Nausea and vomiting (N & V)
Exclude obstruction & biochemical abnormalities

Oral antiemetics
1. Haloperidol 500microgram to 3mg nocte: Biochemical or opioid induced N & V
2. Levomepromazine 6.25mg to 12.5mg nocte (¼ - ½ x 25mg)
   (Nozinan®) - broad spectrum antiemetic - may sedate 6mg tablets available for named patient only but expensive.
3. Metoclopramide® 10mg tds: Prokinetic
4. Cyclizine 25mg to 50mg tds/ 8 hourly: ↑ ICP or obstruction
5. Parkinsons patients avoid all dopamine antagonists 1, 2 & 3
   Use ondansetron or cyclizine

Subcutaneous antiemetics
Use water for injection unless indicated
1. Haloperidol Stat or prn dose sc 500 microgram to 1mg
   SD® dose 1mg to 3mg/24hour
   Max 5mg (SD + prn)
2. Levomepromazine Stat or prn dose sc 2.5mg to 5mg
   SD® dose 5mg to 12.5mg/24hour
   Max dose 12.5mg/24hour for nausea
3. Metoclopramide® Stat dose sc 10mg
   SD® dose 30mg to 60mg/24hour
   Max dose 100mg (SD® + prn)
4. Cyclizine Stat or prn dose sc 25mg to 50mg
   SD® dose 100mg to 150mg/24hour
   Max dose 150mg/24hour (SD® + prn)
   Avoid/ reduce in liver/cardiac/ renal failure
5. Ondansetron prn 4 to 8mg, 8 to 12 hourly SD® 8 to16mg/24hr

Agitation/Delirium
Is patient at risk to self or others?
Consider treatable causes:
- Constipation, urinary retention, hypercalcaemia, infection
- Haloperidol Stat or prn dose po / sc 500mcg* to 3mg nocte
- SD® dose sc 3mg to 10mg/24hour.

Anxiety
Diazepam (oral) 2mg to 5mg tds
Lorazepam (oral, SL) 50micrograms to 1mg, max 4mg
NB 1mg lorazepam is equiv to 10mg diazepam

Terminal restlessness
Midazolam (10mg/2mL) Stat or prn dose sc 2mg to 5mg
   SD® dose sc 5mg to 60mg /24hr
   Use lower stat and SD® doses in renal failure 30mg max

Alternatives
Levomepromazine Stat or prn dose sc 6.25mg to 12.5mg
   SD® dose sc 6.25mg to 100mg/24hour**
   ** Seek specialist palliative care advice for higher doses
   Seek advice Phenobarbtime sc Stat dose 100mg to 200mg

Thrust
Nystatin® suspension 1mL qds (Chlorhexidine deactivates Nystatin®, leave ½ hour between doses)
Flucanazole 50mg od for 7 to 10 days
Miconazole gel
Use a soft toothbrush to clean the mouth

Respiratory secretions (Death rattle)
Hyoscine butylbromide (Buscapan® 20mg/mL)
Stat or prn dose sc 10mg to 20mg
SD® dose sc 40mg to 120mg/24hour
Max dose 120mg (SD® dose + prn)

Causes less confusion and less sedating than alternatives

Alternatives seek advice
Glycopyrronium (Robinul®): 200microgram/mL
Stat or prn dose sc 20microgram
SD® dose 400mcg to 1,200mcg/24hour
Max 1200microgram/24hour
Hyoscine hydrobromide (to be avoided in renal failure)
Hyoscine patch 1.5mg /72hour

For specialist palliative care advice contact:
Medicines Information for hospital Tel: (01904) 725960
Medicines Information for GPs Tel: (0191) 2824631
York St Leonard’s Hospice Tel: (01904) 708553
Hospital Palliative Care Team Tel: (01904) 725835
Community Palliative Care Team Tel: (01904) 724476
Scarborough St Catherine’s Hospice Tel: (01723) 351421
Hospital Palliative Care Team Tel: (01723) 342446
Community Palliative Care Team Tel: (01723) 356043

Notes
1. SD is syringe driver
2. Micrograms should always be written in full
3. Avoid using decimal points when prescribing opioids or midazolam in adults where possible as may lead to errors with hand written prescriptions / drug charts
4. If a range of medication is quoted in the guidance always start with lowest dose in the range
5. For any new products or change in product licence since this publication refer to product literature
6. MHRA guidance states metoclopramide 10mg tds for one week only, prescribing beyond this will be an unlicensed use.
7. Consult symptom control algorithms in renal failure

Introduction
This formulary is a guide for prescribers in hospitals and primary care across the locality. The acceptance and use of this formulary will enhance the quality and consistency of prescribers care. All prescribers should follow local CCG prescribing policies for the most cost effective specific products / brands to ensure they fulfill paragraph 18 of Good Medical Practice which states ‘You must make good use of the resources available to you’. Some drugs are unlicensed for route and indication but are nationally used in specialist palliative care units. Dose adjustments may be required in patients with renal impairment. Consult renal handbook or BNF or SPC (www.medicine.org.uk)
If a range is quoted in guidance always start with lowest dose

Pain
Analgesia should be prescribed on a REGULAR basis.
NB: Laxatives should be co-prescribed at step 2 & 3
Step 1: Paracetamol 500mg to 1g qds (lower dose for <50kg)
+len/ibuprofen 200 to 600mg tds or Naproxen 500mg bd
Consider gastroprotection – see NSAIDs over page
Step 2: Step 1 + weak opioid
Weak opioids
Codeine 30mg to 60mg qds
Combination preparations are prescribed
Cocodamol 8/500 or 30/500 (up to 2 qds)
If intolerant of codeine use tramadol or buprenorphine patch (Buprenorphine in micrograms / hour changed every 7 days)
Step 3: Replace Step 2 opioid with 2 to 4 hourly prn morphine IR liquid / IR tablets or oxycodone IR if GFR<30mL/min.
Titrade according to response
Then/or
Convert to12 hour sustained release morphine/ alternative opioid
Conversion:
Codeine/ tramadol to oral morphine divide by 10
Buprenorphine10 micrograms/hr equiv 24mg oral morphine/24hr

Document any opioid conversions in notes.
Document conversation with patients in notes that opioids may impair ability to drive and issue appropriate leaflet.

Morphine formulations
Zomorph SR® cap: 10, 30, 60,100, 200mg
(Capsule contents may be sprinkled on food)
MST® Continus tablet: 5,10,15, 30, 60, 100, 200mg
Immediate release (IR) morphine sulphate liquid 10mg/5mL,
Oramorph® concentrate 20mg/1mL. Sevedrot® tabs 10,20,50mg
For rescue or breakthrough pain
Prescribe IR morphine (total daily dose (TDD) of sustained release morphine divided by 6) to be taken 2 to 4 hourly prn.
**Morphine intolerance** (including renal patients)

Some patients will get significant side effects with morphine. Consider opioid dose reduction, if appropriate. Patients may benefit from switching to oxycodone or fentanyl. Remember some pains are not opioid responsive.

**Consult Specialist Palliative Care Team for more advice**

**Oxycodone** Mild to moderate renal failure eGFR<30mL/min

Prescribed as MR 12 hourly sustained release tablet with immediate release IR capsule or liquid breakdown medication which may be taken every 2 to 4 hours, prn. Prescribe according to CCG guidance in primary care

**Oxycodone MR tablets** 5, 10, 15, 20, 30, 40, 80, 120 mg

**Oxycodone IR capsules** 5mg, 10mg, 20mg

**Oxycodone IR liquid** 5mg/5mL, 10mg/mL

Conversion Oral morphine to oral oxycodone divide by 2

**Transdermal patches** - not suitable for unstable pain

**Fentanyl TTS** each patch usually lasts 72 hours

(In some patients the patch needs changing every 48 hours)

**Fentanyl patches** 12, 25, 50, 75, 100micrograms/hour

Prescribe according to CCG guidance in primary care

- Slow onset of action
- Cover with morphine/oxycodone for first 12 hours
- Residual effect up to 24 hours as sub-dermal reservoir

**Approach conversion**: 12mcg/hr→45mcg morphine/24hr

25mcg*1/hr = 90mg oral morphine/24hr

If patient dying keep patch on and change it every 72hrs

**Buprenorphine patches**

5, 10, 20 micrograms/hour change every 7 days

35, 52, 75, 100micrograms/hour change every 4 days

Max dose 140microgram/hour

For breakthrough pain use immediate release morphine but if morphine intolerant use oxycodone IR (capsule or liquid). Ask SPCT advice re alfentanil spray or IR transmucosal fentanyl products

**Subcutaneous opioids** Remember to prescribe prn doses, prn=total daily dose (TDD) divide by 6 when prescribing SD

**Morphine injection**: first line if eGFR<30mL/min

**Morphine injection** 10mg/mL, 30mg/mL

Conversion Oral morphine to sc morphine divide by 2

Diamorphine is not used routinely in York or Scunthorpe.

**Diamorphine injection** 5mg, 10mg, 30mg, 100mg, 500mg

Conversion Oral morphine to sc diamorphine divide by 3

**Oxycodone/OxyNorm** in 10mg/mL, 20mg/2mL, 50mg/mL

Conversion Oral oxycodone to sc oxycodone divide by 2

**Alfentanil injection** 500 micrograms/mL (2mL, 10mL)

(Used if eGFR<15mL/min) Contact SPCT for advice.

**Adjuvants or co-analgesics**

**Steroids** - document indication in notes.

Dexamethasone should be given as a morning daily dose

Avoid giving steroids after 2pm as insomnia may occur.

Monitor blood sugars. Consider gastroprotection.

High dose steroids may cause agitation or psychosis

**Liver capsule pain** Dexamethasone 6mg od

**Nerve pain** Dexamethasone 6mg od

**Bone pain** Dexamethasone 6mg od

**Raised Intracranial Pressure (ICP)** DEX Up to 16mg 1st brain, DEX 8mg for brain secondaries

**Bowel obstruction** 6mg sc daily

Tritate dose down as recommended by oncologists/doctors

**NSAIDs - Bone Pain:**

Ibuprofen 200mg to 600mg tds (liquid available)

Naproxen 500mg bd

Consider gastroprotection in high risk patients on NSAIDs

Lansoprazole 15mg to 30mg od/ Omeprazole 20 to 40mg od

*High risk* elderly, cancer, previous peptic ulcer or GI bleed, concomitant steroids, SSRIs, cardiovascular disease

**Colic** - Stop stimulant laxative & prokinetic

Hyoscine butylbromide (Buscopan®)

Poorly absorbed orally

Stat dose 10mg to 20mg prn

4 hourly sc

SD1 dose 40mg to 120mg /24hour sc

Max SD1 dose 120mg sc (SD1 dose + prn)

**Neuropathic pain**

Tricyclic antidepressants (avoid in patients with arrhythmias)

Amitriptyline 10mg to 150mg nocte

(Other antidepressants may have analgesic properties)

Anticonvulsants (caution if GFR<30mL/min)

Gabapentin 100mg nocte titrating by 100mg to 200mg 12 hourly tds

Pregabalin 25mg bd

Max dose 300mg bd

Clonazepam is unlicensed. Seek Palliative Care advice

Steroids: Dexamethasone 4mg to 6mg daily

**Constipation**

Try to anticipate constipation and treat the cause

- A softer & stimulant is usually required in patients taking opioids. Avoid bulking agents
- Full rectum–stimulant required if soft faeces/ softer required if hard faeces
- Do not use stimulant if obstruction present

**Softener** Docusate 100mg to 200mg bd / tds

**Osmotic** Macrogol 1 to 2 sachet od / bd (Max 8/day)

Prescribe according to CCG guidance in primary care

Dissolve each sachet in 125mL water

Caution in fluid restricted patients

Lactulose 15ml bd may cause bloating (useful in hepatic encephalopathy/patient choice)

**Stimulants** Senna 2 to 4 noxte max 4 tab tds (30mg tds)

Sodium picosulphate 5 to 10mg od max 20mg

Sennoside 10mg to 20mg noxte (10mg PR)

Picolax may be required (picosulphate + Mg citrate)

**Impaction**

- Rectal examination & AXR or CT scan to exclude constipation with overflow or obstruction
- Oral route alone is usually ineffective
- Consult SPCT re naloxogol for opioid induced constipation

**Suppositories** Bisacodyl 10mg to 20mg (stimulant) or

Glycerin 1 to 2 (mainly softer)

**Enemas** Citrate micro enema 1 to 3 or

Phosphate enema 1 mane (stimulant)

**If above enema ineffective**

Warm arachis oil (contains nuts do not use if nut allergy) administered over night as a retention enema (softener) which need to be followed by a phosphate enema (stimulant)

**Dyspnoea (breathlessness)**

Exclude reversible causes and remember the importance of explanation and reassurance.

Only use oxygen in patients with hypoxaemia. There is evidence that handheld fan may be beneficial.

**Opioids** (if GFR<30mL/min use oxycodone)

Morphine MR 5mg to 10mg bd. Start low and titrate to 30mg daily

Alternatively morphine IR 1 to 2mg 4 hourly, titrate to 30mg daily

**Benzodiazepines**

Diazepam 2mg to 5mg po bd / tds

Lorazepam 2mg to 4mg po bd / tds (licensed for 1200mg tds)

Midazolam 500 micrograms sublingual prn up to tds

**Stat or prn dose**: 2 to 5mg

SD1 dose sc 5mg to 10mg/24 hour

Higher doses may be required to address symptoms

Seek specialist palliative care advice