2. CONSTIPATION
- Anticipate this common problem
- Enquire about bowel function regularly, consider bowel chart
- Always prescribe a regular laxative when starting opioids
- Use a combination of stimulant and softener laxatives
  - Senna 2 tablets (10mls) + magnesium hydroxide 10mls od
  - Alternatives are: Movicol 1 sachet bd + senna 2 tablets (10mls) at night or co-danthramer 1 capsule bd (licence only in terminally ill patients)
- Titrate laxative to achieve optimum stool frequency and consistency
- PR examination and plain abdominal X-ray may be indicated in a patient presenting with constipation

3. NAUSEA & VOMITING
Identify the most likely cause e.g.
- Constipation/Bowel obstruction
- Drug-induced
- Metabolic causes e.g. hypercalcaemia, ureaemia, liver dysfunction
- Infective causes e.g. oral thrush, urinary tract infection
- Raised intracranial pressure
- Squashed stomach/gastric stasis
- Choose an anti-emetic based on the most likely cause:
  - GI tract involvement: Cyclizine 50mg po tds, or 150mg sc over 24 hours via syringe driver
  - Drug/metabolic: Haloperidol 1.5mg po nocte to bd, or 2.5mg sc over 24 hours via syringe driver (max 5-10mg/24 hrs)
  - Gastric stasis: Metoclopramide 10mg po tds pre-meal, or 40mg sc over 24 hours via syringe driver
- Always give anti-emetics regularly, not only PRN; reassess regularly
- Avoid metoclopramide in complete bowel obstruction
- Avoid cyclizine in patients with heart failure
- Avoid ondansetron (very constipating) unless treating chemotherapy-induced nausea & vomiting
- A combination of drugs are often needed, e.g. cyclizine + haloperidol
- Cyclizine antagonises the prokinetic effect of metoclopramide and they should not be used in combination
- If above mentioned drugs are unsuccessful, consider use of levomepromazine
  - Levomepromazine can be very sedating and cause hypotension
  - Stop other anti-emetics
  - Recommended starting dose is 6mg po od, or 6.25mg sc PRN 6-8 hourly
  - Starting dose via a syringe driver is 6.25-12.5mg sc over 24 hours, with 6.25mg sc PRN (maximum dose in 24 hours = 25mg)
- If nausea or vomiting is preventing drug absorption, always consider the use of a syringe driver
- If nausea or vomiting persists despite the above measures, or if malignant bowel obstruction is present, please consult the Specialist Palliative Care Team

4. MOUTH CARE
- Inspect the patient’s mouth daily
- A dry mouth predisposes to oral thrush. Thus, keep mouth moist and clean. Consider use of ice cubes/ chewing gum/artificial saliva/oral balance gel
- Treat oral thrush with nystatin, miconazole oral gel or fluconazole (50mg po od for 7 days)

5. DYSPNOEA
Treat the underlying medical condition(s) and involve other specialist teams as appropriate. Symptomatic treatment:
- Reassurance and explanation
- Simple measures – fan, re-positioning, review of activities
- Oxygen may be helpful (particularly if patient is hypoxic)
- Nebulised 0.9% sodium chloride may aid expectoration
- Salbutamol 2.5-5mg q.d.s. via a nebuliser as trial for treatment of reversible bronchoconstriction
- Consider low dose opioids (Immediate release morphine), titrate slowly
  - e.g. regular Oramorph 2.5mg po 4 hourly (with prophylactic laxatives)
- Consider benzodiazepines, if anxiety a component e.g. sublingual lorazepam 0.5 – 1mg SL PRN 8hourly (max 4mg per 24 hours)

6. TERMINAL CARE
During the last days of life a focus should be to provide care for patients and their families. This should be a multidisciplinary team approach.
- Attention should be to symptom control; communication with the patient and their family; priorities of care and wishes e.g. preferred place of death; review need for interventions e.g. routine blood tests; recording of routine vital signs; and rationalisation of current oral and other medications e.g. prophylactic anti-coagulation, statins etc.
- There should be anticipatory prescribing of medication for symptoms which may develop in the last days/hours of life.

Anticipatory prescribing of end of life medications (prn)
- Pain: Diamorphine sc prn 2 hrly (dose dependant on regular dose)
- Nausea and vomiting: Cyclizine 50mg sc 8hrly prn
- Agitation: Midazolam 2.5 – 5mg sc prn 2 hrly
- Respiratory tract secretions: Hyoscine hydrobromide 400mcg sc prn (max 2.4mg/24 hours)
  - OR Glycopyrronium bromide 200mcg sc prn (max 1.2mg/24 hours)
- Dyspnoea: Diamorphine sc prn 2 hrly (dose dependant on regular dose)

USEFUL RESOURCES:
1. PAIN
- Assess the individual’s pain carefully
- Consider the most likely cause for each pain and treat potential reversible causes
- Follow the WHO ladder to prescribe analgesics. Adjutant analgesics include corticosteroids, antidepressants and anti-epileptics
- Consider adding:
  i. Bone pain → NSAID (if no contra-indications)
  ii. Non-infective pleuritic pain, liver capsule pain, joint pain → NSAID
  iii. Neuropathic pain → low dose (10-25mg) amitriptyline or Gabapentin (100-300mg od and titrate as per BNF)
- Review analgesic requirements at least every 24 hours

2. OPIOIDS FOR MILD TO MODERATE PAIN
- e.g. CODEINE (‘weak opioid’)
- Combined preparations fall into 2 groups:
  - lower opioid content e.g. co-codamol 8/500
  - higher opioid content e.g. co-codamol 30/500 - if you are stepping a patient upwards on the ladder, please use the 30/500 formulation

3. OPIOIDS FOR MODERATE TO SEVERE PAIN
- e.g. MORPHINE, DIAMORPHINE, FENTANYL (‘strong opioids’)
- Morphine is the opioid analgesic of first choice in patients that can take oral medication, and have normal renal and liver function.
- For advice of choice of other opioid analgesics for patients who cannot take oral medication, or have impaired renal or liver functions, please contact the Specialist Palliative Care Team and/or patients GP.
- For patients who are not taking regular weak opioids, use immediate release (IR) morphine (e.g. Oramorph S-10mg orally) at regular four hourly intervals with access to PRN doses. Use lower doses if opioid-sensitive, elderly or frail patients and if renal impairment. If pain control inadequate and no opioid toxicity, increase the regular dose and PRN dose by 30%. Continue to carefully titrate until an effective 4 hourly dose is achieved.
- Consider conversion to a modified release preparation (e.g. MST) - divide the 24 hour IR morphine by two and prescribe as modified release 12 hourly morphine. If commencing modified release morphine without titration with IR morphine the recommended starting dose is 10mg bd (5mg bd if elderly or frail).
- For patients who have been on regular, maximum dose weak opioids, determine the morphine equivalent dose¹ and convert to twice daily dose of slow release morphine, e.g. patient on co-codamol 30/500 2 tabs po qds regularly → start on MST 20mg po bd and titrate to pain relief.
- Ensure that an appropriate dose of immediate/normal release morphine (e.g. Oramorph) is prescribed for breakthrough pain. The recommended breakthrough dose is one sixth of the total 24 hour oral morphine dose, and can be given PRN 2 to 4 hourly.
- Monitor the patient’s response every 24 hours – if the patient is still in pain, or has had 3 or more breakthrough doses in the previous 24 hours, increase dose by 30-50% until pain control is achieved or side effects apparent e.g. drowsiness i.e. 15mg bd → 20mg bd → 30mg bd → 45mg bd → 60mg bd → 90mg bd
- Ensure PRN dose of normal release morphine is adjusted accordingly.
- Always prescribe a regular laxative concurrently.
- Prescribe a regular or as required anti-emetic for the first 7 days to prevent opioid-induced nausea or vomiting (e.g. haloperidol 1.5mg at night - providing it is not contra-indicated for the patient). Opioid-induced nausea and vomiting is usually a short-term side effect.

REMEMBER: If pain is not improving despite the above-mentioned measures, please contact the patient’s GP and/or the Specialist Palliative Care Team.

SYRINGE DRIVER:
- Consider use for patients who are vomiting or unable to swallow
- The opioid can be given as subcutaneous diamorphine (alternatives include morphine and oxycodone—seek advice)

- If patient is on oral strong opioids, starting dose is 10mg of diamorphine as a 24 hours sc infusion.
- If patient is on oral strong opioids, ensure that the 24 hour equivalent dose of PO morphine is calculated, then convert the dose:
  - Total 24 hour oral morphine dose + 3 ³ = 24 hour sc diamorphine dose
  - Please ensure appropriate breakthrough dose of sc diamorphine is prescribed (one sixth of total 24 hour sc diamorphine dose, given PRN 2 to 4 hourly).

SECOND LINE STRONG OPIOIDS:
- FENTANYL
  - Available as 72 hour matrix transdermal preparation.
  - If the patient is already on fentanyl, continue on the same brand
  - DO NOT start patients straight onto a fentanyl patch without titrating with appropriate strong opioids.
  - DO NOT cut the patch
  - Should only be considered for patients with well-controlled background pain.

Indications include persistent severe side effects with morphine in opioid-sensitive pain/ oral administration is not possible/ poor compliance/ poor renal function.
- A 25 micrograms/hr patch is approximately equivalent to 90mg oral morphine in 24 hours. For conversion between oral morphine and fentanyl, as well as appropriate doses for breakthrough pain, please consult the ABHB prescribing guide², or a pharmacist

In the terminal phase: DO NOT REMOVE THE PATCH. Continue on the same strength patch at the prescribed frequency, and use sc diamorphine PRN for breakthrough pain. If diamorphine is needed regularly over 24 hours, give it by sc infusion via syringe driver concurrently with the fentanyl patch (see Integrated Care Priorities).

OXYCODONE
- Consider its use ONLY where a patient is unable to tolerate the side effects of morphine.
- Oral oxycodone 1mg = Oral morphine 2mg
- Please seek advice from the Specialist Palliative Care Team if opioid switching to oxycodone is to be considered

COMMON OPIOID SIDE EFFECTS
Can occur with all opioids and include constipation, nausea, vomiting, dry mouth, drowsiness, confusion, urinary retention.

OPIOID TOXICITY
Should be considered if the patient is:
- More drowsy…………… but also
- Restless or confused,
- Has visual hallucinations
- Has severe myoclonic jerks
- Respiratory depression

ACTION:
- Immediate review of strong opioid dose
- Review other analgesia
- Assess for cause e.g. infection
- Check renal and liver function and serum calcium
- NALOXONE IS RESERVED FOR USE IN SEVERE RESPIRATORY DEPRESSION SECONDARY TO OPIOID USE

This leaflet has been adapted from a leaflet compiled by Dr Markle Postman, Clinical Lecturer in Palliative Medicine, Barts and The London University Health Board and has been endorsed by the Gwen Palliative Medicine Consultant Group if you have any queries or comments on this leaflet, please contact Dr Meg Williams, Consultant in Palliative Medicine, Nevil Hall Hospital, Aneurin Bevan Health Board

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PRINCIPLES:
- By mouth
- By the clock
- By the ladder
- By the patient
- Patients should ALWAYS have access to PRN analgesia for ‘breakthrough pain’

STEP 1: NON-OPIOIDS
- e.g. PARACETAMOL, NSAIDS
- Avoid NSAIDS in patients with heart and renal failure without seeking specialist advice. If used, consider gastric protection.

STEP 2: OPIOIDS FOR MILD TO MODERATE PAIN
- e.g. CODEINE (‘weak opioid’)
- Combined preparations fall into 2 groups:
  - lower opioid content e.g. co-codamol 8/500
  - higher opioid content e.g. co-codamol 30/500 - if you are stepping a patient upwards on the ladder, please use the 30/500 formulation

REMEMBER: Patients with renal or liver impairment are more susceptible to side effects and potential toxicity caused by any opioid

REMEMBER: If the underlying cause of pain has resolved, step down on the ladder

For any further advice on opioids, please contact the Specialist Palliative Care Team and/or the patient’s GP

1. Pain may be due to reversible causes such as infective, non-infective pleuritic, liver capsule pain, joint pain, bone pain, neuropathic pain.
2. Fentanyl prescribing guide: ABHB.
3. M3 equivalent dose: 1mg = 6mg IR morphine.