Policy on Pharmacological Therapies Practice Guidance Note

Reducing Dosing Errors with Opioid Medicines – V03

V03 issued Issue 1- Dec 15 Issue 2- Mar 16 **Issue 3- Feb 17**	Planned review **December 2018**	**PPT-PGN 18** part of NTW(C)38 Pharmaceutical Therapy
Author/Designation	**Ewan Maule – Deputy Chief Pharmacist** **Laura Stavert – Clinical Pharmacist**	
Responsible Officer / Designation	**Timothy Donaldson, Trust Chief Pharmacist**	

Appendix

Document No:	Description	Issue	Issue Date	Review Date
Appendix 1	Opioid Physical Withdrawal Scale	1	Mar 16	Dec 18

Statement of changes made within V03

Version	Date	Page / Section / paragraph	Amendment
V03 Issue 3	Jan 17	Section 2 - **Prescribing, Dispensing and Administration of Opioid Medicines** Additional paragraphs **from section 2.7 – 2.9**	2.7 When prescribing, reviewing or changing opioid prescriptions use a recognised opioid dose conversion guide (BNF) to ensure that the total opioid load is considered. If guidance on prescribing is not followed, document the reasons why in the patient's care record. 2.8 Document and give information to the person taking the controlled drug or the carer administering it, including: • how long the person is expected to use the drug • how long it will take to work

			• what it has been prescribed for • how to use controlled drugs when sustained-release and immediate-release formulations are prescribed together • **how it may affect the person's ability to drive** (see the advice from the Department of Transport on drug driving and medicine: advice for healthcare professionals) • that it is to be used only by the person it is prescribed for. 2.9 When supplying more than one formulation (for example immediate-release and sustained-release formulations) of a controlled drug, discuss the differences between the formulations with the person, and their family members or carers if appropriate, and check that they understand what the different formulations are for and when to take them.
V03 - Issue 3	Jan 17	Section 4 - **Administration of opioid medication in hospitals** **NEW - section at 4.2**	4.2 Prescribing controlled drugs via continuous administration 4.2.1 Any decision to initiate prescribing of controlled drugs via continuous administration must involve the person's GP and any lead health professionals for other teams (such as palliative care) involved in the person's care. Record the decision in the person's care record. If prescribing outside normal working hours, tell the GP about the decision the next working day. 4.2.2 Only those healthcare professionals who have completed training in setting up a device for continuous administration and have had their competence confirmed, may use such a device. Seek specialist advice when setting up devices for continuous administration.

1. Introduction

1.1 Opiate and opioid medicines are prescribed for the treatment of acute and chronic pain and in the treatment of opioid substance dependence.

1.2 The risks of prescribing, dispensing and administrating these medicines are higher where healthcare professionals are unfamiliar with these medicines.

1.3 These risks are greater when the pharmaceutical formulation and current dosage are unknown i.e. when medication histories do not document drug treatment in sufficient detail and medication may be substituted, omitted or prescribed unnecessarily.

1.3.1 The need for this practice guidance note has arisen due to the publication of the NPSA rapid response report on 'reducing errors due to opioid medicines'. The report outlined that many of the incidents related to patients receiving inappropriate doses or the wrong drug formulation.

1.4 Opioid drugs are used within the Northumberland Tyne and Wear NHS Foundation Trust (the Trust) when treating acute pain, chronic pain and in managing opiate drug dependence.

1.5 The risk lies with the large range of proprietary and generic drug formulations that are available (i.e. tablets, capsules, MR tablets, MR Capsules, solutions of different strengths, orodispersible/sublingual tablets, adhesive matrix patches and injections) for each drug entity.

1.6 Practitioners need to be aware of differences between proprietary brands particularly with respect to different product formulations. Different pharmaceutical formulations are designed to release the drug differently and such differences may result in reduced pain management, toxicity or adverse side effects.

1.6.1 It is essential to be aware of the differences between products to minimise prescribing and administration errors resulting in significant adverse outcomes.

1.7 The opioids include the following drugs:

- Buprenorphine
- Codeine Phosphate
- Diamorphine
- Dihydrocodeine
- Dipipanone
- Fentanyl
- Hydromorphone
- Meptazinol
- Methadone
- Morphine
- Oxycodone
- Papavertum
- Pentazocine
- Pethidine
- Tramadol

1.8 **Evidence of Harm**

- A review of the incidents reported to the National Reporting and Learning Service found 4,223 incidents involved opioids and the 'wrong dose or strength' or the 'wrong frequency' of medication

- Mental health services was the third most common care setting of occurrence and contributed to 7% of all incidents reported

- Of the 4,223 incidents reported 5 resulted in patient deaths

2 Prescribing, Dispensing and Administration of Opioid Medicines

2.1 Opiate use must be confirmed with the patient and/or patient's General Practitioner before prescribing.

2.2 Medication summaries obtained on admission or medication administration records may provide clear information on the product prescribed, frequency and dose. Where this is not clear, clarity should be sought from the prescriber.

2.3 Patient's own medication may also provide the necessary information, although care should be taken to ensure they belong to that patient and that they **are current** and not old medicines. Refer to UHM-PGN-01 - Safe, Secure Medication Handling and Supply for guidance on assessing patient's own drugs.

2.4 The following information must be fully confirmed before prescribing or administering any opiate medication

- Current opioid medication use
- The name and dose of medication that they usually take (including brand where indicated)
- Frequency of administration and the time the last dose was taken (if not recorded on the drug chart)
- Adherence with medication

2.5 Dose increases of morphine and oxycodone must not normally exceed 50% of the current 24 hour opiate dose taking into account regular and 'administered as required doses'.

2.6 Healthcare professionals must be familiar with the following drug characteristics where they are involved in the prescribing, administration and dispensing of these medicines (Refer to current BNF, local policies/formulary and summary of product characteristics for individual medicines where necessary)

- Usual starting dose
- Frequency of administration
- Standard dosing increments
- Symptoms of overdose
- Common side effects

2.7 When prescribing, reviewing or changing opioid prescriptions use a recognised opioid dose conversion guide (BNF) to ensure that the total opioid load is considered. If guidance on prescribing is not followed, document the reasons why in the patient's care record.

2.8 Document and give information to the person taking the controlled drug or the carer administering it, including:

- how long the person is expected to use the drug
- how long it will take to work
- what it has been prescribed for
- how to use controlled drugs when sustained-release and immediate-release formulations are prescribed together
- **how it may affect the person's ability to drive** (see the advice from the Department of Transport on drug driving and medicine: advice for healthcare professionals)
- that it is to be used only by the person it is prescribed for.

2.9 When supplying more than one formulation (for example immediate-release and sustained-release formulations) of a controlled drug, discuss the differences between the formulations with the person, and their family members or carers if appropriate, and check that they understand what the different formulations are for and when to take them.

3 Monitoring of medication (toxicity or overdosage)

3.1 Prescribers and nursing staff must monitor the patient for signs and symptoms of toxicity especially when new medicines are commenced. Symptoms of toxicity include:

- respiratory depression (reduced respiratory rate), low O_2 saturations
- Pin-point pupils
- Sedation
- Reduced consciousness leading to coma
- Nausea and vomiting
- Hypotension, tachycardia, hallucinations and rhabdomyolysis have been reported

3.2 If a patient is suffering signs of toxicity or overdose dial 999.

3.2.1 Where staff have received appropriate training, naloxone may be used to reverse opiate toxicity causing coma or respiratory depression.

3.2.2 Naloxone has a short half-life (1-2 hours) which may require repeated injections every 2-3 minutes according to effect. Please see manufacturer's information www.medicines.org.uk

3.3 Specialist advice for dealing with overdose and opioid toxicity can be obtained from:

- **National Poisons Information Service 0844 892 0111 (24 hours)**

4 Administration of opioid medication in hospitals

4.1 Principles for administration of medication outlined in UHM-PGN-03 - Administration of Medicines should be followed at all times

4.2 Prescribing controlled drugs via continuous administration

4.2.1 Any decision to initiate prescribing of controlled drugs via continuous administration must involve the person's GP and any lead health professionals for other teams (such as palliative care) involved in the person's care. Record the decision in the person's care record. If prescribing outside normal working hours, tell the GP about the decision the next working day.

4.2.2 Only those healthcare professionals who have completed training in setting up a device for continuous administration and have had their competence confirmed, may use such a device. Seek specialist advice when setting up devices for continuous administration.

5 Commencing treatment with opioid medication: Prescribing Checklist

5.1 At the start of treatment:

- Provide information to the patient on benefits and risks of treatment
- Confirm the patient's understanding of information supplied

5.2 Prescriptions

5.2.1 Refer to UHM-PGN-02 - Prescribing of Medicines and UHM-PGN-04 - Controlled Drugs for principles around writing prescriptions for controlled drugs.

5.2.2 Brand names should be included for high potency opiates such as fentanyl, morphine and oxycodone due to differing pharmaceutical release profiles and confusion between formulations[4].

5.2.3 Advice should be sought before switching brands of high potency opiates.

5.2.4 For specialist services, please refer to local CD guidelines.

6 Safe Dispensing Practice

6.1 Check dosage changes where these are unusual or significantly greater than 50%.

6.2 Check formulations where not stated (i.e. standard release tablet, sustained release tablet, patch, powder, granules, injection) and document on the prescriptions/drug charts and in patient's notes.

6.3 Confirm previous use of opiates when fentanyl patches are prescribed due to risk of overdose due to high potency medication

Fentanyl patch	Morphine Equivalents
12 microgram/hr	30mg Morphine
25 microgram/hr	60mg Morphine
50 microgram/hr	120mg Morphine
75 microgram/hr	180mg Morphine
100 microgram/hr	240mg Morphine
Reference: BNF68 Prescribing in palliative care	

6.4 Substance Misuse Prescribing

6.4.1 It is essential to establish concurrent drug use with benzodiazepines and alcohol when prescribing buprenorphine as concurrent use of these drugs further depress the central nervous system and concurrent use can cause respiratory depression, sedation, coma and potentially death.

6.4.2 Patients with an addiction to opioids are usually managed using either a long acting opioid agonist such as methadone or alternatively using the partial opioid agonist buprenorphine.

6.4.3 Drugs are used to manage opioid detoxification or to prevent withdrawal. Occasionally diamorphine may be used, either in tablet or injectable form. Morphine in different formulations and length of action or dihydrocodene can occasionally be used.

6.4.4 Methadone is a synthetic opioid with a long drug elimination half-life. This makes it a good choice in preventing drug withdrawal however the long half-life can result in problems due to fatal toxicity and drug accumulation.

6.4.5 Buprenorphine is a synthetic partial opioid agonist used to treat and prevent drug withdrawal. It is an alternative to methadone prescribed for opiate dependence and usually by an addiction specialist. Sometimes it is prescribed as Subutex® or Suboxone® (also contains naloxone).

6.4.6 Clients may be managed by specialist GP's or by a specific substance misuse service. Medication is usually issued from designated community Pharmacies.

6.4.7 Buprenorphine and Methadone may be dispensed on a daily basis up to a maximum of once a week. Can be longer but this is more unusual.

6.4.8 During the first three months of treatment, patients are usually supervised in taking their methadone or buprenorphine to ensure compliance (NICE TA114, 2007) or when they relapse.

6.5 Patients admitted to inpatient care or crisis services

6.5.1 It is essential to confirm details of any opiate substitute treatment before prescribing when substance misuse clients present to acute services within the Trust.

6.5.2 Nursing or medical staff should contact the client's addictions service at the earliest opportunity within working hours.

6.5.3 The following information must be confirmed as soon as possible following admission/assessment:

- The name and dose of medication usually taken (including brand where indicated)
- Whether consumption is supervised or not
- The regular community pharmacy the prescription is collected from
- Frequency of pick-up (e.g. daily, three times weekly, once weekly)
- Last attendance/collection from pharmacy
- Adherence with medication via through interview, examination and toxicology (UDS)

6.5.4 Establishing compliance by contacting the community pharmacy is essential to prevent fatal overdose due to reduced tolerance. This is only clear if on supervised dispensing. Please note if collecting from the pharmacy, then compliance cannot be assured.

6.5.5 Where non-adherence with opiate substitution medication is confirmed, adherence cannot be confirmed or doubt exists as to the reliability of information provided retitration of the medication should be considered as a safer option. This is due to the fact they will have a reduced tolerance and are at increased risk of opiate toxicity.

6.6 Retitration of Methadone

6.6.1 Reduced tolerance to methadone can occur quickly (within 2-3 days). Patients who have been non-adherent with treatment must have their dose retitrated if they have not had a supervised consumption (within the last 3 days), or have missed a pick up from their pharmacy for a few days.

6.6.2 In the first instance, advice should be sought from Addictions Services.

6.6.3 When restarting, the initial daily dose is usually within the range of 10-30mg. It is unusual to prescribe an initial dose greater than 30mg per day due to the risk of overdose and death. If tolerance is low or uncertain then 10-20mg may be more appropriate.

6.6.4 The patient is then reassessed after a period of 2 – 4 hours for signs of withdrawal using the Opiate Physical Withdrawal Scale (Appendix 1). If the patient experiences withdrawal symptoms a further dose of 5 – 10mg may be administered. This will be dependent upon the expertise of the prescriber and probably should not be administered within 2 hours of the initial dose due to the short half-life of the drug.

6.6.5 Where doses need to be increased during the first 7 days, the increment should be no more than 5 – 10mg on one day. In any event, a total weekly increase should not usually exceed 30mg above the starting day's dose.

6.6.6 Symptoms of withdrawal include:

Objective Signs	Subjective Signs
Yawning Coughing Sneezing Runny nose Lachrymation Raised blood pressure Increased pulse Dilated pupils Cool, clammy skin Diarrhoea Nausea Fine muscle tremor	Restlessness Irritability Anxiety (The signs listed above may also be useful objective signs) Sleep disorders Depression Drug craving Abdominal cramps

6.7 Buprenorphine

6.7.1 Patients taking buprenorphine should also have adherence checked before prescribing; advice must be sought from the Addictions service when patients have been non-adherent

6.7.2 Buprenorphine may precipitate withdrawal in patients taking prescribed opioid medicines or illicit opioid drugs.

7 Discharge from inpatient care

7.1 Addictions services should be involved in the discharge planning process from the earliest opportunity. This includes the client's keyworker if this arrangement is in place.

7.2 A new prescription for on-going opiate substitution medication or a clinic appointment to facilitate this should be organised prior to discharge.

7.3 Avoid supplying any opiate substitution medication at the point of discharge wherever possible. Where this is unavoidable the smallest possible quantity should be supplied to the client in order to allow transfer of care to Addictions services.

7.4 Ensure the following information is handed over to Addictions team **in written format** in order to facilitate on-going prescribing of opiate substitution treatment. This information will not be accepted verbally.

- Confirm date of discharge
- Name and dose of opiate substitution medication prescribed
- When the last dose was administered on the ward
- Quantity of opiate substitution medication supplied to the client at discharge (if applicable).

8 References

- BNF 68th Edition. Prescribing in Palliative Care. September 2014.
- Drug Misuse and dependence: UK Guidelines on Clinical Management 2007 www.nta.nhs.uk/publications/documents/clinical_guidelines_2007.pdf
- Taylor D. Paton C. Maudesley Prescribing Guidelines 9th edition
- NPSA Rapid Response Report: Reducing dosing errors with opioid medicines. NPSA/2008/RRR005
- Guideline on medicines which are unsuitable for generic prescribing. North of Tyne area prescribing committee www.northumbria.nhs.uk/menu.asp?id=245073