NGH
Naas General Hospital

Palliative Care Resource Folder

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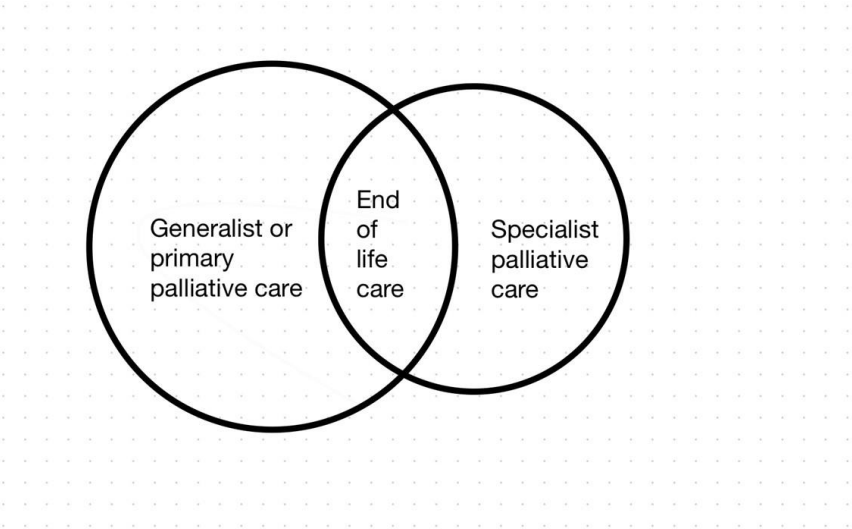
Introduction

Palliative care is an approach to care focused on reducing and relieving symptoms of advanced, progressive illnesses. Palliative care provision is the responsibility of the whole healthcare team and uses a team approach to planning and providing care tailored to meet the individual needs of the person and their family or loved ones. Palliative care incorporates physical symptom control, psychological or social distress, end of life care and future or advance care planning.

Diagram of primary palliative care, specialist palliative care and end of life care



Within a healthcare there are three levels of palliative care provision with increasing specialisation from level 1 to level 3:

Level 1: Provided in any location or setting by all health care professionals as part of their role and using a palliative care approach.

Level 2: Provided in any location, using a palliative care approach by health care professionals who have additional knowledge of palliative care principles and use this as part of their role.

Level 3: Provided by health care professionals who work solely in palliative care, and who have extensive knowledge and skills in this specialty.

Referral process to Naas General Hospital Specialist Palliative Care team is outlined in Factsheet 1.

The aim of this folder is to draw together the evidence of best practice in the management of common symptoms experienced by people living with life limiting conditions. This best practice shall be presented in a series of factsheets.

Should patients require **Symptom Control** as they approach the **End of their Life** please ensure all anticipatory medication is prescribed as outlined in Factsheet 8.

Please do not hesitate to contact the Specialist Palliative Care team for any advice contact details are outlined in Factsheet 1.

We wish to thank all professionals involved in the development of this quality improvement initiative.

We wish to thank the Irish Hospice Foundation and the Friends of Naas Hospital for the financial support.

Irish Hospice Foundation

HospiceFriendly HOSPITALS

Putting Hospice Principles into Hospital Practice.

Disclaimer applicable to Palliative Care Resource Folder Factsheets

Many drugs prescribed in palliative care situations are used outside of the product licence or by an unlicensed route (e.g. subcutaneously). Such drugs are recommended based on a wide experience and sound body of knowledge. However, responsibility for prescribing ultimately rests with the prescribing professional.

Practitioners who prescribe drugs in a manner that falls outside of the product licence specification should be able to support their actions, for example, with references.

Further advice can be obtained from your local Hospital Drug Information Service.

We have endeavoured to ensure that the information and drug dosages included in the factsheets are accurate, but cannot accept responsibility for any errors or omissions that may occur. When in doubt, information should be checked against published literature or with the specialist palliative care team.

Palliative Care Resource Group February 2023.

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Palliative Care Resource Folder

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<u>Factsheet 1</u>- Specialist Palliative Care Referral

What is Palliative Care?

"Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychological, psychosocial and spiritual" (WHO 2020).

Referral Criteria to Specialist Palliative Care?

Eligibility criteria for access to Specialist Palliative Care (SPC) services patients with both:

- An advanced, progressive, life-limiting condition and
- Current or anticipated complexities relating to symptom control, end of life care planning or other physical, psychosocial or spiritual needs that cannot reasonably be managed by the current care provider(s). It is recognised that there are "grey areas" and individual referrals may be discussed with the SPC team so as to assess their appropriateness. SPC teams are always available to advise or support other professionals in their delivery of palliative care.

How do you make a referral to Naas General Hospital SPC team?

Referrals must be made by the patient's primary consulting medical/surgical team.

Mon- Fri during working hours: Preferred method of referral is by bleeping the Palliative Care Nursing team Clinical Nurse Specialists (Bleeps 342 or 269) or Registered Advance Nurse Practitioner (Bleep 220).

Reduced Service hours: Enquire from the nurse in charge as a memo will be circulated by email through hospital communications (identifying alternative referral pathway during this time).

Out of hours on weeknights and weekends the doctor on call can contact the consultant in palliative medicine on call via NGH switchboard. As the rota varies throughout the week (local / regional), please do not phone Our Lady's Hospice and Care Services in Harold's Cross directly. Thank you.

How do you deal with my referral?

- All urgent referrals are seen on day of referral.
- Initial assessments are carried out within 24 hours Monday to Friday. However, during leave within the service this may not occur. An email is circulated through hospital communications to direct clinicians on the referral process during this time
- Patients are reviewed during their admission according to their physical and psychological symptom needs.
- The Palliative Medicine Consultant endeavours to review all new referrals to the service.
- On discharge from hospital patients referred to the SPC during their hospital stay are referred to either

    - Community SPC services through linking with St. Brigid's Hospice's community palliative care team (CPCT)
    - Palliative Medicine Outpatients or
    - Acute specialist palliative care (ASPC) Units (Hospice) for admission.
- Referrals to Hospices are made by NGH SPC team.

What about if I need advice or support out of hours?

For advice out of hours please contact Palliative Medicine Consultant on call through Naas General Hospital Switchboard.

References

Health Service Executive (HSE) Referral Criteria to SPC https://www.hse.ie/eng/about/who/cspd/ncps/palliative-care/resources/referring/ [accessed July 2021]

World Health Organisation (2020) https://www.who.int/news-room/fact-sheets/detail/palliative-care [Accessed July 2021]

Fact Sheet 2

Evidence-based Advice for Delivering Bad News

Bad news has been defined as *'any news that drastically and negatively alters the patient's view of his or her future'.*

(Buckman, 1984)

Delivering bad news is never easy to perform and bad news not easy to receive. However there are some measures we can take to ensure bad news is communicated with sensitivity, expertise and clarity and in a timely fashion in order to enable patients to make informed choices about their treatment and care.

This factsheet is designed to support you to do your best when delivering bad news to patients and their loved ones.

Key Principles on Delivering Bad News:

- Prepare yourself and the environment as best you can.
- What is the key purpose of this conversation? Familiarise yourself with the patient's background, medical history, future management, and treatment choices.
- Set aside protected, adequate time for a face to face meeting. *(Calgary-Cambridge Guide)*

- If possible, find a comfortable and private place to have this conversation, free from interruptions. Do not stand over the patient or loved ones, sit down as this relaxes the patient and shows that you are not going to be rushed. Switch off bleep or get a colleague to answer calls for you. *(Maynard, 2003)*

- How will you end the conversation – what advice or referral for support can you offer the person? What professional (doctor, nurse, social worker) do you anticipate they will speak to next?

- Support yourself – who can you talk with to debrief? How am I feeling?

- Responding to the recipient's emotions is one of the hardest things about breaking bad news *(IHF 2010)*.

- Know that you are doing this from a place of compassion. Expect emotions (your own and theirs) to come your way. *(Calgary-Cambridge Guide) (Maynard, 2003)*

Start the conversation with 'signposting' (If possible and appropriate, start with a clear outline of what is going to follow (e.g. an update, a decision to be made). Much of what is said may well not be remembered – ideally offer to record and/or write down key points

- Show empathy and compassion throughout. Show understanding without claiming you can possibly fully understand. This is a balance. Be mindful of your non-verbal communication such as body language, tone of voice, facial expression, posture, and gestures. *(Silverman et al. 2013)*.

Find out some of what the person you are talking to knows, expects, and feels.
Why? This helps you work out if they already know that death is likely, it helps you to fit what you are going to say to what they know and feel. For instance, it can tell you whether they already have a lot of health knowledge – and this helps you judge whether more or less technical terms are appropriate. It can help you gauge how the person might respond emotionally. Also, speaking aloud about what's been happening sometimes helps the person recognise the poor prognosis for themselves. Show you are listening to them by 'echoing' back the main points that have made. (IHF Communications Training Booklet) (Pino & Parry, 2019; Maynard, 2017; Maynard, 2003; Parry, Land & Seymour, 2014)

At this point and not before, bring the person (further) towards an understanding of the situation – how things are, what has happened or is likely to happen.
Why? Describe some of the things that are wrong with the unwell person, in such a way that you are forecasting that bad news is going to come. You may for example describe the person's normal state and compare it to today.

Why? Basically, you are trying to bring someone towards recognition, rather than induce shock. A warning shot.] (IHF Toolkit for Compassionate End of Life Care). The Quality Standards for End of Life Care (2010) state that timely information and communication is needed relating to the patient's condition throughout the advanced illness and dying period.

Use concise easily understood language and terms: either die, dying, death OR 'gentler' terms that are nevertheless unambiguous. *(Calgary-Cambridge Guide)*

If they cry, acknowledge and express sympathy: I'm sorry. If they apologise for crying, reassure them it's OK, understandable. If you can, avoid giving further information until they're slightly calmer. *(Hepburn & Potter, 2007, 2012)*

Move towards ending the conversation – 'screening' understanding and unanswered questions.

Why? Try to avoid the phrase 'anything else' because in some circumstances, we know this can be heard as conveying you're not expecting there to be anything else. Offering 'Are there things I have not covered or explained enough?' removes the implication that the person has not understood things, and lessens the burden on them. (Tender Conversations, Kathryn Mannix, 2021)

Offer words of comfort and give information on what happens next.

Why? You might say that the person was not alone when they died, died peacefully, that they were cared for as well as possible. Try to take some burden off the person with whom you are talking – that is, don't leave them wondering what happens next.

Give them advice on who they can call for support. Be very clear on where they can find information. If the patient has not died yet, highlight on-going and continued care, and that they are not being abandoned.

Things to avoid saying: "I know how you feel", "At least…", "They have gone to a better place" "He has passed" *(IHF Toolkit for Compassionate End of Life Care, 2021)*

Ways to Communicate 'Sick Enough to Die'

I worry that your dear person…

- is sick enough to die
- isn't strong enough to survive this
- may not be able to pull through this
- might not live until tomorrow/ next week
- is starting to die
- is too exhausted/ sick to survive
- may be so sick they won't survive the night

These phrases do not communicate 'dying'…

- very sick
- deteriorating rapidly
- shocked
- septic
- very dehydrated
- low oxygen levels
- kidneys/ liver/ lungs not working
- seriously ill

(Tender Conversations, Kathryn Mannix, 2021)

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Fact Sheet 3- Principles of Pain Management

- Pain is an individual experience affected by many factors
- Pain is a common symptom of anyone living with a life-limiting illness
- Many patients will have more than one site and type of pain
- A Multidisciplinary approach provides better symptom management

1. Assessment

A thorough assessment and good communication skills are key to good pain management (Jenkins *et al* 2021)

- A comprehensive pain history must be taken
- A pain assessment tool may prove helpful
- Underestimation of the severity of the pain is associated with inadequate treatment. The severity and impact of pain may be assessed by:
    - Self-assessment
    - The impact on the patient's activities
    - The patients psychological wellbeing
- Consider total pain. Pain may be:
    - Psychological
    - Social
    - Cultural
    - Financial
    - Physical
    - Emotional

Total pain may present itself with several of these elements.

2. Diagnosis (Payne *et al* 2008)

Tissue affected	Mechanism of pain	Pain characteristics
Bone	Tumour in bone	Continuous dull, poorly localised pain, made worse by straining the bone.
	Fracture due to metastases	Severe pain worsened by the slightest passive movement.
Muscle	Strain	Well localised sharp pain provoked by palpation and active movement.
	Myofacial	As above. Characterised by trigger points. Palpation is very painful and may present referred pain.
Skin	Ulceration	Pain well localised to the edge of the ulcer.
Pleura & peritoneum	Infiltration by tumour	Well localised and sharp pain on inspiration. Non-Malignant causes are common e.g. embolism, chest infection.
Visceral Pain	Pain from deep structures of the chest, abdomen or pelvis	Pain poorly localised and may refer to other sites. Affected organ may be tender on palpation. Non Malignant causes are common.
Nerve Compression	Compression of nerve	Pain may be continuous (Tumour compression) or intermittent (skeletal instability). Reduced sensation or paraesthesia are common.
Neuropathic pain	Altered spinal and central neurotransmitter levels	Unpleasant sensory change at rest in the distribution of the peripheral nerve. Often accompanied by hypersensitivity or pain on light touch. Typical descriptions are “burning, cold numb, stabbing”.

Central nervous system	Spinal cord compression	Back pain with radiation can be an early sign. Motor and sensory signs occur later as do sphincter and bowel disturbances. It is important to consider spinal cord compression early and not wait for sensory signs. This is to prevent permanent and irreversible neurological damage. Spinal cord compression can be multi-level.
	Cerebral metastases	Headache on lying flat. Vomiting, drowsiness, focal neurological deficits.

Should there be any concerns for spinal cord compression immediate action is required. Full Spine MRI and high dose steroids (dexamethasone) are needed. Urgent contact with the Radiation Oncology team if the MRI report shows a spinal cord compression or pending spinal cord compression.

3. Treatment

- Always involve the patient and carer or support person if possible
- Set realistic goals and timeframes
- Aim to treat the suspected cause of the pain if possible
- If cancer-related, would radiotherapy, chemotherapy, bisphosphates or steroids be helpful? Consult with Oncology team or Specialist Palliative Care team.
- Regular reassessment is vital to effectively manage pain.

Consider interventional anaesthetic techniques

4. WHO principles of analgesia use in pain management:

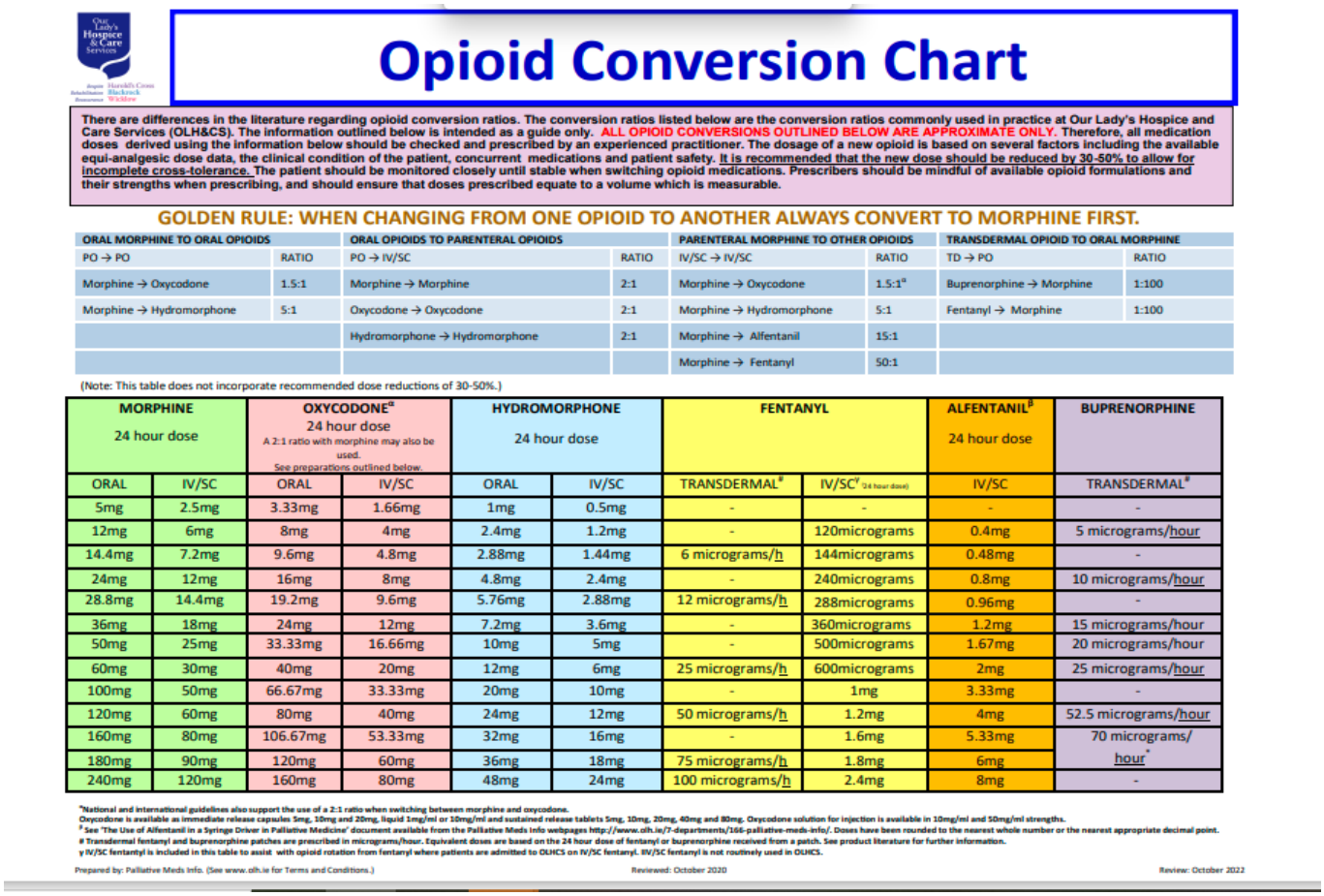
- **BY MOUTH** Always use oral medication if possible
- **BY THE CLOCK** Regular medication and prn

- **BY THE LADDER** Increasing potency for increasing severity **(once pain is responsive to that analgesia)**

World Health Organisation (WHO) Pain Ladder

- Use drugs that are known well e.g. paracetamol – morphine- oxycodone (oxynorm). Please note that paracetamol is based on weight/ liver function tests (dose reduce if the adult is under 50kgs)
- At each level, assess if the pain is responsive to current analgesia regime. If pain is still problematic and the patient is not responding to current analgesic seek advice
- Depending on the cause of pain, there may be a role for adjuvant analgesia
- If pain is only partially responsive to opioid analgesia consider adjuvant treatments.

Please note if a patient is on methadone for pain please do not make any prescription changes unless discussed with the Specialist Palliative Care Team including out of hours and at weekends.



Opioid Conversion Chart

There are differences in the literature regarding opioid conversion ratios. The conversion ratios listed below are the conversion ratios commonly used in practice at Our Lady's Hospice and Care Services (OLH&CS). The information outlined below is intended as a guide only. ALL OPIOID CONVERSIONS OUTLINED BELOW ARE APPROXIMATE ONLY. Therefore, all medication doses derived using the information below should be checked and prescribed by an experienced practitioner. The dosage of a new opioid is based on several factors including the available equi-analgesic dose data, the clinical condition of the patient, concurrent medications and patient safety. It is recommended that the new dose should be reduced by 30-50% to allow for incomplete cross-tolerance. The patient should be monitored closely until stable when switching opioid medications. Prescribers should be mindful of available opioid formulations and their strengths when prescribing, and should ensure that doses prescribed equate to a volume which is measurable.

GOLDEN RULE: WHEN CHANGING FROM ONE OPIOID TO ANOTHER ALWAYS CONVERT TO MORPHINE FIRST.

ORAL MORPHINE TO ORAL OPIOIDS		ORAL OPIOIDS TO PARENTERAL OPIOIDS		PARENTERAL MORPHINE TO OTHER OPIOIDS		TRANSDERMAL OPIOID TO ORAL MORPHINE	
PO → PO	RATIO	PO → IV/SC	RATIO	IV/SC → IV/SC	RATIO	TD → PO	RATIO
Morphine → Oxycodone	1.5:1	Morphine → Morphine	2:1	Morphine → Oxycodone	1.5:1[α]	Buprenorphine → Morphine	1:100
Morphine → Hydromorphone	5:1	Oxycodone → Oxycodone	2:1	Morphine → Hydromorphone	5:1	Fentanyl → Morphine	1:100
		Hydromorphone → Hydromorphone	2:1	Morphine → Alfentanil	15:1		
				Morphine → Fentanyl	50:1		

(Note: This table does not incorporate recommended dose reductions of 30-50%.)

MORPHINE 24 hour dose		OXYCODONE[α] 24 hour dose A 2:1 ratio with morphine may also be used. See preparations outlined below.		HYDROMORPHONE 24 hour dose		FENTANYL		ALFENTANIL[β] 24 hour dose	BUPRENORPHINE
ORAL	IV/SC	ORAL	IV/SC	ORAL	IV/SC	TRANSDERMAL[#]	IV/SC[γ] (24 hour dose)	IV/SC	TRANSDERMAL[#]
5mg	2.5mg	3.33mg	1.66mg	1mg	0.5mg	-	-	-	-
12mg	6mg	8mg	4mg	2.4mg	1.2mg	-	120micrograms	0.4mg	5 micrograms/hour
14.4mg	7.2mg	9.6mg	4.8mg	2.88mg	1.44mg	6 micrograms/h	144micrograms	0.48mg	-
24mg	12mg	16mg	8mg	4.8mg	2.4mg	-	240micrograms	0.8mg	10 micrograms/hour
28.8mg	14.4mg	19.2mg	9.6mg	5.76mg	2.88mg	12 micrograms/h	288micrograms	0.96mg	-
36mg	18mg	24mg	12mg	7.2mg	3.6mg	-	360micrograms	1.2mg	15 micrograms/hour
50mg	25mg	33.33mg	16.66mg	10mg	5mg	-	500micrograms	1.67mg	20 micrograms/hour
60mg	30mg	40mg	20mg	12mg	6mg	25 micrograms/h	600micrograms	2mg	25 micrograms/hour
100mg	50mg	66.67mg	33.33mg	20mg	10mg	-	1mg	3.33mg	-
120mg	60mg	80mg	40mg	24mg	12mg	50 micrograms/h	1.2mg	4mg	52.5 micrograms/hour
160mg	80mg	106.67mg	53.33mg	32mg	16mg	-	1.6mg	5.33mg	70 micrograms/ hour*
180mg	90mg	120mg	60mg	36mg	18mg	75 micrograms/h	1.8mg	6mg	
240mg	120mg	160mg	80mg	48mg	24mg	100 micrograms/h	2.4mg	8mg	-

*National and international guidelines also support the use of a 2:1 ratio when switching between morphine and oxycodone.
Oxycodone is available as immediate release capsules 5mg, 10mg and 20mg, liquid 1mg/ml or 10mg/ml and sustained release tablets 5mg, 10mg, 20mg, 40mg and 80mg. Oxycodone solution for injection is available in 10mg/ml and 50mg/ml strengths.
β See 'The Use of Alfentanil in a Syringe Driver in Palliative Medicine' document available from the Palliative Meds Info webpages http://www.olh.ie/7-departments/166-palliative-meds-info/. Doses have been rounded to the nearest whole number or the nearest appropriate decimal point.
Transdermal fentanyl and buprenorphine patches are prescribed in micrograms/hour. Equivalent doses are based on the 24 hour dose of fentanyl or buprenorphine received from a patch. See product literature for further information.
γ IV/SC fentanyl is included in this table to assist with opioid rotation from fentanyl where patients are admitted to OLHCS on IV/SC fentanyl. IIV/SC fentanyl is not routinely used in OLHCS.

Prepared by: Palliative Meds Info. (See www.olh.ie for Terms and Conditions.) Reviewed: October 2020 Review: October 2022

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Fact Sheet 4- Management of Breathlessness

Breathlessness or shortness of breath or dyspnoea is a symptom[1]. It is a subjective experience. It is not dependent on the person's oxygen saturation. It can occur in patients who have advanced cancer, advanced obstructive or restrictive lung disease or cardiac failure[2]. It can be distressing for patients[2].

Things to consider:

a) Medical care is individualised to each patient.
b) Take a medical history from the patient and a collateral history from the loved one / family if possible.
c) Check for medication history and especially allergies and sensitivities.
d) Check RR, PR, oxygen saturations +/- BP.
e) Is the dyspnoea of acute onset or progressive over time?
f) If a person has an acute onset of breathlessness:
    - In the event of an episode of acute breathlessness or severe dyspnoea exclude a medical emergency like a PE or CCF.
    - Reverse the reversible is able and if appropriate.
    - If the patient is imminently dying and has dyspnoea (a) please see the HSE Initial Management of Severe Breathlessness in Dying Patients with Covid-19 (in the Last Hours or Days of Life) one-pager[3] (attached) and (b) please prescribe anticipatory symptom control medications for end of life care in accordance with the NGH Guidelines on Basic Symptom Control at the end of Life (attached).
g) If the person has progressively increasing dyspnoea and has advanced respiratory disease including Gold stage IV COPD, advanced fibrotic lung disease, advanced lung cancer or lung metastases causing dyspnoea, please consider the following:
    - Is this symptom reversible? What is the treatment escalation plan for the person given the patient's current clinical condition and likely disease trajectory? If the patient has a chest infection or pulmonary oedema, is the aim treatment and symptom control or palliation and comfort care only? Exclude a subacute emergency e.g. an evolving superior vena cava obstruction.
    - Does the patient have a living will, also known as an advance care directive (ACP), or an advance statement?[5]
    - Gently discuss if there are any symptoms of anxiety or depression. Shortness of breath understandably can make patients anxious which then can further exacerbate the patient's sensation of being breathless.
    - Consider a low dose opioid for palliation of dyspnoea. Opioids are safe in a palliative setting used appropriately. However the dose is individualised to the patient, monitored closely, started at a low dose and titrated based on need, side effects and the response.
    - If the patient is able to take oral medication, has normal/ satisfactory renal function and is opioid naïve (opioid naïve means that the person has not had an opioid before), then consider the following:
        i. If the person is imminently dying, please follow the NGH Guidelines for Basic Symptom Control at the End of Life[4].
        ii. If the person is not imminently dying and can take medication orally, consider starting with low dose oramorph 2mgs TDS po regularly and

oramorph 2mgs 2-hourly PRN PO if the patient is an inpatient in the hospital.

iii. If the patient is at home or for discharge home, consider starting with low dose oramorph 2mgs TDS po regularly and oramorph 2mgs QDS/PRN PO.

iv. When considering a low dose opioid for palliation of dyspnoea and the patient has impaired renal function and is able to take medication by mouth, consider oxynorm 2mgs TDS PO regularly and 2mgs oxynorm 2-hourly PRN PO if the patient is an inpatient in the hospital.

v. If the patient is at home or for discharge home, consider starting with low dose oxynorm 2mgs TDS po regularly and oxynorm 2mgs QDS/PRN PO.

vi. If the patient has respiratory disease, does the person need a nebuliser?

vii. If the patient has lymphangitis carcinomatosis, consider dexamethasone.

h) Review the patient regularly to assess for the symptom's response to treatment, side effects and also for the need to escalate care.

i) If the patient is for discharge to home, consider whether the patient would benefit from home oxygen and the safety issues.

j) Consider non-pharmacological measures such as keeping the room ventilated. Consider a fan[2] if the patient is living at home and does not have Covid 19. Fans are not used in the hospital for infection control reasons.

k) If the person has very advanced disease, has a short prognosis and is able to take medication orally, also consider a benzodiazepine for dyspnoea-related anxiety e.g. alprazolam 0.25mgs BD/PRN PO. However, benzodiazepines are less effective than opioids and non-pharmacological methods[2].

l) Reassure the patient that many patients get dyspnoea and that we will work together with the patient to develop a plan of care to manage their breathlessness. Reassure the patient that treatments will be adjusted over time to suit him / her / other.

m) Discuss with the patient's loved ones / family, if the patient wishes. It is important to explain that the opioid will not change the person's breathing rate. His breathing will look the same. The person may still breath quickly. However, the opioid reduces the person's feeling of being breathless or short of breath.

References:

1. https://www.mariecurie.org.uk/professionals/palliative-care-knowledge-zone/symptom-control/breathlessness

2. The impact of Scottish Palliative Care Guidelines – Breathlessness https://www.palliativecareguidelines.scot.nhs.uk/media/71338/20-2019-breathlessness.pdf

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4. NGH Guidelines on Basic Symptom Control at the end of Life

5.https://www.citizensinformation.ie/en/health/legal_matters_and_health/advance_care_directives.html

Fact Sheet 5- Management of Constipation

Constipation is a highly subjective symptom and what constitutes normal bowel habit varies between individuals. In general, two aspects should be taken into consideration in defining constipation in patients with advanced illness (DOH 2015).

• The first of these are measurable objective symptoms including frequency of defecation and stool characteristics.

• The second is the patient's perception of constipation including ease of defecation and associated level of discomfort. For the purpose of this guideline, constipation is considered to be the infrequent (relative to a patient's normal bowel habit), difficult passage of small, hard faeces (DOH 2015).

Impact of Constipation

- Pain
- Nausea and vomiting
- Anorexia
- Haemorrhoids
- Anal fissures
- Bowel obstruction
- Urinary retention
- Reduced quality of life
- Increased burden on healthcare services

A holistic approach in the management of constipation is vital in supporting patients and their families. A collaborative approach is paramount in ensuring the best interest of the patient is at the forefront of all care interventions. This can have a positive impact on symptom relief and quality of life.

Causes of Constipation in Palliative Care

Organic Factors	
Pharmacological agents	Opioid analgesia, anticholinergics, antacids, anti-convulsants, anti-emetics, anti-tussives, anti-diarrhoeals, anti-parkinsonians, neuroleptics, anti-depressants, iron, diuretics, chemotherapeutic agents
Metabolic disturbances	Dehydration, hypercalcaemia, hypokalaemia, uraemia, hypothyroidism, diabetes mellitus
Weakness / fatigue	Proximal and central myopathy
Neurological disorders	Cerebral tumours, spinal cord impingement or infiltration, autonomic dysfunction
Structural abnormalities	Pelvic tumour mass, radiation fibrosis
Pain	Painful anorectal conditions, uncontrolled bone pain and other cancer pain
Functional Factors	
Diet	Anorexia, reduced food intake, poor fluid intake, low fibre diet
Environmental/ cultural	Lack of privacy, comfort or assistance with toileting, cultural sensitivities regarding defaecation
Other factors	Advanced age, inactivity, decreased mobility, depression, sedation

Sykes (2004)

Constipation Assessment

- A bowel history should include a systematic assessment taking into account the patient's illness including their physical, psychosocial and functional needs.
- Establish the difference between the patient's current and usual bowel pattern.

- A physical examination will be carried out by team member which will include the following: distension, visible peristalsis, abdominal tenderness, faecal masses and nature of bowel sounds.
- A digital rectal examination may be considered to exclude faecal impaction if it is more than 3 days since last bowel motion. However, caution should be exercised in preforming DRE in patients who have thrombocytopenia or who are immune-compromised.
- A plain film of the abdomen is not recommended for routine evaluation but may be useful in combination with history and examination in certain patients.

Prevention

- Ensure maintenance of the patient's privacy and comfort to enable defaecation
- Encourage physical activity within the patients' limits
- Increase fluid and fibre intake when appropriate
- Recognition of potential constipating pharmacological agents with discontinuation when possible or provision of prophylactic laxative therapy for patients prescribed opiates

Pharmacological Treatment of Constipation

There are four main groups of laxatives that work in different ways. Each laxative may have different brand names:

- **Bulk-forming laxatives (also known as fibre supplements)**. For example, fybogel.
- **Osmotic laxatives**. For example, lactulose, movicol, phosphate enemas and sodium citrate enemas.
- **Stimulant laxatives**. For example, bisacodyl, docusate sodium, glycerol, senna and sodium picosulfate.
- **Faecal softeners**. For example, arachis (peanut) oil enemas, and liquid paraffin

Laxatives use in bowel obstruction

Clarify the patient's treatment plan and the goals of care. Reverse the reversible if able and if appropriate. In the case of **partial** bowel obstruction and if the person is for symptom con management, the introduction of a stool softener should be considered.
Stimulant laxatives should be avoided as they can cause significant bowel colic.
If the obstructive is complete, laxatives should not be used and consideration in referral to specialist palliative care (SPC).

Pharmacological management of Opiate Induced Constipation (OIC).

Maximal conventional laxative therapy may only provide partial benefit, as the opiate-receptor mediated mechanism is not addressed. If opiate induced constipation has not responded to standard laxative treatment, the use of opiate antagonists may be considered.

Prolonged release opioid-receptor agonist/nantagonist combination

Efficacy of naloxone in restoring laxation during opioid therapy has been demonstrated in Small studies (DOH 2015). When given by mouth, immediate release naloxone undergoes first-pass hepatic metabolism leading to negligible systematic bioavailability. A clinical trial has shown that plasma concentrations of both oxycodone and naloxone are elevated in patients with hepatic impairment. Naloxone concentrations were affected to a higher degree than oxycodone. The clinical relevance of a relative high naloxone exposure in hepatic impaired patients is yet not known. Caution must be exercised when administering these tablets to patients with mild hepatic impairment. In patients with moderate and severe hepatic impairment, Targin is contraindicated (HPRA accessed 22.02.22).

PAMORA- Peripherally Acting Mu-Opioid Receptor Antagonists.

- Methylnaltrexone subcutaneous injection
- Naloxogel (Movantik) 12.5mg -25mg orally once daily

Caution should be used for patients with history of bowel obstruction or abdominal adhesions.

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<u>Fact Sheet 6</u>: Nausea and Vomiting

What is Nausea and Vomiting?

- Nausea – unpleasant sensation associated with the upper GI tract +/- the urge to vomit.
- Affects 40-50% of patients with advanced cancer
- Vomiting – Forceful expulsion of gastric contents. 30% of patients with advanced cancer.
- Can be demoralising and demeaning and failure to relieve them diminishes patients quality of life.
- The distress caused by nausea and vomiting can affect one or all four of the dimensions of QOL (Leach 2019).

Causes of Nausea

- Disease- localised i.e. cancer, brain mets, ulcers, hiatus hernia
- Disease- generalised, carcinomatosis
- Drugs i.e. Digoxin; NSAID; Narcotics; antibiotics, opioids
- Biochemical uraemia; hypocalcaemia; hypercalcemia pregnancy
- Toxic: Radiotherapy chemotherapy agents
- Raised intracranial pressure
- Psychosomatic factors e.g.. anxiety
- Pain

Assessment of Nausea

- Nausea is a subjective experience.
- Determining probable cause
- Treating reversible cause
- Review of current medication
- Ascertaining appropriate route for administration of medication
- Obtaining understating and cooperation of the patient.
- Important to establish the probable cause
- May be multifactorial
- Use an assessment tool and consider
- Detailed history
- Site of metastases
- Pattern of vomit
- Vomitus observed characteristics recorded
- Evaluation of bio chemical status enables exclusion of conditions i.e. hypocalcaemia
- Physical examination

- Assess oral cavity

(Navari. 2020)

Management of Nausea

- Correct the correctable (for example renal function, hypercalcaemia, hyponatraemia, hyperglycaemia, constipation, symptomatic ascites, cerebral oedema/raised intracranial pressure, review medicines).
- Consider non-pharmacological measures (refer to non-pharmacological management below).
- Choose an anti-emetic appropriate to a likely identified cause.
- A combination of anti-emetics may be appropriate.
- A broad spectrum anti-emetic may be indicated if multiple concurrent factors are present.
- Adjuvant corticosteroid and/or benzodiazepine may be combined with the prescribed anti-emetic drug(s).
- Try to avoid the concurrent prescribing of prokinetics (for example metoclopramide) and anticholinergics (for example cyclizine) medication. The anticholinergics will diminish the prokinetic effect.
- Consider the route of administration of medication as:
    - the oral route may not provide adequate absorption or be available as a result of nausea (which inhibits gastric emptying) or vomiting.
    - buccal or sublingual medication administration may be helpful but may trigger symptoms of nausea or vomiting in susceptible individuals
    - the parenteral route may reduce tablet burden which may be a contributing factor to nausea.

(Glare *et al* 2011)

Anti-dopaminergics should be avoided in patients with Parkinson's disease.

Practical Points

- Always try to identify and treat any underlying causes of nausea and vomiting.
- Check that the most appropriate anti-emetic has been prescribed for the probable cause and is given by the most appropriate route. If nausea and vomiting persists, reassess and reconsider the possible causes and treat appropriately. If no improvement is seen, seek specialist advice.
- For persistent vomiting, management of hydration and nutritional status is essential.
- Despite logical and appropriate treatment, the patient may continue to vomit especially if there is a duodenal/ gastric outflow obstruction or bowel obstruction. Remember to consider the possibility of bowel obstruction. Colicky abdominal pain after taking a prokinetic drug may suggest bowel obstruction.

Group	Drug	Uses	Notes
Antihistamine, Anticholinergic	Cyclizine	Raised ICP, vestibular causes, bowel obstruction	NB, Blocks prokinetic action of metoclopramide
Prokinetic Anti-emetic	Metroclopramide	Gastric stasis, chemotherapy in high doses	Increase rate of gastric and upper GI peristalsis, increase lower oesophageal tone, relax pylorus and upper intestinal time shortened, extra pyramidal side effects. Oesophageal spasm, colic in GI obstruction
Prokinetic antiemetic	Domperidone	Where there is need for a prokinetic antiemetic but without risk of extra pyramidal S/E	Has high affinity for D2 receptors and stimulates upper bowel activity through 5HT4
Phenothiazine	Haloperidol	Chemical induced nausea	Can be sedating and cause extrapyramidal side effects.
Anticholinergic	Hyoscine hydrobromide	Intestinal obstruction, raised ICP, excess secretions	Does not pass the BBB S/S sedation, dry mouth, retention, blurred vision.
Somatostatin analogue	Octreotide	Promotes reabsorption of electrolytes in gut	Potently inhibits both endocrine and exocrine secretions. Can cause resumption of normal GI transit in bowel obstruction
Anticholinergic	Hyoscine Butylbromide (Buscopan)	Intestinal obstruction Raised ICP, Excessive secretions	Does not pass blood brain barrier, S/E dry mouth, urinary retention, blurred vision.
Somatostatin analogue	Octreotide	Promotes reabsorption of electrolytes in gut	Potentially inhibits both endocrine and exocrine secretions.
Phenothiazine	Levopramazine	Chemical, Cranial, gastric, anxiety	Very sedating. Can reduce seizure threshold. A rapid onset of action
Serotonin antagonist	Ondansetron	Chemotherapy radiotherapy	Block 5-HT4, 4 receptors. S/E constipation and headaches.

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Factsheet 7 -Terminal Restlessness – Delirium and Agitation at End-of-Life

A fairly common yet potentially troubling phenomenon at end-of-life is delirium or agitation. Often referred to as terminal restlessness, this condition can be upsetting to the patient's family or caregiver. Terminal restlessness is a combination of symptoms including physical and/or emotional restlessness, variable confusion, withdrawal, a reduction in awareness of patient's environment and those who may be around. In addition, patients may experience sleep disturbances and cognitive decline (Hosker. 2016). Delirium is frequently under recognised or misdiagnosed in palliative care (Recchia *et al* 2022).

What are the causes or exacerbating factors?

- Physical discomfort – unrelieved pain, retention of urine or distended rectum, inability to move, uncomfortable bed, breathlessness.
- Infection.
- Raised intracranial pressure.
- Biochemical abnormalities- hypercalcaemia, uraemia, hypoxia.
- Drugs- opioid toxicity (especially in conjunction with uraemia), hyoscine, phenothiazines.
- Psychological/ spiritual distress- anger, fear, guilt.

Management of delirium, non-pharmacological measures and environmental support are recommended first line.

1. Assess the patient.
2. Alleviate all physical elements if possible e.g. analgesia, catheterisation
3. Listen to the patient and discuss emotions including fears, anger and guilt**.**
4. Communication with patient and family is vital. Terminal restlessness is very distressing for the family, and they will need support. (SIGN 2019)

Pharmacological Management of symptoms (dosages for inpatients)

- Haloperidol is the most commonly used antipsychotic in the management of delirium. Dosage 0.5mg-1mg/SC/QDS PRN.

- Benzodiazepines: Midazolam 2.5mg-5mg/2 Hourly/SC/PRN.

- Levomepromazine: 6.25mg-12.5mg/QDS/SC/PRN.

It is important to note that pharmacological management is second line treatment. In administering any of the above medication, it is important to note the patient's response and the effectiveness of the treatment. When the use of midazolam is indicated, please monitor for paradoxical side effects which can occur at higher dose administration. There is very limited evidence on the use of antipsychotics in the management of delirium in the palliative care setting (OLH 2017). Patients often at end of life require medication via a subcutaneous syringe driver to relieve symptoms of agitation and delirium. Treatment of the underlying cause is of utmost importance. Reverse the reversible if appropriate. However, in a palliative care setting the primary goal of care is reducing patient and family distress.

If a patient's symptoms cannot be relieved by other medication they may require the administer of medication for palliative sedation. Terminal agitation is a distressing symptom for the patient, family and health professionals. In the events for which a patient is terminally agitated, Specialist Palliative Care input is advised.

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Fact Sheet 8- Guidelines for Basic Symptom Management at the End of Life

If an inpatient has a prognosis of possible days or hours, please consider the following after a comprehensive medical assessment:

GENERAL PRINCIPLES:

 Reverse the reversible if able & if clinically appropriate.

 Symptom management is individualised & personalised to the patient. Please adapt the following to the patient.

 Consider anticipatory medication for the prompt treatment of symptoms; **please prescribe an analgesic, anti-emetic, anti-secretory and anxiolytic unless contraindicated.**

 Does the patient need medication by SC infusion via a syringe driver?

 Exclude urinary retention if the patient is agitated.

Is there an advance care directive in place?

 Discuss the ceiling of treatment / care with the patient and /or family (1).

 Review the patient's medication kardex & stop medications that are now no longer required.

 Consider whether further IV cannulation or bloods are appropriate.

 Clarify & record regarding resuscitation (1).

 If the patient has an Internal Defibrillator Device (ICD). Please arrange for it to be deactivated.

 Consider transfer to a Solas Room & if appropriate, record in the medical notes.

 Consider moving a patient who is imminently dying in ED from a trolley to a bed & the most appropriate available environment.

 The condition of a patient who is imminently dying can change quickly. Re-assess patients frequently and monitor both the symptom response to medications used & side effects.

 If the patient has given consent to communicate with nominated person, communicate with the patient's family supportively about the patient's condition & prognosis. Avoid giving a specific time (e.g. 2 days) in view of the difficulty with prognostication.

PAIN:

For patients not already on opioids, start MORPHINE 2.5mgs 2-hourly PRN SC (1, 2)
If eGFR ≤10/min: use 1.25-2.5mgs morphine 2-hourly PRN/ SC (2)

Or Oxycodone 1.25-2.5mgs 2-hourly PRN/ SC (2)

FOR PATIENTS ALREADY ON OPIOIDS, THE BREAKTHROUGH DOES IS 1/6th OF THE TOTAL DAILY OPIOID. SEEK ADVICE IF NECESSARY.

And / or Paracetamol PR (if the PR route is acceptable to patient)
And/ or diclofenac 100mgs PR 16-hourly (if the PR route is acceptable to patient)

NAUSEA & VOMITING:

CYCLIZINE 50mg TDS / PRN SC *(3)*

and / or Haloperidol 0.5-1.0mgs TID/PRN SC (adapted from *4).*

and / or Levomepromazine 6.25 – 12.5mgs 4-hourly/ PRN SC (adapted from (6)) (avoid if history of seizures)

ANXIETY / AGITATION:

MIDAZOLAM starting dose (5): 2.5mg 2-hourly PRN SC, can repeat 2.5mg midazolam SC stat after 30minutes if not settled

TERMINAL AGITATION:

MIDAZOLAM 2.5mg-5mg 2-hourly / PRN SC, 2.5mg 2-hourly PRN SC, can repeat 2.5mg midazolam SC stat after 30minutes if not settled

And / Or Levomepromazine 6.25-12.5mg QDS / PRN SC (adapted from (6)) (caution if history of seizures)

RESPIRATORY SECRETIONS:

GLYCOPYRROLATE 400mcgs 4-hourly / PRN SC

and / or Hyoscine butylbromide (buscopan) 20mg 4-hourly / PRN SC (adapted from (7))
and / 0r Hyoscine hydrobromide (hyoscine) 400-600mcgs QDS/ PRN (adapted from (8), (9)) (causes sedation)

If the patient has pulmonary oedema, consider Frusemide 20 - 40mg SC BD/PRN

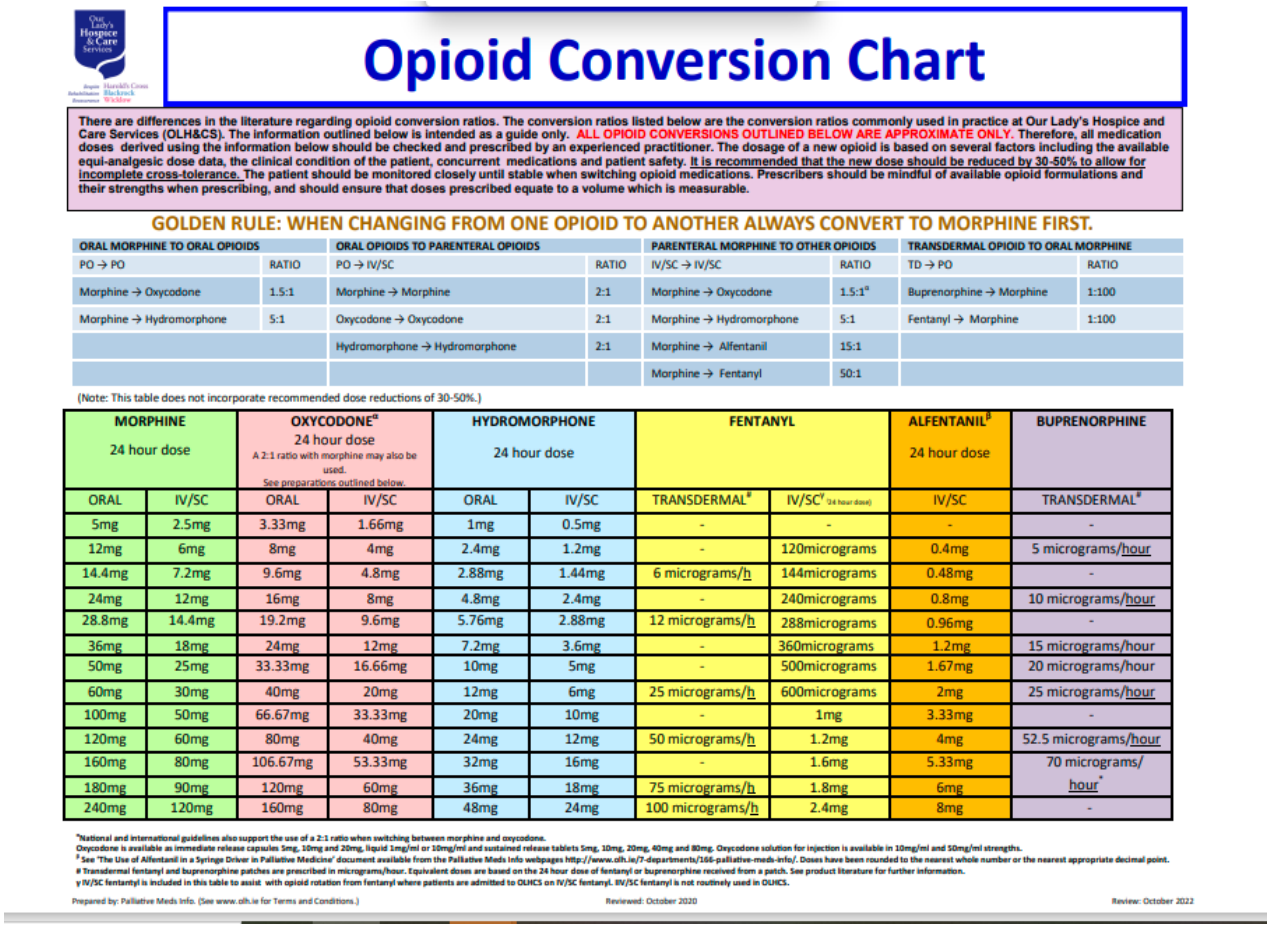
DYSPNOEA:

1st line opiate for patients not already on opioids, start MORPHINE 2.5mgs 2-hourly PRN SC (1, 2)
If eGFR ≤10/min: use 1.25-2.5mgs morphine 2-hourly PRN/ SC (2)

Or Oxycodone 1.25-2.5mgs 2-hourly PRN/ SC (2)

2nd line benzodiazepine as above If a patient is extremely breathless, consider the administration of both an opiate and benzodiazepine concomitantly.

Patients may require a SC infusion of medications for symptom control if they are unable to take them orally or absorb medication enterally during the course of a life limiting illness and/ or as part of the end of life care.



Opioid Conversion Chart

There are differences in the literature regarding opioid conversion ratios. The conversion ratios listed below are the conversion ratios commonly used in practice at Our Lady's Hospice and Care Services (OLH&CS). The information outlined below is intended as a guide only. ALL OPIOID CONVERSIONS OUTLINED BELOW ARE APPROXIMATE ONLY. Therefore, all medication doses derived using the information below should be checked and prescribed by an experienced practitioner. The dosage of a new opioid is based on several factors including the available equi-analgesic dose data, the clinical condition of the patient, concurrent medications and patient safety. It is recommended that the new dose should be reduced by 30-50% to allow for incomplete cross-tolerance. The patient should be monitored closely until stable when switching opioid medications. Prescribers should be mindful of available opioid formulations and their strengths when prescribing, and should ensure that doses prescribed equate to a volume which is measurable.

GOLDEN RULE: WHEN CHANGING FROM ONE OPIOID TO ANOTHER ALWAYS CONVERT TO MORPHINE FIRST.

ORAL MORPHINE TO ORAL OPIOIDS		ORAL OPIOIDS TO PARENTERAL OPIOIDS		PARENTERAL MORPHINE TO OTHER OPIOIDS		TRANSDERMAL OPIOID TO ORAL MORPHINE	
PO → PO	RATIO	PO → IV/SC	RATIO	IV/SC → IV/SC	RATIO	TD → PO	RATIO
Morphine → Oxycodone	1.5:1	Morphine → Morphine	2:1	Morphine → Oxycodone	1.5:1[α]	Buprenorphine → Morphine	1:100
Morphine → Hydromorphone	5:1	Oxycodone → Oxycodone	2:1	Morphine → Hydromorphone	5:1	Fentanyl → Morphine	1:100
		Hydromorphone → Hydromorphone	2:1	Morphine → Alfentanil	15:1		
				Morphine → Fentanyl	50:1		

(Note: This table does not incorporate recommended dose reductions of 30-50%.)

MORPHINE 24 hour dose		OXYCODONE[α] 24 hour dose A 2:1 ratio with morphine may also be used. See preparations outlined below.		HYDROMORPHONE 24 hour dose		FENTANYL		ALFENTANIL[β] 24 hour dose	BUPRENORPHINE
ORAL	IV/SC	ORAL	IV/SC	ORAL	IV/SC	TRANSDERMAL[#]	IV/SC[γ] (24 hour dose)	IV/SC	TRANSDERMAL[#]
5mg	2.5mg	3.33mg	1.66mg	1mg	0.5mg	-	-	-	-
12mg	6mg	8mg	4mg	2.4mg	1.2mg	-	120micrograms	0.4mg	5 micrograms/hour
14.4mg	7.2mg	9.6mg	4.8mg	2.88mg	1.44mg	6 micrograms/h	144micrograms	0.48mg	-
24mg	12mg	16mg	8mg	4.8mg	2.4mg	-	240micrograms	0.8mg	10 micrograms/hour
28.8mg	14.4mg	19.2mg	9.6mg	5.76mg	2.88mg	12 micrograms/h	288micrograms	0.96mg	-
36mg	18mg	24mg	12mg	7.2mg	3.6mg	-	360micrograms	1.2mg	15 micrograms/hour
50mg	25mg	33.33mg	16.66mg	10mg	5mg	-	500micrograms	1.67mg	20 micrograms/hour
60mg	30mg	40mg	20mg	12mg	6mg	25 micrograms/h	600micrograms	2mg	25 micrograms/hour
100mg	50mg	66.67mg	33.33mg	20mg	10mg	-	1mg	3.33mg	-
120mg	60mg	80mg	40mg	24mg	12mg	50 micrograms/h	1.2mg	4mg	52.5 micrograms/hour
160mg	80mg	106.67mg	53.33mg	32mg	16mg	-	1.6mg	5.33mg	70 micrograms/ hour*
180mg	90mg	120mg	60mg	36mg	18mg	75 micrograms/h	1.8mg	6mg	
240mg	120mg	160mg	80mg	48mg	24mg	100 micrograms/h	2.4mg	8mg	-

[α] National and international guidelines also support the use of a 2:1 ratio when switching between morphine and oxycodone.
Oxycodone is available as immediate release capsules 5mg, 10mg and 20mg, liquid 1mg/ml or 10mg/ml and sustained release tablets 5mg, 10mg, 20mg, 40mg and 80mg. Oxycodone solution for injection is available in 10mg/ml and 50mg/ml strengths.
[β] See "The Use of Alfentanil in a Syringe Driver in Palliative Medicine' document available from the Palliative Meds Info webpages http://www.olh.ie/7-departments/166-palliative-meds-info/. Doses have been rounded to the nearest whole number or the nearest appropriate decimal point.
[#] Transdermal fentanyl and buprenorphine patches are prescribed in micrograms/hour. Equivalent doses are based on the 24 hour dose of fentanyl or buprenorphine received from a patch. See product literature for further information.
[γ] IV/SC fentanyl is included in this table to assist with opioid rotation from fentanyl where patients are admitted to OLHCS on IV/SC fentanyl. IIV/SC fentanyl is not routinely used in OLHCS.

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