Palliative Care Quick Reference Guide for Adults

Purpose

This is a quick reference guide to support initial palliative care management. It covers common symptoms and first line treatment for these, guidance on managing symptoms at the end of life and when to use a syringe driver.

Essential reading for the following staff groups:

- CNWL Palliative Care, Camden, Islington, UCLH & HCA, Specialist Palliative Care Team
- Camden Community Nursing Teams
- Pharmacy

Following staff groups should be aware exists for references purposes:

- Camden Community Health Service Team Managers & Service Managers
- All other healthcare professionals working with the staff groups listed above under Essential reading. This includes:
    - GPs in Camden and Islington
    - Hospital staff at UCLH & HCA
    - Whittington Health DN teams for Islington

PALLIATIVE CARE QUICK REFERENCE GUIDE for ADULTS

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Contents

1. Introduction

It is important that all staff are able to provide initial palliative care management for patients in need. This guide is intended to be used by healthcare professionals to support the delivery of care, either in conjunction with their existing competencies or in addition to seeking patient specific advice from the specialist palliative care team.

2. Objectives

The document has been produced to provide easily accessible written guidance for the initiation of palliative care. It covers common symptoms and first line treatment for these, guidance on managing symptoms at the end of life and when to use a syringe driver.

3. Scope

These guidelines have been designed for use by healthcare professionals working in hospital or community settings linked with the CNWL Camden, Islington ELiPSE and UCLH & HCA Palliative Care Service. The guidelines are for use when managing adult patients.

All suggested doses are for ADULTS – if prescribing for paediatric/adolescent patients please refer to Children's BNF for specific dosing recommendations and seek specialist advice.

Many of the recommendations made in this guideline include use of medications for indications or at doses/routes not covered by their marketing authorisation (MA), known as off label use. Recommendations by the Association for Palliative Medicine and The Pain Society include the following:-

- Use of medicines beyond and without a MA in palliative care and pain medicine practice is both necessary and common and should be seen as a legitimate aspect of clinical practice.
- Health professionals involved in prescribing medicines beyond or without a MA should select those medicines that offer the best balance of benefit against harm for any given patient.
- Choice of treatment requires partnership between patients and health professionals, and informed consent should be obtained, whenever possible, before prescribing any medicine.
- Patients should be offered accurate, clear and specific information that meets their needs about the use of medicines beyond or without a MA.

4. Additional guidance

Please contact your specialist palliative care team to discuss any queries about specific patient management or if patient remains symptomatic despite measures suggested in this guideline.

For End of life care the 'Excellent care in the last days of life (Hospital)' documents are accessible via UCLH intranet. "Excellent care in the last days of life (community)" is available via the CNWL community specialist palliative care team.

Further specialist advice can also be found at Palliative Care Adult Network Guidelines (NB: not all recommendations are approved by UCLH and should be used for reference only. See UCLH formulary for approved treatments).

5. Definitions

Palliative Care is "the active holistic care of patients with advanced progressive illness." Management of pain and other symptoms and provision of psychological, social and spiritual support is paramount, aiming to achieve the best quality of life for patients and their families. Many aspects of palliative care are also applicable earlier in the course of the illness in conjunction with treatments." (WHO 2002)

End of Life Care (EoLC) is generally accepted to mean care provided in the last year of life (DoH, 2008). However, given factors such as difficulty determining prognosis and the varying needs of patients (both physical and psychological) it may mean more than this for some, and months or even less for others. Earlier consideration of whether someone is heading towards the end of their life enables the patient and their family to think about what is important to them – what they would like (and not like) to happen. Remember the surprise question: "Would you be surprised if your patient died within the next year?" If the answer is no, then consider whether it is appropriate to initiate discussions about end of life care, whether the management plan needs reviewing and whether their GP/other professionals should be updated.

5.1 Prescribing Definitions

po	Oral	od	Once a day
sc	Subcutaneous	bd	Twice a day
iv	Intravenous	tds	Three times a day
im	Intramuscular	qds	Four times a day
sL	Sublingual	prn	As required
pr	Rectal		
CSCI	Continuous Subcutaneous Infusion		

6. Duties & Responsibilities

All healthcare professionals are responsible for the provision of palliative care (within their competencies) and for seeking specialist advice if a patients needs exceed that which a professional can offer.

Anticipation of potential symptoms is good practice and appropriate drugs should be prescribed for prn use. Palliative care often involves prescribing drugs off-licence in terms of administration route/dose/indication. If you have any queries/concerns, seek specialist advice.

7. Development & Evidence Base

This is a **quick reference guide.** As such it is designed to support healthcare professionals with basic written guidance for initiating palliative care and to highlight when specialist advice should be sought. It should not be used in place of seeking advice if you are not competent or lack experience of managing pain or other symptoms. The guidance only covers what might reasonably be expected of someone without specialist training to consider. If you are at all uncertain or unfamiliar with the contents please seek advice before proceeding to apply the guidance to specific patients. The evidence behind this guidance is embedded in routine specialist practice. Please contact your specialist palliative care team to discuss any queries and see Palliative Care Adult Network Guidelines for evidence summaries.

8. Consultation

This guidance has been written in consultation with multi-professional members of the CNWL specialist palliative care services and following informal consultation with UCLH/CNWL ward staff and junior doctors and formal review by the UCLH Use of Medicines Committee (UMC). Additionally it has been externally peer reviewed by a specialist palliative care pharmacist.

9. The Guidance

9.1 General Principles of Symptom Management

- For any symptom an underlying cause when possible should be sought to aid cause-specific management.
- History, clinical examination and investigations should be tailored to individual patient need and circumstances.
- Treatment plans must be fully discussed with patients and carers.
- Continuous symptoms require continuous treatments (not just prn medications).
- Review treatment plans within an appropriate timeframe for the individual patient need and circumstance. Consider review every 24 hours unless there is reason to do so more or less frequently.

9.2 Key:

p.r.n. (as required)

o.d. (every day)

b.d. (twice daily)

t.d.s. (three times daily)

q.d.s (four times daily)

mg (milligrams)

i.v. intravenous

9.3 *Pain*

Pain Prescribing Guidance for Adults Pain

MILD PAIN – SCORE 1

Recommended analgesia
- Paracetamol 1g po /pr QDS

And if needed
Ibuprofen 400mg po TDS prn

MODERATE PAIN – SCORE 2

Recommended analgesia
- Paracetamol 1g po /pr QDS

+
- Ibuprofen 400mg po TDS

And if needed
- Morphine 2.5 - 10mg po prn 3 hourly

OR
- Dihydrocodeine 30mg po 4 – 6 hourly prn

MODERATE PAIN – SCORE 3

Recommended analgesia
- Paracetamol 1g po /pr QDS

+
- Ibuprofen 400mg po TDS or Naproxen 250mg po 6 – 8 hourly

+
- Morphine 5 - 10mg po 6 hourly

OR
- Dihydrocodeine 30mg po 4 – 6 hourly

And if needed
- Morphine 10 - 20mg po prn 3 hourly

MODERATE PAIN – SCORE 4

Recommended analgesia
- Paracetamol 1g po / pr QDS

+
- Ibuprofen 400mg po TDS or Naproxen 250mg po 6 - 8 hourly

In addition
- Morphine 10 - 20mg po 6 hourly + 10 - 20 mg prn 3 hourly

OR
- Morphine SC

OR
- Morphine PCA

OR
- Epidural infusion (prescribed by anaesthetist or pain team)

Consider non-pharmacological methods of pain relief

This guidance is intended for doctors and nurses to rationalise analgesic prescribing for adults. Pain history and interpretation of pain scores in clinical context should always be considered before initiating or increasing the dose of strong opioid analgesics.
- Always confirm allergy status of patient and identify contraindications before prescribing analgesia.
- Caution prescribing in high risk patients such as elderly, renal or hepatic impairment.

Prescribing tips:
- Oral paracetamol is as effective as IV, less invasive and much less expensive.
- IV paracetamol should not be used unless patients are unable to tolerate oral.
- Paracetamol IV dosing should only be 1gram if patient >50kg. (<50kg - dose at 15mg/kg)
- Patients receiving opioid analgesia may need laxatives or anti-emetics prescribed routinely, refer to BNF.
- Patients already taking opioids may have different requirements, please consider when prescribing. Consult senior colleagues or the palliative care team if uncertain.
- Tramadol is a second-line alternative and can be considered in pain score 2 or 3. Please refer to BNF for dosage.
- Oxycodone is restricted and must be approved by the pain or palliative care team

Monitoring:
Assess-Treat-Reassess-Escalate
- If a regime does not provide sufficient pain control or pain is escalating, please seek advice from palliative care team.
- The acute pain team will review all patients with PCA/epidural daily and advise on discontinuation.
- Pain assessment and analgesia review should occur on a daily basis by doctors, nurses and pharmacists.

Pain	Characteristic Description	Management
Visceral pain	Dull pain, poorly localised	Usually opioid-responsive. Consider the cause and treat where possible, e.g.: • Constipation – laxatives, suppositories , oral • Abdominal colic – anticholinergics (hyoscine butylbromide 20mg q.d.s subcutaneously or via CONTINUOUS SUBCUTANEOUS INFUSION 40-160mg subcutaneously over 24 hours) • Gastric irritation – consider antacid or proton pump inhibitor (PPI) • Liver capsular pain – NSAID* or dexamethasone 4-6mg o.d. with PPI • Ascites – consider drainage, diuretics, chemotherapy if malignant • Bladder spasm –oxybutynin 2.5-5mg b.d.-q.d.s oral • Rectal pain/tenesmus: GTN ointment (Rectogesic®) 0.4% b.d. topically; topical lidocaine oint 5% p.r.n. Nifedipine modified release 10-20mg oral b.d. *(prescribers should specify nifedipine brand to be dispensed)* can be used for tenesmus
Bone Pain	Well localised, worse on movement, tender focally Rule out fracture if pain occurs acutely	Partially opioid responsive. • NSAID* (Ibuprofen 400mg t.d.s with PPI) • Consider radiotherapy, corticosteroids and intravenous bisphosphonates (seek specialist advice in renal impairment) for pain due to metastatic disease • Consider orthopaedic referral for prophylactic fixation if risk of fracture
Neuropathic pain	Burning, stabbing, shooting pain. May be associated with sensory /autonomic changes	Partially opioid responsive. Other medicines shown to be effective include: • Tricyclic antidepressants, e.g. amitriptyline 10-25mg nocte, titrated every 3-5 days up to 75mg if tolerated; • Anticonvulsants, e.g. gabapentin 300mg nocte, increase every 2-3 days up to 600-1200mg t.d.s if tolerated, caution with renal impairment and if elderly (Note (Palliative Adult Network Guidelines (PANG) http://book.pallcare.info/ and NICE recommend gabapentin – see Palliative Care Formulary (PCF) or ask for specialist advice). • Consider also nerve block or disease-modifying interventions as adjuvant treatments if appropriate. Seek advice.
Muscular pain	Spasm or tightness; ache	• NSAID* (Ibuprofen 400mg t.d.s with PPI) • muscle relaxant, e.g. diazepam 2-5mg b.d.-t.d.s or baclofen 5mg t.d.s, titrated according to effect • Consider physiotherapy, massage, heat pad
Wounds		For ulcerating wounds, consider topical analgesia – ask Palliative Care Team for advice

** NSAIDS – caution if history of peptic ulcer disease, platelet or other bleeding disorder, renal dysfunction, cardiovascular disease or asthma. NSAIDs should normally be avoided in severe cardiac/hepatic/renal failure, active bleeding, GI ulceration, recurrent GI ulceration/bleeding, or history of NSAID induced GI ulceration/bleeding.*

9.3.1.1 Morphine Sulfate (First line Strong Opioid)

DRUG	MORPHINE SULFATE
When to use	1st line strong opioid Note: in severe renal failure (eGFR<30mlL/min) specialist palliative care advice should be sought by telephone prior to commencing morphine or other opioids.
Preparations	**Oral**: Modified release (12 hour) preparation (tablets/capsules/granules). Immediate release preparations (tablets/liquid). **Parenteral**: Please see table below for parenteral dose equivalents / section 10.2.3 for starting doses and seek specialist advice if needed.
What to tell the patient	Patients should be counselled appropriately on the differences between the preparations to avoid confusion regarding which is for regular dosing and which for breakthrough pain. All patients should be given a patient information leaflet on opioids
Renal and liver impairment	Reduced clearance in mild to moderate renal impairment so titrate slowly and monitor. Consider dose reduction and increased time between doses if required. Avoid if eGFR <30mL/min without specialist advice. Avoid in moderate to severe liver impairment without specialist advice.

9.3.1.2 Oxycodone or Fentanyl (Second Line Strong Opioid)

DRUG	OXYCODONE	FENTANYL Patches
Dose equivalence to morphine	Oxycodone po 5mg ≡ Morphine po 10mg Oxycodone sc/iv 5mg ≡ Morphine po 20mg	25mcg/hr patch equivalent to 60-90mg oral morphine in 24 hours (see conversion table below in section 10.2.4).
When to use	Consider if • Analgesia is inadequate with morphine despite dose optimisation or • Dose optimisation of morphine is limited by persistent adverse effects.	Consider fentanyl patches if: • There is an established swallowing difficulty, persistent nausea and vomiting, GI blockage or severe renal impairment where dose adjustment with oral morphine is not feasible. Note: specialist advice should be sought before commencing in opioid naive patients. • There are unacceptable side effects from morphine/oxycodone • The patient is not tolerating oral medication • Cognitive impairment prevents patient from being able to manage oral analgesia regime. **Fentanyl patches are <u>not</u> suitable for patients with unstable or rapidly changing pain** (Fentanyl is less constipating than morphine but does still cause constipation.)

Preparations	Oral: Modified release formulation (12 hour) tablets Immediate release capsules or liquid Parenteral: Please see table below for parenteral dose equivalents (section 10.2.3) for starting doses and seek specialist advice if needed.	Transdermal patches - changed every 72 hours Ensure immediate release opioid (e.g. morphnine/oxycodone)) is available for breakthrough pain Parenteral: Please see table below for parenteral dose equivalents. Seek specialist advice for use
What to tell the patient	Patients should be counselled appropriately on the differences between the preparations to avoid confusion regarding which is for regular dosing and which for breakthrough pain. All patients should be given a patient information leaflet on opioids	Transdermal patches: Heat/pyrexia increases rate of absorption- can cause toxicity. Improved analgesic effect may take up to 12 hours. Leave a minimum interval of 48 hours between dose increases. Remove and replace patch every 72 hours (applying to a different site). All patients should be given a patient information leaflet on opioids
Renal and liver impairment	Reduced clearance in mild to moderate renal impairment so titrate slowly and monitor. Consider dose reduction and increased time between doses if required. Ideally avoid modified release preparations in CKD stage 4-5 and restrict to prn use only (at 50-75% of usual dose) Avoid in moderate to severe liver impairment without specialist advice.	No dose reduction is needed in renal impairment. Dose reduction may be needed in severe liver impairment.

Once pain is controlled using prn immediate-release morphine/oxycodone, convert to a 12 hourly modified-release preparation by calculating the total amount of morphine/oxycodone given over the previous 24 hours. The first dose of the modified-release preparation is given with, or within 4 hours of, the last dose of the immediate-release preparation. Immediate release prn opioids should continue and if >2 prn doses are required in 24 hours, review pain management. Dose titration of modified release preparations should be made to the dose, not to the frequency of administration.

9.3.1.3 Equivalent doses of opioid analgesics

DRUG	Equivalent dose of ORAL MORPHINE	Conversion Ratio
Oral Weak Opioid		
Dihydrocodeine 60mg	6mg	10:1
Tramadol 100mg	10mg	10:1
Oral Strong Opioid		
Oral Oxycodone 5mg	10mg	1:2 (note some evidence for ratio of 1:1.5)
Parenteral Strong Opioid (please consult your local pharmacist/formulary, BNF or seek specialist advice on preparations**)**		
Morphine sulfate iv or sc 5mg	10mg	1:2
Diamorphine iv or sc 5mg	15mg	1:3
Oxycodone iv or sc 5mg	20mg	1:4 (note evidence base varies from 1:2 – 1:4)
Alfentanil iv or sc 1mg (**seek specialist advice**)	30mg	1:30
Fentanyl iv or sc 200 micrograms	30mg	1:150

http://book.pallcare.info/

9.3.1.4 Fentanyl Patch Approximate Equivalent Doses

FENTANYL PATCH: APPROXIMATE EQUIVALENT DOSES *Note: Fentanyl patches can take up to 72 hours to reach peak concentration, so ensure there is adequate prn analgesia, and do not use if pain is uncontrolled.* ***They should never be prescribed for opioid-naïve patients without specialist advice due to risk of opioid toxicity.*** *If switching from modified release twice daily morphine, give the final tablet at the same time as the initial patch application.*

Oral 24 hour morphine dose (mg)	TD fentanyl dose (micrograms/hr) Change every 72 hours*	Breakthrough dose of oral morphine (mg)**
30-60	12	**5-10**
60-90	25	**10-15**
90-150	37	**15-20**
150-210	50	**30**
210-270	62	**35**
270-330	75	**40-50**
330-490	100	**60**

*Evidence base varies and these are agreed conversion ranges in the context of palliative care. These are 'cautious' dose conversions and advice should be sought if inexperienced in switching between different opioid preparations, in particular if considering conversion at the higher end of the ranges provided.

**Dose for breakthrough pain is one-tenth to one-sixth of the regular 24 hour dose, repeated every 2 -4 hours as required (up to hourly if required). Consider starting at lower dose if patient has CKD stage 3 – 5.

9.4 *Opioid Toxicity*

9.4.1 Common signs and symptoms (not always present and not all specific):

- Mild: vomiting, increased drowsiness, pinpoint pupils
- Moderate: confusion, muscle **twitching/myoclonus**, vivid dreams/hallucinations, agitation
- Severe: **respiratory depression (RR<8-10bpm),** hypotension, loss of consciousness

BEFORE DIAGNOSING TOXICITY CONSIDER OTHER POSSIBLE CAUSES OF SIGNS AND SYMPTOMS e.g. sepsis, hypercalcaemia, brain metastases, adverse effects from another drug. In particular, some of these signs may also be present in a patient who is <u>dying</u> rather than opioid toxic; if so then symptoms should be palliated rather than discontinuing the opioid.

9.4.2 Potential causes of opioid toxicity despite stable dose:

- Development of hepatic or renal impairment, hindering opioid metabolism or excretion
- Pain has responded to adjuvant therapies, leading to lower opioid requirement
- Change in the opioid/route administered
- Pyrexia
- CO_2 retention
- Medicines interaction

9.4.3 Management:

- Check renal function
- Mild toxicity:
  - Consider decreasing the opioid dose by a third and closely monitor the patient.
  - Ensure patient is well hydrated (if appropriate)
  - Contact specialist palliative care team for advice regarding ongoing management
- Moderate to severe toxicity:
  - Stop the opioid if RR<8 and/or unconscious (remove patch if already applied)
  - Consider opioid antagonist naloxone IV in 50-100mcg increments repeating at 2 minute intervals until respiratory function and conscious level improve

Seek specialist advice immediately as may need to consider naloxone infusion / alternative analgesia may be required.

9.5 Nausea and vomiting

Causes include: drugs (chemotherapy, opioids, antibiotics etc.), pain, bowel obstruction, constipation, chemical causes (e.g. hypercalcaemia, uraemia, liver failure), intracranial pathology, infection, anticipatory anxiety. **Follow local protocol for patients receiving chemotherapy. Refer to specialist palliative care if concerned.**

Prescribe regular first-line and prn second-line anti-emetic and refer to section on syringe drivers for further advice on continuous subcutaneous infusions (CSCI) including dosing. In most cases CSCI will be preferable for regular dosing to intermittent injections.

FIRST LINE ANTIEMETICS IN PALLIATIVE CARE			
Drug	**CYCLIZINE**	**METOCLOPRAMIDE/ DOMPERIDONE**	**HALOPERIDOL**
When to use	Mechanical bowel obstruction Raised ICP	Useful for gastric stasis as prokinetic. Cyclizine if given in conjunction with metoclopramide, can reduce the prokinetic action although it will still have some effect centrally.	Useful if chemical causes (e.g. drugs, renal failure, hypercalcaemia).
Dose	50mg po/sc/iv tds	Metoclopramide: 10-20mg po/sc/iv tds Domperidone: 10mg po tds	Start at 0.5-1mg bd po/sc then titrate up as needed to maximum of 10mg in 24 hours.
Cautions	Can cause skin irritation if administered sc.	Avoid in complete bowel obstruction. Avoid metoclopramide in those at risk of extrapyramidal side-effects e.g. Parkinson's disease, antipsychotic use. Extrapyramidal side-effects are rare with domperidone but it holds a risk of QT prolongation.	Avoid if risk of fitting as it can decrease seizure threshold. Can cause sedation. Prolongs the QT Use with caution in those at risk of extrapyramidal side-effects.

	Second Line	**Other**
Drug	**LEVOMEPROMAZINE**	**ONDANSETRON**
When to use	Broad spectrum antipsychotic covers almost all receptors involved in nausea/vomiting pathways.	Effective for chemotherapy/radiotherapy induced nausea, raised ICP and in cases where 1st and 2nd line options have failed/are contraindicated.
Dose	Start with small doses (6.25mg po or 2.5mg sc/iv) ON – QDS then titrate up as needed (usual max. 50mg/day). NB: Levomepromaize 6.25mg po ≡ 3.125mg sc/iv	4 - 8mg tds po/iv
Cautions	Avoid if risk of fitting as it can decrease seizure threshold. Can be very sedating. Prolongs the QT	Causes constipation which can contribute to further nausea and vomiting Prolongs the QT Max. 8mg/day if moderate -severe hepatic impairment

9.6 Dyspnoea

Symptomatic relief measures include:

- Use a fan / handheld fan (can be as effective as medications)
- Position sitting upright
- Breathing/relaxation exercises
- Consider immediate release morphine 1-5mg po qds plus 1-5mg prn (max hourly) (benefit shown up to 30mg po morphine/24 hrs) for patients breathless at rest
- Consider lorazepam 0.5mg-1mg po/sublingual PRN up to 2 hourly (max. 4mg/24hrs) for anxiety associated with breathlessness (does not reduce breathlessness). Caution in elderly (use half dose)
- If patient also has respiratory secretions look for reversible causes before considering symptom control (see section 10.9 below for further details).

9.7 Constipation

- **Consider potentially reversible causes:** opioids, poor oral intake, dehydration, abdominal masses/ascites, hypercalcaemia.
- Patients should be advised to maintain an adequate fluid intake
- All patients on opioids should be prescribed regular, daily oral laxatives (faecal softener **plus** a stimulant) unless there is a contra-indication. Laxatives should be continued whilst on opioids. Changes in diet and fibre intake are not very effective in opioid induced constipation.
- A stepwise approach to laxative therapy should be adopted – prescribe regular laxative treatment and optimise before adding or changing treatment.

Laxatives used in palliative care

SOFTENER		
Sodium Docusate	100-200mg bd-tds po	Mild stimulant at higher doses. Takes 24/36 hrs to act.
OSMOTIC LAXATIVE		
Movicol ® liquid	25mL po od-tds	25mL diluted with 100mL of water– increases amount of water in the bowel. In patients with poor oral intake, this may be too large a volume of fluid to take. Takes 1-3 days to act.
STIMULANT		
Senna	7.5mg – 15mg po od-bd (max. 30mg bd)	Acts within 6-12 hours. Contraindicated in complete bowel obstruction.
Glycerol suppositories	1x 4g suppository pr prn	Moisten with water before use
Phosphate enema	1 enema pr prn	Use with care in frail/elderly

COMBINATION (SOFTENER AND STIMULANT)		
Co-danthramer (dantron/ poloxamer '188')	**25/200mg/5ml Suspension** 5 - 10mL nocte **75/1000mg/5ml 'Strong' suspension** 5mL nocte	**Dantron use is limited to terminally ill patients as it is potentially carcinogenic.** Dantron is excreted in urine and stool (red colour); contact with skin can cause irritation so caution if risk of incontinence.

9.8 Syringe Driver / Continuous Subcutaneous Infusion (CSCI)

Useful when a patient:

- has difficulty swallowing medication (including if drowsy or in the last days of life)
- is nauseous/vomiting
- is in bowel obstruction

Drugs mixed together in a syringe pump should be checked for compatibility prior to initiation. Drug combinations may be compatible only at certain concentrations, therefore the concentration of each drug in the syringe should be compared with compatibility data, not the dose. Syringe driver drug compatibility can be checked using reference sources such as pallcare.info, the BNF, the Syringe Driver and Palliative Care Formulary. Consult the ward pharmacist if unsure, particularly if more than 2 drugs being added.

- In general (unless specified otherwise), syringe drivers should be made up to a total volume of 24mL using water for injection and run at 1mL/hr.
- Maximum of 4 drugs per syringe driver (if compatible)
- Check the solution in the syringe regularly for precipitation and/ or discoloration and discard the contents if this occurs.
- Care should be taken when mixing more than two drugs in a syringe and ensuring that the diluent is compatible with each of the drugs.
- Skin irritation around the needle site, poor symptom control or an unexpected loss of symptom control may be the result of drugs becoming unstable when mixed together.
- Frequent checks of the syringe pump contents for precipitation or discoloration as well as the patient's condition is essential.

When calculating doses of ingredients for a syringe driver, ensure both regular and prn doses in the previous 24 hours are considered when calculating the syringe driver dose. Also consider differences in bioavailability between oral and parenteral preparations (if applicable).

SYMPTOM	DRUGS	DOSAGE GUIDELINES	
Pain	**Morphine**	Calculate total morphine (including prn doses) used in the previous 24 hours (see section 10.2.3 for conversion ratios) If opioid naïve start at 10mg/24hrs.	Titrate up as needed, increase by 1/3-1/2 as needed each 24 hours. Seek specialist advice if you reach 120mg morphine daily (or equivalent) or if pain persists despite increases. PRN sc dose should be 1/6 of the total dose in the syringe driver up to every hour. Titrate up by 1/3 of the total dose at a time and reassess symptoms at least daily
	Oxycodone	Use instead of Morphine if patient is already on Oxycodone orally but can no longer take it by mouth. Calculate total oxycodone (including prn doses) used in the previous 24 hours (see section 10.2.3 for conversion ratios) Do not use in opioid naïve patients	
	Alfentanil	Use instead of Morphine or Oxycodone if eGFR <30mL/min	Seek specialist advice
Colic (e.g. in bowel obstruction)	**Hyoscine butylbromide**	60-120mg in 24 hours. Can also be used for bronchial secretions	
Bronchial secretions	**Hyoscine hydrobromide**	1200-2400 micrograms in 24 hours. Confusion and drowsiness limit use.	
	Glycopyrronium bromide	600-1200 micrograms in 24 hours.	
Nausea and vomiting	**Metoclopramide**	30-100mg in 24 hours	
	Cyclizine (do not dilute with sodium chloride 0.9%)	150mg in 24 hours	
	Haloperidol	2.5-10mg in 24 hours Doses >8mg/day risk extrapyramidal effects	
	Levomepromazine (avoid if risk of fitting)	5 - 25mg in 24 hours for nausea/vomiting. (12.5-150mg in 24 hours for restlessness/sedation)	
Terminal agitation, anti-convulsant	**Midazolam**	10-60mg in 24 hours Titrate up gradually as needed	

9.9 Priorities for Care at the End of Life

(One Chance to Get it Right, Leadership Alliance for the Care of Dying People, June 2014)

- The possibility that a person may die within the coming days and hours should be recognised and communicated clearly, decisions about care must be made in accordance with the person's needs and wishes, and these should be reviewed and revised regularly.
- Sensitive communication must occur between staff, the person who is dying and those important to them.
- The dying person, and those identified as important to them, must be involved in decisions about treatment and care.
- The people important to the dying person must be listened to and their needs respected.
- Care must be tailored to the individual and delivered with compassion – with an individual care plan in place. This priority includes the fact that a person must be supported to eat and drink as long as they wish to do so, and their comfort and dignity prioritised. **See CNWL Excellent Care in the Last Days of Life guidance**

9.10 Guidance on symptom control in the last days of life

PRN Medications used to manage symptoms at the end of life:

- Seek advice if needed from the palliative care team and particularly if the patient has renal or liver impairment, is at risk of seizures or extrapyramidal side effects e.g. with Parkinson's Disease.
- There is a high risk of prescribing and administration error if multiple opioids are prescribed for a patient. Please contact specialist palliative care for further advice.

Symptom/ condition	Medication	Usual parenteral starting dose (note – also applies if parenteral medications are required first line at other times)	Available injection strengths to order	Further considerations
Pain and breathlessness	Morphine	2.5 – 5* mg subcutaneously 2-4 hourly as needed, no maximum dose If already on opioids, convert regular dose to syringe driver (section 10.8) and prescribe 1/6 of total sc dose as a prn dose, max 1 hourly	10 mg/ 1mL 30 mg/ 1mL 60mg/ 2mL	• *Consider dose reduction (e.g. 1.25-2.5mg) in elderly or if underweight • Alternatives include diamorphine
	Oxycodone	1.25 - 2.5 mg subcutaneously 2-4 hourly as needed, no maximum dose If already on opioids, convert regular dose to syringe driver (section 10.8) and prescribe 1/6 of total sc dose as a prn max 1 hourly	10mg/ 1mL 20 mg/ 2 mL 50 mg/ 1 mL	• Consider dose reduction in elderly or if underweight
	Alfentanil	100-200 **micrograms** subcutaneously as needed, max. 1 hourly. Note short duration of action – if commencing consider using CSCI with specialist advice	1 mg/ 2 mL 5 mg/ 1 mL	• Strong opioid of choice in renal failure • Alternatives include fentanyl
Nausea and vomiting The causes of nausea and vomiting in the last days of life are multifactorial. Medications should be available that address each of the likely causes. Refer to flowcharts or clinical	Cyclizine	50 mg subcutaneously 8 hourly as needed, max 150mg in 24 hours.	50 mg/ 1 mL	• Useful for unknown causes, nausea and vomiting caused by raised intracranial pressure or obstructive bowel disorders • Can be used to cover possible onset of nausea when commencing opioid • Avoid if significant cardiac history
	Haloperidol	500 micrograms -1.5 mg subcutaneously 6-8 hourly as needed, max 10mg in 24 hours.	5 mg/ 1 mL	• Useful when symptoms are thought to be due to a biochemical abnormality in the blood
	Hyoscine butylbromide	10 - 20 mg subcutaneously 6 hourly as needed, max 100mg in 24 hours	20 mg/ 1 mL	• Consider in nausea and vomiting associated with obstructive bowel

guidance when making choices.		without specialist advice		disorders
	Levomepromazine	2.5-6.25 mg subcutaneously 4 hourly as needed. Seek specialist advice if symptoms persist despite 25mg in 24 hours	25 mg/ 1 mL	• Multi-receptor blockade: useful when symptoms are thought to have more than one cause • Avoid if patient at risk of seizures
	Metoclopramide	10 - 20 mg subcutaneously 6 hourly as needed, max 80 mg in 24 hours	10 mg/ 2 mL	• Prokinetic: useful when symptoms thought to be due to slowed transit of the gut
Anxiety, agitation and restlessness	Midazolam	2.5 - 5 mg 1-2 hourly subcutaneously as needed. No maximum dose. Discuss with palliative care team if requiring >40 mg/ 24 hours.	10 mg/ 2 ml	• Consider dose reduction in elderly or underweight • Do not use the 5mg/5ml or 10mg/5ml strength for bolus sc doses)
Noisy respiratory secretions .	Glycopyrronium bromide	100 – 400 mcg 4 hourly subcutaneously as needed, max 1200 mcg in 24 hours without specialist advice.	200 mcg/ 1mL 600 mcg/ 3 mL	• Alternatives include hyoscine hydrobromide and hyoscine butylbromide. • Consider reversible causes i.e. acute pulmonary oedema, infection, airway obstruction, review IV fluids if in situ as they may be exacerbating. • Re-position patient to encourage postural drainage, give reassurance to relatives. • Prescribe anti-secretory medication if needed following these measures
Miscellaneous	Water for injections		10 mL	• Alternative diluents and flushes include sodium chloride 0.9%.
	Sodium chloride 0.9%		1000 mL	• For clinically-assisted hydration used according to local clinical guidelines

10. Local contacts, additional guidelines & policies

Local Hospital	UCLH	Whittington Hospital	Royal Free Hospital
Palliative Care Team	02034477140	02072883682	02078302905
Acute Pain Team (post-op pain/PCAs/nerve blocks)	Via UCLH switchboard 02034567890	020 7288 5464	020 7794 0500 x 34746
Medicines Information*	020 3447 3019	02072885720	020 7830 2983
Chaplaincy	020 3447 3007	02072885337	020 7830 2742
Patient Affairs/Bereavement	020 3447 3042	02072885551	020 7472 6446

*CNWL Community Patients Medicines Information 020 3317 5090

Email: medinfo.cnwl@nhs.net

For patients in Islington please email: mmt.islington@nhs.net (tel: 0203 688 2996) and for patients in Camden please email mmt.camdenccg@nhs.net (tel: 02036881778)

Local Hospices	
Marie Curie Hospice, Hampstead, 11 Lyndhurst Gardens, London, NW3 5NS	020 7853 3400 www.mariecurie.org.uk
St John's Hospice, 60 Grove End Road, St. Johns Wood, London, NW8 9NH	020 7806 4065/ 020 7806 4040 www.stjohnshospice.org.uk
St Joseph's Hospice, Mare St, Hackney, London, E8 4SA	020 8525 6000 www.stjh.org.uk
North London Hospice, 47 Woodside Ave, London, N12 8TF	0208343 8841 www.northlondonhospice.org.uk

Local Community Palliative Care Teams (Mon-Fri 9-5)		Out of hours
North Camden	0207 830 2905	020 7794 0500
Islington & South Camden	0203 317 5777	02034567890
Haringey	0208 343 8841	0208 343 8841
Barnet	0208 343 8841	0208 343 8841
Enfield	0208 343 8841	0208 343 8841
City & Hackney	0208 525 6060	0208 525 6000

Additional local guidelines	
Excellent care in the last days of life (Hospital) - *Accessible via UCLH intranet*	http://insight/departments/surgeryandcancerboard/cancerdivision/palliativecare/pages/excellentcareinthelastdaysoflife.aspx
Excellent care in the last days of life (Community)	Contact local Palliative Care Team
Camden and Islington Primary Care Guidelines	Contact local CCG or Palliative Care Team

11. References

- End of Life Care Strategy: promoting high quality care for adults at the end of their life*. Department of Health, England, 2008.*
- National Institute for Health and Clinical Excellence. Neuropathic pain: the pharmacological management of neuropathic pain in adults in non-specialist settings. (Guideline) London: NICE 2013 No.CG173. Available from: www.nice.org.uk/guidance/CG173 (accessed March 2017)
- Palliative Care Formulary PCF5, fifth edition (UK). R Twycross, A Wilcock, P Howard 2014 www.palliativedrugs.com
- Palliative Care Adult Guidelines (PANG) 2016
- WHO Definition of Palliative Care 2002

Appendix 1: Equality Impact Assessment

Equality Impact

Racial and cultural diversity must be respected. Cultural needs must be discussed with the service user or the service user's relatives/carers. Where English language skills are a barrier to effective clinical care every effort must be made to provide a trained interpreter. Examples include: on admission; at the introduction or evaluation of interventions; during the formulation and delivery of care plans and at clinically significant meetings. If an interpreter in not available immediately, a record must be made in the case notes and an interpreter must be arranged as soon as possible.

Translations of patient information leaflets on medicines are available on Trustnet and must be used where appropriate.

Consideration must also be given to the care of patients with disabilities. Patients with disabilities should have individual care plans to address the impact of the disability.

Equality Impact Assessment

This form has been completed for (please indicate which): **Screening assessment**

1. What is the name of the service / policy / procedure / project to be assessed?

Palliative Care Quick Reference Guide

2. Briefly describe the aim of the service /policy /procedure etc. What needs or duties are it designed to meet? What are the intended outcomes of the policy? How does it differ from any existing services /policies in this area?

This is a quick reference guide to support initial palliative care management.

3. Is there any evidence that this could affect some groups of people (race/ethnicity, disability, gender, age, faith/religion, sexual orientation) disproportionately? Is there reason to believe that the policy may have different outcomes for different groups? Is there an adverse impact? What are the reasons for this adverse impact?

No

4. Please describe the evidence you have to make your judgement. What existing data for example (quantitative or qualitative) have you used to form your judgement?

No concerns raised by anyone consulted. To be used as is standard practice in palliative care as guidance that needs to be tailored to individual patients in line with their wishes and preferences.

5. Have you consulted with the public as part of your assessment? Who have you consulted? What method did you use? And what have you done with the results of the consultation (i.e. how do you intend to use the information gathered as part of the consultation?)

No

6. Have you published results of the consultation? If so, where?

N/A

7. Is there public concern (in the local or national media for example) that this function / policy / procedure is being operated in a discriminatory manner?

No

8. If, in your judgement, the proposed service /policy / procedure does have an adverse impact can that impact be justified? - You need to think whether the proposed service / policy / procedure will have a positive or negative effect on the:

- Elimination of unlawful discrimination
- Promotion of equal opportunity
- Promotion of good relations between people of different groups

Any adverse impact has been minimised by recommending appropriate screening tools in specific patient groups.

9. If the impact cannot be justified, how do you intend to deal with it?

N/A

10. Provide information on how you intend to monitor in the future

Reviewing the use of the policy at regular intervals and getting feedback from professionals using this guidance.

Equality Impact Assessment Action Plan

The following actions will be undertaken as a result of the Equality Impact Assessment to address identified adverse impact:

Adverse impact Identified	**Action to be taken**	**Timescale**	**Responsible manager**
None	N/A	N/A	N/A

To be signed by the manager undertaking the assessment

Name: Sheela Shah

Designation: Advanced Specialist Pharmacist Date: February 2019

To be countersigned by the Senior Manager, i.e. Service Head, Line Manager, Director, as appropriate

Name: Jackie Box
Designation: Associate Chief Pharmacist, Goodall Division Date: March 2019

APPENDIX 2: Document Review History

Date of Review	Reason for Review	Version
April 2017	Created by Dr Sarah Yardley and Dr Julia Bichard with reference to previous local quick reference guide and current specialist palliative care guidence: • Improving the quality of care in the last days of life: a practical guide to getting the medications right (London Clinical Networks, 2016) • Palliative Care Adult Guidelines (PANG) 2016 http://book.pallcare.info/ • Priorities of care for the dying person, 2014 (Leadership Alliance for the Care of Dying People) • CNWL Procedure for the use of Clinical Guidelines and Formularies for Palliative Care 2016 (Dr Sarah Yardley) • Palliative Care Quick Reference Guide 2013 (Dr Caroline Stirling, Dr Chi-Chi Cheung, Dr Jane Neerkin) • Conversion Guidance Chart Jan 2015 (Camden, Islington ELiPSe, UCLH & HCA Palliative Care Service)	01.00.00
February 2019	Updating the document after UCLH Pharmacy and external Specialist Palliative Care Pharmacist reviewed draft guidelines.	02.00.00