

## **CLINICAL GUIDELINE**

# Chronic Non Malignant Pain Opioid Guideline

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Version Number:	4
Does this version include changes to clinical advice:	Yes
Date Approved:	14th March 2018
Date of Next Review:	18th September 2020
Lead Author:	Colin Rae
Approval Group:	Medicines Utilisation Subcommittee of ADTC

#### Important Note:

The Intranet version of this document is the only version that is maintained.

Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

### GGC Chronic Non Malignant Pain Opioid Prescribing Guideline

### **Introduction**

This document provides guidance for prescribers in the management of patients with chronic, non-malignant pain. The use of prescription opioids for chronic non-malignant pain has been an area of controversy in recent years. It is with this in mind that these guidelines have been produced.

The **main changes to this updated version** of the guideline include recommendation to reduce the maximum daily dose of opioid from morphine equivalent of 120mg/day to 90mg /day. The opioid trial period is reduced from 6 weeks to 2 weeks, using immediate acting strong opioids instead of long acting opioids for this purpose (the use of long acting opioids for the longer term pain management remains the same as before on reduced maximum daily dose as indicated above). Secondly, the guideline highlights The Faculty of Pain Medicine advice against the use of the World Health Organisation (WHO) 3-Step 'Ladder' in non-cancer pain. Although a stepped approach is sensible, the benefits of opioid use should not be determined only by the patients reported pain intensity – which is the basis of the WHO Ladder. Thirdly, recommended named strong opioids for prescription have been removed to allow for flexibility and changes in local formulary advice. Other changes include updates to the management of side effects, inclusion of flare up management advice and inclusion of a link to a calculator to aid switching, or tapering and stopping of strong opioids.

Whilst these recommendations are suitable for the majority of patients, prescribers should use their clinical judgement to optimise each patient's treatment.

This guidance should be used in conjunction with local and/or national guidance on the assessment and treatment of pain (e.g. the guidelines produced by the British Pain Society).

Users should also refer to local formulary and BNF to inform dosing and prescribing decisions for individual patients (taking into account any precautions, contraindications, dose adjustments and adverse effects of pharmacological treatment).

### **Contents**

Page 4	Guidelines Flow Chart		
Page 5	Guidelines for prescribing		
Page 10	Tapering		
Page 11	Side Effects		
Page 12	Appendix 1 : Flare up management		
Page 13	Appendix 2 : Opioid switch guide		
Page 15	Appendix 3 : Driving		
Page 16	Appendix 4 : Opioids and renal impairment		
Page 17	Resources and references		

### **GG&C Chronic Non Malignant Pain Opioid Prescribing Guideline**

<ul> <li>Do</li> <li>Be aware that:</li> <li>the evidence for use of opioids is mainly from use in acute pain and end of life pain</li> <li>there is little evidence of benefit in long term use for chronic pain regardless of diagnosis</li> <li>the risk of harm increases substantially at doses above oral morphine equivalent of 90mg/day</li> </ul>	<ul> <li>Before Initiating Opioids Consider: <ul> <li>Assess diagnosis, pain and function</li> <li>Conduct a biopsychosocial assessment</li> <li>Consider non-opioid, non pharmacological therapies or neuropathic pain medication where appropriate</li> <li>Assess risk of harm or misuse (ORT tool)</li> <li>Talk to patient about treatment plan: expectations, goals and when to stop</li> </ul> </li> </ul>		<ul> <li>Do Not</li> <li>Prescribe in the following circumstances</li> <li>patients with concurrent significant mental health problems, drug dependency or addiction</li> <li>patients with opioid insensitive pain</li> <li>patients with pain associated with diagnostic difficulties, mechanical back pain, headache and fibromyalgia</li> <li>patients currently taking benzodiazepines and other sedative medication</li> </ul>		
INITIATION START LOW, GO SLOW TRIAL PERIOD SHOULD BE LIMITED TO 2 WEEKS Aim of therapy is to achieve a 30% improvement in pain and/or a significant improvement in functional ability Continue with analgesia such as NSAIDs or/and paracetamol if appropriate Establish baseline pain and function Do not base assessment using WHO Pain ladder Use Immediate Release Oral Morphine • for Opioid naïve patients use lowest effective dose e.g. 5-10mg (max 4 hourly); max 50mg/24 hours • for patients currently on analgesia such as cocodamol and DHC, discontinue these and treat as opioid naïve as above • for patients currently on tramadol, wean this medication and treat as opioid naïve as above • In patients with significant renal dysfunction, refer to appendix 4 for dose adjustments • In frail or elderly patients, dosage should be guided by individual circumstances and co- morbidities, and not by guideline recommendations		Common side effects include	CONTINUING OPIOID     PRESCRIBING      Use oral route     Convert to MODIFIED or		
		High doses of morphine can impair driving ability. See Appendix 3.	<ul> <li>Convert to MODIFIED or SUSTAINED release opioids</li> <li>do not use immediate acting opioids</li> <li>use lowest possible dose :</li> </ul>		
		If Morphine is not tolerated despite treatment of side effects: • Recommence trial using an alternative immediate release oral morphine	avoid >90mg/day morphine equivalent		
		equivalent as per local formulary Refer to 'Opioid Switch'. Appendix 2	Review regularly e.g. 3 to 6 monthly • PADT (Pain Assessment		
		<ul> <li>Indications for discontinuing opioids</li> <li>No benefit</li> <li>Pain resolves</li> <li>Patient receives definitive treatment for pain</li> <li>Intolerable side effects</li> <li>Aberrant behaviour with opioids</li> </ul>	<ul> <li>and Documentation Tool) can be used</li> <li>maintain lowest dose</li> <li>consider weaning every 6 months: is there still need to continue with opioid therapy?</li> </ul>		
<ul> <li>Assess pain and function wit</li> <li>if intolerable side effects de alternative opioid, refer to '</li> <li>if no clinically meaningful runsuccessful. Wean and <u>D</u> medication; trial of alternationelp</li> <li>if clinically meaningful resp 'Continuing Opioid Prescrited</li> </ul>	espite treatment, try Opioid Switch' esponse, trial is ISCONTINUE opioid ive opioid unlikely to ponse, refer to	<ul> <li>Some Long Term Effects of Opioids</li> <li>Tolerance, dependence, withdrawal, addiction</li> <li>Immunosuppression</li> <li>Hyperalgesia</li> <li>hypogonadism, sexual dysfunction, osteoporosis</li> <li>Effect on mood, weight, fertility and cognitive function</li> </ul>	Wean and discontinue opioid therapy in patients who are no longer suitable- refer to 'Tapering/Weaning and Stopping Guide'		

**Consider referral to a Pain Specialist for advice:** (please note that these patients should also fulfill the criteria for referral to the Pain service in the first instance):

- Patients with problem prescription opioid drug use if willing to engage in drug reduction.
- Patients already in the process of weaning opioid medication but are having difficulty with it.

### GGC Chronic Non Malignant Pain Opioid Prescribing Guideline

### <u>DO:</u>

- Manage chronic non-malignant pain using non pharmacologic therapy and nonopioid pharmacologic therapy before considering opioids
- Be aware that the evidence for use of opioids is mainly from use in acute pain and pain at the end of life, there is little evidence of benefit in long term use for chronic pain regardless of diagnosis
- Be aware that the risk of harm increases substantially at doses above oral morphine equivalent of 90mg/day (Oxycodone 45mg/24 hours and Transdermal fentanyl patch 25mcg/hr)
- Be aware that opioids are associated with common and significant side effects. These include nausea, vomiting, constipation, pruritus, dizziness, dry mouth and sedation
- Be aware that opioids are associated with respiratory depression. Opioids are relatively contraindicated in sleep apnoea and also concurrent benzodiazepines prescription
- Discontinue opioids in patients who are not benefiting from its use even if there is no other effective treatments as the continuing use of opioids can be harmful
- Use opioids in conjunction with non-medication therapies and self management strategies

#### DO NOT PRESCRIBE STRONG OPIOIDS IN THE FOLLOWING CIRCUMSTANCES

- Patients with concurrent significant mental health problems, drug dependency or addiction
- Patients with opioid insensitive pain
- Patients with pain associated with diagnostic difficulties, mechanical back pain, headache and fibromyalgia
- Patients currently taking benzodiazepines and other sedative medication
- Patients with active illicit drug abuse (including those of prescription drugs) should be seen by the Addiction services.

#### CONSIDER REFERRING THE FOLLOWING PATIENTS TO THE PAIN CLINIC FOR ADVICE (please note that these patients should also fulfil the criteria for referral to the Pain service in the first instance):

- Patients with problem prescription opioid drug use if willing to engage in drug reduction.
- Patients already in the process of weaning opioid medication but are having difficulty with it.

### **BEFORE PRESCRIBING:**

- 1. ASSESS DIAGNOSIS, PAIN AND FUNCTION
  - Avoid strong opioids in low back pain, headache and fibromyalgia, and in cases where there is no specific diagnosis
  - Assess baseline pain and function using, for example, the <u>Brief Pain</u> <u>Inventory</u>

#### 2. CONDUCT A BIOPSYCHOSOCIAL ASSESSMENT

• This includes screening for major medical, psychological and social issues

#### 3. CONSIDER NON-OPIOID THERAPIES

- Non opioid medication, graded exercises, psychological methods
- If neuropathic pain is present, consider neuropathic pain treatment or refer to GGC Neuropathic Pain Guidelines

#### 4. ASSESS RISK OF HARM OR MISUSE FROM USING OPIOIDS

• Consider using The Opioid Risk Tool

#### 5. TALK TO PATIENT ABOUT TREATMENT PLAN

- Set realistic goals for pain reduction typically aim for approximately 30% pain reduction with functional improvement, or pain intensity rating to justify opioid use
- Discuss benefits, side effects and risks of strong opioids
- Describe the opioid trial
- Set criteria for stopping or continuing with opioid
- Plan review appointments, initial assessment should be 1-2 weeks from starting opioid, thereafter at appropriate regular intervals
- Document details of discussion with patient, including acceptable behaviour in relation to medication use as well as driving (Appendix 3)
- Consider the option of using a 'written agreement' in problematic patients. An example of this is available on <u>http://www.paindata.org/guidelines.php</u> \*
- Check patient understands treatment plan

\*this website hosts all the current GGC Pain Management Guidelines and resources

### WHEN PRESCRIBING: START LOW, GO SLOW

#### AIM FOR

• 30% improvement in pain and/or significant improvement in functional ability (agree goals and targets with patient at the start of trial)

#### STARTING THE TRIAL (Trial period should be limited to 2 weeks if possible)

- Continue with analgesia such as paracetamol/NSAIDs if appropriate
- For patients not previously on analgesia such as cocodamol, dihydrocodeine and tramadol, prescribe IMMEDIATE RELEASE ORAL MORPHINE\* (OR MORPHINE EQUIVALENT) at the lowest effective dose e.g. 5-10mg (max 4 hourly). Using an immediate release preparation instead of long acting preparation enables the opioid trial to be conducted in a relatively short time so that clinical decisions can be made without delay.

#### \* MORPHINE is usually the first strong opioid of choice

- There is little benefit in using doses above 50mg morphine per day during the trial.
- It is likely that patients will have trialled a Step 2 opioid. For patients currently on analgesia such as cocodamol and dihydrocodeine, discontinue these medications then treat as opioid naive and prescribe immediate release ORAL MORPHINE EQUIVALENT at the lowest effective dose e.g. morphine 5- 10mg (max 4 hourly).
- For patients currently on tramadol, wean this medication then treat as opioid naive and prescribed immediate release **ORAL MORPHINE EQUIVALENT** at the lowest effective dose e.g. **morphine 5- 10mg** (max 4 hourly).
- Prescribe a limited (e.g. 1-2 week) supply of immediate release **ORAL MORPHINE EQUIVALENT** tablets.
- In patients with significant renal dysfunction, refer to appendix 4 for dose adjustments
- In frail or elderly patients, dosage should be guided by individual circumstances and co-morbidities, and not by guideline dose recommendations

#### **DURING THE TRIAL**

- The patient should keep a diary during the opioid trial (<u>http://paindata.org/app.php</u>)
- Assess within 1-2 weeks of starting trial using, for example, using the PADT tool at
- Assess pain and **function** compared to baseline
- If morphine is not tolerated **despite treatment of side effects**, recommence trial using an alternative immediate release ORAL MORPHINE EQUIVALENT as per local formulary recommendations
- Observe for signs of aberrant behaviour, drug misuse and addiction using the <u>PADT</u> tool If suspicious, urine screen for relevant substances can be done.

#### END OF TRIAL

- If no clinically meaningful improvements in pain and **function**, it is very unlikely that continuing opioid therapy will be helpful. It is also unlikely that an alternative opioid will be effective. Wean and discontinue the opioid medication. Refer to <u>'TAPER'</u> section for advice. Do not continue prescribing opioid if the trial has failed
- If there is improvement in symptoms or function, these patients could be considered for continuing opioid prescription for a planned but limited period of time. Refer to the section on <u>'CONTINUING OPIOID PRESCRIBING'</u>.

#### NOTE:

The Faculty of Pain Medicine advises against the use of the World Health Organisation (WHO) 3-Step 'Ladder' in non-cancer pain. As although a stepped approach is sensible, the benefits of opioid use should not be determined only by the patients reported pain intensity – which is the basis of the WHO Ladder.

### CONTINUING OPIOID PRESCRIBING (AFTER A SUCCESSFUL TRIAL)

- Use oral route where possible; do not initiate subcutaneous, intravenous or any parenteral route of administration
- Most patients will go on to MODIFIED RELEASE (NOT IMMEDIATE RELEASE)
   OPIOIDS for continuing prescription
- Avoid using immediate release opioids together with modified release opioids unless the patient is suffering from problematic incident pain
- Use the lowest possible dose and establish a maximum dose. Avoid doses >90mg/day morphine equivalent
- There are no high quality randomised controlled trials to suggest that one opioid is more effective than another. If there is NO clinical benefit with a full trial of one opioid, we would not encourage further opioid trials in primary care – seek advice of a Pain Specialist
- Arrange regular review e.g. 3 to 6 monthly. Consider using the <u>PADT</u> to ensure ongoing assessment of risks and benefits, and to monitor aberrant behaviour
- Review the need for continuing opioids use e.g. at 6 monthly intervals, ensuring the use of the lowest possible dose and consider weaning if possible
- Agree a plan with the patient to manage flare up. Advice on flare up management is on Appendix 1.
- Due to intolerable side effects, opioid switch may be required in some patients (<u>http://paindata.org/calculator.php</u>)\*
- Be aware of side effects resulting from continuing use of opioids. These include tolerance, withdrawal, cognitive impairment, weight change, reduced fertility and irregular periods, erectile dysfunction, hyperalgesia, depression, dependence, addiction, reduced immunity, osteoporosis and constipation

Follow this link for further information on dependence and addiction: https://www.rcoa.ac.uk/faculty-of-pain-medicine/opioids-aware/clinical-use-ofopioids/dependence-and-addiction

• If hypogonadism is suspected : consider measuring sex hormones. If abnormal seek advice from your local endocrine clinic.

\*This resource is used by Pain Clinic clinicians in GGC

### TAPERING (WEANING) AND STOPPING GUIDANCE

#### INDICATION FOR STOPPING OPIOIDS

- No benefit (this means less than 30% pain reduction and no meaningful functional improvement)
- Pain resolves
- Patient receives definitive treatment for pain
- Intolerable side effects
- Aberrant behaviour with opioids

#### HOW TO TAPER AND STOP

- Document decision to taper/stop and agree taper schedule
- Reduce drug dose by e.g. 10% every 1-2 weeks (some patients may require less than 10% step reduction), use taper calculator if required http://paindata.org/calculator.php
- Monitor patient during taper e.g. if experiencing withdrawal effects then rate of reduction should be slowed down
- Consider additional support e.g. psychological, drug support service, alcohol service
- Tapering and stopping patients on high dose opioids e.g. morphine equivalent of >300mg/day may also require support from a combination of specialist services

#### HOW TO MANAGE OF COMMON SIDE EFFECTS

#### Constipation

The majority of patients taking opioids for moderate to severe pain will develop opioid induced constipation; tolerance does not develop to this side effect. [1] Refer to local formularies and prescribe a stimulant laxative with a stool softener. In refractory cases, if a patient has failed to respond to adequate trials of two classes of laxatives, consider a peripheral acting opioid antagonist[2]. Alternatively, consider an opioid rotation.

#### Nausea & Vomiting

Nausea and vomiting are common when starting on opioids but generally tolerance develops after 5-10 days. [1] It is recommended that patients commencing on an opioid for moderate to severe pain should have access to prophylactic anti-emetics to be taken if required. Refer to local formularies for treatment of choice. [3]

#### **Itch & Sweating**

Pruritus occurs infrequently in patients who receive systemic opioids and is thought to be caused by either a central mechanisms or by cutaneous histamine release. Therefore consider antihistamines. If dry skin is also a problem, consider emollients. Alternatively, consider an opioid rotation or a reduction in dose if the itch persists. [4]

Hyperhidrosis can occur with opioids. Review concurrent medications and consider dose reduction or rotation where possible. Anecdotal evidence exists for the use of oral anti-cholinergic, clonidine or anti-histamine medication trials in cases where the opioid cannot be reduced or stopped. [5]

#### Appetite

Clinical experience suggests that continuing use of opioids may be associated with loss of appetite and hence weight loss. If this it is suspected that those symptoms are solely related to opioid therapy then consider weaning or rotating the opioid medication.

#### Withdrawal

Opioid withdrawal symptoms are well known and include:

- o Low energy, Irritability, Anxiety, Agitation, Insomnia.
- Runny nose, Teary eyes. Hot and cold sweats, Goose bumps.
- o Muscle aches and pains.
- o Abdominal cramping, Nausea, Vomiting, Diarrhoea.

The Patient may require further information, support and advice. If withdrawal symptoms are induced by weaning/taper then consider reducing taper % or make slower adjustments to allow symptoms to subside.

#### APPENDIX 1

#### Flare-up Management

Flare ups are common in people with chronic pain. Although flare ups are often distressing and frightening, they rarely indicate new damage.

- Advise patient to continue taking medication as prescribed.
- If short term changes to the patient's medication are required, then a management plan needs to be agreed between the patient and the healthcare provider and be adhered to. Return to normal medication when flare up has settled.
- Reduce exercise and normal activity, but maintaining some gentle activity as this is important.
- Suggest patient ask others to help during the flare up and gradually get back to usual levels of activity.
- Advise patient to learn deep breathing exercises and relaxation techniques. Check for negative thoughts and "catastrophic" thinking. Water bottles, heat packs, electric blankets, warm baths or Jacuzzis can sometimes help.
- Encourage the patient to eat regularly and have a few meals in the freezer that can be heated up.
- Distraction is often helpful TV, reading, having someone to talk to etc.
- Return to normal activities and exercise when flare up has settled.
- Encourage patient to develop a flare up management plan that works for them. They should start the plan as soon as the flare up begins.

### APPENDIX 2 OPIOID SWITCH GUIDE FOR LONG ACTING OPIOIDS

# Guidance for opioid switch: use steps below OR use the TAPER CALCULATOR on this link http://www.paindata.org./calculator.php

- Opioid switch can be considered in situations where
  - the patient is benefiting from a strong opioid but cannot tolerate the side
  - the patient has become tolerant to a specific opioid
- Discuss risks with patients.
- Use minimum effective dose

#### <u>Method</u>

- a. Work out the opioid equivalent dose of the original opioid for the new opioid. A dose equivalent calculator can be used via link above.
- b. Stop the original opioid and directly switch to the new opioid using 50-75% dose equivalence of the original opioid. Note: Patients taking high doses of opioid or who are elderly or frail, and patients who are experiencing intolerable side effects should start the new opioid at 50% of the original opioid dose equivalent.

#### Worked example:

Below is a method of switching from 100mg/24 hour of slow release morphine (i.e. 50mg twice a day of slow release morphine) to slow release oxycodone.

Slow release morphine and oxycodone are usually prescribed as 12 hourly doses. Start by calculating the total daily dose of the new opioid in 24 hours, and then break this into the 12 hourly dose.

- 1. Using the dose equivalent calculator, 100mg/24 hour of morphine is approximately equivalent to **50mg/24** hour of oxycodone.
- 2. Reduce the total oxycodone dose to 75% which is approximately 37 mg/24 hours. Oxycodone is not available in tablets which would allow a dose of 37mg/24 hours, so reduce to 30mg/24 hours. This oxydocone slow release dose should be prescribed as 15mg every 12 hours.
- 3. After the last dose of morphine is taken, the next time the dose is due, do not take morphine but start oxycodone at 15mg every 12 hours.
- 4. Assess response in approximately 2 weeks. If there is no benefit, reduce and discontinue.

#### **Essential notes for switching:**

Please note that the above information are only examples, and variation may be required depending on patient factors.

In some cases, immediate release opioids can be used in addition to bridge analgesia during switch, to prevent withdrawal and/or increased pain. Immediate release preparation should be discontinued when the rotation or switch period is completed. Immediate release preparation is not recommended for long term use.

Regularly assess during switch period e.g. 2 weekly. Some patients may require additional support during this period. An individualised approach is necessary. Conversion factors used in the switch calculator are an approximate guide only because comprehensive data are lacking and there is significant inter-individual variation, in some cases switching can lead to over sedation/withdrawal

\*This resource is used by Pain Clinic clinicians in GGC

#### **APPENDIX 3**

#### <u>DRIVING</u>

#### (taken from the recent final draft of GGC opioid PIL)

The law in Scotland allows you to drive if you are taking prescribed opioid medicines in accordance with the instructions from your prescriber (including what your prescriber advises you about driving safely). Your ability to drive may be affected by tiredness, your pain and other medicines you take. High doses of morphine can impair your ability to drive.

- You should never drive if you feel unsafe or your ability has been impaired.
- You are responsible for making sure you are safe on each occasion that you drive.
- It remains an offence to drive while impaired by your medications.

The law on drugs and driving in England and Wales changed in 2015. This will affect anyone crossing the border. If your driving is impaired for any reason, including taking medicines, it is illegal to drive. It is also now illegal to drive when you are taking opioid medicines without them being prescribed, **even if you are not impaired**.

All opioid medicines have the potential to impair driving and your prescriber will advise whether the dose of opioid you are taking is likely to impair you. If you are taking a high dose of opioid your prescriber will advise you that you are probably not safe to drive and will document this in your medical notes.

GGC Patient information leaflet on opioid medication (hyperlink) \*

\*this website currently hosts all the digital GGC Pain Management Service patient information leaflets

#### **APPENDIX 4**

#### OPIOIDS & RENAL IMPAIRMENT [6]

For those patients with *moderate to severe* renal impairment (see table), the likelihood of opioid toxicity with any opioid increases. In general, the following guiding principles should be followed:

- Use the smallest effective dose and lengthen the dosing frequency.
- Titrate with immediate release preparations.
- Avoid codeine, dihydrocodeine and pethidine.
- Use all other opioids with caution.
- Consult the renal team or pain team for specialist guidance.

Opioid	>60 [1-2]	60-30 [3A/B]	30-15 [4]	<15 [5]
Codeine/DHC	Normal dosing 50% dose titra			Avoid
Pethidine	Normal dosing 50% dose titration			Avoid
Tramadol	Normal dosing		8-12hr dosing	Caution
Morphine/ Hydromorphone/ Diamorphine	Normal dosing	75% dose titration	50% dose titration	Caution
Oxycodone	Normal dosing 75% dose titration			50% dose titration
Fentanyl	Normal dosing	75% dose titration		50% dose titration
Tapentadol	Normal dosing		Caution and avoid*	
Alfentanil	Normal dosing			
Buprenorphine	Normal dosing			

#### Renal Function CrCI mL/min [CKD Stage]

\*Insufficient evidence to advice on safety.

#### Resources:

https://www.fpm.ac.uk/faculty-of-pain-medicine/opioids-aware

Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. DOI: <u>http://dx.doi.org/10.15585/mmwr.rr6501e1</u>

#### References:

1.Scottish Intercollegiate Guidelines Network. SIGN Guideline 106. Control of Pain in Adults with Cancer. November 2008. <u>http://www.sign.ac.uk/pdf/SIGN106.pdf</u>

2. Drewes AM, et al Definition, diagnosis and treatment strategies for opioid-induced bowel dysfunction—Recommendations of the Nordic Working Group Scandinavian Journal of Pain 11 (2016) 111–122

3.NHS Greater Glasgow and Clyde. Therapeutics. A Handbook for Prescribing in Adults. http://handbook.ggcmedicines.org.uk/guidelines/pain-post-operative-nausea-and-vomiting-and-palliative-care-symptoms/management-of-postoperative-nausea-and-vomiting-ponv/

4. <u>http://www.webstercare.com.au/files/Continuing\_Education\_August\_2015.pdf</u>

5. Cheshire WP, Fealey RD. Drug-Induced Hyperhidrosis and Hypohidrosis

Incidence, Prevention and Management Drug Safety 2008; 31 (2): 109-126

6. https://www.sps.nhs.uk/articles/which-opioids-can-be-used-in-renal-impairment/

7. <u>https://www.evidence.nhs.uk/formulary/bnf/current/4-central-nervous-system/47-analgesics/472-opioid-analgesics</u>