemetic. (see Table 3)

AND

Start a SC syringe pump over 24hrs.

AND

Prescribe SC antiemetic for breakthrough symptoms

If nausea/vomiting persist, use maximum dose of current antiemetic

If nausea/vomiting persists, replace antiemetic drugs in syringe pump with Levomepromazine

(A combination of Cyclizine & Haloperidol may also be used)

AND

Prescribe Levomepromazine PRN SC for breakthrough nausea

If symptoms persist contact your Specialist Palliative Care Team
Table 3. Choice of Antiemetic

Lower doses are indicated in severe renal or hepatic impairment

<table>
<thead>
<tr>
<th>1st line</th>
<th>Drug</th>
<th>Indications for Use</th>
<th>SC stat PRN dose</th>
<th>SC 24 hour dose</th>
<th>Strength and Pack size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cyclizine</td>
<td>Non-specific nausea &amp; vomiting Mechanical bowel obstruction. Raised intracranial pressure</td>
<td>50mg every 8 hours PRN</td>
<td>100mg – 150mg</td>
<td>50mg injection Pack of 5</td>
</tr>
<tr>
<td></td>
<td>Haloperidol</td>
<td>Chemical/ Metabolic causes.</td>
<td>500 micrograms - 1mg every 6 - 8 hours PRN</td>
<td>1.5mg *</td>
<td>5mg/ml injection Pack of 10</td>
</tr>
<tr>
<td></td>
<td>Metoclopramide</td>
<td>Partial mechanical bowel obstruction Gastric stasis (Prokinetic antiemetic - discontinue if colic develops).</td>
<td>10mg every 6 - 8 hours PRN (max TDS)</td>
<td>30mg *</td>
<td>10mg/2ml injection Pack of 10</td>
</tr>
<tr>
<td>2nd line</td>
<td>Levomepromazine</td>
<td>Broad spectrum antiemetic Sedation at high doses</td>
<td>5mg every 4 - 6 hours PRN</td>
<td>5mg - 25mg</td>
<td>25mg/ml injection Pack of 10</td>
</tr>
<tr>
<td>3rd line</td>
<td>Ondansetron</td>
<td>Intractable vomiting due to chemical, abdominal and cerebral causes when above approaches fail</td>
<td>4mg - 8mg every 6 - 8 hours PRN</td>
<td>8mg – 24mg</td>
<td>4mg or 8mg injection Pack of 5</td>
</tr>
</tbody>
</table>

*Higher doses may be used in specialist practice.
Breathlessness

**Intermittent symptoms**

Taking regular Morphine Sulfate or other opioid?

- **No**
  - Anticipatory prescribing
    - Prescribe **Morphine Sulfate** 1mg-2mg SC 4 hourly PRN for dyspnoea.

- **Yes**
  - Anticipatory prescribing
    - Use the same SC opioid dose as for managing breakthrough pain

**Persistent symptoms**

Taking regular Morphine Sulfate or other opioid?

- **No**
  - Prescribe equivalent doses of the same opioid by SC syringe pump over 24hrs and titrate to patient’s individual needs according to severity of dyspnoea.
  - **AND**
    - Prescribe the same SC opioid dose as for managing breakthrough pain

- **Yes**
  - Prescribe equivalent doses of the same opioid by SC syringe pump over 24hrs and titrate to patient’s individual needs according to severity of dyspnoea.
  - **AND**
    - Prescribe the same SC opioid dose as for managing breakthrough pain

- For patients on other opioids use Table 1 for opioid conversions and use guidance as above
- For patients who are conscious and can tolerate oral medicines consider oral opioid in a dose equivalent to the SC doses recommended above.
- Oxygen is only indicated for patients who are hypoxic.

If patient is breathless AND anxious, consider:
**Midazolam** 2mg SC PRN and/or **Midazolam** 5mg-10mg via SC syringe pump over 24 hours.
If tolerating oral medicines consider **Lorazepam** tablets 500 micrograms sublingually 4-6 hourly PRN.

**Recommended strengths and pack size to prescribe**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Pack Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine Sulfate 10mg/ml</td>
<td>Pack of 10</td>
</tr>
<tr>
<td>Midazolam 10mg/2ml</td>
<td>Pack of 10. Preferred strength to use in palliative care to provide low volume SC injections</td>
</tr>
<tr>
<td>Lorazepam 1mg</td>
<td>Pack of 28. Annotate 'Genus brand' as this preparation dissolves more easily sublingually than other brands</td>
</tr>
</tbody>
</table>

If symptoms persist contact your Specialist Palliative Care Team.
Anxiety, Delirium and Agitation

Assess the patient first to exclude potentially reversible and treatable causes such as pain, drug withdrawal including nicotine, urinary retention or severe constipation.

**No Symptoms Present**

**Anticipatory Prescribing**

Prescribe **Midazolam** 2mg – 5mg SC 2 - 4 hourly PRN

If two or more PRN doses required in 24 hours

**Symptomatic**

Prescribe **Midazolam** 2mg – 5mg SC and assess response after 30 minutes

If effective:

Prescribe **Midazolam** 5mg - 10mg by SC syringe pump over 24hrs.

**AND**

Continue to give PRN dose as required

Re-assess regularly. If symptoms persist add total SC PRN dose over 24 hours to current syringe pump dose (increase breakthrough dose accordingly)

If poor response to increasing dose of **Midazolam** reassess cause of agitation. Consider prescribing stat dose of:

- **Levomepromazine** 5mg - 15mg SC
- **Haloperidol** 500 micrograms – 1mg SC

Assess response and if effective add:

- **Levomepromazine** 10mg-25mg
- **Haloperidol** 1mg-3mg by SC syringe pump over 24 hrs.

---

**Recommended strengths and pack size to prescribe**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Pack Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midazolam 10mg/2ml injection</td>
<td>Pack of 10. Preferred strength to use in palliative care to provide low volume SC injections</td>
</tr>
<tr>
<td>Levomepromazine 25mg/ml injection</td>
<td>Pack of 10</td>
</tr>
<tr>
<td>Haloperidol 5mg/ml injection</td>
<td>Pack of 10</td>
</tr>
</tbody>
</table>
Noisy Respiratory Secretions

Review the use of intravenous or subcutaneous fluids and decrease or discontinue if appropriate.

### No Symptoms Present

**Anticipatory Prescribing**
- Prescribe *Glycopyrronium* 200 micrograms SC 4-6 hourly PRN
- If two or more PRN doses are required in 24 hours

### Symptomatic

- Give stat dose of *Glycopyrronium* 200 micrograms SC
- **AND**
  - Prescribe *Glycopyrronium* 600 micrograms by SC syringe pump over 24hrs.
  - **AND**
    - Prescribe *Glycopyrronium* 200 micrograms SC 4-6 hourly PRN for breakthrough symptoms
    - If symptoms persist, increase total 24 hour dose to 1.2mg.
    - Review after 24 hours. If symptoms persist consider changing to:
      - *Hyoscine Butylbromide* 120mg by SC syringe pump over 24hrs.
      - Or
      - *Hyoscine Hydrobromide* 2.4mg* by SC syringe pump over 24hrs.
      - *Hyoscine Hydrobromide may cause sedation and paradoxical agitation

### Recommended strengths and pack size to prescribe

<table>
<thead>
<tr>
<th>Medication</th>
<th>Pack Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycopyrronium Bromide 200 micrograms/ml injection</td>
<td>Pack of 10</td>
</tr>
<tr>
<td>Hyoscine Butylbromide 20mg/ml injection</td>
<td>Pack of 10</td>
</tr>
<tr>
<td>Hyoscine Hydrobromide 400 micrograms/ml injection</td>
<td>Pack of 10</td>
</tr>
</tbody>
</table>
CONTROLLED DRUGS PRESCRIPTIONS

Background

Many of the medications used in the last days of life to provide relief of commonly experienced symptoms are controlled drugs. These medications are often required urgently and prescribing errors can lead to delays in patients/carers accessing them.

Prescribing Controlled Drugs

Prescriptions for CDs (Schedule 2 and 3, except Temazepam) must fulfil legal requirements.

- CD prescriptions can be, but do not have to be, computer generated. Only the signature must be in the prescriber’s own handwriting.
- The patient’s full name, address and, where appropriate, age. An email address or PO Box is not acceptable. ‘No fixed abode’ is acceptable as an address for homeless people.
- The name and form of the drug, even if only one form exists
- The strength of the preparation (if more than one strength exists)
- The dose to be taken (as directed is not acceptable, one as directed is)
- Total quantity of the preparation, or the number of dose units, to be supplied in both words and figures

Amendments
Alterations are best avoided but if any are made they should be clear and unambiguous. Best practice suggests if an error is made, the prescriber should cross out, initial and date the error then write the correct information.

Amendments by pharmacists

Consider amending a prescription if legally permitted to. It may prevent delays in patients receiving medication and unnecessary stress for the family/carers.

Pharmacists are permitted to amend:

- Minor typographical errors or spelling mistakes
- Where the total quantity of the preparation of the controlled drug or the number of dosage units is specified in either words or figures but not both they can add whichever one has been omitted

These amendments can only be made if the pharmacist is satisfied that the prescription is genuine and they are supplying the controlled drugs in accordance with the intention of the prescriber. The amendments must be made in ink or otherwise indelibly and any changes must be directly attributable to the pharmacist who amends the prescription.

Collection

Each Trust has their own policy with regards collection of CDs from community pharmacies by community nurses. Some Trusts do not permit collection under any circumstances.

Community nurses should not routinely transport controlled drugs. This should only be undertaken in extenuating circumstances when:

- The patient has no main carer to collect
- No pharmacy delivery service is available
- The patient requires immediate symptom relief

Healthcare professionals’ identification and work address should be verified.

References

www.health-ni.gov.uk/articles/controlled-drugs
TRAVELLING ABROAD WITH CONTROLLED DRUGS

Consider the regulations for both UK Customs and any countries being visited. If travelling for less than 3 months, patients can carry a supply of controlled drugs through UK Customs without the need for a specific Home Office licence. This is regardless of the controlled drug or amount being carried.

- This applies for Schedule 2 medicines e.g. diamorphine, ketamine, Schedule 3 e.g. buprenorphine, midazolam, temazepam, pregabalin, Schedule 4 e.g. diazepam, lorazepam and schedule 5 e.g. Oramorph 10mg/5ml oral solution
- The controlled drugs should be carried in their original labelled packaging i.e. not in unmarked dosette boxes or unlabelled bottles.
- They should be carried in the passenger’s hand luggage (100ml restriction on liquid medicines applies – contact airline if greater quantities are required)
- Each patient should carry a letter issued by the prescribing doctor containing:
  - The patient’s name, address and date of birth
  - The outward and return dates of travel and countries being visited
  - The names, forms, strengths, dosages and total amounts of the controlled drugs being carried.

- Check if any restrictions apply in the countries to be visited (including stopovers/transit). A letter from the prescribing doctor may only be valid for passage through UK Customs. A list of embassies and contact details is available at: https://www.gov.uk/travelling-controlled-drugs
  - Some medicines available in the UK are illegal in other countries e.g. diamorphine, or even over the counter medicines such as Co-Codamol

Patients wishing to travel with controlled drugs for a period greater than 3 months will need to apply for Home Office personal export licence. A personal licence has no legal standing outside the UK and is intended to assist travellers passing through UK Customs. Application can be downloaded at: https://www.gov.uk/travelling-controlled-drugs

General Advice

- Plan any trip well in advance to give time to obtain any required documentation.
- Specific medical insurance may be advised if travelling with medical conditions.
- Patients should be prescribed not only sufficient regular analgesia to last their entire trip, but also any anticipated breakthrough or rescue medication.
- In case of emergencies it may be advisable to travel with the contact details of a doctor or relevant clinic in the country the patient is travelling to.
- All non-controlled prescription drugs should also be packed as hand baggage in their original packing and carried with a copy of the prescription or a note from the prescribing doctor.

References: https://www.gov.uk/travelling-controlled-drugs
https://www.nhs.uk/common-health-questions/medicines/can-i-take-controlled-medicines-abroad/
https://travelhealthpro.org.uk/factsheet/43/medicines-abroad
A key role for the pharmacist in palliative care is providing access to medicines. Even with appropriate forward planning, often these medicines may be required urgently e.g. for end of life care or to set up a syringe pump.

Key points

- Clarify with the carer or healthcare professional the urgency of the medication. If needed urgently, prioritise the dispensing
- If not needed urgently, order medication and inform carer when it will be ready for collection
- If you do not stock a medicine and it is needed urgently, please advise carer/healthcare professional of where it can be accessed
- Consider contacting a pharmaceutical wholesaler for out of hours access. See out of hours contact details on page 28
- The district nurse will need all the medicines before she can set up a syringe pump. If a pump needs set up urgently, advise the carer/healthcare professional on where they can access all the medicines, rather than issue an owing
- **Medical Oxygen.** Registered prescribers can order oxygen directly from BOC, who deliver and set up a concentrator in the home and/or portable oxygen cylinders within 4 hours if the form is marked urgent. Nasal specs etc. are also supplied. See BSO website www.hscbusiness.hscni.net/services/2359.htm
- The following medicines are very commonly used in palliative care. There may be some local variation but if you frequently dispense these medicines, please consider keeping them in stock in anticipation of future requirements.
  1. Anxiolytic – midazolam 10mg/2ml injection
  2. Anti-secretory – glycopyrronium or hyoscine hydrobromide injection
  3. Analgesic – morphine sulfate or diamorphine injection
  4. Antiemetic – levomepromazine 25mg/ml injection

The Community Pharmacy Palliative Care Network are 40 pharmacies located throughout Northern Ireland who have had additional training and stock a regionally agreed list of palliative care medications (see page 25). There are also an additional 8 Palliative Care Supply Service pharmacies that are open extended hours.
The Community Pharmacy Palliative Care Network (CPPCN)

Role of CPPCN

Palliative care is provided by all community pharmacies and patients/carers should be encouraged to use their regular pharmacy to obtain medication in the first instance. The CPPCN can be contacted within their opening hours for advice or to signpost patients/carers to if their own pharmacy cannot dispense the medication as promptly as required. They stock the following medicines:

### Regional Palliative Medicines Stock List

<table>
<thead>
<tr>
<th>DRUG</th>
<th>STOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfentanil 1mg/2ml Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Cyclizine 50mg/ml Injection</td>
<td>2 x 5</td>
</tr>
<tr>
<td>Dexamethasone 3.3mg/ml Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Diamorphine 5mg Injection</td>
<td>1 x 5</td>
</tr>
<tr>
<td>Diamorphine 10mg Injection</td>
<td>2 x 5</td>
</tr>
<tr>
<td>Diamorphine 30mg Injection</td>
<td>2 x 5</td>
</tr>
<tr>
<td>Diamorphine 100mg Injection</td>
<td>1 x 5</td>
</tr>
<tr>
<td>Glycopyrronium 200micrograms/ml Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Haloperidol 5mg/ml Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Hyoscine Butylbromide 20mg/ml (Buscopan) Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Hyoscine Hydrobromide 400micrograms/ml Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Levomepromazine 25mg/ml Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Levomepromazine 6mg Tablets</td>
<td>1 x 28</td>
</tr>
<tr>
<td>Metoclopramide 10mg/2ml Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Midazolam 10mg/2ml Injection</td>
<td>2 x 10</td>
</tr>
<tr>
<td>Morphine Sulfate (Oramorph) 10mg/5ml Solution</td>
<td>1 x 100ml</td>
</tr>
<tr>
<td>Morphine Sulfate 10mg/ml Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Morphine Sulfate 30mg/ml Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Ondansetron 4mg/2ml Injection</td>
<td>1 x 5</td>
</tr>
<tr>
<td>Oxycodone 5mg/5ml Syrup</td>
<td>1 x 250ml</td>
</tr>
<tr>
<td>Oxycodone 10mg/1ml Injection</td>
<td>2 x 5</td>
</tr>
<tr>
<td>Oxycodone 20mg/2ml Injection</td>
<td>2 x 5</td>
</tr>
<tr>
<td>Oxycodone 50mg/1ml Injection</td>
<td>1 x 5</td>
</tr>
<tr>
<td>Oxygen Cylinders and one giving set</td>
<td>2 x Size AF</td>
</tr>
<tr>
<td>Sodium Chloride 0.9% 10ml Injection</td>
<td>1 x 10</td>
</tr>
<tr>
<td>Water for Injection 10ml</td>
<td>2 x 10</td>
</tr>
</tbody>
</table>
## Belfast & South Eastern Areas

<table>
<thead>
<tr>
<th>Pharmacy</th>
<th>Opening Hours</th>
<th>Address</th>
<th>Telephone</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Belfast</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gordons Chemists, 13 Greenway, Cregagh Road</td>
<td>Mon-Fri 9am-6pm, Sat 9am-3.30pm</td>
<td></td>
<td>028 9040 1023</td>
<td></td>
</tr>
<tr>
<td>Crossin Chemist, 267 Antrim Road</td>
<td>Mon-Fri 9am-6pm, Sat 9.30-5.30</td>
<td></td>
<td>028 9035 1084</td>
<td></td>
</tr>
<tr>
<td>McCoubrey Chemists, 154 Cavehill Road</td>
<td>Mon-Fri 9am-6pm, Sat 9am-1pm</td>
<td></td>
<td>028 9039 1169</td>
<td></td>
</tr>
<tr>
<td>Doherty's Pharmacy, 115-117 Andersonstown Road</td>
<td>Mon-Fri 9am-6pm, Sat 9am-5.30pm</td>
<td></td>
<td>028 9061 3832</td>
<td></td>
</tr>
<tr>
<td>Clear Pharmacy, 165 Lisburn Road</td>
<td>Mon-Fri 9am-6pm, Sat 9am-5.30pm</td>
<td></td>
<td>028 9038 1169</td>
<td></td>
</tr>
<tr>
<td>Bangor Gordons Chemists, 110 Abbey Street</td>
<td>Mon-Fri 9am-6pm, Sat 9am-1pm and 2pm-5.30pm</td>
<td>028 9127 0408</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stock list also available from the following pharmacies with extended opening hours:

- **Newtownards** Boots Pharmacy, Ards Shopping Centre. Mon-Fri 9am-9pm, Sat 9am-5.30pm, Sun 1pm-5.30pm Tel. 028 9181 1297

## Northern Area

<table>
<thead>
<tr>
<th>Pharmacy</th>
<th>Opening Hours</th>
<th>Address</th>
<th>Telephone</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Antrim</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clear Pharmacy, The Health Centre</td>
<td>Mon-Wed 8.30am-6.15pm, Thurs &amp; Fri 8.30am-6pm</td>
<td>9am-6pm</td>
<td>028 9446 3495</td>
<td></td>
</tr>
<tr>
<td><strong>Ballycastle</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McMullan’s Chemist, 63 Castle Street</td>
<td>Mon-Sat 9am-6pm</td>
<td></td>
<td>028 2076 3135</td>
<td></td>
</tr>
<tr>
<td><strong>Ballymoney</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathewson Chemist, 51-53 Queen Street</td>
<td>Mon &amp; Thurs 8.30am-7pm, Tues, Wed, Fri &amp; Sat 8.30-6pm</td>
<td>028 2766 4600</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Coleraine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boots Pharmacy, Asda Shopping Centre, Ring Road</td>
<td>Mon-Tues 9am-8pm, Wed-Fri 9am-9pm, Sat 9am-5.30pm, Sun 1pm-6pm</td>
<td>028 7032 1596</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Carrickfergus</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carrickfergus Chemists, The Health Centre</td>
<td>Mon-Thurs 8.45am-8pm, Fri 8.45-6pm</td>
<td>028 93365111</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stock list also available from the following pharmacies with extended opening hours:

- **Ballymena** Lloyds Pharmacy Sainsburys, Braidwater Retail Park, Mon-Fri 8am-10pm Sat 8am-8pm Sun 1-6pm Tel. 028 2565 0406
- **Newtownabbey** Boots Pharmacy, Abbeycentre, Mon-Fri 9am-9pm, Sat 9am-6pm, Sun 1pm-6pm Tel. 028 9036 5910
# Community Pharmacy Palliative Care Network Pharmacies

## Southern Area

<table>
<thead>
<tr>
<th>Pharmacy</th>
<th>Opening Hours</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armagh</td>
<td>Mon-Fri 9am-6.00pm, Sat 9am-5.30pm, Tel. 028 3752 2685</td>
<td>Moy</td>
</tr>
<tr>
<td>Aughnacloy</td>
<td>Mon-Sat 9am-6pm, Tel. 028 8555 7943</td>
<td>Newry</td>
</tr>
<tr>
<td>Banbridge</td>
<td>Mon-Sat 9am - 5.30pm, Thur 9.00am - 5.00pm, Tel. 028 4066 2622</td>
<td>Portdown</td>
</tr>
<tr>
<td>Crossmaglen</td>
<td>Mon-Fri 9am-1pm and 2pm-5.30pm, Tel. 028 3086 8314</td>
<td>Rostrevor</td>
</tr>
<tr>
<td>Lurgan</td>
<td>Mon-Fri 9am-6pm, Sat 9am-5.30pm, Tel. 028 3832 2295</td>
<td></td>
</tr>
</tbody>
</table>

Stock list also available from the following pharmacies with extended opening hours:
- **Dungannon** Boots Pharmacy, Oaks Centre, Mon-Wed 9am-5.30pm, Thu-Fri 9am-9pm, Sat 9am-5.30pm, Sun 1pm-6pm, Tel. 028 8772 6626
- **Craigavon** Boots Pharmacy, Rushmere Shopping Centre, Mon-Fri 8.45am-9pm, Sat 8.45am-6pm, Sun 1pm-6pm Tel. 028 3834 6885
- **Newry** Medical Hall, The Quays Centre. Mon-Fri 9am-9pm, Sat 9am-6pm, Sun 1pm-6pm Tel. 028 3083 3781

## Western Area

<table>
<thead>
<tr>
<th>Pharmacy</th>
<th>Opening Hours</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belleek</td>
<td>Mon-Sat 9.30am-6pm, Tel. 028 6865 8218</td>
<td>Limavady</td>
</tr>
<tr>
<td>Castlederg</td>
<td>Mon-Fri 9am-6pm, Sat 9am-5.30pm, Tel. 028 8167 1974</td>
<td>Lisnaskea</td>
</tr>
<tr>
<td>Derry</td>
<td>Mon-Sat 9am-9pm, Sun 12.30pm-1.30pm, Tel. 028 7131 1720</td>
<td>Omagh</td>
</tr>
<tr>
<td>Derry</td>
<td>Mon-Fri 9.15am–6.15pm, Sat 9.30am-5.30pm, Tel. 028 7126 7004</td>
<td>Strabane</td>
</tr>
<tr>
<td>Enniskillen</td>
<td>Mon-Fri 9am-6pm, Sat 9am-5.30pm, Tel. 028 6632 2291</td>
<td></td>
</tr>
</tbody>
</table>

Stock list also available from the following pharmacies with extended opening hours:
- **Derry** Whitehouse Pharmacy, 65 Buncrana Road, Mon-Fri 9am-9pm, Sat 9am-6pm, Sun 1pm-6pm Tel. 028 7136 7191
- **Omagh** Boots Pharmacy, 43-47 High Street, Mon-Thurs 8.45am-5.45pm, Fri 8.45am-9pm, Sat 9am-5.45pm, Sun 1pm-5pm Tel. 028 8224 5455
If Community Pharmacy has no or insufficient stock:
1. If non-urgent, order medication and inform carer when it will be ready for collection
2. If urgent, locate nearest network pharmacy holding regional list and confirm they have stock. Advise carer to visit that pharmacy
3. Out of hours, contact the OOH Centre as local arrangements may exist or consider OOH supply from pharmacy wholesaler

Community Pharmacies Who Supply Hospices
There are four community pharmacies who also supply medication to local hospices. These pharmacies, some who are CPPCN pharmacies, provide a wealth of knowledge and stock many palliative medicines including those less commonly prescribed e.g. as ketamine, parecoxib and hydromorphone. They are an invaluable resource and you can contact them using the details below.

<table>
<thead>
<tr>
<th>Pharmacy &amp; Address</th>
<th>Opening Hours &amp; Telephone</th>
<th>Supplying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweeneys Pharmacy 52 High Street, Holywood</td>
<td>Mon-Sat 9am-5.30pm, Tel. 028 9042 2222</td>
<td>Marie Curie Belfast</td>
</tr>
<tr>
<td>McCoubreys Chemists 154 Cavehill Road, Belfast</td>
<td>Mon-Fri 9am-6pm, Sat 9am-1pm, Tel. 028 9039 1169</td>
<td>NI Hospice, Belfast</td>
</tr>
<tr>
<td>Belmont Pharmacy 7 DaVincis Complex Culmore Road, Derry</td>
<td>Mon-Fri 9am to 7pm, Sat 9am to 6pm, Tel. 02871 363604</td>
<td>Foyle Hospice</td>
</tr>
<tr>
<td>McKeever Chemists, 53-55 Mill Street, Newry</td>
<td>Mon-Fri 9am-10pm, Sat 9am-8pm, Sun 9am-6pm, Tel. 028 3026 2183</td>
<td>Newry Hospice</td>
</tr>
</tbody>
</table>

Out of Hours Supply from Pharmaceutical Wholesalers
Where access to a community pharmacy supply is not available, consider contacting the On-Call service provided by pharmaceutical wholesalers. The pharmacist may be required to collect the medicine depending on arrangement with wholesaler. A fee may be charged. A claim for Out of Pocket expenses may be made and if BSO is satisfied that the claim is reasonable then the pharmacist will be reimbursed.

<table>
<thead>
<tr>
<th>Wholesaler</th>
<th>OOH Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alliance Healthcare</td>
<td>02879 300 456 / 028 7963 4552</td>
</tr>
<tr>
<td>Phoenix Medical</td>
<td>08447 369978</td>
</tr>
<tr>
<td>Sangers AAH</td>
<td>07977250095</td>
</tr>
</tbody>
</table>

If the wholesaler is unable to supply then contact the local Trust pharmacy via the hospital switchboard.
INFORMATION FOR HEALTHCARE PROFESSIONALS

CONTINUOUS SUBCUTANEOUS INFUSION VIA SYRINGE PUMP

Background

A syringe pump (also known as a syringe driver) is a small portable battery operated device, which delivers a continuous subcutaneous infusion (CSCI) over a fixed period of time, generally 24 hours. In Northern Ireland, the syringe pump used in palliative care is the CME McKinley T34. Many medicines are used OFF LABEL when administered in combination via CSCI.

Use of syringe pumps at end-of-life

Syringe pumps are often used in the last days and weeks of life to provide relief of symptoms when oral medication is no longer an option. They can also be considered in other instances, for example - nausea and vomiting, or when symptoms cannot be controlled with oral medicines. Not all end of life patients will need a syringe pump, for some illnesses with a low symptom burden, the patient may be able to manage with SC PRN medicines (see Anticipatory Prescribing).

In community, syringe pumps are set up and changed by the district nurse. Some OOH Centres also keep them to allow patients to be started during out of hours periods, or alternatively, SC PRN medicines will be used until a pump can be initiated during the day.

Syringe pump charts

When a patient is started on a CSCI via syringe pump in community, HS21 prescriptions are required to allow the medication to be dispensed by the community pharmacist. A syringe pump chart is also required to allow the district nurse to administer the medication. These charts will not normally be seen in a community pharmacy.

Usually medications are in a 30ml syringe but the MAXIMUM VOLUME will be less, around 23ml
**Starting Doses - Opioids**

The starting doses of opioids via syringe pump can vary greatly depending on whether the patient is opioid naïve or not. It is necessary to check the patients’ previous dose to ascertain if the dose is appropriate. For more information see Opioid Conversion Guidance and Guidance for the Management of Symptoms in Adults in the Last Days of Life.

**Compatibility**

When mixing drug combinations it is important to check compatibility. Not only with each drug, but also the diluent. Drug combinations may only be compatible at certain concentrations. Therefore, concentrations of each drug should be compared with compatibility data not just the dose.

**How to check syringe pump compatibility**

1. Go to www.m.pallcare.info on your computer/tablet/smartphone
2. Enter username ‘BHSCT’ and password ‘pharmacy’
3. Click on the ‘Syringe Driver Drug Compatibility’ tool
4. Select the combination of medicines from the drop down menus

**Owings**

Syringe pumps usually contain a combination of medicines. If it is not possible to make a supply of each medication, clarify with the patient/carer if they are needed urgently. The district nurse will need all medicines before she can set up the syringe pump. Problems can occur if one item from a prescription is unavailable and the others are dispensed, meaning the prescription cannot be taken to another pharmacy. When an urgent supply is required and medication is unavailable, patients/carers should be signposted to their nearest CPPCN Pharmacy.

**Counselling points**

It is common for patients/carers to feel nervous about having a syringe pump but most people find them very useful. There are some useful videos available on syringe pumps via the Marie Curie website that patients/carers may find of benefit. There is also a patient information leaflet in this resource pack

**Problems around the needle site**

Patients/carers should tell the nurse if the experience discomfort, swelling or redness at the skin around the needle. The nurse will check the injection site regularly.

**The pump is sounding an alarm**

If the pump alarm sounds, patients/carers should be advised to contact their district nurse or if they are unavailable their local GP Out of Hours Centre immediately. It is important not to worry, as the medicines will continue to work for a while.

**References**

https://www.mariecurie.org.uk/help/support/terminal-illness/medication-pain-relief/syringe-drivers
http://book.pallcare.info/
Description
Alfentanil is an injectable synthetic opioid analgesic with agonist activity at mu and kappa receptors. It has rapid onset and short duration of action when given as a bolus. It is approximately 30 times more potent than oral morphine and 10 times more potent than subcutaneous diamorphine. It is a Schedule 2 controlled drug.

Licensed indication
Opioid analgesic supplement for use before and during anaesthesia and as an anaesthetic induction agent in ventilated patients

Indications in palliative care (outside license, ‘off-label’ use)
• By syringe pump in opioid responsive pain in patients unable to tolerate other parenteral opioids such as morphine, diamorphine or oxycodone. Oral morphine is the first line strong opioid in primary and secondary care.
• Analgesia in patients with renal impairment. Alfentanil is metabolised to inactive metabolites that do not accumulate in renal impairment.

Dose and route of administration
• Alfentanil will normally be initiated by, or on the advice of a palliative medicine specialist and given as a continuous subcutaneous infusion (CSCI) via syringe pump/driver over 24 hours
• A suitable starting dose of alfentanil for opioid naïve patients would be 500 micrograms to 1mg by syringe driver over 24 hours (equivalent to diamorphine 5mg to 10mg/24hours).
• Doses between 500 micrograms and 5mg of alfentanil in a CSCI via syringe pump over 24 hours are often titrated in 250 micrograms to 500 micrograms increments.
• Alfentanil is generally not suitable for breakthrough pain as it has a very short duration of action of about 30 minutes. It may be used for relief of incident pain. Other opioid medication can be prescribed in equivalent doses for breakthrough pain, using the opioid conversions overleaf as a guide.
• Breakthrough doses for alternative opioids are calculated as approximately 1/6th to 1/10th of the equivalent total daily opioid dose.

Contraindications
• Concurrent administration with monoamine oxidase inhibitor (MAOI) antidepressants or within 2 weeks of their discontinuation.

Cautions
• Severe hepatic impairment.
• Concomitant use with other sedative medicines such as benzodiazepines or related drugs may result in sedation and respiratory depression. Monitor patients closely.
Undesirable effects – as for other opioids

- Nausea and vomiting
- Sedation
- Myoclonic jerks
- Tachycardia and bradycardia
- Constipation
- Dizziness
- Muscle rigidity
- Allergic reactions (such as anaphylaxis, bronchospasm and urticaria)

Opioid Dose Conversions

<table>
<thead>
<tr>
<th>Dosage Form</th>
<th>Conversion Factor</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subcutaneous (SC) Diamorphine to SC Alfentanil</td>
<td>Divide by 10</td>
<td>10 mg SC Diamorphine = 1 mg SC Alfentanil</td>
</tr>
<tr>
<td>SC Morphine to SC Alfentanil</td>
<td>Divide by 15</td>
<td>15 mg SC Morphine = 1 mg SC Alfentanil</td>
</tr>
<tr>
<td>Oral Morphine to SC Alfentanil</td>
<td>Divide by 30</td>
<td>30 mg oral Morphine = 1 mg SC Alfentanil</td>
</tr>
</tbody>
</table>

Drug Interactions

Plasma concentration can be increased by fluconazole and other antifungals, clarithromycin, erythromycin, diltiazem.

Plasma concentration can be decreased by carbamazepine, phenobarbital and phenytoin.

Co-administration with SSRI and SNRI antidepressants may increase the risk of serotonin syndrome. Monitor patients closely.

Avoid co-administration with monoamine oxidase inhibitor (MAOI) antidepressants or within 2 weeks of their discontinuation due to the risk of serotonin syndrome.

Syringe Pump Compatibility

Alfentanil is compatible when diluted with both sodium chloride 0.9% and water for injection. It is compatible with most other drugs although has shown concentration dependant incompatibility with cyclizine. Use caution in doses above 4mg with cyclizine 150mg and ensure maximal dilution with water for injection. Check the syringe driver section of www.m.pallcare.info

Preparations available and supply details

For doses above 4mg it may be preferable to prescribe the 5mg/ml preparation to reduce the volume in the syringe driver and the number of ampoules needed to obtain the correct dose.

<table>
<thead>
<tr>
<th>Alfentanil preparations available:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfentanil Injection 500micrograms/ml 2ml ampoules. Pack of 10</td>
</tr>
<tr>
<td>Stocked by Community Pharmacy Palliative Care Network Pharmacy (CPPCN)</td>
</tr>
<tr>
<td>Alfentanil Injection 500micrograms/ml 10ml ampoules. Pack of 10</td>
</tr>
<tr>
<td>Alfentanil Injection 5mg/ml (1ml ampoules). Pack of 5</td>
</tr>
</tbody>
</table>

Caution HIGH STRENGTH OPIOID – x10 more potent than other alfentanil preparations.

Further Information

This information is not inclusive of all prescribing information and potential adverse effects. Please refer to the latest full prescribing data SPC available at www.medicines.org.uk, the BNF or Palliative Adult Network Guidelines (PANG) book or website www.book.pallcare.info
Description
Hydromorphone is an opioid analgesic with agonist activity at mu receptors. It has a similar efficacy and side effect profile to morphine. Licensed for severe pain in cancer.

Indication in palliative care
Opioid responsive pain in patients unable to tolerate opioids such as morphine, diamorphine or oxycodone. Oral morphine is the first line strong opioid in primary and secondary care.

Dose and route of administration
Hydromorphone will normally be initiated by, or on the advice of a palliative medicine specialist. As a third line opioid hydromorphone is unlikely to be initiated in opioid naïve patients - when converting to or from hydromorphone use the conversions below and consult the ‘Northern Ireland guidelines on converting doses of opioid analgesics’.

It can be given as:
- Oral modified release capsules to be given every 12 hours
- Oral immediate release capsules to be given regularly every 4-6 hours or as required
- Continuous subcutaneous infusion (CSCI) via syringe pump over 24 hours.
- Subcutaneous injection for as required doses

Contraindications (see BNF)
Severe hepatic impairment

Cautions (see BNF)
In older persons or those with renal impairment start with the lowest dose and titrate to response.

Undesirable effects – as for other opioids (see BNF)
- Sedation (patients should not drive or operate machinery if affected)
- Constipation
- Nausea and vomiting
- Dizziness
- Myoclonic jerks
- Respiratory depression
- Allergic reactions such as anaphylaxis, bronchospasm and urticaria (rare)

Drug Interactions
Concomitant use with other sedative medicines such as benzodiazepines or related drugs may result in sedation and respiratory depression. Monitor patients closely.

Opioid dose conversions
Wide inter-patient variation has been reported with hydromorphone. Use caution when converting between opioids (see over).

Where there is no direct conversion between opioids, use oral morphine equivalents i.e. convert the opioid to the equivalent oral morphine dose and then on to the required opioid. When switching a 25-50% reduction of the calculated dose of the new opioid should occur to account for cross-tolerance. The new regimen should then be re-titrated according to patient response.
**Oral (PO) Morphine to PO Hydromorphone – Divide by 7.5**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>e.g. 30mg PO Morphine = 4mg PO Hydromorphone</td>
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</tbody>
</table>

**PO Hydromorphone to SC Hydromorphone – Divide by 2**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>e.g. 4mg PO Hydromorphone = 2mg SC Hydromorphone</td>
</tr>
</tbody>
</table>

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**Syringe Pump Compatibility**

**Diluents:** Either 0.9% sodium chloride or water for injection.

**Compatibility:** Comprehensive evidence is lacking. Although incompatibility is uncommon, check the syringe driver section of www.m.pallcare.info

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**Preparations available and supply details**

<table>
<thead>
<tr>
<th>Preparations available</th>
<th>Strengths</th>
<th>Pack size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydromorphone (Palladone®) Capsules (Prescribe as Palladone)</td>
<td>1.3mg and 2.6mg</td>
<td>56</td>
</tr>
<tr>
<td>Hydromorphone (Palladone®) Slow Release Capsules (Prescribe as Palladone SR)</td>
<td>2mg, 4mg, 8mg, 16mg and 24mg</td>
<td>56</td>
</tr>
<tr>
<td>Hydromorphone Injection</td>
<td>2mg/ml, 10mg/ml, 20mg/ml and 50mg/ml</td>
<td>5</td>
</tr>
</tbody>
</table>

**Prescribing information:**

2mg is the lowest strength modified release capsule available when increasing/reducing doses. Given the strengths of immediate release capsule available, oral breakthrough doses (usually 1/6th to 1/10th of total daily opioid dose) are prescribed as 1.3mg, 2.6mg, 3.9mg, 5.2mg etc. Errors have occurred when whole numbers for PRN use have been prescribed and modified release preparations inadvertently supplied.

For patients with swallowing difficulties, the immediate release and modified release capsules can be opened and their contents sprinkled onto cold, soft food. Note, the pellets inside the modified release capsule must be swallowed whole and not chewed or crushed.

**Supply information:** As a less-commonly used opioid, hydromorphone is not routinely stocked in all its strengths/preparations by pharmaceutical wholesalers in NI. Stock may need to be ordered from England which can take 3-4 days to obtain.

Communication between prescriber, patient (or carer) and Pharmacy is essential to ensure timely supply. Pharmacists in border areas should be aware that Hydromorphone has traditionally been used more in the Republic of Ireland.

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**Further information**

This information is not inclusive of all prescribing information and potential adverse effects. Please refer to the latest full prescribing data SPC available at www.medicines.org.uk, the BNF or Palliative Adult Network Guidelines (PANG) book or website www.book.pallcare.info
**LEVOMEPROMAZINE IN PALLIATIVE CARE**

**Description**
Levomepromazine acts as an antagonist at most of the main receptor sites in the vomiting pathway: Dopamine (D<sub>2</sub>), Serotonin (5-HT<sub>2</sub>), Histamine (H<sub>1</sub>) and acetylcholine muscarinic receptors. Oral bioavailability is 40%. Onset of action: 30 minutes. Plasma half-life: 15-30 hours. Duration of action: 12-24 hours.

**Licensed Indications in palliative care**
In palliative care:
- Broad-spectrum anti-emetic (2<sup>nd</sup> or 3<sup>rd</sup> line) for patients who fail to respond to other medicines.
- Anxiety, delirium and agitation.
- Anxiety/panic which is contributing to breathlessness (3<sup>rd</sup> line).

**Dosage and route of administration**
Levomepromazine is long acting (half-life:15-30 hours) and may be given as a once daily dose, usually at night especially if sleep disturbance is a problem.

**Anti-emetic doses**
Start at the lowest dose and titrate according to response
- PO 6mg PRN 6 hourly or 6mg nocte
- SC injection 5mg every 4-6 hours PRN
- Continuous subcutaneous infusion (CSCI) via syringe pump/driver 5mg-15mg by SC syringe pump/driver over 24 hours.

**For sedation e.g. in terminal agitation or restlessness**
- SC 5mg-15mg stat or PRN 6 hourly
- CSCI via syringe pump/driver 10mg-25mg over 24 hours and titrate to response
- Please note that the BNF quotes doses up to 50mg every 4-8 hours in palliative care – this level is rarely necessary.

**For breathlessness**
- Levomepromazine may also be of benefit in patients with breathlessness which is being worsened by anxiety/panic. It can be used in the terminal phase when greater levels of sedation are required
- Dose: 10mg-50mg/24 hours in CSCI via syringe pump/driver over 24 hours.

**Undesirable effects**
Sedation (particularly with SC dose of ≥25mg/24hr)
Dose dependent postural hypotension
Antimuscarinic effects (dry mouth, photophobia, tachycardia)

**Contraindications**
There are no absolute contraindications in terminal care.

**Cautions**
Parkinsonism  Postural hypotension  Epilepsy
Syringe Pump Compatibility

Diluents: Sodium chloride 0.9% is preferred to reduce site irritation but water for injection can be used.

Compatibility: Although incompatibility is uncommon, check the syringe driver section of www.m.pallcare.info. Exposure to UV light should be avoided as it can react with levomepromazine and cause purple colouration. Patients should store injections in their original packaging and protect the syringe from sunlight by using a pouch.

Preparations available and supply details

<table>
<thead>
<tr>
<th>Levomepromazine preparations available:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Levomepromazine 25mg/ml injection</strong></td>
</tr>
<tr>
<td>1ml ampoule (Nozinan®)</td>
</tr>
<tr>
<td>Licensed formulation available in a pack size of 10 x 1ml ampoules via community pharmacies and local wholesalers.</td>
</tr>
</tbody>
</table>

| **Levomepromazine 6mg tablets**         |
| Unlicensed formulation available in pack size of 28 tablets. Prescribe as normal and supply obtained via community pharmacies. Pharmacies can obtain supply via unlicensed special order on a named patient basis through wholesalers such as IDIS. |

| **Levomepromazine 25mg tablets**       |
| Licensed formulation available in pack size of 84 tablets via community pharmacies and local wholesalers. |

**Caution:** For oral administration of low doses, use of the 6mg unlicensed preparation is recommended. Halving or quartering of the licensed 25mg tablets can result in over or under dosing and is inconvenient for the patient.

**All preparations are available from Community Pharmacy Palliative Care Network (CPPCN)**

See CPPCN Information for Healthcare Professionals 2018

Further Information

This information is not inclusive of all prescribing information and potential adverse effects. Please refer to the latest full prescribing data SPC available at www.medicines.org.uk, the BNF or Palliative Adult Network Guidelines (PANG) book or website www.book.pallcare.info
Description & Licensed Indication

Lorazepam is a benzodiazepine licensed orally for the symptomatic relief of anxiety.

Sublingual lorazepam 1mg is approximately equivalent to oral diazepam 10mg or SC midazolam 5mg

Indication in Palliative Care (outside licence, ‘off-label’ use)

- Sublingual (SL) use for breathlessness, when anxiety exacerbates symptoms
- Breathlessness is common in a range of palliative conditions including cancer, heart failure, motor neurone disease, COPD and other respiratory conditions. It can be frightening for patients and cause a cycle of panic and increased anxiety, which then worsen the breathlessness. Lorazepam manages the anxiety and reduces these cycles of panic and breathlessness.

Dose and Route of Administration

- 500 micrograms SL every 6-8 hours PRN. Rarely doses of 1mg are needed
- The SL route provides a faster onset of action (5 mins) compared to oral use (10-15 mins) which is important in reducing anxiety and preventing further symptoms
- Patients with a dry mouth can wet their mouths with a drink of water before taking SL lorazepam to aid the dissolution of the tablet.

KEY MESSAGE

For sublingual lorazepam in palliative care we recommend the ‘Genus’ brand is supplied.

Contraindications (see BNF)

Severe hepatic impairment
Respiratory depression or acute respiratory deficiency

Cautions (see BNF)

History of alcohol or drug abuse
Renal or hepatic impairment
Patients at risk of falls
Elderly or debilitated patients or in chronic respiratory insufficiency – use cautiously and consider risk/benefit.

Undesirable effects (see BNF)

- Drowsiness, confusion
- Impaired motor skills
- Increased risk of falls.
Interactions with other medicines

- Concomitant use with opioids or other medicines with a CNS depressant effect may result in increased sedation and respiratory depression
- Plasma concentration may be increased by liver enzyme inhibitors (e.g. cimetidine, erythromycin, omeprazole, fluconazole) leading to increased and prolonged effects
- Plasma concentration may be reduced by liver enzyme inducers (e.g. rifampicin, phenytoin, carbamazepine, phenobarbital) reducing effect.

Preparations available and supply details

- For SL lorazepam use the licensed lorazepam 1mg tablets
- Supply the Genus brand, even if not specified on the prescription:
  - It dissolves readily under the tongue compared to other brands, ensuring faster absorption and prompt relief of symptoms
  - It is scored and so facilitates the most common dose of 500 micrograms.

The unlicensed lorazepam 0.5mg/5ml or 1mg/5ml liquid is inappropriate, as the volume is too large for sublingual use. It also needs to be kept in the fridge which means patients can find it difficult to access during the night, first thing in the morning, or if they are outside their home.

Non-pharmacological methods also have a role to play in breathlessness in palliative care. Consider use of a fan first line (Think Fan First) e.g. small hand held or desktop fan. Breathing exercises and relaxation techniques can also be helpful.

Further Information

This information is not inclusive of all prescribing information and potential adverse effects. Please refer to the latest full prescribing data SPC available at www.medicines.org.uk, the BNF or Palliative Adult Network Guidelines (PANG) book or website www.book.pallcare.info
Description
Midazolam is a short acting injectable benzodiazepine. It is a Schedule 3 CD.

Indications in palliative care (outside license, “off-label”)
- Anxiety and agitation when other treatments are not working or inappropriate
- Control of seizures
- Management of palliative emergencies e.g. massive terminal haemorrhage
- Adjunct in palliative management of severe respiratory distress which has not responded to other treatment.

Anxiety, delirium or agitation
- 2mg-5mg subcutaneously (SC) PRN every 2-4 hours. Doses as low as 1mg may be used in elderly, frail or renally impaired patients.
- By continuous subcutaneous infusion (CSCI) via syringe pump, starting dose 5-10mg over 24 hours. Dose can be titrated upwards according to response. Ensure PRN doses are also prescribed. (Doses higher than 20mg/24 hours may be recommended by Palliative Care Teams)
- 5mg-10mg intravenously in 10ml of sodium chloride 0.9% titrated to response in rare situations of extreme agitation by Palliative Medicine Specialist in attendance.

Breathlessness
- 2mg-5mg PRN SC 2-4 hourly starting dose for acute respiratory panic
- Consider adding to the syringe pump/driver as a second line drug (after opioids) for continuous respiratory distress in dying patients – starting dose 5-10mg over 24 hours via CSCI. Lower doses may be indicated in frail patients.

Control of Seizures in Palliative Care Patients
- Usually on the recommendation of Specialist Palliative Care Teams, 5-10mg PRN SC and/or 20mg via CSCI in a syringe driver/24 hours, dose titrated to response

Massive Terminal Haemorrhage
- Usually on the recommendation of Specialist Palliative Care Teams, 10mg intramuscularly (IM) stat dose

Contraindications
Hypersensitivity to benzodiazepines, Acute respiratory depression

Cautions
Lower doses may be indicated in frail or elderly patients
Undesirable effects (as for other benzodiazepines)

Drowsiness, confusion. Paradoxical reactions such as agitation, involuntary movements have been reported, especially at higher doses.

Drug Interactions (see BNF for full list)

- Concomitant use with opioids or other medicines with a CNS depressant effect may result in increased sedation and respiratory depression. Monitor patients closely and use the lowest effective dose.
- Plasma concentration of midazolam can be increased by: fluconazole, erythromycin, clarithromycin, diltiazem and atorvastatin
- Plasma concentration of midazolam can be decreased by: carbamazepine and phenytoin

Syringe Pump Compatibility

Diluents: Either 0.9% sodium chloride or water for injection.
Compatibility: Although incompatibility is uncommon, check the syringe driver section of www.m.pallcare.info

Strengths of Midazolam Injection

Multiple strengths of midazolam are available, 10mg/2ml, 10mg/5ml and 5mg/5ml.

Midazolam 10mg/2ml injection is the preferred strength in palliative care.

10mg/2ml is the preferred strength because:

- Maximum recommended volume for subcutaneous injections is 2ml (ideally less) as volumes above 2ml are more painful when administered.
- When used in syringe pumps less concentrated strengths use up the limited volume available in the syringe pump syringe.
- Doses of 10mg for seizures (SC) or massive haemorrhage either (IM) can be given in a single injection.

Oromucosal Midazolam

Pre-filled syringes are available for oromucosal use. Occasionally these may be prescribed in palliative care (off-label). HSCB have issued safety alerts in relation to the different concentrations, doses and instructions for use. They should be used with caution and carers counselled on their administration.
Please note:

- All oromucosal pre-filled oral syringes provide a standard dose of midazolam (i.e. 2.5mg, 5mg, 7.5mg or 10mg)
- Part doses cannot be administered and must not be prescribed or dispensed

Further Information

This information is not inclusive of all prescribing information and potential adverse effects. Please refer to the latest full prescribing data SPC available at www.medicines.org.uk, the BNF or Palliative Adult Network Guidelines (PANG) book or website www.book.pallcare.info
PARECOXIB (DYNASTAT®) IN PALLIATIVE CARE

Description
Parecoxib is an injectable COX-2 Inhibitor. It directly targets COX-2 enzyme responsible for pain and inflammation. Parecoxib has a reduced incidence of gastro-intestinal side effects compared to traditional non-steroidal anti-inflammatory drugs (NSAIDs) such as diclofenac and ketorolac.

The duration of analgesia from single doses ranges from 6 to over 12 hours, with clinically meaningful analgesia demonstrated in 23-39 minutes.

Licensed Indication
Short-term management of postoperative pain; given intravenously (IV) or intramuscularly (IM).

Indication in Palliative Care (outside licence, ‘off-label’ use)
Cancer pain associated with inflammation e.g. bony metastases or soft tissue infiltration, musculoskeletal pain. Usually administered via subcutaneous injection (SC) and/or continuous subcutaneous infusion (CSCI) via syringe pump/driver.

Dose and Route of Administration

• **Stat dose or PRN**
  – 10-20mg SC stat or every 6 hours PRN
  – If patients respond to stat/PRN doses, a syringe pump/driver can be started.

• **CSCI via syringe pump/driver over 24 hours**
  – Starting dose 40mg over 24 hours although lower doses may be used
  – Increase dose depending on efficacy and degree of side effects by 10-20mg per day
  – The usual maximum dose of parecoxib in 24 hours (including PRN doses) is 80mg but occasionally palliative medicine specialists may recommend higher doses.

Contraindications (see BNF)
• Hypersensitivity to parecoxib, other NSAID’s or a history of previous serious allergic drug reaction of any type
• Active peptic ulceration or GI bleeding
• Inflammatory bowel disease
• Established ischaemic heart disease, peripheral arterial disease, cerebrovascular disease or heart failure
• The concomitant use of parecoxib with other non-aspirin NSAIDs should be avoided.

Cautions (see BNF)
• In elderly patients weighing less than 50kg or patients with moderate hepatic impairment, start parecoxib at a lower dose and reduce the maximum daily dose.
• Renal impairment
• Those at risk of developing upper GI complications
• Patients with significant cardiovascular risks.
• Dehydrated patients; rehydrate first and then start therapy with parecoxib.
• Patients with asthma, although evidence suggests COX-2 inhibitors do not worsen symptoms, even in patients with known aspirin sensitivity

Undesirable effects (see BNF):
Nausea, Dyspepsia, Hypokalaemia

Serious skin reactions have been reported in patients receiving parecoxib, including Stevens-Johnson Syndrome. Patients should be monitored for and advised to report any skin reactions that occur.

Method of administration
1) Reconstitute the 40mg vial with 2ml of sodium chloride 0.9%. (Final concentration = 20mg/ml)
   Do not use water for injection as the resulting solution is not isotonic
2) For stat/PRN doses, administer the required dose by SC injection or as directed
3) For use as a continuous subcutaneous infusion (CSCI) via a syringe driver, further dilute with sodium chloride 0.9% to the required volume for the syringe driver.

Compatibility in Syringe Driver
• Parecoxib should not be mixed with any other drugs in a syringe driver
• Differences in pH between parecoxib and most other drugs may lead to incompatibilities
• Parecoxib has been associated with skin reactions at the site of administration. Regularly monitor the infusion site. If a skin reaction occurs dilute the parecoxib to a greater volume with sodium chloride 0.9% or change the site of administration.

Interactions with Other Medicines
• Parecoxib has an opioid sparing effect. When administered with opioids, a lower dose of opioid may subsequently be used to achieve the same level of analgesia
• The plasma concentration of parecoxib may be increased by fluconazole indicating that the dose of parecoxib may need to be reduced in patients receiving concomitant fluconazole.

Parecoxib preparations available:
| Parecoxib (Dynastat ®) 40mg Powder x 10 vials |
| Parecoxib (Dynastat ®) 40mg Powder with Solvent for Injection x 5 vials |

Prescribing information:
Ensure sufficient supply prescribed to cover use via CSCI and SC PRN.
Prescribe suitable quantity of sodium chloride 0.9% as diluent. Community pharmacies will not routinely stock parecoxib (also not stocked by CPPCN pharmacies). May take 1-2 days to obtain supply for patients in community.

Further information
This information is not inclusive of all prescribing information and potential adverse effects. Please refer to the latest full prescribing data SPC available at www.medicines.org.uk, the BNF or Palliative Adult Network Guidelines (PANG) book or website www.book.pallcare.info
Ketamine

Palliative Care Shared Care Guideline

Specialist Details
Name: ____________________________
Location: _______________________
Tel: _____________________________

Patient Identifier
Date: ___________________________

Introduction
Ketamine is a short acting anaesthetic with analgesic properties at low doses. It is used particularly for neuropathic pain, ischaemic limb pain and refractory cancer pain and as an adjunct to opioid therapy. The dose of opioid may need to be reduced when ketamine is initiated. Ketamine may be given orally or by continuous subcutaneous infusion via syringe pump either as a sole agent or in combination with other agents. Ketamine for these indications is unlicensed and should only be initiated by a Palliative Medicine Specialist.

Ketamine is a schedule 2 (part 1) controlled drug.

Adult Dosage and Administration
Dose recommendation varies depending on oral or subcutaneous use and clinical response. Conversion between oral and subcutaneous doses should be managed with specialist palliative care advice.

Oral Ketamine (as 50mg/5mL): Start at low doses such as 5-10mg four times daily. The dose can normally be increased in steps of 5-10mg up to a dose of 100mg four times daily. (Higher doses may be used with specialist guidance).

Use caution when calculating volume for administration: Incidents have been reported with oral ketamine as a result of confusion regarding the standard strength, particularly where lower doses are used and the dose is a small volume. For example a 10mg dose is 1mL of the 50mg/5mL oral solution, 25mg dose is 2.5mL of the 50mg/5mL oral solution. Ensure patients are counselled on measurement of the dose.

Subcutaneous Ketamine: Start with 25-50mg over 24 hours using a syringe pump and increase by 50-100mg increments every 24 hours until benefit is achieved. It is unusual to require doses greater than 500mg per day. When given via a syringe pump it can be irritant to the subcutaneous tissue. Dilute with sodium chloride 0.9% to the largest possible volume.

Use caution when calculating volume for administration: Incidents have been reported with subcutaneous ketamine as a result of confusion between the available preparations of ketamine injection.

Suitability in a Syringe Pump
Ketamine normally mixes well depending on concentration with diamorphine or morphine or oxycodone or haloperidol or metoclopramide or levomepromazine or midazolam in a syringe pump. Ketamine is generally incompatible with dexamethasone but doses of 1mg dexamethasone (as sodium phosphate) or less may be added to syringe pump to prevent site irritation.

If more than two drugs are to be mixed in the same syringe please refer to the current Palliative Care Formulary www.pallcare.info or www.palliativedrugs.com or seek further specialist advice.

Preparations available
Subcutaneous Ketamine: Ketamine vials are available as 10mg/mL (20mL vial), 50mg/mL (10mL vial). Orders should be made by contacting Customer Services at through (Alliance 03301000448) or Pfizer (0845 6088866)

Oral Ketamine Solution 50mg/5mL IS THE STANDARD STRENGTH THAT MUST BE USED. This is prepared on request. It is available to community pharmacists from wholesalers including Rosemont Pharmaceuticals (01132441999), Martindale Pharmaceuticals (0800 137627) and Sangers Surgical (02890567184). It may take up to 7 working days for delivery. It comes in a variety of flavours e.g. natural (aniseed) and peppermint, and in various sizes including 250mL, 300mL, and 500mL. Note these preparations have no preservative and expire 28 days from opening. Please issue an oral syringe and adapter bung when dispensing. Use caution when calculating volume for administration.
Hospital Specialist Responsibilities

- Assess appropriateness of ketamine use, considering any contraindications.
- Provide patient/carer with relevant information on use, side effects and need for monitoring of medication.
- Ensure knowledge of patient’s blood pressure (BP) history and check BP before initiation.
- Initiate and titrate the dosage regimen, assessing response and side effects.
- Agree shared care with GP when patient is managed on a stable regimen.
  - Include baseline Liver Function Tests (LFTs), BP, urinalysis and Heart Rate
  - Ensure a copy of the shared care guideline is sent to GP.
  - Arrange BP check 1-2 weeks into treatment, on dosage increases, and periodically while on treatment.
  - If syringe driver required notify specialist nurses and community nurses.
- Ensure prescription details and shared care guideline is sent to the community pharmacist nominated by the patient.
- Ensure at least 7 days supply is issued on discharge to ensure continuity of supply in the community.

**Strength of vial must be stated on the prescription. Strength of oral solution must be 50mg/5mL.**

- For patients on longer term treatment; at review arrange LFTs, and assess patients for symptoms suggestive of ulcerative cystitis.
- Provide rapid reassessment in the event of symptoms suggestive of ulcerative cystitis (frequency, urgency, urge incontinence, dysuria, haematuria – not due to a bacterial infection). Consider gradual dose reduction or discontinuation or referral to Urologist.
- Review the patient’s response and continuing appropriateness of ketamine at specified intervals, sending a written summary to the GP. This may be facilitated by Community Specialist Palliative Care Team.
- Provide any other advice or information for the GP if required.
- Stop the treatment when no longer considered to be appropriate.

GP Responsibilities

- Prescribe ketamine and arrange any on-going monitoring as agreed with the specialist. If advised, monitor LFTs and BP in liaison with specialist.

**Strength of vial must be stated on the prescription. Strength of oral solution must be 50mg/5mL.**

- Support BP monitoring in community in liaison with Palliative Medicines Specialist: 1-2 weeks into treatment, on dosage increases, and periodically while on treatment.
- Review the patient at regular agreed intervals to monitor control of symptoms.
- Refer to specialist when symptoms fail to respond or when change of administration route may be indicated.
- Consider the possibility of ulcerative cystitis if the patient develops significant urinary symptoms (frequency, urgency, urge incontinence, dysuria, haematuria – not due to a bacterial infection). Re-refer / discuss the patient promptly with the Palliative Medicines Specialist.
- Liaise with community and specialist nurses.

Adverse Effects, Precautions and Contraindications

- Intracranial hypertension is an absolute contraindication. Hypertension, cardiac failure, previous cardiovascular events and CVA are relative contraindications. It should be used with caution in seizures.
- Patients on levothyroxine may be at increased risk of hypertension and tachycardia.
- Vivid dreams, hallucinations, excessive salivation/secretions, and sedation are the most commonly reported problems. Hypertension and tachycardia can also occur.
- Concurrent use with other CNS depressants can potentiate CNS depression and/or increase risk of developing respiratory depression.
- Cases of ulcerative cystitis have been reported with long term use of ketamine.
- Isolated cases of liver injury have been reported, especially with higher doses.
- Rarely the patient can develop a psychosis. If the patient experiences dysphoria or hallucinations, the dose of ketamine should be reduced. If necessary midazolam or haloperidol should be prescribed as an interim measure e.g. 2.5-5mg midazolam subcutaneously or 1.5-5mg haloperidol orally or subcutaneously.
  - To avoid withdrawal phenomena after long term use, it is preferable to discontinue gradually. The Palliative Medicine Specialist should be contacted to agree dose reductions and to arrange review.
- Ketamine can impair cognitive function and can affect a patient’s ability to drive safely.

Common Drug Interactions

- Plasma concentrations of ketamine may be increased by diazepam.
- Plasma concentrations of ketamine may be reduced by carbamazepine, phenytoin, phenobarbital or rifampicin.
- When ketamine and theophylline or aminophylline are given concurrently, a clinically significant reduction in the seizure threshold is observed.
- Avoid concomitant use with memantine (increased risk of CNS toxicity).
- Grapefruit juice may increase plasma concentrations of oral ketamine.

This information is not inclusive of all prescribing information and adverse effects. Please refer to the full prescribing data SPC, the BNF and the current Palliative Care Formulary. Information is also available at www.pallcare.info or www.palliativedrugs.com

Ketamine SCG

Page 2 of 2
Octreotide

Palliative care Shared Care Guideline

Introduction

Octreotide is an analogue of natural hypothalamic release-inhibiting hormone somatostatin. Its use in palliative medicine is frequently beyond licence and indications include:

- Malignant bowel obstruction/high volume vomiting
- Severe discharge from rectal carcinoma
- Intractable non-infective diarrhoea
- High output GI fistula
- Malignant ascites

Adult Dosage and Administration

**Adult dosage and administration:** Octreotide is administered as a continuous subcutaneous infusion (CSCI) using sodium chloride 0.9% as the diluent. The usual range is 200-1500 micrograms daily although higher doses are occasionally used depending on the patient. Once improvement in the symptom is achieved, reduction in dose may be tried.

**Suitability in a Syringe Pump:** Octreotide normally mixes well depending on concentrations with dexamethasone or midazolam or diamorphine or oxycodone or haloperidol or hyoscine butylbromide or metoclopramide or ondansetron. Precipitation may occur with cyclizine. If more than two drugs are to be mixed in the same syringe, please refer to the current Palliative Care Formulary or www.pallcare.info or www.palliativedrugs.com or seek further specialist advice.

**Preparations available** Octreotide injection: 1mL solution for injection: 50 micrograms/mL, 100 micrograms/mL, 500 micrograms/mL; 5mL solution for injection: 200 micrograms/mL. Orders can be made through local wholesalers. Note: Octreotide should be stored between 2- 8°C. Note that the depot preparation must not be used in CSCI.

Hospital Specialist Responsibilities

- Assess appropriateness of octreotide use.
- Provide patient/carer with relevant information on use, side effects and need for monitoring of medication.
- Initiate and titrate the dosage regimen for octreotide, assessing response and any side effects.
- Agree shared care with GP when patient is managed on a stable regimen.
- Ensure a copy of the shared care guideline is sent to GP.
- Notify community and specialist nurses.
- Ensure prescription details and shared care guideline is sent to the community pharmacist nominated by the patient.
- Ensure at least 7 days supply is issued on discharge to ensure continuity of supply in the community.

**Strength of vial or ampoule must be stated on the prescription**

- Review the patient’s response and continuing appropriateness of octreotide at agreed specified intervals, sending a written summary to the GP whenever the patient is reviewed.
- This may be facilitated by community specialist palliative care team.
- Provide any other advice or information for the GP if required.
- Stop the treatment when no longer considered to be appropriate.
**GP Responsibilities**

- Prescribe octreotide and arrange any ongoing monitoring as agreed with the specialist.
- **Strength of vial or ampoule must be stated on the prescription**
- If advised, monitor patient’s glucose in liaison with Palliative Medicine Specialist.
- Refer to specialist if symptoms fail to respond to treatment.
- Review of the patient at regular agreed intervals to monitor control of symptoms.
- Identify adverse drug reactions and report to the Palliative Medicine Specialist and the CHM and MHRA.
- Liaise with community and specialist nurses.

**Adverse Effects, Precautions and Contraindications**

- **GI side effects**: anorexia, nausea, vomiting, cramping abdominal pain, abdominal bloating, flatulence, loose stools, and diarrhoea are common. Steatorrhea due to inhibition of pancreatic enzyme secretion may be overcome by the use of pancreatic enzyme supplements.
- **Pruritus, rash, and alopecia** are common.
- **Gallstone formation**: Octreotide may reduce gall bladder motility and may lead to gallstone formation in long-term recipients. (Routine ultrasound of the gallbladder is not indicated as it would not affect clinical decision making).
- **Cholelithiasis-induced pancreatitis** has been reported with long-term treatment. Very rarely, acute pancreatitis has been reported within the first hours or days of treatment.
- **Altered glucose regulation**. Possible inhibitory effects on secretion of insulin and glucagon (both hyperglycaemia and more rarely hypoglycaemia) have been reported. In patients with concomitant diabetes mellitus monitoring of glucose tolerance is recommended and adjustment of antidiabetic therapy may be necessary.
- **Bradycardia**: In patients without underlying cardiac problems octreotide may lead to a decrease of heart rate without necessarily reaching the threshold of bradycardia. In patients suffering from cardiac disorders prior to treatment, sinus bradycardia may occur. Care should be taken when initiating treatment in patients with bradycardia. Concomitant administration of bradycardia-inducing drugs (e.g. beta blockers) may have an additive effect on any associated slight reduction of heart rate. Dose adjustments of such concomitant medications may be necessary.

**Common Drug Interactions**

- Drugs mainly metabolised by CYP3A4 which have a low therapeutic index (e.g. carbamazepine, digoxin, warfarin, quinine); caution should be exercised during co-administration.
- **Dopaminergics**: octreotide increases plasma concentration of bromocriptine.
- **Ciclosporin**: octreotide markedly reduces plasma concentration of ciclosporin.
- **Cimetidine**: octreotide delays intestinal absorption of cimetidine.

**Communication**

For any queries relating to this patient's treatment with octreotide, please contact the specialist named at the top of this document.

This information is not inclusive of all prescribing information and potential adverse effects. Please refer to the full prescribing data SPC, the BNF and the current Palliative Care formulary. Information is also available at www.pallcare.info or www.palliativedrugs.com.
7. Can I drive while taking an opioid?

You are responsible for making sure you are fit to drive and the law in Northern Ireland allows you to drive if you are taking opioid medication. However, there are times when it is recommended that you do not drive, as you may not be safe to do so. These include:

- If you have recently started taking your opioid medication
- If your opioid dose has changed
- If you have taken alcohol
- If you feel drowsy
- If you have just taken your short-acting opioid for breakthrough pain relief
- If you have started taking other medications (prescribed or otherwise) that can cause drowsiness
- Anything else that makes you less able to make an emergency stop
- If you are unsure if you are safe to drive, discuss this with your healthcare team
- If you are concerned about your fitness to drive, you should contact your insurance company and the DVLNI.

Further information can be found at https://www.nidirect.gov.uk/articles/drug-driving or by contacting DVLNI on: Tel. 0300 200 7861

8. Is it safe to drink alcohol when I am taking opioids?

Alcohol and opioids both cause sleepiness and poor concentration. It is recommended that you avoid alcohol when taking an opioid. Some people find that alcohol has a stronger effect on them when they are taking an opioid. To discuss this further, please speak to your doctor.

9. How should I store opioid medication at home?

If possible, keep your medication in the original containers. Store them at room temperature and in a dry place, preferably a locked cupboard. Keep them out of reach and sight of children and pets.

10. Who do I contact if I have concerns about my pain medication?

During normal practice hours contact your GP, specialist nurse or community pharmacist. For help during out of hours, contact your local GP Out of Hours Service.

Developed by the NI Macmillan Palliative Care Pharmacy Service Improvement Team. January 2019.
For review January 2022
1. What is an opioid?

Opioids are pain relieving medications. Opioids include drugs such as morphine or ‘morphine type’ medications (such as Oxycodone or Fentanyl). These medications are used for patients who experience moderate or severe pain. You may be more familiar with a specific brand of opioid for example, MST or Longtec. Strong opioids are prescribed when other pain relieving medication (such as Codeine and Tramadol) have not been effective.

2. What are the common side effects of an opioid?

When you first start taking opioids you may experience side effects, which usually stop after a few days. These include:

- Feeling dizzy
- Feeling sick (nausea) or being sick (vomiting)
- Feeling sleepy

Your healthcare team can give you medication that will help with some of these side effects, for example, anti-sickness medication, or they may need to adjust the dose. Sometimes these side effects last longer than a few days.

- Constipation

Most people taking opioid medication will experience constipation and will need to take regular laxatives whilst they are taking opioids.

You should speak to your healthcare team urgently if you experience any of the following symptoms, as it may be a sign your opioid dose is too high;

- Severe drowsiness
- Confusion
- Jerking movements
- Hallucinations

Long term use of opioids at higher doses, may have other side effects. These include; a reduced ability to fight infection, weight gain, effects on fertility and a reduced sex drive. You may wish to discuss these with your doctor.

3. How much opioid do I take and how often?

This depends on the type of opioid you are prescribed. Generally, you will be prescribed a long acting opioid, taken at regular times that will give background pain relief. You will also be prescribed a short acting opioid for episodes of “breakthrough pain” – a pain that may occur before your next dose of long acting opioid is due. Your short acting opioid can take 20-30 minutes to start reducing pain and the effect should last for up to four hours.

If you feel the dose is either too much or not enough, you should discuss this with your healthcare team, who will review your medication.

4. Will an opioid stop my pain completely?

Opioids are very effective at reducing pain severity. However, they do not work for every type of pain, for example some pains related to nerve injury. This means that other pain relieving medication or treatments may be required. Your doctor or nurse will help find what is best for you.

5. Do I need to worry about addiction?

It is rare for a person who is prescribed opioids for pain control to become addicted to them. If you feel you want to stop taking your opioid, please discuss this with your doctor. Do not stop taking your opioid medication suddenly, as you may experience “withdrawal symptoms” which can be avoided by a gradual reduction.

6. Will I develop a tolerance to opioids?

It is possible that your dose of opioid will have to increase over time. This may be due to a change in your disease, or a tolerance developing within the body. However, some people find that once their opioid dose controls their pain, they are able to remain on that dose for some time or even reduce dose if their pain improves.
Can I drink alcohol?
Avoid alcohol while taking alfentanil. It can increase some side effects of alfentanil such as dizziness and drowsiness.

Can I drive?
Alfentanil may make you feel drowsy, especially when you first start it or if your dose is increased. Do not drive if you feel drowsy.

How long will I have to take alfentanil?
You should take alfentanil for as long as you need it for pain relief. Your doctor will review your treatment at regular intervals.

How do I get my alfentanil?
A palliative medicine specialist will normally be involved when alfentanil is initially prescribed for you. If you have been in a hospital or hospice, you will be given a supply to take home.

For a further supply of alfentanil contact your GP to arrange a prescription. Take this to your local community pharmacy.

Do not let your supply run out before you order your next prescription. Alfentanil normally needs to be ordered by your pharmacy and this may take a few days. Check when your supply can be collected.

How do I store my alfentanil?
Store this medication in a dry place out of reach of children. Keep it at or below 25°C (usual room temperature).

Do not transfer your medicine into another container.

Do not take the medicine after the expiry date marked on the packaging.

Return any unused alfentanil to your community pharmacy so they can dispose of it safely.

General information
This medicine is only for you. Only a doctor can prescribe it for you. Never give it to anybody else, even if their symptoms appear to be the same as yours. It may harm them.

Talk to your doctor, nurse or pharmacist if you need more information or advice.

Read this leaflet with any manufacturer’s information you have been given.

Keep this leaflet. You may need it again.
Why am I taking alfentanil?

Your doctor has prescribed alfentanil as a painkiller. It is part of a group of painkillers called opioids and is similar to morphine. It may be recommended for you if other painkillers have:

- Caused you to experience side effects
- Did not treat your pain adequately

It may also be the painkiller used if there are changes in your kidney function.

How do I take it?

Alfentanil is an injection available in two strengths - Alfentanil 500microgram/ml (0.5mg/ml) and a high-strength 5mg/ml injection.

It is usually given as an injection under the skin using a syringe pump. This delivers it continuously (infusion) over 24 hours. A nurse will reload your syringe pump daily. It should not be stopped abruptly.

Alfentanil may be mixed with other medicines in the syringe pump to help manage symptoms other than pain.

Your doctor may change the dose according to how well it treats your pain.

What is breakthrough pain?

Breakthrough pain is when you experience occasional bursts of pain even though you are already using painkillers regularly. Your doctor may prescribe a different painkiller to manage this which can be taken by mouth or given as extra injections.

It is important that you discuss episodes of breakthrough pain with your doctor or nurse. They may need to adjust your pain medicines.

What are the side effects?

Like all medicines alfentanil may cause side effects, although not everybody gets them and many reduce over time.

Allergic reactions to this medicine may occur but are very rare. The signs are difficulty breathing, skin rash, itching or swollen face. You should contact your doctor immediately if you develop any of these.

Nausea (feeling sick) is common for the first few days after you start taking alfentanil but usually resolves quickly. Anti-sickness medicines can prevent or treat this. You may also become constipated so you may need a regular laxative.

Alfentanil may make you feel drowsy or light-headed. This usually wears off after a few days. If you are affected do not drive or operate machinery.

If you feel confused, very drowsy, experience jerky movements, bad dreams or hallucinations tell your doctor. Your alfentanil dose may need to be reduced or you may need to try alternative pain relief. It is possible to have other unwanted side effects not mentioned in this leaflet. If you have any concerns contact your doctor, pharmacist or specialist nurse.

Will alfentanil affect other medicine I take?

It is important that your doctor knows what other medicines you take. This includes any medicines bought at a pharmacy or shop, herbal remedies or recreational drugs.

Alfentanil may affect some medicines you are currently taking. If you are taking other medicines that can cause dizziness or make you drowsy this can be worsened by taking alfentanil. If you are taking fluconazole, erythromycin, diltiazem, cimetidine or a monoamine oxidase inhibitor this may affect your alfentanil.

Check with your doctor or pharmacist before starting any new medicine.
How long will I have to take ketamine?
You should take ketamine for as long as you need it for pain relief. Your doctor will review your treatment at regular intervals.

How do I get my ketamine?
A palliative medicine specialist will normally be involved when ketamine is initially prescribed for you. Your first supply will be dispensed by the hospital/hospice pharmacy. You will be given at least 7 days supply to take home. Your palliative medicine specialist will advise where to obtain more ketamine. In some cases supply may be arranged through your hospital pharmacy.

If your GP is to continue your supply contact them to arrange a prescription as soon as possible. Then take it to your local community pharmacy. Do not let your supply run out before you order your next prescription. Ketamine will normally need to be ordered by your pharmacy and this may take up to one week.

How do I store my ketamine?
Store this medication in a dry place out of reach of children. Keep it at or below 25°C (usual room temperature).

When you first open a bottle of ketamine liquid mark the date on the bottle. It can be used for 28 days after opening. Unopened bottles expire after the date printed on the label.

Each ketamine injection should be used only once and any remaining solution discarded safely by your nurse.

Return any expired or unused ketamine to your community pharmacy so they can dispose of it safely.

General information
This medicine is only for you. Only a doctor can prescribe it for you. Never give it to anybody else, even if their symptoms appear to be the same as yours. It may harm them.

Talk to your doctor, nurse or pharmacist if you need more information or advice.

Read this leaflet with any manufacturer’s information you have been given.

Keep this leaflet. You may need it again.

Developed by the NI Macmillan Palliative Care Pharmacy Service Improvement Team in conjunction with the Regional Palliative Medicine Group (RPMG) January 2019. For review January 2022.
Why am I taking ketamine?
Your doctor has prescribed ketamine as a painkiller. It is used to relieve some types of pain, especially nerve pain. It will not work for all types of pain.

How do I take it?
You should take ketamine as your doctor has prescribed. Your dose will be written on the label of the medicine. The dose may be changed according to how well it treats your pain.

Ketamine can be prescribed as a liquid or as an injection.

Ketamine liquid
Take by mouth, using a medicine spoon or oral syringe to measure the dose before swallowing the liquid.

Ketamine injection
It is usually given as an injection under the skin using a syringe pump. This delivers it continuously (infusion) over 24 hours. Your nurse will reload the syringe pump daily.

What if I don’t take it properly?
If you forget to take a dose, take it as soon as you remember then continue as before. Do not take two regular doses within four hours of each other. You can change the times of use to allow at least four hours between doses if you need to.

Contact your doctor immediately if you accidentally take more ketamine than prescribed.

What are the side effects?
Like all medicines ketamine may cause side effects, although not everybody gets them and many reduce over time.

It may cause dizziness, sleepiness or difficulty concentrating. If you are affected do not drive or operate machinery.

Occasionally ketamine can cause strange or unpleasant moods, vivid dreams or hallucinations. You may find you produce more saliva. Changes in blood pressure have been reported. Your doctor will check your blood pressure regularly, especially when ketamine is first prescribed or the dose changed.

Ketamine may rarely affect the liver. Your doctor may take blood tests when your dose is changed, or at regular intervals.

Ketamine can cause inflammation of the bladder though it is rare. The signs are bladder pain, pain on passing urine or blood in your urine. You should contact your doctor immediately if you develop any of these.

It is possible to have other unwanted effects not mentioned in this leaflet. If you have any concerns contact your doctor, pharmacist or specialist nurse.

Will ketamine affect other medicines I take?
It is important that your doctor knows what other medicines you are taking. This includes any medicines bought at a pharmacy or shop or any herbal remedies or recreational drugs.

If you are taking other medicines that can cause dizziness or make you sleepy then this can be worsened by taking ketamine.

Can I drink alcohol?
Avoid alcohol while taking ketamine. Alcohol can increase some of the side effects of ketamine such as dizziness and drowsiness.

Can I drive?
Ketamine may make you feel drowsy, especially when you first start it or if your dose is increased. Do not drive if you feel drowsy.
Can I drink alcohol?
Avoid alcohol while taking levomepromazine. It can increase some of the side effects of levomepromazine such as dizziness and drowsiness.

Can I drive?
Levomepromazine may make you feel drowsy, especially when you first start it or if your dose is increased. Do not drive if you feel drowsy.

How long will I have to take levomepromazine?
This depends on how well levomepromazine works for you and suits you as an individual. Your doctor will review your treatment at regular intervals. If at any point you want to stop taking levomepromazine discuss this with your doctor first.

How do I get my levomepromazine?
For a further supply of levomepromazine contact your GP to arrange a prescription. Take this to your local community pharmacy. Do not let your supply run out before you order your next prescription. Levomepromazine 6mg tablets normally need to be ordered by your pharmacy and this may take three to four days. Check when your supply can be collected.

How do I store my levomepromazine?
Store this medication in a dry place out of reach of children. Keep it at or below 25°C (usual room temperature). Do not transfer your medicine into another container. Do not take the medicine after the expiry date marked on the packaging. Return any unused levomepromazine to your community pharmacist so it can be disposed of safely.

General information
This medicine is only for you. Only a doctor can prescribe it. Never give it to anybody else, even if their symptoms appear to be the same as yours. It may harm them.

Talk to your doctor, nurse or pharmacist if you need more information or advice.

Read this leaflet with any manufacturer’s information you have been given. Keep this leaflet. You may need it again.
Why am I taking levomepromazine?
Your doctor may prescribe levomepromazine for nausea (feeling sick) or if you are vomiting. It may also be prescribed if you feel anxious or restless.

How do I take it?
You should take your levomepromazine as your doctor has prescribed. Your dose will be written on the label of the medicine. It may be changed depending on how well it treats your symptoms. Levomepromazine is available as a tablet and an injection.

**Levomepromazine 6mg or 25mg tablets**
The dose and amount of times a day levomepromazine is taken varies depending on the patient. Some patients only require a 3mg dose (half of a 6mg tablet). If you take levomepromazine once daily, it is best to take your dose at night before bedtime as it can make you drowsy. Take your tablets with a drink of water.

**Levomepromazine 25mg/ml injection**
A nurse will administer your dose by injection under the skin. It may be given just when needed or continuously over 24 hours in a syringe pump (infusion).

Injections may be used if you cannot take tablets, for example because of vomiting or difficulty swallowing.

What if I don’t take it properly?
If you forget to take a dose take your tablets as soon as you remember then carry on as before. Do not take two doses at the same time to make up for the forgotten dose.

Contact your doctor immediately if you accidentally take more levomepromazine than prescribed.

What are the side effects?
Like all medicines levomepromazine can cause side effects although not everybody gets them and many reduce over time.

The most common side effects are feeling light-headed or drowsy. If you are affected do not drive or operate machinery.

Levomepromazine can make your blood pressure drop, especially if you stand up quickly. It may also cause dry mouth or make you constipated.

Your skin may become sensitive to sunlight. If this happens do not use sunlamps and be careful if you go out in strong sunlight. Use a sunscreen that protects against UVA light and has a high sun protection factor (SPF).

A very rare but serious condition called neuroleptic malignant syndrome can develop with levomepromazine. The signs are muscle stiffness, a very high temperature, confusion, a fast heartbeat and sweating. You should contact your doctor immediately if you develop any of these.

It is possible to have other unwanted effects not mentioned in this leaflet. If you have any concerns contact your doctor, pharmacist or specialist nurse.

Will levomepromazine affect other medicines that I take?
It is important that your doctor knows what other medicines you take. This includes any medicines bought at a pharmacy or shop, herbal remedies or recreational drugs.

Levomepromazine may affect some medicines you are currently taking. If you are taking other medicines that can cause dizziness or make you drowsy this can be worsened by taking levomepromazine. Check with your doctor or pharmacist before starting any new medicine.
Check with your doctor or pharmacist before starting any new medicine.

Can I drink alcohol?
Limit your alcohol intake. Taking alcohol with parecoxib can increase the risk of developing indigestion or stomach ulcers.

Can I drive?
Parecoxib may make you feel drowsy, especially when you first start it or if your dose is increased. Do not drive if you feel drowsy.

How long will I have to take parecoxib?
You should take parecoxib for as long as you need it for pain relief. Your doctor will review your treatment at regular intervals.

How do I get my parecoxib?
For a further supply of parecoxib contact your GP to arrange a prescription. Take this to your local community pharmacy. Do not let your supply run out before you order your next prescription.
Parecoxib usually needs to be ordered by your community pharmacist but should be available for you the next working day. Check when your supply can be collected.

How do I store my parecoxib?
Store this medication in a dry place out of reach of children. Keep it at or below 25°C (usual room temperature).
Each parecoxib injection should be used once only and any remaining solution discarded safely by your nurse.
Do not use the medicine after the expiry date marked on the packaging.
Return any unused injections to your community pharmacist so they can dispose of them safely.

General information
This medicine is only for you. Only a doctor can prescribe it for you. Never give it to anybody else, even if their symptoms appear to be the same as yours. It may harm them.
Talk to your doctor, nurse or pharmacist if you need more information or advice.
Read this leaflet with any manufacturer’s information you have been given.
Keep this leaflet. You may need it again.
Why am I taking parecoxib?

Your doctor has prescribed parecoxib (also known as Dynastat®) as a painkiller. It is known as an ‘anti-inflammatory painkiller’. It is often used for pain from bones or joints.

How do I take it?

Parecoxib is only available as an injection. A nurse will normally administer your parecoxib for you. How much is given will depend on the level of your pain and your response to it.

Parecoxib is usually given as an injection under the skin using a syringe pump to deliver it continuously (infusion). A dose of between 20mg and 80mg is usually given over 24 hours. It can also be given as a regular injection under the skin or just when needed.

What are the side effects?

Like all medicines parecoxib may cause side effects. It is usually very well tolerated so you may not get them and many reduce over time.

Allergic reactions to this medicine may occur but are very rare. The signs are difficulty breathing, skin rash, itching, blistering or peeling of the skin or a swollen face. You should contact your doctor immediately if you develop any of these.

You should not take parecoxib if you have an allergy to aspirin or other anti-inflammatory painkillers.

Parecoxib can occasionally cause nausea (feeling sick), stomach ache, indigestion, constipation, bloating and wind. Changes in blood pressure, or swelling of the ankles, legs and feet may occur.

You may feel light-headed or drowsy though this is uncommon. If you are affected do not drive or operate machinery.

Rarely ulcers in the stomach or intestine can develop. Contact your doctor immediately if you start to vomit blood or pass black or blood-stained bowel movements.

All anti-inflammatory painkillers can cause a small increase in the risk of having a heart attack or stroke. The risk is increased if you already have heart disease or are at risk of a stroke. It is also more common if they are used at higher doses or for longer periods of time.

Parecoxib may affect your kidneys. Your doctor may take blood tests when you first start taking parecoxib and again during your treatment.

It is possible to have other unwanted effects not mentioned in this leaflet. If you have any concerns contact your doctor, pharmacist or specialist nurse.

Will parecoxib affect other medicines I take?

It is important that your doctor knows what other medicines you are taking. This includes any medicines bought at a pharmacy or shop, herbal remedies or recreational drugs.

Tell your doctor if you are taking any of the following medicines as they may need to change the dose of parecoxib or you may need to take a different medicine.

- Aspirin
- Other anti-inflammatory painkillers such as ibuprofen
- Anticoagulants including warfarin, apixaban, dabigatran, edoxaban and rivaroxaban and injections such as enoxaparin or heparin
- Fluconazole
- Lithium
- Ciclosporin or tacrolimus
- Opioid painkillers such as morphine
- The pump is accidentally dropped and may be damaged.
- The colour of the medicines in the syringe or tubing changes.
- The skin around the needle is red, swollen or sore, or the needle falls out.

If you need any extra medicine for pain or other symptoms while you wait for your nurse to arrive to check your syringe pump, you can take the ‘as needed’ medicines your doctor has prescribed.

**How do I carry my syringe pump?**

Your syringe pump is small enough to be put into a small bag or a pouch. This can be attached to your belt or worn as a shoulder bag. Please ask your nurse for an appropriate bag to carry your pump.

You should not expose your syringe pump to direct sunlight, or direct heat such as hot water bottles or heaters, as this can affect the medicines in it.

**Can I go on holiday with my syringe pump?**

If you are aiming to go on holiday, please speak with your nurse or doctor as some planning for your syringe pump will be required.

**Can I take a bath or shower with my syringe pump?**

If you get your syringe pump wet it will no longer work. If you wish to bath or shower please discuss this with your nurse. You should not swim with your syringe pump.

If you have any other questions please talk to your doctor or nurse.

**Useful Contact Details in Community**

District Nurse:
_______________________________

Out of hours District Nurse:
_______________________________

Other useful contacts:
_______________________________

If you no longer need your syringe pump, it is important to please return it to:
_______________________________

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Developed by the NI Macmillan Palliative Care Pharmacy Service Improvement Team in conjunction with the Regional Palliative Medicine Group (RPMG) January 2019. For review January 2022.
**What is a syringe pump?**

A syringe pump, also known as a syringe driver, is a small, battery-powered pump that holds a syringe with your medicines in it. It is small enough to be carried around in a coat pocket or small bag. It is designed to give your medicines to you continuously usually over a 24-hour period. Not all medicines can go in a syringe pump. You may still need to take other medicines by mouth. The syringe pump used in Northern Ireland is the T34 pump seen below.

**Why do I need a syringe pump?**

Sometimes it is easier for you to have some of your medicines this way. This may be because:

- You have been vomiting and find it difficult to keep your medicine down. Medicines to help reduce or stop the vomiting can be given in the syringe pump. Medicines to help with other symptoms like pain can also go into the syringe pump. Once the vomiting has settled you may be able to go back to having your medicines by mouth.
- You have so many medicines to take that you are finding it difficult to swallow them all. Putting some of the medicines in the syringe pump can reduce the number of medicines you need to take by mouth.
- You are unable to swallow medicines. Starting a syringe pump is another way of giving the medicines you need. It does not mean that your medicines have stopped working or are not strong enough.

**How long will I have my syringe pump for?**

Some syringe pumps will be used for a short time to control your symptoms, while others may be used for longer periods. You can discuss this with your nurse or doctor.

**How does my syringe pump work?**

Your syringe pump is attached to a syringe containing your medicines. This is connected to a thin plastic tube which has a small needle. The needle is placed just under your skin at the top of your arm, chest, leg, or abdomen. The site will normally be changed by your nurse every few days. The needle is held in place by a clear plaster that helps to keep it clean and dry.

The medicines from your syringe pump will be absorbed into your body throughout the whole day.

**Who looks after my syringe pump?**

In hospital, your nurses will check your syringe pump every four hours to ensure it is working.

If you are at home with a syringe pump your district nurse will call with you every day. The syringe pump will be refilled around the same time each day. Your nurse will check that the pump is working and check your skin around the area of the needle.

**What happens if something goes wrong with my syringe pump?**

The light above the ‘ON/OFF’ button will flash green every 60 seconds when your pump is working correctly.

Contact your Nurse or Out of Hours Service (see useful contact details below) as soon as possible if:

- The light turns red or the alarm sounds.
- The pump gets wet or there is a leak of fluid around the needle.
As pharmacists, we have a role in supporting carers and we can do this by signposting them to appropriate resources that are available for patients and carers in relation to palliative care.

**Macmillan Cancer Support**

**What they offer**

- Independent, expert, up-to-date information on cancer
- Financial support in relation to benefits and grants
- Local volunteers providing practical help to support carers e.g. a sitting service providing respite for carers.
- A telephone helpline that can be accessed Monday-Friday 9am – 8pm.
- Support groups and initiatives to stay active
- Free training around cancer, its treatment and supporting patients and carers, see https://learnzone.org.uk
- Macmillan Information officers based in each Healthcare Trust in Northern Ireland with leaflets in all public libraries. If pharmacists want leaflets on any aspect of cancer care, you can contact their local information officers who can provide the leaflets and the stands

**How to contact them**

www.macmillan.org.uk

Tel. 0808 808 00 00

Macmillan Information Centres/Officers for Northern Ireland

Belfast City Hospital (includes Drop In Centre) Tel. 028 9063 8980 or email cancer.info@belfasttrust.hscni.net

Royal Victoria Hospital Tel. 028 9063 0022 or email cancerinfo.royal@belfasttrust.hscni.net

Ulster Hospital Tel. 028 9055 3246 or email macmillan.informationandsupport@setrust.hscni.net

Antrim Area Hospital Tel. 028 9442 4000 ext 333079 or email CancerInformation@northerntrust.hscni.net

Craigavon Area Hospital Tel. 028 38360531

Altnagelvin Hospital Tel. 028 7161 1139 / 028 7132 0105 email Macmillaninfo.NWCC@westerntrust.hscni.net

Omagh Hospital & Primary Care Complex Tel. 028 7161 1139 / 028 7132 0105
Marie Curie

What they offer

Nurses - provide end of life care in patients’ homes. Patients can be referred by their GP, district nurse or specialist palliative care team

Helper Service - trained volunteers providing practical support in the home

Support Line - information and emotional support for patients

Information for healthcare professionals via their website ‘Palliative Care Knowledge Zone’

How to contact them

www.mariecurie.org.uk or Tel. 0800 090 2309

Cancer Focus

What they offer

Counselling and family support including one to one and group sessions for children, adolescents and adults. This includes bereavement support for family members on an individual basis or family bereavement evenings. They also offer a nurse helpline for cancer information and support, art therapy and a driving service to transport patients to treatment appointments.

How to contact them

www.cancerfocusni.org Tel: 028 9066 3281 or email care@cancerfocusni.org

Nurse Helpline 0800 783 3339

CRUSE

What they offer

Cruse specialise in bereavement work and offer services across Northern Ireland including:

Individual face to face bereavement support

1:1 and family support for ages 4-18 years of age

Group Support, information; friendship & peer support groups

Phone and email support

How to contact them

www.cruse.org.uk/northern-ireland Tel(028 9079 2419 or email northern.ireland@cruse.org.uk
Charis Cancer Care

What they offer

Charis Cancer Care cover whole of Northern Ireland but have a base on the loughshore near Cookstown.

Here they provide physical services such as reflexology, aromatherapy, massage, counselling, financial and benefits advice. People can travel from anywhere in Northern Ireland for their services or ring for advice. They also do home visits within 10 miles for end of life care e.g. reflexology for patients and carers.

How to contact them

www.chariscancercare.org Tel. 028 8676 9217 or email administrator@chariscancercare.org

Useful Links

- http://niformulary.hscni.net
  - End of life and opioid equivalence guidance, patient resources
- www.book.pallcare.info
  - UK palliative care guidelines, accepted within Northern Ireland
- www.m.pallcare.info
  - Syringe pump compatibility (free to register)
- www.palliativedrugs.com
  - Syringe driver compatibility (free to register)
- www.paindata.org/calculator.php
  - Opioid conversion calculator, factors in 25% reduction
- www.palliativecareguidelines.scot.nhs.uk
  - Scottish palliative care guidelines including symptom control and patient information

Online Training Resources

- https://learnzone.org.uk/ Macmillan Learning and Development Website
  Free online training resources which pharmacists can access around cancer, its treatment and supporting patients and carers
- www.e-lfh.org.uk E-Learning for Healthcare
  Free palliative care online training courses including symptom management and end of life care
- www.nicpld.org NICPLD
  Distance learning course ‘The Pharmacist in Palliative Care’
USEFUL CONTACT NUMBERS

If you have any queries regarding prescriptions, then below are the contact numbers for out of hours, hospices and community specialist nursing teams.

Out of Hours (OOH) Centres

<table>
<thead>
<tr>
<th>Trust Area</th>
<th>Location</th>
<th>Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belfast</td>
<td>North &amp; West Belfast, Crumlin Rd</td>
<td>028 9074 4447</td>
</tr>
<tr>
<td></td>
<td>South &amp; East Belfast, Knockbreda Complex</td>
<td>028 9079 6220</td>
</tr>
<tr>
<td>South Eastern</td>
<td>Ards Hospital, Newtownards</td>
<td>028 9182 2344</td>
</tr>
<tr>
<td></td>
<td>Lagan Valley Hospital, Lisburn</td>
<td>028 9260 2204</td>
</tr>
<tr>
<td></td>
<td>Downe Hospital, Downpatrick</td>
<td>028 9260 2204</td>
</tr>
<tr>
<td>Northern</td>
<td>Dalriada Urgent Care, Ballymena Causeway Hospital, Coleraine</td>
<td>028 2566 3500</td>
</tr>
<tr>
<td></td>
<td>Mid-Ulster PCC, Moneymore</td>
<td>028 2566 3500</td>
</tr>
<tr>
<td>Southern</td>
<td>Craigavon Area Hospital</td>
<td>028 3839 9201</td>
</tr>
<tr>
<td></td>
<td>Daisy Hill Hospital, Newry</td>
<td>028 3839 9201</td>
</tr>
<tr>
<td></td>
<td>South Tyrone Hospital, Dungannon</td>
<td>028 3839 9201</td>
</tr>
<tr>
<td></td>
<td>Armagh Community Hospital</td>
<td>028 3839 9201</td>
</tr>
<tr>
<td></td>
<td>Kilkeel Primary Care Centre</td>
<td>028 3839 9201</td>
</tr>
<tr>
<td>Western</td>
<td>Altnagelvin Hospital, Derry</td>
<td>028 7186 5195</td>
</tr>
<tr>
<td></td>
<td>South West Hospital, Enniskillen</td>
<td>028 7186 5195</td>
</tr>
<tr>
<td></td>
<td>Limavady Health Centre</td>
<td>028 7186 5195</td>
</tr>
<tr>
<td></td>
<td>Omagh Hospital &amp; Primary Care Complex</td>
<td>028 7186 5195</td>
</tr>
<tr>
<td></td>
<td>Strabane Health Centre</td>
<td>028 7186 5195</td>
</tr>
</tbody>
</table>

Hospices

If patients have been recently discharged, the hospice may be able to provide clarification on their medicines. Many have pharmacists working as part of the multi-disciplinary team.

<table>
<thead>
<tr>
<th>Hospice</th>
<th>Contact Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foyle Hospice, Derry</td>
<td>028 7135 1010</td>
</tr>
<tr>
<td>Macmillan Unit, Antrim</td>
<td>028 9442 4394</td>
</tr>
<tr>
<td>Marie Curie Hospice, Belfast</td>
<td>028 9088 2000</td>
</tr>
<tr>
<td>Northern Ireland Hospice, Belfast</td>
<td>028 9078 1836</td>
</tr>
<tr>
<td>Omagh Palliative Care Unit</td>
<td>028 8283 3100</td>
</tr>
<tr>
<td>Southern Area Hospice, Newry</td>
<td>028 3026 7711</td>
</tr>
</tbody>
</table>
**Community Specialist Palliative Care Nursing Services**

These specialist nurses review patients in their own homes and may make prescribing recommendations to the patient’s GP or be independent prescribers.

<table>
<thead>
<tr>
<th>Location</th>
<th>Contact Telephone Number</th>
<th>Service Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Belfast Locality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North &amp; West Belfast</td>
<td>028 9078 1836</td>
<td>NI Hospice Community Specialist Palliative Care Team</td>
</tr>
<tr>
<td>South &amp; East Belfast</td>
<td>028 9078 1836</td>
<td></td>
</tr>
<tr>
<td><strong>South Eastern Locality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Down &amp; Ards</td>
<td>028 9127 0227</td>
<td>NI Hospice Community Specialist Palliative Care Team</td>
</tr>
<tr>
<td>Down and Lisburn</td>
<td>028 4451 3820</td>
<td></td>
</tr>
<tr>
<td><strong>Northern Locality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loughside</td>
<td>028 9335 4593</td>
<td>NI Hospice Community Specialist Palliative Care Team</td>
</tr>
<tr>
<td>Bannview</td>
<td>028 7965 0850</td>
<td></td>
</tr>
<tr>
<td>North Coast</td>
<td>028 2766 0333</td>
<td></td>
</tr>
<tr>
<td><strong>Southern Locality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armagh &amp; Dungannon</td>
<td>028 3756 5350</td>
<td>Southern Health and Social Care Trust Community Specialist Palliative Care Team</td>
</tr>
<tr>
<td>Craigavon &amp; Banbridge</td>
<td>028 3756 0592</td>
<td></td>
</tr>
<tr>
<td>Newry &amp; Mourne</td>
<td>028 3756 2910</td>
<td></td>
</tr>
<tr>
<td><strong>Western Locality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derry &amp; Strabane</td>
<td>028 7135 1010</td>
<td>Foyle Hospice Community Specialist Palliative Care Team</td>
</tr>
<tr>
<td>Omagh &amp; Fermanagh</td>
<td>028 686 21517</td>
<td>NI Hospice Community Specialist Palliative Care Team</td>
</tr>
</tbody>
</table>

**Acknowledgments**

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