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Handbook of Palliative Medicine in Malaysia

EDITED BY

Richard B.L. Lim

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College of Physicians, Academy of Medicine, Malaysia

HANDBOOK OF
PALLIATIVE MEDICINE
IN MALAYSIA

Edited by

Richard B.L. Lim

Diana Katiman

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MESSAGE FROM PRESIDENT OF COLLEGE OF PHYSICIANS, ACADEMY OF MEDICINE, MALAYSIA.

DR. G.R. LETCHUMAN RAMANATHAN

I would like to thank the authors for this opportunity to pen a few lines in this much-awaited handbook.

Some of our patients may have a medical condition that may limit the expected average life span of that individual. Doctors should help such patients in the preparation for end-of-life care which include what kind of therapy, where and with whom one wishes to be with at the last moments. This preparation may allow one from not looking at death purely as a tragedy but perhaps as part of a process that celebrates the person's life.

Before we can do so, we need to be clear in our minds, our goals in treating patients and perhaps come up with some guidelines that all of us are comfortable with. As young doctors, we may feel that we can do the impossible to save a patient's life. However, as we mature, we may realize that it is not just delaying death at that moment that is important but about having a life after the treatment i.e. to be able to communicate with fellow beings and enjoy the beauty around us. When a doctor intubates or does some invasive investigation or prescribes some medication that adds adverse events without increasing a period of meaningful life, then, it may be considered as harming the patient. This is especially so when available medical knowledge does not offer any therapy that will improve outcomes that are important to us as humans.

Frequently, the above therapies are instituted because doctors are uncomfortable in bringing up issues of palliation with patients or their relatives. Then we torment ourselves with feelings of helplessness when there is unavailability of ventilators and ICU beds for some patients whom we know will benefit from such care. Simply giving therapy which is limited overall would not be ideal as it may impinge on the rights and needs of others and may not be fair to the patient him or herself. This is a universal common problem in hospitals all over the world.

All health care personnel should know that conservative management or palliative care is not equal to 'no management' or 'passive management'. It is

active management that is appropriate to relieve symptoms and provide comfort whether as inpatient or outpatient basis. We should equip ourselves with communication skills to be able to speak to patients about end-of-life issues early when the patient is still very much lucid. We should have the current knowledge of available therapies and options for a particular condition – its benefits and its side effects. These should be made known to the patient in a clear and understandable manner. One could also add your recommendation on appropriate therapy available at your center. When this is done early, the patient would have the option of seeking a second opinion and then get back to you on her or his wishes. Based on the patient’s wishes, a plan could be set up. Humans fear the unknown. Once we know what to expect, anxiety levels drop.

At the College of Physicians, we felt that the medical fraternity in our country needs to come up with some guidelines to help doctors help patients appropriately. The authors of this handbook, led by Dr Richard Lim, answered that need in a short period of time. This is just the beginning. As end-of-life issues involve many stakeholders, we believe this handbook and our annual scientific meeting with the similar theme this year will initiate the much-needed deliberations among all to come up with comprehensive and acceptable solutions for our nation.

Dr G R Letchuman Ramanathan

MESSAGE FROM NATIONAL ADVISOR FOR PALLIATIVE MEDICINE, MINISTRY OF HEALTH, MALAYSIA

DR. RICHARD B.L.LIM

The palliative care movement in Malaysia, was first initiated in the early 1990s with volunteer services developing from non-governmental bodies such as Hospis Malaysia and the National Cancer Society in Penang. Almost a quarter of a century later, the work, which was once thought of as being a form of part-time voluntary medicine, is now steadily moving forward, transforming into a fulltime, professional, evidence-based medical specialty. As a medical specialty, we are one of the youngest at present in the College of Physicians, where it was only officially recognised by the Ministry of Health in 2005.

Although palliative medicine is a young medical specialty, it is indeed recognized worldwide as an area of great relevance and need. In Malaysia, it is estimated that every year at least 32,000 people die from conditions that typically require palliative care in the months and weeks before death. It would be safe to say that all clinicians would have come across patients requiring palliative care at some point. Therefore, all clinicians should be equipped with basic knowledge on how to relieve common symptoms such as pain, dyspnoea and nausea as well as how to communicate important issues with patients and families. Clinicians should also know how to provide appropriate care at the end-of-life. The duty to relieve suffering is a responsibility of every healthcare provider and the first step in fulfilling this duty is to be able to recognize the needs.

I sincerely hope that clinicians from all fields may benefit from this “Handbook of Palliative Medicine in Malaysia” which was intended to provide basic and concise information on how to manage patients facing problems associated with life-limiting illnesses. I also hope that through this, many more clinicians will recognize the need to develop and strengthen palliative care services in the country. I would like to extend my sincere gratitude to all the authors and those who have contributed to this handbook. I would also like to thank Dr. G.R. Letchuman Ramanathan and the College of Physicians, for their support and interest towards palliative medicine and end-of-life care.

Dr. Richard B.L. Lim

PALLIATIVE CARE: DEFINITION AND CONCEPT

DR. RICHARD LIM BOON LEONG, MBBS(UM), MRCP(UK)

WHAT IS PALLIATIVE CARE?

Palliative care for adults is defined as:

An approach that improves the quality of life of patients and their families facing the problem 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, psychosocial and spiritual. Palliative care:

- *provides relief from pain and other distressing symptoms;*
- *affirms life and regards dying as a normal process;*
- *intends neither to hasten or postpone death;*
- *integrates the psychological and spiritual aspects of patient care;*
- *offers a support system to help patients live as actively as possible until death;*
- *offers a support system to help the family cope during the patients illness and in their own bereavement;*
- *uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated;*
- *will enhance quality of life, and may also positively influence the course of illness;*
- *is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications.*

World Health Organisation (2002)

This is the most appropriate and widely accepted definition of palliative care and is applicable till today.

IS PALLIATIVE CARE ACTIVE MEDICINE?

Many people misunderstand the term palliative care as a term to suggest “Nothing can be done” as patients who require palliative care all have life-limiting illnesses for which there is no cure. **This is an absolute misconception and there is never a time when nothing can be done.**

Although patients may not have the possibility of cure, there is still so much that can be done to ensure that life goes on and that there is support for them to live out their lives until the very end. This can only be achieved through the active process of communicating, taking a history of what distresses the patient, performing clinical examinations to interpret the signs of the distress and performing relevant investigations that help one understand better the underlying process of the distress. Only then can we relieve suffering and distress through good communication skills, prescribing appropriate medications, applying therapeutic procedures and addressing non-physical issues through psychosocial and spiritual interventions.

So palliative care is not just about holding someone’s hand and looking sad. It is active medicine that requires knowledge, skill, competence and above all, compassion.

IS PALLIATIVE CARE ALL ABOUT DEATH AND DYING?

Everybody dies at some point. Just because palliative care focuses on caring for patients with progressive incurable illness, naturally one may feel that the focus is on death and dying. Although caring for patients in their dying phase is an important part of palliative care, the true focus of palliative care is about **LIVING!**

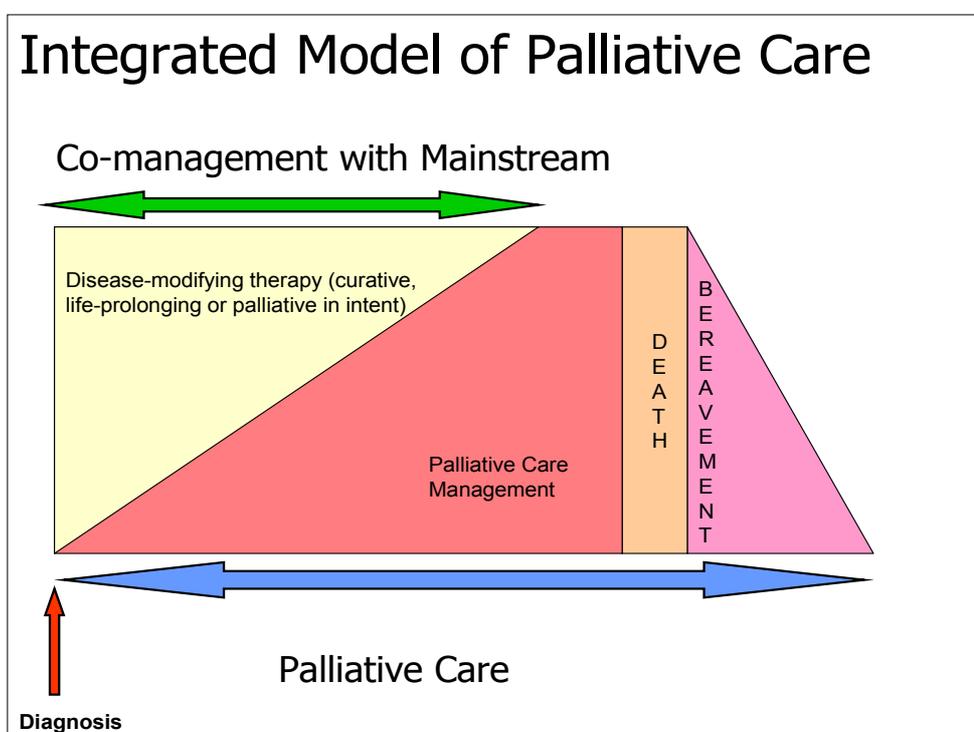
Palliative care is an approach that respects life and aims to help patients live their life to the fullest. By relieving physical symptoms, patients are able to focus on other important issues such as spirituality and psychosocial wellbeing. Also by supporting family during a time of great stress and difficulty also aims to enable family members and loved ones to cope with grief and move forward after bereavement. So, palliative care is truly about **LIVING.**

WHEN AND WHERE DO PATIENTS NEED PALLIATIVE CARE?

As mentioned in the WHO definition, palliative care is applicable early in the course of an illness and can be in conjunction with other treatments that are intended to prolong life. This is the basis of the integrated model of care where we should realize that even though patients may still receive disease modifying treatments, attention is still required to address distressing symptoms that may be occurring even before all treatment options are exhausted.

This does not mean that all patients need to be referred to a palliative care specialist right at the beginning of an illness as the need can vary. It does however suggest that all clinicians should be sensitive to these needs and understand how to address them at a basic level. Palliative care is a basic need that everyone should have access to. Hence all clinicians should know how to treat pain, basic symptoms, communicate bad news, listen and understand ethical decision making in order to support patients wherever they may be.

Patients should also have access to care in the place of their preference and often this may be at home. Hence, care in the community is also a vital component to a comprehensive palliative care service.



SECTION 1:

MANAGEMENT OF PHYSICAL SYMPTOMS

CHAPTER 1: CANCER PAIN

DR CINDY TEOH CY OUN, MBBCH BAO(NUI) , MRCP(UK)

INTRODUCTION

The World Health Organization (WHO) and the International Association for the Study of Pain have stated that “Pain Relief is a Basic Human Right”. Since 2008, the Ministry of Health, Malaysia implemented pain as the fifth vital sign, highlighting the importance of improving pain management in all MOH hospitals.

POSSIBLE CAUSES

- **Somatic pain** due to direct tissue damage by cancer in bone, muscle or skin. Common examples:
 - Bone metastasis
 - Malignant ulceration
- **Visceral pain** due to cancer enlarging in visceral organs causing pressure and compression of viscera. Common examples:
 - Liver metastasis/tumour pain
 - Pancreatic tumour pain
 - Bowel obstruction (small or large bowel & stomach)
 - Pelvic pain from gynaecological/urological cancer
 - Headache from intracranial tumour
- **Neuropathic pain** due to cancer damaging or compressing nerves. Common examples:
 - Brachial plexopathy from pancoast tumour (pain radiating down upper limb)
 - Lumbosacral plexopathy from large pelvic mass (pain radiating down lower limbs)
 - Radicular pain from spinal metastasis (pain radiating around trunk like a belt/band)
 - Facial pain/headache/trigeminal neuralgia (head and neck cancer)

ASSESSMENT

- P – Place / Site of pain (“Where is the pain?”)
- A - Aggravating factors (“What makes it worse?”)
- I – intensity (“How bad is the pain?” – use pain scale)
- N – Nature & Neutralizing factors (“What does it feel like?” & “What makes it better?”)

- Measuring intensity
 - Infants and toddlers: FLACC scale
 - Young children (3-7years): Wong-Baker Faces scale
 - Older children and adults: Visual analogue scale

Pain scores	Pain intensity
1-4	Mild pain
5-6	Moderate pain
7-10	Severe pain

FLACC Scale

Category	Scoring		
	0	1	2
Face	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant quivering chin, clenched jaw
Legs	Normal position or relaxed	Uneasy, restless, tense	Kicking or legs drawn up
Activity	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arched, rigid or jerking
Cry	No cry (awake or asleep)	Moans or whimpers; occasional complaint	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging or being talked to, distractable	Difficult to console

MANAGEMENT

- Use the WHO analgesic ladder by selecting analgesia according to pain intensity.
 - Step 1 (mild pain) – use non-opioid analgesics (Paracetamol, NSAIDs, COX-2 inhibitors)
 - Step 2 (moderate pain) – use weak opioid analgesics +/- combination of step 1 drugs (tramadol, dihydrocodeine, codeine)
 - Step 3 (severe pain) – use strong opioid analgesics (morphine, oxycodone, fentanyl) +/- combination with step 1 drugs
- Mild to moderate somatic pain may respond well to NSAIDs and COX-2 inhibitors where there is strong inflammatory process.
- Visceral pain responds well to opioid analgesics
- Neuropathic pain may respond to opioid analgesics but often only partially and will require addition of adjuvant analgesics.
- Morphine is the drug of first choice for treatment of severe cancer pain.
- How to use morphine:
 - Titration of dose according to pain and response to morphine is the main principle.
 - Oral route is the route of choice
 - For severe cancer pain, which is persistent, morphine should be given REGULARLY every 4 hours. In patients with renal impairment, either reduce the dose or increase the interval between the doses
 - Apart from regular dosing, always prescribe PRN dose (the dose would be the same as 4hrly dose) for additional breakthrough pain.
 - Start at 3-5mg 4 hourly and PRN using aqueous morphine.
 - After 24 hours calculate total morphine usage (regular doses + additional PRN doses)
 - Divide total dose by 6 to get the new 4 hourly dose
 - Once pain is controlled, aqueous morphine can be changed to Slow Release (SR) Morphine Tablets for convenience of dosing by calculating total 24 hour dose and divide by 2 which is the dose of SR morphine and given 12 hourly.

Example: Patient on aq morphine 5mg 4hourly and takes 3 extra doses. Total 24 hour morphine = (5mg x 6) + (5mg x 3) = 30mg + 15mg = 45mg

New 4 hourly dose is $45/6 = 7.5\text{mg}$ 4 hourly and 7.5mg PRN

If stable on 7.5mg 4 hourly, convert to T. SR Morphine = $45/2 = 22.5\text{mg}$

Therefore, dose should be T. SR morphine 20mg BD (because SR morphine comes in 10mg & 30mg tablets)

Common analgesic doses and side effects:

Drug	Starting dose	Max. dose	Side effects
STEP 1			
Paracetamol(pcm)	0.5-1g TDS/QID	4g/day	Rare
Ibuprofen	200-400mg TDS	2400mg/day	Peptic ulcer, GI bleed, platelet dysfunction, nephrotoxicity, cardiac events.
Mefenemic acid	250-500mg TDS		
Diclofenac sodium	50mg TDS	200mg/day	
Naproxen	250mg BD/TDS	1500mg/day	
Meloxicam	7.5mg OD	15mg/day	
Celecoxib	200mg OD/BD	800mg/day	Hypertension, renal impairment, CVS events
Etoricoxib	90mg OD	90mg/day	
STEP 2			
Tramadol	50mg TDS/QID	400mg/day	Drowsiness, nausea, constipation
Dihydrocodeine	30-60mg TDS	240mg/day	
Panadeine (codeine 8mg + pcm 500mg)	1-2 tab TDS	8 tab/day	
STEP 3			
Aqueous Morphine	5mg 4 hourly (in elderly frail patient 3mg 4-6 hourly)	No maximum dose	Common: nausea, vomiting, drowsiness, constipation Uncommon: sweating, euphoria, pruritus, myoclonus, delirium
Immediate release (IR) Oxycodone	5mg 4-6 hourly (more potent than morphine 1.5x)		
Transdermal fentanyl	Should not be used in opioid naïve patients. Lowest dose 12mcg/h patch		

- Managing side effects of morphine and other opioids
 - Constipation – always prescribe prophylactic laxatives when using regular opioid analgesia (lactulose, bisacodyl, senna)
 - Nausea / Vomiting – occurs in first 1 week after starting. Treat with metoclopramide 10mg TDS/QID
 - Sedation – occurs during initial dose and normally subsides after a few days.
- In renal or liver impairment, opioids should be used with caution at smaller doses and longer dosing intervals (6-8 hourly). Fentanyl is the safer opioid to use in renal impairment.
- Opioid switching (changing from morphine to another opioid or another route of administration eg. oral to injection) may be considered if:
 - Pain is not well controlled despite optimal titration
 - Intolerable side effects occur with morphine
 - Renal impairment develops
 - Patient cannot swallow oral medication
- Common conversion factors for opioid switching:
 - 1mg IV/SC morphine = 2.5mg oral morphine
 - 1mg oral oxycodone = 1.5mg oral morphine
 - 25mcg/h fentanyl patch = 75mg oral morphine/day
 - 200mg tramadol/day = 30-40mg oral morphine/day
- Managing neuropathic pain
 - Use adjuvant analgesics in combination with opioids:

Drug	Starting dose	Max. dose	Side effects
Amitriptylline	10-25mg ON	100mg ON	Sedation, antimuscarinic effects, cardiac arrhythmias
Sodium valproate	200mg BD	1600mg/day	Fatigue, loss of appetite, vomiting, dizziness
Gabapentin	Day 1: 300mg ON Day 2: 300mg BD Day 3: 300mg TDS	2400mg/day	Drowsiness
Pregabalin	75mg BD	300mg BD	Drowsiness

- When pain is very difficult to manage, consider the following:
 - Review the diagnosis and cause of pain then consider treating underlying cause with anticancer therapies eg. Radiotherapy
 - Consider opioid switching
 - Refer to palliative care specialist / pain specialist for advanced pain interventions.

- Managing extremely acute and severe pain episodes (pain score 9-10/10 and patient screaming/very distressed)
 - Titrate morphine intravenously or subcutaneously for fast relief
 - In opioid naïve patients, use IV morphine 1-2mg every 5-10 minutes
 - If no IV access, use SC morphine 2.5-5mg every 15-20 minutes.
 - Review before each subsequent dose assessing pain score, sedation score and respiratory rate.
 - Once pain is reduced to 50% of original pain score, stop titration and total amount given.
 - Use total amount as 4 hourly SC morphine dose and PRN dose.
 - Consider cause for acute severe pain eg. Rupture of tumour, spinal cord compression, pathological fracture

CHAPTER 2: RESPIRATORY SYMPTOMS

DR. CARYN KHOO SHIAO YEN, MD(DAL), ABIM(INT MED, HPM)

INTRODUCTION

Respiratory symptoms are common in advanced illnesses and may be due to a variety of causes, which could be specific to the respiratory system or secondary to systemic illnesses such as cardiac disease or metabolic abnormalities. Hence, when faced with such symptoms, a thorough clinical assessment, complete with a good history and physical examination is necessary. Radiological and blood investigations, may also be extremely helpful in identifying potentially reversible conditions. Therefore, even in patients where management is primarily palliative, proper assessment and diagnosis of the underlying problem remain essential.

BREATHLESSNESS

Dyspnoea is the subjective experience of breathing discomfort. It is a common symptom occurring in various conditions including cancer, chronic heart disease, chronic lung disease and renal failure. Dyspnoea is a common trigger for panic and anxiety and this in turn worsens the sensation of breathing discomfort causing a vicious cycle.

POSSIBLE CAUSES

- Lung cancer or lung secondaries
- Pleural effusion
- Lymphangitis carcinomatosa
- Pulmonary embolism
- Pneumonia
- Lung collapse or consolidation
- Superior Vena Cava Obstruction
- Cardiac failure / Pulmonary oedema
- COPD
- Pulmonary fibrosis
- Cardiac arrhythmias
- Pericardial effusion
- Anemia
- Uremia
- Respiratory muscle weakness

MANAGEMENT

- As far as possible treat the underlying cause if it is reversible:

Underlying cause	Treatment
Pleural effusion	Thoracocentesis +/- pleurodesis
Pneumonia	Antibiotics
Bronchospasm	Nebulised bronchodilators and corticosteroids
Cardiac failure	Diuretics
Anemia	Blood transfusion
Superior Vena Cava Obstruction	Corticosteroids + Radiotherapy if due to malignancy

- Symptomatic management of breathlessness if unable to reverse underlying cause:
 - **Opioid therapy:** Morphine and other opioids are effective in relieving dsypnoea by reducing the sensation of air hunger. Generally, a lower dose of opioid is required to relieve dyspnoea than is needed to relieve pain. If opioid naïve, start with oral morphine 2mg PRN and escalate as needed. If dyspnoea is continuous, opioids should be given around the clock, i.e. 4 hourly or use a long-acting opioid with PRN morphine for breakthrough symptoms.
 - **Benzodiazepines** : Panic with hyperventilation and the fear of suffocation may worsen breathlessness. Benzodiazepines are useful in these cases. May start with sublingual lorazepam 0.5-1mg PRN.
- Educate patient and family on non-pharmacological measures to relieve breathlessness:
 - Relaxation techniques (reduce anxiety and muscle tension)
 - Chest physiotherapy (percussion, breathing retraining).
 - Positioning (postural drainage, lung expansion)
 - Directing air to the face (fan, wide spaces, open window).
 - Supplemental oxygen especially if hypoxic.
 - Energy-conserving measures (pacing, leaning on support)

- Managing malignant pleural effusions
 - In patients with short life expectancy (< 4 weeks), simple therapeutic thoracentesis is preferred. Do not remove more than 1-1.5 litres at any one time to reduce risk of re-expansion pulmonary oedema. Stop tapping if patient develops chest pain, cough or increased dyspnoea.
 - If prognosis is > 4 weeks and effusion is massive, chest tube drainage is preferred followed by pleurodesis once lung re-expanded. Ultrasound guided pigtail catheter or small bore chest tubes of 10-14F are recommended as this is safer and better tolerated.
 - Pleurodesis may be performed once lung has re-expanded and drainage minimal. Common sclerosants include, talc slurry, tetracycline or bleomycin. Instill pleural space with 25cc lignocaine 1% before instilling sclerosant. If bleomycin is used, pre-medicate with paracetamol 1g. Once sclerosant is instilled, clamp tube for 1 hour. If lung is re-expanded, it is not necessary to rotate the patient. After 1 hour, unclamp the tube and allow drainage. If fluid drainage is <250cc/24h, tube can be removed. If drainage is still >250cc/24h, process may be repeated considering a different sclerosant.
 - For patients with persistent incomplete lung re-expansion (trapped lung) if prognosis >4 weeks, consider referral for thoracoscopy.

COUGH

Cough is reported in up to 50% of patients with terminal cancer and in up to 80% of patients with lung cancer, occurring as a result of mechanical and chemical irritation of receptors in the respiratory tracts. The cough reflex depends on afferent nerve input to the medulla and efferents to the respiratory muscles.

POSSIBLE CAUSES

The causes are similar to those causing breathlessness.

MANAGEMENT

- Similar to breathlessness, reversible causes should be treated.
- Productive/wet cough (aim is to promote mucus clearance)
 - Nebulised sodium chloride 0.9% 2.5 ml QID and PRN.
 - Bromhexine 8mg orally TDS
 - N-acetylcysteine 200mg BD-TDS
 - Chest physiotherapy including vibration, percussing and postural drainage.
- Dry cough (aim is to suppress cough)
 - Lozenges or sweet syrups to coat the throat and function as a protective barrier to the cough receptors.
 - Diphenhydramine (Benadryl) 20mg/10ml PRN up to 4 hourly.
 - Opioids are potent cough suppressants and may be used at low doses for refractory cough (Aq. Morphine 2-5mg 4-6 hourly)
- Dying patients and those too weak to cough should be treated with antimuscarinics (to dry up the secretions) and cough suppressants.
 - Hyoscine butylbromide (Buscopan) 20mg subcutaneous TDS to start, and may be titrated up to 120mg/day. Oral Buscopan has low bioavailability and cannot be used for secretions.
 - Glycopyrrolate 0.2mg subcutaneous is a more potent agent than Buscopan and may be given every 4 hours.

HICCUP

POSSIBLE CAUSES

- **Via vagus nerve** - gastric distension, gastritis, GERD, hepatic tumors, ascites/abdominal distension/intestinal obstruction
- **Via phrenic nerve** - diaphragmatic irritation, intracranial tumors (especially brainstem lesions), leptomenigeal disease, traumatic brain injury, stroke.
- **Systemic** - renal failure, electrolyte imbalance (hyponatraemia, hypokalaemia, hypocalcaemia), corticosteroids.

MANAGEMENT

- Pharyngeal stimulation – various remedies have been proposed, including eating granulated sugar, sipping cold water, applying pressure to the soft palate with an inverted spoon, Valsalva manoeuvre.
- Reduce gastric distension
 - Pro-kinetics – metoclopramide, domperidone, erythromycin.
 - Encourage small, frequent meals.
- Relax diaphragmatic muscle - baclofen
- Suppress central hiccup reflex –haloperidol, chlorpromazine, phenytoin.

CHAPTER 3: GASTRO-INTESTINAL SYMPTOMS

DR. AARON HIEW WI HAN, MD(UKM), MRCP(UK)

INTRODUCTION

For the patient who is already very distressed with pain and breathlessness, additional symptoms such as nausea, vomiting and constipation can be a tipping point which causes ultimate misery for a patient. Clinicians must therefore never forget to address simple issues such as bowel habits and appetite which for patients are of paramount importance.

NAUSEA & VOMITING

POSSIBLE CAUSES

Mechanical	Systemic
<ul style="list-style-type: none">• Gastric stasis• Gastritis / gastric irritation• Constipation• Gastric outlet obstruction• Bowel obstruction• Squashed stomach due to gross ascites or hepatomegaly• Severe cough	<ul style="list-style-type: none">• Drugs eg. Opioid, Chemotherapy• Hypercalcaemia• Uraemia• Sepsis• Raised ICP (brain metastasis)• Severe Pain• Fear / Anxiety• Unpleasant taste/smell

ASSESSMENT

Comprehensive assessment is necessary as causes may be multi-factorial.

- History
 - Vomiting in relation to oral intake – is this mechanical?
 - Recent change in bowel habits – constipation / obstruction?
 - Fever, symptoms of infection?
 - Headache, neurological symptoms – raised ICP?
 - Drug history – opioids, chemo, digoxin, antibiotics, NSAIDs

- Physical Examination
 - Dehydrated and lethargic – uraemia, hypercalcaemia, sepsis
 - Abdominal distension, organomegaly, ascites
 - Indentable faecal masses – severe constipation
 - Papilloedema or focal neurology – brain metastasis
- Investigations
 - Renal profile
 - Serum calcium
 - Urinalysis
 - Abdominal xray – constipation vs obstruction
 - CT brain / abdomen depending on possible diagnosis

MANAGEMENT

- Correct any reversible causes
- Stop medications that might contribute to nausea and vomiting
- Consider surgical interventions for mechanical obstruction (stenting, bypass, stoma)
- IV Dexamethasone 8-16mg daily for brain metastasis. Consider radiotherapy.
- IV Bisphosphonate and hydration for hypercalcaemia.
- If not possible to correct underlying cause, relieve symptoms with anti-emetics by IV or subcutaneous route:

Anti-emetic	Role
IV/SC metoclopramide 10-20mg TDS/QID	Can be used in most conditions particularly gastroparesis and partial obstruction. Avoid in complete bowel obstruction.
SC haloperidol 1-3mg OD	Acts on central dopamine receptors. Useful in systemic causes and 2 nd line to metoclopramide
5-HT₃ antagonist (granisetron, ondansetron)	Useful mainly for chemotherapy induced nausea/vomiting. May worsen constipation.
IV/SC Promethazine 12.5-50mg TDS	Consider as 3 rd line when metoclopramide and haloperidol not effective.

- Non-Pharmacological measures
 - Avoid or limit foods that might trigger nausea and vomiting
 - Take small, frequent meals
 - Sweets or candies might be helpful
 - Sit upright after meals or with head elevated
 - Optimize oral hygiene

CONSTIPATION

POSSIBLE CAUSES

General debility	Specific causes	Drugs
<ul style="list-style-type: none"> • Poor oral intake • Dehydration • Inactivity • Weakness • Unfamiliar toilet arrangements 	<ul style="list-style-type: none"> • Hypercalcaemia • Bowel obstruction • Hypokalaemia • Spinal cord compression • Visceral neuropathy 	<ul style="list-style-type: none"> • Opioids • Antimuscarinics • Tricyclic antidepressants • Chemotherapy • NSAIDs • Haematinics

ASSESSMENT

- Always assess frequency, amount and consistency of stools.
- Digital rectal examination to assess impacted faeces in rectum.
- Abdominal x-ray to look for impacted faeces.

MANAGEMENT

- Goal is to achieve bowel movement once daily, normal amount and soft but formed stool.
- Stimulant laxatives
 - Bisacodyl (dulcolax) 5-10mg daily-TDS
 - Senna (senokot) 15-30mg daily-TDS
- Osmotic laxatives
 - Lactulose 10-20mls daily-TDS
 - Macrogol (forlax, movicol) 1-3 sachets daily-TDS
 - Sodium phosphate (fleet) 30mls PRN if severe constipation
- Lubricant softner
 - Liquid paraffin

- Avoid bulk forming laxatives containing fibre which may worsen constipation in debilitated patients.
- Combination of laxatives may be used and by rectal route as needed.
- Encourage fluid intake and mobilise patient if possible.
- Always anticipate opioid induced constipation and prescribe laxatives prophylactically.

DIARRHOEA

POSSIBLE CAUSES

- Laxative overdose
- Drugs – antibiotics, chemo, metformin, Tyrosine Kinase Inhibitors
- Diet / Enteral feeding
- Overflow due to constipation
- Anxiety
- Gastroenteritis
- Irritable bowel syndrome
- Radiation enteritis
- Ileocolic fistula
- *C. difficile* diarrhoea
- Carcinoid syndrome
- Malabsorption / Cholegenic
- Hyperthyroidism
- Visceral neuropathy

MANAGEMENT

- Review diet and medications.
- Ensure adequate hydration and electrolyte balance.
- For *C. difficile* diarrhoea, stop causative antibiotic if possible and treat with metronidazole.
- For overflow diarrhoea, confirm with abdominal x-ray, then treat constipation.
- Consider anti-diarrhoeal drugs for symptom relief
 - T. Lomotil 1-2tab TDS/QID
 - T. Loperamide 2mg BD/PRN (more potent than lomotil)
 - For severe persistent secretory diarrhoea, SC octreotide 300-1200 mcg/24h may be helpful.

ANOREXIA

POSSIBLE CAUSES

- Nausea / vomiting
- Altered taste due to candidiasis, dry mouth, drugs
- Cancer related anorexia-cachexia syndrome
- Depression
- Squashed Stomach Syndrome due to hepatomegaly or ascites

MANAGEMENT

- Non-pharmacological treatment
 - Identify concerns – patient or family's
 - Counsel patient and family on disease process and relationship with anorexia
 - Advise small meals on small plate, foods with strong flavour (sweet or savoury) and extreme temperatures (hot or cold)
 - Reduce medications causing dry mouth and nausea if possible.
- Pharmacological treatment
 - Treat oral thrush if indicated with single dose T. Fluconazole and regular Sy. Nystatin
 - Treat depression – mirtazepine has additional side effect of increasing appetite that may be beneficial.
 - T. Metoclopramide 10-20mg TDS/QID for squashed stomach.
 - Appetite stimulants should be considered as a time-limited trial and to stop if no benefit after 1-2 weeks. This includes:

T. Dexamethasone	2-4mg OD
T. Prednisolone	15-30mg OD
T. Megesterol acetate	80-160mg OD

INTESTINAL OBSTRUCTION

POSSIBLE CAUSES

<ul style="list-style-type: none"> • Malignant bowel obstruction • Benign adhesions • Severe constipation 	<ul style="list-style-type: none"> • Severe ileus / pseudo-obstruction • Strangulated hernia
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ASSESSMENT

- A good history and review of prior imaging results may help to determine if cause is malignant or benign.
- Clinical features depend on the level / site of obstruction

Upper bowel obstruction	Lower /large bowel obstruction
<ul style="list-style-type: none"> • Vomiting develops early – bilious and undigested food particles • Upper abdominal distension • Mays still pass residual stool and flatus • Upper abdominal pain 	<ul style="list-style-type: none"> • Vomiting develops later – faeculant • Generalised abdominal distension • Absolute constipation – no stool or flatus passed • Generalised abdominal pain

- CT abdomen has most value as it may provide information on level and nature of obstruction.
- Gastrograffin studies may help to plan management.

MANAGEMENT

- Goals is to relieve nausea/vomiting, reduce pain and allow oral intake where possible.
- Surgical intervention should be considered if patient’s general condition is good and prognosis > 4weeks.
- Absolute contraindication to surgery:
 - Recent laparotomy, showing inoperable advance disease.
 - Carcinomatus peritonei demonstrated radiologically with contrast study showing severe motility problem.
 - Diffuse palpable intra-abdominal masses.
 - Massive ascites, which rapidly recurs after drainage.
- Endoscopic stenting for partially obstructed proximal duodenal lesions and large bowel lesions.
- Where interventions are not possible, conservative measures include:
 - SC morphine or TD fentanyl for pain
 - Reduce intestinal secretion with SC buscopan (60-240mg/24h), SC octreotide (300-900mcg/24h) or SC ranitidine (200mg/24h)
 - IV dexamethasone 8-16mg daily may relieve obstruction
 - SC haloperidol 1-3mg/24 to reduce nausea
 - Consider NG tube or gastrostomy for decompressing stomach.
 - SC hydration 1-2 pints NS or D5% in 24h if needed.

CHAPTER 4: NEUROLOGICAL SYMPTOMS

DR. SHERIZA IZWA ZAINUDDIN, MBBS, MMED(INT MED)

DELIRIUM

INTRODUCTION

Acute confusional state, which is a result of mental clouding, is common in people who are dying. If irreversible, it may be an indication of impending death and can be most distressing for patients, family and staffs.

POSSIBLE CAUSES

There are often multiple organic causes but in up to 50% of cases, specific causes are not found, despite investigations.

<ul style="list-style-type: none">• Infections• Organ failure (liver / renal) and underlying medical conditions• Drugs<ul style="list-style-type: none">- Sedatives- Anticholinergics- Opioids- Benzodiazepine- Steroids	<ul style="list-style-type: none">• Metabolic disturbances<ul style="list-style-type: none">- Dehydration- Hypercalcaemia- Hyponatraemia- Hypoglycaemia• Hypoxia• Cerebral metastases• Cerebral hemorrhage• Epilepsy – post-ictal
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Predisposing / Precipitating / Aggravating factors:

- Dementia and CNS immaturity
- Pain
- Fatigue
- Urinary retention / Constipation
- Unfamiliar excessive stimuli
- Change of environment

ASSESSMENT

- Clinical presentation is typically abrupt in onset with impairment of consciousness and fluctuating symptoms ('sundowner effect').

- Symptoms include:

<ul style="list-style-type: none"> - Disorientation - Fear and dysphoria - Memory impairment mainly short-term - Hyperactive(agitated) or hypoactive(lethargic) but usually mixed hyperactive and hypoactive motor activity 	<ul style="list-style-type: none"> - Reduced attention span to external stimuli - Reversal of sleep-wake cycle - Perceptual disturbances such as hallucinations, illusions - Disorganized thinking such as paranoia
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- Confusion Assessment Method (CAM) for screening:
 - **Acute Change From Baseline** - fluctuation of symptoms during the day
 - **Inattention** – difficulty focusing, easily distracted
 - **Disorganised thinking** – incoherence, rambling, irrelevant conversation, illogical flow of ideas
 - **Altered level of consciousness** – any state other than alert and calm

(Diagnosis of Delirium requires presence of feature 1 and 2 as well as one of the latter 2 features.

MANAGEMENT

- Treat the underlying organic causes if identifiable and treatable
- Treat fever, hypoxia, dehydration, constipation, fear and anxiety and pain if possible
- Ensure there is safe and secure environment – have adequate staffing, remove potential dangerous objects, ideally have mattress on the floor
- Prevent sensory overstimulation
- Psychological interventions
 - Reassurance
 - Orientating aids such as clock, presence of supportive family
 - Emotional support
 - Cognitive strategies such as validation and repetition during lucid periods
- Antipsychotics medications (in combination with above measures):
 - Haloperidol is the drug of choice.
 - Initial dose 0.5-1.5mg PO or SC at night
 - If acute severe delirium 0.5-1mg SC every 1-2 hours PRN

- Usually dose to settle patient < 5mg/24h but may be used up to maximum of 20mg/24h (risk of extrapyramidal symptoms)
- Other atypical antipsychotics may also be used if available including Risperidone, Olanzapine, Quetiapine (less extrapyramidal effects)
- Sedatives (should not be used alone in most cases of delirium as they may aggravate symptoms particularly if inadequate doses are used, so use with an antipsychotic)
 - SC Midazolam 2.5-5mg
 - T. Lorazepam 0.5-1mg PO or Sublingually (use oral tablet)

DISORDERS OF SLEEP AND WAKEFULNESS (INSOMNIA)

INTRODUCTION

Sleep is a physiological need that should not be taken for granted. Sleep deprivation leads to many problems in the medically ill including fatigue, daytime somnolence, mood disorders and demoralisation. Sleep is therefore an important aspect of good overall symptom management.

POSSIBLE CAUSES

<p>Uncontrolled physical symptoms:</p> <ul style="list-style-type: none"> • Pain • Dyspnoea • Cough • Nausea & vomiting • Delirium • Bowel & bladder symptoms <p>Unmet psychological issues:</p> <ul style="list-style-type: none"> • Depression • Anxiety • Fear of dying in sleep <p>Environmental changes:</p> <ul style="list-style-type: none"> • Admission to hospital • Disturbance by staff or family 	<p>Drugs:</p> <ul style="list-style-type: none"> • Corticosteroids • Bronchodilators • Caffeine • Methylphenidate (stimulant) • Beta Blockers (bad dreams) • Diuretics • Alcohol <p>Substance withdrawal:</p> <ul style="list-style-type: none"> • Benzodiazepines • Alcohol • Tobacco
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MANAGEMENT

- Address symptom control of above (pain, dyspnoea, cough etc)
- Establish good sleep hygiene
 - Regular bedtimes
 - Minimize daytime napping
 - Reduce evening stimulants eg. Caffeine
 - Comfortable bedding
 - Comfortable temperature
- Relaxation techniques eg. Music, meditation, massage
- Drug therapy:
 - Anxiolytics eg. Lorazepam 0.5-1mg, diazepam 5-10mg (esp. for withdrawal), zolpidem 5-10mg
 - Sedative antidepressant eg. Amitriptyline, mirtazepine
 - Sedating antipsychotics eg. Haloperidol, quetiapine

SPINAL CORD COMPRESSION

INTRODUCTION

Occurs in 3-5% of patients with advanced cancer. Cancers of the breast, bronchus and prostate, account for >60% of cases. Most occur in the thorax. There is compression at more than one level in 20%. Below the level of L2 vertebra, compression is of the cauda equina (ie peripheral nerves) and not the spinal cord.

CLINICAL PRESENTATION

- Symptoms:
 - Pain >90%
 - Weakness >75%
 - Sensory level >50%
 - Sphincter dysfunction >40%
- Pain often predates other symptoms and signs of cord compression by several weeks or months. Pain may be caused by:
 - Vertebral metastasis
 - Root compression (radicular pain)
 - Cord compression (funicular pain)
 - Muscle spasm

ASSESSMENT

- History and clinical findings with **high index of suspicion**
 - any cancer patient presenting with numbness, weakness or urinary retention should be taken seriously
- X-rays of spine shows vertebral metastasis and/or collapse at the appropriate level in 80%
- Bone scans are sensitive to detect bone metastasis but not specific to confirm spinal cord compression.
- MRI is the investigation of choice, CT with myelography may be helpful if MRI is not available.
- Even without an MRI, it is possible to correlate clinical findings (ie. Level of neurology and pain) with other radiological findings which may provide sufficient evidence to confirm cord compression.

MANAGEMENT

- Although often insidious in onset, spinal cord compression should be treated as an emergency.
- Dexamethasone, dose used varies greatly, consider 16-32mg PO daily for 5-7 days then reduce the dose gradually over 2-3 weeks
- Urgent radiation therapy, concurrently
- Decompression surgery, if there is:
 - deterioration despite radiotherapy and dexamethasone
 - a solitary vertebral metastasis
 - doubt about the diagnosis
- Patients with paraparesis do better than those who are totally paraplegic. Loss of sphincter function and rapid onset of complete paraplegia (<48h) is a bad prognostic sign.

CHAPTER 5: ORAL CARE

DR. HARRE HAREN A/L RAMASAMY @ RAJOO, MBBS, MMED(INT MED)

INTRODUCTION

Oral problems affect the majority of palliative care patients and have great impact on the quality of life. This may often be under-estimated. Saliva with its various components gives major protection to the tissues of the oral cavity keeping it moist and clean, maintaining an intact mucosa. Reduction in production of saliva and poor oral hygiene are the main etiologies contributing to oral problems. Dry mouth may be due to mouth breathing, medications and reduced oral intake. Chemotherapy, irradiation and local tumor invasion may lead to broken mucosa.

HALITOSIS

This is an unpleasant or foul-smelling breath, which is socially unacceptable.

POSSIBLE CAUSES

<ul style="list-style-type: none">• Dry mouth• Poor oral/dental hygiene• Stomatitis• Infections• Tumour necrosis and sepsis	<ul style="list-style-type: none">• Smoking• Hepatic or renal failure• Gastro-esophageal reflux• Diabetic keto-acidosis
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MANAGEMENT

- Optimise Oral Hygiene
 - regular cleaning of teeth and tongue.
 - dental flossing (using preferably unwaxed floss).
 - saliva stimulant / substitute, i.e. pineapple chunks / pilocarpine.
 - refreshing mouth wash (avoid alcohol based mouthwash which may lead to worsening mouth dryness)
 - for heavily furred tongue or necrotic tumors, consider gargling with sodium bicarbonate mouthwash, chlorhexidine 0.2% or povidone iodine 1% (Betadine mouthwash)

- Treat Infections
 - oral candidiasis
 - use local or systemic metronidazole for suspected anaerobic infections (due to necrotic tumour)

XEROSTOMIA (DRY MOUTH)

POSSIBLE CAUSES

<ul style="list-style-type: none"> • Dehydration • Hypercalcaemia • Impaired salivary glands (due to radiation, surgery, cancer) • Infections • Alcohol • Smoking 	<ul style="list-style-type: none"> • Drugs (antimuscarinics, opioids, diuretics, TCAs, antihistamines) • Mouth breathing • Oxygen therapy • Anxiety • Depression
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MANAGEMENT

- Non-pharmacological
 - frequent sips of water or simple mouth spray
 - pineapple cubes.
 - artificial saliva (preferably with neutral PH).
 - petroleum-based lip balm (for dry lips).
 - optimize oral hygiene.
- Pharmacological
 - Pilocarpine 5mg to 10mg TDS (to use cautiously in presence of glaucoma, diaphoresis and specific cardiac conditions).
 - Avoid medications causing dry mouth.
 - Dry mouth care products containing enzymes to cleanse and hydrate oral mucosa (Biotene, Orazyme).

STOMATITIS

Painful inflammatory, erosive and ulcerative condition affecting the mucous membrane lining of the mouth.

POSSIBLE CAUSES

- Radiotherapy / Chemotherapy induced mucositis
- Infections
 - Candidosis (candidiasis)
 - Herpes Simplex Virus
 - Aphthous Ulcers
- Drug-induced ulceration (antibiotics, psychotropics, antihypertensives)
- Neutropenia
- Malnutrition

MANAGEMENT

- General measures
 - maintain good oral hygiene.
 - give soft food
 - avoid food that can trigger pain, i.e. spicy and acidic food
 - consider short-term denture removal till healing of stomatitis.
 - consider topical honey.
- Treat pain
 - Benzylamine oral rinse (difflam) – 30-60 seconds 3-4h
 - Chlorhexidine 0.2% mouthwash for infection (use only alcohol-free to prevent stinging)
 - Xylocaine viscous 10-15mls 4 hourly (rinse and spit)
 - Topical applications – bonjela, orabase, oral aid
 - Sucralfate suspension (muco-protective)
 - If using oral Aq Morphine as systemic analgesic, hold in mouth for 2 minutes before swallowing (for topical effect as well.
 - If unable to swallow consider SC morphine for systemic analgesia.

- Treat specific infections
 - **HSV infection** - starts with vesicles that rupture forming irregular, bordered, small (5mm) ulcers with erythematous margins and grey centres. Gingiva will be painful, swollen or may bleed. Lip lesions may develop crusts. Treat with oral Acyclovir 200mg 5 times per day for 7-10 days. (requires dose adjustments in renal impairment). Consider IV if unable to swallow.
 - **Oral candidiasis** - Starts as painless white flakes or patches that adhere firmly to buccal mucos. Manifests as white plaques on the buccal mucosa or tongue. May also present as a smooth red painful tongue or angular stomatitis. Treat with nystatin suspension 400,000 units QID (swish and swallow after keeping in mouth for several minutes). Consider T. Fluconazole 100mg to 200mg daily dose for 7 days or IV if unable to swallow.

CHAPTER 6: SKIN CARE

DR. HARRE HAREN A/L RAMASAMY@RAJOO, MBBS, MMED(INT MED)

MALIGNANT CUTANEOUS WOUNDS

INTRODUCTION

Malignant cutaneous wounds develop due to fungating ulceration of superficial malignant lesions in the skin, breast, abdominal or chest wall as well as lymph nodes. Problems arising from this includes pain, bleeding, infection, exudates and malodour leading to psychological distress.

ASSESSMENT

When assessing a patient with a malignant wound, ask the following:

About the wound	About the patient
<ul style="list-style-type: none">• Is it highly exudative• Is it bleeding?• Is it infected?• Is there malodour?• Does it get soiled by faeces/urine?	<ul style="list-style-type: none">• Is it painful?• How will the patient cope at home?• How does it affect daily living?• What are patient/family fears?

MANAGEMENT

- Malignant wounds will not heal despite cleansing, dressing and debridement. This should be clear to the patient and family that the goals of management include:
 - Keeping the wound neat and clean
 - Prevent infection
 - Reduce pain
 - Reduce odour
 - Reduce bleeding
- Daily dressing with normal saline to irrigate and clean wound helps reduce infection and helps patients feel dry and clean after removing previous soaked dressings.
- If wounds are large, irrigating in the bathroom with a shower hose with warm water may be most suitable.

- For large exudative wounds, gamgee pads may be used with calcium alginate dressings. (At home a simple cheap alternative could include disposable baby diapers)
- Wound pain should be treated with systemic short acting opioids given 30 minutes prior to dressing. Topical lignocaine gel may also be useful.
- Malodour may be reduced by:
 - Applying topical metronidazole (T. Metronidazole 400mg may be crushed and mixed with lignocaine gel and applied into wound)
 - Oral/IV metronidazole if severe
 - Live-culture yoghurt topically
 - Manuka honey topically
 - Activated charcoal (crush 2 tablets and place within a piece of gauze then apply on top of the inner layer of dressing)
- Infection may be treated commonly with systemic antibiotics eg. co-amoxiclav
- For bleeding wounds:
 - Initially apply simple direct pressure with gauze
 - Topical adrenaline 1:1000 applied to gauze topically
 - Consider topical tranexamic acid (may use IV solution applied to gauze topically. Oral Tranexamic acid powder may also be applied topically)
 - If possible refer for palliative radiotherapy to bleeding wound.

PRESSURE ULCERS

INTRODUCTION

Prevention is the most important approach. All patients who are increasingly unwell and immobile should be assessed for risk of pressure sores and preventative measures such as regular turning and use of ripple mattresses should be applied. Sometimes however, pain may cause difficulty in moving patients and preventing pressure sores can be difficult.

RISK FACTORS

<ul style="list-style-type: none"> • Immobility • Incontinence • Emaciation/malnutrition 	<ul style="list-style-type: none"> • Skin fragility • Anaemia • Old age
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ASSESSMENT

Pressure Ulcer Staging	
Stage 1	Intact skin with non –blanchable redness of a localized area usually over a bony prominence. Dark pigmented skin may not have visible blanching: Its colour may differ from surrounding area.
Stage 2	Partial thickness loss of the dermis which presents as a shallow open ulcer with a red-pink wound bed without slough. It may also present as an intact or ruptured serum filled blister.
Stage 3	Full thickness tissue loss. Subcutaneous fat may be visible. Muscle, tendon or bone are not exposed. Slough may be present but do not obscure the depth of tissue loss. There may be undermining or tunnelling.
Stage 4	Full thickness of the tissue involved with muscle, tendon and bone exposed. Slough and eschar may be present. Often includes undermining and tunneling.

MANAGEMENT

- Stage 1 – relieve pressure, apply barrier cream (zinc oxide ointment) and keep clean with saline.
- Stage 2 – relieve pressure, clean with saline and consider occlusive dressing with duoderm or film.
- Stage 3 & 4 – relieve pressure, consider wound debridement if necessary, short term povidone iodine dressing if infected and consider hydrogel/hydrocolloid +/- alginate or foam dressing.
- Method of necrotic tissue debridement should be based on the goals of patient, absence or presence of infection, amount of necrotic tissue present and economic consideration for the patient.

OEDEMA

Oedema is common in patients with advanced illnesses and is often a result of multiple factors including immobility, lymphatic failure, hypo-albuminaemia, salt and water retention and disease processes such as cardiac and renal disease. Patients are often very concerned with oedema as it is an obvious sign indicating that their body is unwell.

POSSIBLE CAUSES

Generalised	Localised
<ul style="list-style-type: none"> • Hypoalbuminemia • Congestive cardiac failure • Renal failure • Drugs – NSAIDS, antihypertensives, corticosteroids 	<ul style="list-style-type: none"> • Venous obstruction (DVT, SVCO, Portal vein) • Lymphatic obstruction (malignancy, surgery, radiotherapy, filariasis)

ASSESSMENT

- If localised oedema, ultrasound and CT imaging may be necessary to determine cause of possible venous or lymphatic obstruction.
- Assess problems associated with oedema:
 - Tightness/heaviness of limb
 - Pain
 - Impaired mobility
 - Infection
 - Altered body image

MANAGEMENT

- Advise positioning for lower and upper limb oedema – elevate above level of heart when sleeping.
- Refer to physiotherapist and occupational therapist for lymphatic massage, exercise and pneumatic compression where appropriate.
- Advise on skin care and hygiene to prevent infections (use protective gloves and footwear).
- Treat cellulitis with antibiotics eg. Cloxacillin, co-amoxiclav
- If fluid overloaded, consider diuretics eg. frusemide
- Specific treatment of localised lymphoedema due to tumour infiltration or venous compression
 - Corticosteroids to reduce tumour compression
 - Radiotherapy / chemotherapy if appropriate
 - SC drainage if patient does not mind the procedure and subsequent care of the drainage bag (may use stoma bag).
- Consider anticoagulation for DVT if appropriate.

SECTION 2:

**PSYCHOSOCIAL CARE,
SPIRITUAL CARE
AND
COMMUNICATION**

CHAPTER 7: DEPRESSION

DR. SHERIZA IZWA ZAINUDDIN, MBBS, MMED(INT MED)

INTRODUCTION

In patients who are terminally ill, it is important to distinguish between clinical depression and profound sadness. 5-10% of patients with advanced cancer have major depression while another 10-15% have depressive symptoms as a reaction to their current illness.

ASSESSMENT

- Diagnosing depression can be challenging as some symptoms of depression such as loss of energy and poor appetite can also be due to the underlying illness. As such, 2 core symptoms that would be most suggestive of depression in this group of patients include:
 - Persistently low mood / hopelessness (most of the time)
 - Anhedonia – loss of interest or pleasure in life

- Other symptoms include:

<ul style="list-style-type: none">• Withdrawal from friends and family• Morbid guilt and shame• Worthlessness and low self esteem• Ruminative negative thoughts• Request for physician assisted euthanasia	<ul style="list-style-type: none">• Persisting suicidal ideation• Decreased attention and concentration• Cognitive slowing / impaired memory• Indecisiveness• Feeling of unreality• Brooding, self-pity
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- Screening for depression can be done using the HADS (Hospital Anxiety & Depression Scale) or may be as simple as using the single item depression screen:
 - Single-item – “Have you been depressed most of the time for the past two weeks?” or “Are you depressed?” (an answer ‘yes’ is a positive screen)
- Risk factors for depression include:
 - Inadequate symptom control
 - Poor quality of life

- Lack of social support
- Past and/or family history of depression
- Older age
- Misinformed prognosis
- Drugs (steroids, cytotoxics, neuroleptics, sedatives)
- Immobility
- Advanced malignant disease

MANAGEMENT

- All patients with positive depressive screen should be considered for psychiatric referral in view of possible major depression.
- Mild to moderate depression
 - Support, empathy, clarification of stressors or precipitators, explanation, cognitive therapy, symptomatic relief
- Severe depression
 - Supportive psychotherapy plus drug therapy
 - Drug therapy (antidepressants are effective in 50 to 70% of cases)
 - SSRI eg. escitalopram, setraline
 - Mirtazepine – may help sleep and improve appetite
 - Psychostimulants eg. Methylphenidate 2.5-5mg BD and titrate to effect max 20mg BD.

(Note: All antidepressants typically take several weeks to have effect. In cases where prognosis is expected to be short, <2 months, methylphenidate may be useful as the onset of action is faster. This indication however is off-label)

CHAPTER 8: SPIRITUAL CARE

DR. DIANA KATIMAN , MBBCH BAO(NUI), MMED(INT MED)

INTRODUCTION

Spiritual care is one of the core aspects of palliative care. Spirituality not only relates to one's faith, but it is to do with how we live, what we treasure and value, and peace of mind. Religiosity is the manifested actions of one's spirituality or the practiced rituals of an organized belief.

When dealing with patients (and ourselves), we have to remember that all patients have spiritual needs but only some will have religious needs.

SPIRITUAL DISTRESS

When a person experiences a life crisis, they will look to their spiritual values, beliefs, attitudes or religious practices to make sense of it. If these do not enable them to cope with the crisis, then they may experience spiritual distress. Expressions of spiritual distress include:

- **fear** about the future, about dying and what happens after death
- **loss** of identity or roles (parenthood, work etc)
- **helplessness** and loss of control over what is happening
- **anxiety** about relationships, body image or sexuality
- **suffering** excessively from physical symptoms, especially pain
- **anger** (towards God/self/family/friends/doctors) "Why me?"
- **guilt** or shame
- **hopelessness**, despair, feeling alone or unloved
- **exploration** of meaning and purpose of their life

DEALING WITH SPIRITUAL DISTRESS

- First, we must be comfortable with our own spirituality and/or religiosity, and be clear to some extent, on our own spiritual issues listed above, if any.

- When patients are ready to open up on the subject, our aim is to help the person towards some resolution and understanding. Accept that there is unlikely to be a specific answer – it is “OK” not to know.
- Listen attentively and be prepared to face uncertainties – just by “being there” you can help the patient to make connections and embark on their own search for meaning.
- Doing a “Life review” exercise is an example of how we can help the patient to come to terms with who they are, what they have become, their achievements and their regrets, their unfinished businesses. Once we manage to put the past into perspectives, it will be a lot easier to help patients address what is to come and how they would face it.
- Some patients may want to practice certain religious rituals to help them deal with their spiritual distress. If you feel you are out of your depth in dealing with certain issues with their spiritual and/or religious needs, offer a particular group or person such as an imam/monk/chaplain to be there for the patients.
- Helping patients deal with their spirituality may be emotionally draining for you. Make sure you are able to detach yourself from the emotions with support from family and friends or doing something you enjoy.

CHAPTER 9: RELIGIOUS DIVERSITY

DR. DIANA KATIMAN, MBBCH BAO(NUI) , MMED(INT MED)

INTRODUCTION

In caring for palliative care patients in multicultural-and-multireligious Malaysia, it is useful for us to have an idea on the concepts of life and death of the major religions in our nation. However, it is important to note, that even when patients identify with a religious group, they are individuals in their own devoutness and expression to practice their belief.

Do not assume (by their name or appearance). Always check with the patient (and/or family) concerning their beliefs and practices. When in doubt, follow the more orthodox procedures.

ISLAM

CONCEPT OF LIFE & DEATH

Muslims believe that men are created to serve The Creator (Allah). The practicing Muslims will align their thoughts, speech and actions according to what will please Allah. The acts of worship are not confined to the religious rituals of prayers, fasting, performing haj and paying alms, but living a life like how The Creator wanted them to live, is how practicing Muslims 'serve' Allah.

Muslims believe that the soul exist in a continuum from one 'world' to another 'world'-and hence, life after death. In the present world, Muslims believe that all their thoughts, speech and actions are accounted for and that the accumulated good deeds minus their bad deeds will result in where they will be in the eternal world after death.

CARE OF THE DYING

Muslim patients will want to observe all compulsory religious rituals as best as they could (with adaptations of the rituals to their physical disabilities, for example, an ill Muslim patient is allowed to perform obligatory prayer in a supine position), so clarity of thought is important. They may fear of becoming

too drowsy on opioids, which may prevent them from observing any kind of worship 'to accumulate good deeds' before death. To be able to perform the prayers, Muslim patients must cleanse themselves as best as possible. They may need help to empty the stoma or urine drainage bags and to perform the ablution, before the prayers.

Reading or listening to the Quran is a means to find inner peace. The "Yaasin" recitation by family and friends is to facilitate the journey of the Muslim patient, either towards recovery and health, or towards a peaceful and 'easy' passing to the next world.

For a Muslim, the last words before he/she passes on to the next world should be the 'syahadah' (The declaration that there is no God but Allah). A close family member or friend may want to be close to the patient's ear to help the patient in proclaiming the 'syahadah'. If no family member or friend were available during the active phase of dying, patient's family would usually appreciate a medical staff to help the patient with the 'syahadah'.

PROCEDURE AT DEATH

Eyes and mouth of the Muslim patient should be closed upon death and the body covered. The hands should be placed on the chest as if in prayers, and when possible, the body positioned to face the direction of the Kaaba in Mecca.

The deceased body would be cleansed by a family member or entrusted person and shrouded in white cloths. Families and friends will then perform a prayer for the deceased and preparations made for burial of the body within 24hours of death, if possible.

BUDDHISM

CONCEPT OF LIFE & DEATH

For the Buddhist, human existence is essentially cyclic. Birth leads to death, which in turn leads to rebirth, and so on. Each lifetime is merely one stage in the journey of an individual, involving hundreds or even thousands of rebirths (reincarnation or transmigration of the soul or 'samsara'). In the samaric world- view, the main reason why certain people are more fortunate than others in this life is because of a quality that has been carried over from their previous life-karma.

For Buddhists, karma is measured by the extent to which one overcomes or fails to overcome the enslaving vices of greed, hatred and ignorance. For those who are advanced in the way of the Buddha, such as monks and nuns, there is a strong possibility that their good karma at death will elevate them into the realms of the gods, or even enable them to attain the final liberation, the nirvana. For those who are not as wise or virtuous, the general expectation is rebirth into the world in some new form or some other realm.

CARE OF THE DYING

Buddhist monks tend to be more involved in the process and following death, aiming to facilitate the journey through the process of rebirth. Prior to death, chantings or mantras are recited to the patient, so that the final thoughts of the dying person are wholesome.

PROCEDURE AT DEATH

The corpse is bathed and dressed in preparation for the funeral, which may be delayed several days to enable distant relatives and friends to attend the ceremony. On the day of the funeral, it is customary to carry the body out of the house via a special door, with the monk preceding the coffin in the funeral procession to the sound of cheerful music, to generate good karma.

It is common practice in Buddhist culture to cremate the body although there are exceptions.

CHRISTIANITY

CONCEPT OF LIFE AND DEATH

Christians believe in the concept of Trinity (The Father, The Son and Holy Spirit). The New Testament teaches that the Son is "of the same substance" as the Father, meaning he is eternal, and therefore any differences that exist between them occur within the divine unity. The belief of the crucifixion of Jesus on the cross bearing the sins of mankind, and his subsequent resurrection has a considerable impact on the Christian understanding of death and the afterlife. Given the centrality of the resurrection, it is to be expected that Christian funeral rites are dominated by the theme of Jesus's victory over death and the promise it holds for those who die with faith in him.

CARE OF THE DYING

Spiritual care for the dying Christian varies from church to church but often involves prayers of comfort and appropriate scripture readings. In the catholic tradition, the priest performs a threefold ritual known as the “last rites” which comprises confession of sins, anointing with oil and consumption of the sacred host known as viaticum, or food for the final journey.

PROCEDURE AT DEATH

Once death has occurred, there is no concern to bury quickly. In many cases, the funeral is held after around three days. During this period, many Christian groups hold a simple vigil at which the mourners pray beside the coffin of the deceased either in a church or funeral parlour.

There is no prohibition in Christianity on viewing the body, and the coffin is opened for this purpose. Occasionally, a plain-coloured cloth known as a pall is placed over the coffin to signify equality in death. The cross or the crucifix is a common feature on coffins and graves, linking the deceased to the belief of the death of Jesus as saving mankind.

HINDUISM

CONCEPT OF LIFE AND DEATH

Hindus belief on the cyclic view of human existence based on the hope of ultimate liberation from the wheel of reincarnation and the unimportance of the physical body, which is thus cremated each time.

CARE OF THE DYING

The manner and timing of death is particularly important for Hindus. A premature or violent passing, accompanied by vomit or urine and an anguished facial expression is considered to be a ‘bad death’. In contrast, a “good death” occurs in old age after spiritual preparation and is manifest as a peaceful countenance.

PROCEDURE AT DEATH

Once the person passed away, it is customary in Hinduism to hold the funeral as quickly as possible. Coins are traditionally placed in the orifices of the body to stop the 'atman' from escaping prematurely. Old clothes are replaced with new garments symbolizing the need for the deceased to surrender the old, obsolete body and dress in a new one. The eldest son is considered the chief mourner and plays a crucial role for the following rituals for the happy release of the deceased. Cremation is the most common means of bodily disposal in Hinduism although there are some notable exceptions. Babies and children under the age of reason are often buried on the basis that they are still innocent.

CHAPTER 10: COMMUNICATION SKILLS

DR. RICHARD LIM BOON LEONG, MBBS(UM), MRCP(UK)

INTRODUCTION

Good communication is the key to good medical care without which it would be impossible to provide high quality care especially in the seriously ill. Clinicians must recognise that effective communication is part of a management plan which is just as important as prescribing medications in the acutely ill.

GENERAL PRINCIPLES OF COMMUNICATION IN CLINICAL PRACTICE

A useful acronym to follow when embarking on a task in communication is the word PREPARED.

- **P** - Prepare and understand all the updated information on patient's condition and status
- **R** - Rapport. Relate to person. Show empathy and compassion
- **E** - Expectations. Elicit patient and caregiver expectations and preference for information.
- **P** - Provide information in simple clear language.
- **A** - Acknowledge emotions and concerns
- **R** - Realistic hope
- **E** - Encourage questions
- **D** - Document discussion in medical records

DEVELOPING RAPPORT

Having good rapport with the patient and family members cannot be over-emphasised as a vital key to successful communication particularly when discussing issues of end-of-life. Family members are always more receptive of information from a doctor or a nurse who can make them feel at ease and shows genuine concern for the patient.

Developing rapport is the next vital step in the communication process and should be considered akin to a "license" which must be obtained before any attempt to provide information be done.

Ways to develop good rapport:

Introduce yourself	<ul style="list-style-type: none"> • Openly state your name • Explain your role in the case
Know your facts	<ul style="list-style-type: none"> • Prepare before discussion • Inaccuracies reflect lack of competence and confidence is lost
Listen	<ul style="list-style-type: none"> • Understand where they are coming from • Assess insight, concerns and expectations (ICE)
Show empathy	<ul style="list-style-type: none"> • Use emphatic phrases eg. “I know this must be very difficult for you” or “I know you must love him/her very much” • Emphatic phrases are phrases which show that you recognize the emotion and understand the reason behind the emotion.
Body Language	<ul style="list-style-type: none"> • Apply appropriate facial expressions, tone of voice and simple gestures (eg. touch) which are consistent with context of discussion.
Honesty	<ul style="list-style-type: none"> • Never talk about things you are uncertain of

SPECIFIC COMMUNICATION ISSUES IN PALLIATIVE CARE

BREAKING BAD NEWS

- Common scenarios:
 - Informing patient/family of life-threatening diagnosis for the first time.
 - Informing family that condition of patient is worsening / not responding to treatment.
 - Explaining sudden acute deterioration from complications of disease or treatment

- 6 steps to follow when breaking bad news:

Step 1	Ensure privacy and conducive environment
Step 2	Assess the insight of the patient/family regarding the issue for discussion
Step 3	Determine what the patient/family would like to know with a “warning shot” that the news is not likely to be good
Step 4	Break the bad news – use simple language
Step 5	Acknowledge reactions and concerns. Provide information and support with emphatic responses
Step 6	Sum up and provide realistic plan to move forward

- Never assume what patients want or do not want to know.
- Step 3 is an important step to determine what patients want to know and how much they want to know before providing information.
- Never lie and always provide realistic hope.

TALKING ABOUT PROGNOSIS

- Common scenarios:
 - Patient asks “Am I going to die?”
 - Patient asks “How long do I have left?”
- Generally when patients ask about their prognosis, there is an underlying reason and before answering the question directly it may be preferable to ask the patient, “Tell me what your concerns are?” or “Tell me what worries you most?” to allow a better understanding of why the question is being asked.
- Do not answer in the following manner:
 - “We are all going to die” as this does not answer the question.
 - Exact duration eg “Six months, 4 weeks, 1 year”

- Admit that it is difficult to know precisely and then specify in terms of a range
 - Weeks to short months (3-8 weeks)
 - Days to short weeks (1-3 weeks)
 - Months but possibly less than 6 (gradual deterioration)
- Consider using an important date as a reference point (religious festival, birthday, anniversary) eg. *“I think he would be quite unwell by the time of his next birthday”*
- Patients and family do not need accuracy of prognosis they merely require an idea of how to plan ahead.

DISCUSSING CLINICAL DECISIONS AT THE END OF LIFE

- Common scenarios
 - Decisions on resuscitation and mechanical ventilation
 - Decisions on artificial nutrition
 - Decisions on place of care towards the end-of-life
- Ideally, these discussions and decisions should have been made while patients are still mentally competent and have a clear understanding of the implications of interventions towards the end of life.
- Such discussions should occur during the time of discussing poor prognosis and not in isolation.
- Useful openings:
 - “Have you ever discussed with your family what you would or would not want if you were to become very unwell later on?”
 - “Some people feel they would prefer to be cared for at home in their last days, what is your opinion on that?”
- Discussing resuscitation with family:
 - CPR and ventilation are medical interventions whereby decisions to intervene must be made by trained healthcare professionals primarily caring for the patient.

- Do NOT ask family members to decide on whether they would like resuscitation to be done as this is a medical decision.
 - Discussion is mainly to inform family of why the medical team has decided that resuscitation is not in the patients best interest and focus is comfort and dignity.
 - Family should be allowed to express their opinion and clinicians should be emphatic in their responses.
 - If family opinion differs, it is appropriate to suggest them to seek a second opinion from a credentialed clinician.
- Useful phrases:
 - “You must love him/her very much and seeing him/her like this must be very painful for you.”
 - “I know you want the best for him/her and sometimes, resuscitation may not be the best thing.”
 - “What do you think he/she would want if he/she could talk right now?”

CHAPTER 11: HANDLING EMOTIONS

DR. TAN SENG BENG, MBBS(UM), MRCP(UK)

INTRODUCTION

Emotions are a complex psychological state that involves 3 distinct components:

- subjective experience (feelings)
- physiological response (mood)
- behavioural or expressive response (affect)

Emotions motivate one to take action; help one to survive, thrive and avoid danger; help one to make decision. Emotional intelligence is the ability to identify emotions in self and others; understanding emotions; using emotions in reasoning; managing emotions. Basic emotions include:

- anger
- disgust
- fear
- sadness
- happiness
- surprise

ASSESSMENT

- Allow patient to freely express emotions
- Pay attention to emotional cues from facial expression, verbal expression, body language and paralanguage
- Explore emotions with questions such as:
 - “Tell me more about how this makes you feel”
 - “What worries you the most?”
 - “This obviously upsets you, would you like to tell me more?”
- Attempt to understand the:
 - causes and conditions contributing to the emotions
 - beliefs, hopes, expectations of the person
 - behaviour associated with the emotion

MANAGEMENT

- Allow patients or family members to express their emotions
- Allow them to talk about their experiences
- Listen to their stories without interrupting them

- Do not block their expressions by ignoring their expressions, deviating away from their expression, explaining their situations or focusing on the biomedical aspect of the assessment.
- Once we think the person has expressed sufficiently, we may then express our empathy through confirming, acknowledging, validating and normalizing their emotions.
 - Confirm their emotions rather than assuming or suggesting – clarify their emotions
 - Acknowledge their emotions – talk about their emotions
 - Validate their emotional expressions – inform them it is alright to have emotions
 - Normalize their emotional expressions whenever it is appropriate – agreeing with them by comparing their experiences with imagined situations of others or oneself
- Being mindful:
 - Be aware of our own emotions that arise as a reaction to patients' emotions or as we empathize with patients
 - Be aware of the distinction between our own emotions and the emotions of others
 - Remain calm during an emotional crisis of patients or family members

SECTION 3:

END-OF-LIFE CARE AND ETHICS

CHAPTER 12: PROGNOSTICATION

DR. RICHARD LIM BOON LEONG, MBBS(UM), MRCP(UK)

INTRODUCTION

Prognostication refers to the skill of predicting survival or outcome of a situation. Clinicians may or may not be aware of it but prognostication is an essential tool which we use every single day when making clinical decision. It is the basis by which we decide on the nature and aggressiveness of our treatment and interventions. It is also the basis by which we will communicate issues of risks of mortality and morbidity and weigh the ethical balance of performing an intervention.

Without bearing in mind the overall prognosis of a patient, it is impossible to make clear ethical decisions and communicate meaningful information to the family of a patient facing serious illness.

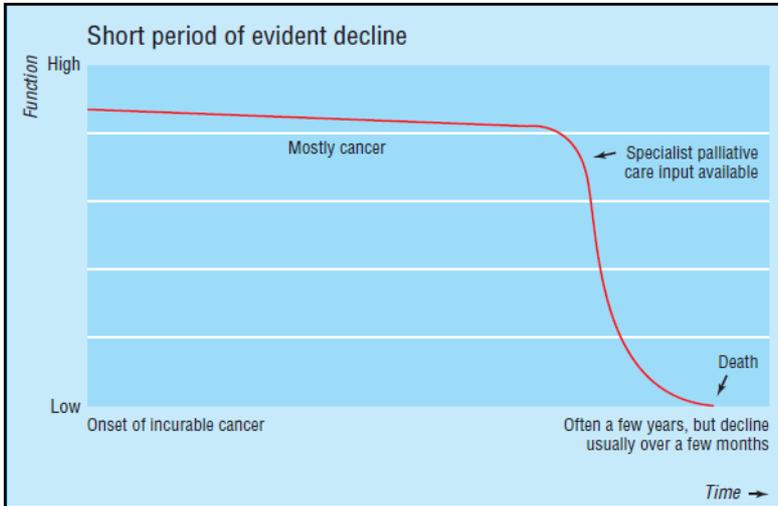
ASSESSING PROGNOSIS

In managing patients approaching the end-of-life, the clinician should first ask several questions regarding prognosis:

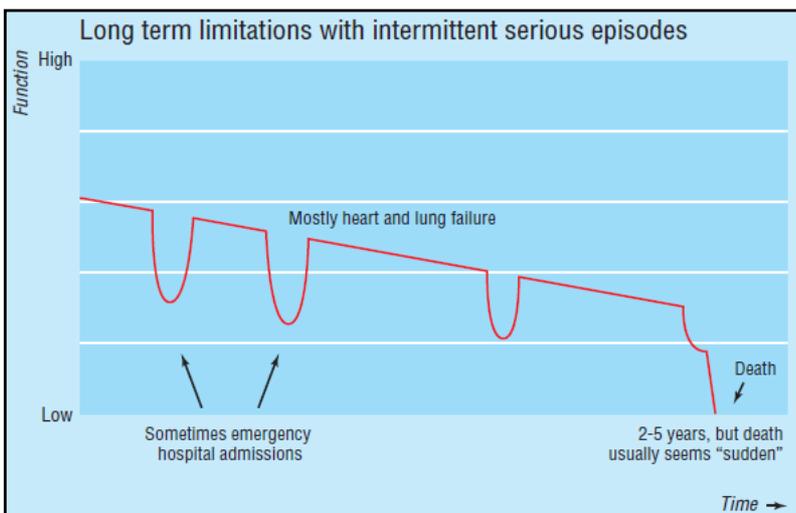
- 1. Does this patient have an incurable condition? If so, what is the evidence for saying this?*
- 2. At this stage of the illness, are there anymore options of disease modifying therapies available to this patient?*
- 3. If this patient undergoes disease-modifying therapies, what is the probability of a positive outcome and what are the risks of a negative outcome?*
- 4. If there is high probability of positive outcome but risk of negative effects as well, is the patient willing to take the risks?*
- 5. Finally, if options have been explored and there is no other interventions to be considered, where does this patient stand in his/her disease trajectory.*

DISEASE TRAJECTORIES

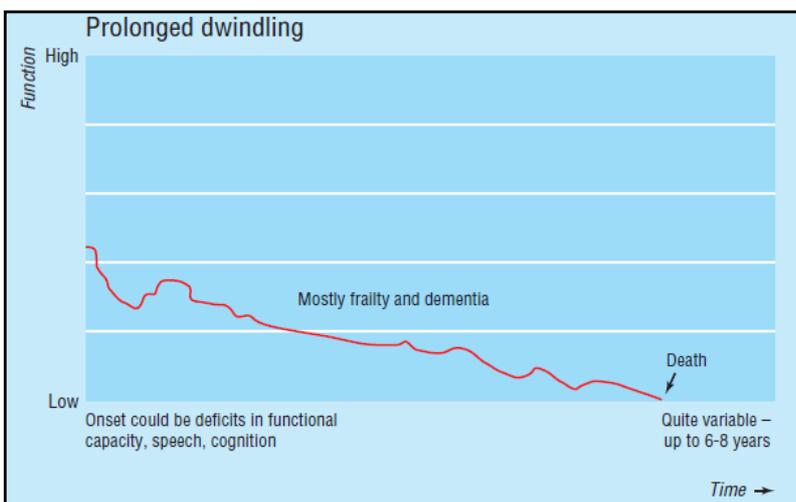
Overall there are 3 main trajectories of patients with chronic incurable illness (Murray et al 2005)



INCURABLE CANCER



CHRONIC ORGAN FAILURE



STROKE, DEMENTIA, FRAILITY

Once the patient's disease trajectory is well understood, the clinician will then have a better feel on how to estimate a patient's overall prognosis. The overall prognosis must also take into account the individual patient's characteristics.

There are many prognostication prediction tools and scoring systems that help to guide clinicians to understand better where a patient stands in their disease trajectory and these can be found in the appendices at the end of this book.

HOW IS THIS USEFUL IN CLINICAL PRACTICE?

By understanding a patient's overall prognosis, this will help clinicians:

- Determine what kind of interventions are appropriate to suggest in a particular patients' condition. (ie. aggressive chemotherapy is appropriate in a fit young patient with breast cancer but is less appropriate in a frail patient with liver cancer and multiple co-morbidities)
- Navigate discussions with patient's and family members in order to help them be clearer on the problems being faced and to express their choices and wishes for the future.
- Determine the overall goals of care. Prognosis is all about the direction in which patients are headed hence without knowledge of this, it is difficult to decide on where a patient would like to be (ie. goals of care)
- Communicate the severity of illness to family members and to justify withholding or withdrawing futile interventions if appropriate.

CHAPTER 13: END-OF-LIFE CARE

DR. SIOW YEN CHING, MBBS(IMU), MRCP(UK)

INTRODUCTION

The terminal phase is defined as the period when day to day deterioration of strength, appetite and awareness are occurring in a patient with an incurable and progressive illness. Priorities of care in this phase include:

- Recognising the likelihood that death will occur soon and communicating this sensitively to family and significant others.
- Involving the dying person and family in decisions about treatment and preferences for care.
- Explore needs of the dying person and family and attempt to meet these as far as possible.
- Individualise plan of care which includes food and drink, symptom control and psychological, social and spiritual support, is agreed, co-ordinated and delivered with compassion.

ASSESSMENT - DIAGNOSING DYING

Stages	Characteristics/ Signs
Early	<ul style="list-style-type: none">• Bed bound• Loss of interest and/or ability to drink/eat• Cognitive changes: increasing time spend sleeping and/or delirium
Middle	<ul style="list-style-type: none">• Further decline in mental status to obtundation (slow to arouse with stimulation; only brief periods of wakefulness)• Death rattle – pooled oral secretions that are not cleared due to loss of swallowing reflex
Late	<ul style="list-style-type: none">• Coma• Altered respiratory pattern – Gasping, periods of apnoea, hyperpnoea, or irregular breathing• Mottled extremities, cold extremities (signs of hypoperfusion)

- Recognition of patients who are actively dying is key for clinicians to provide the most appropriate interventions for both the patient and family.
- The time to traverse the various stages can be less than 24 hours or as long as 14 days.
- Exclude reversible causes of deterioration such as infection, electrolytes imbalances or medications side effects if the deterioration occurs unexpectedly and the investigations involved are aligned with patient's wish.

ASSESSMENT – PATIENTS' NEEDS

- Examination is kept at the minimum to avoid unnecessary distress:
 - Observe for any non verbal indication of discomfort.
 - Be mindful of painful areas.
- Minimise investigations / blood taking
 - Only investigations that are absolutely necessary and may impact on the comfort and goals of the patient.
 - Choose least invasive and troublesome investigations.
- Physical needs
 - bowel and bladder care
 - oral care- keeping the mouth moist
 - skin care and prevention of pressure sores
 - specific symptoms such as pain, nausea, vomiting and breathlessness.
- Psychological and spiritual needs
 - Anxiety and fear
 - Respecting patients' spiritual and religious needs. Allowing specific religious practices where possible.
- Review medications
 - Medications with no benefit at this phase (eg. antihtpt, antiplatelets, statins, vitamins) should be stopped and reasons of stopping explained to family /carers.
 - Essential medications such as analgesia and anxiolytics may be changed from oral to subcutaneous route if ability to swallow is diminished.

MANAGEMENT

- **Continuation of symptom relief**
 - All medications for pain, dyspnoea and nausea should continue even when in terminal phase and less responsive.
 - If unable to swallow, change to SC route in equivalent dose.
- **Artificial nutrition and hydration.**
 - There is a consistent lack of benefit of artificial nutrition (NG tube, TPN) and hydration (IV/SC drip) in prolonging life expectancy and improving quality of life at the terminal phase.
 - Family members often view nutritional and hydration as a source of care and support. Thus, the discussion about the role of artificial nutrition or hydration needs to be done sensitively to find a balance between evidence and emotions.
- **Oral Care**
 - Oral care is very important at the terminal phase, this is because poor oral hygiene and dry mouth can lead much discomfort.
 - Dry mouth is due to decrease oral intake, stomatitis, oral breathing and side effects of opioids.
 - Family should be encouraged to clean patient's mouth with cotton or orange stick wrapped with gauze dipped in sodium bicarbonate solution.
 - Keep mouth moist with small amount of fluids through a spray bottle, syringes or cotton sticks.
- **Noisy breathing/ Death rattle**
 - This is due to secretions collecting in airways which are no longer being coughed or cleared as normal.
 - Family should know that the secretions are not causing suffocation, choking or distress.
 - Elevating patient's head by 30 degrees or laterally may allow the drainage of secretion.
 - Anti-cholinergic agents to dry secretions:

SC Hyoscine butylbromide (buscopan) 60-240mg/24 hours as continuous CI infusion (CSCI) and 20mg prn

SC Glycopyrrolate 600-1200mcg/24 hours(CSCI) or 200-400mcg TDS
--

- Suctioning is often not recommended in death rattle as deep suctioning will not improve secretions and may cause further distress to the patient. It is only useful for pooled secretions in the oral cavity. Family should be informed about this.

- **Terminal Agitation / Restlessness**

- Where possible, rule out reversible causes of delirium and restlessness.
- In the dying phase if no reversible factors noted, terminal agitation is a symptom of the dying phase.
- Explain to family the cause is due to the body “shutting down”.
- Sedation is appropriate and ethical when the patient is clearly distressed.

Confused and delirious, consider an antipsychotic:
• SC haloperidol 0.5-5mg ON or as CSCI/24 hours
Merely agitated use benzodiazepine:
• SC midazolam 2.5mg stat and every 30 mins prn If persistent consider CSCI midazolam 10-60mg/24 hours
Delirious and agitated:
• Combine antipsychotic with benzodiazepine
Refractory severe agitation:
• may require use of drugs such as phenobarbitol, propofol or levomepromazine (requires specialist consultation)

- **Anticipatory Medications**

- Always have PRN doses of morphine, midazolam and buscopan prescribed in anticipation of worsening of symptoms at any time:

Pain / dyspnoea	SC morphine (1/6 th of 24hour dose) PRN
Nausea / vomiting	SC haloperidol 0.5-1mg PRN
Agitation / delirium	SC midazolam 2.5-5mg PRN SC haloperidol 0.5-1mg PRN
Secretions	SC hyoscine butylbromide 20mg PRN SC glycopyrrolate 200mcg PRN

CHAPTER 14: END-OF-LIFE CARE IN ICU

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INTRODUCTION

The primary goal of intensive care is to treat acute reversible life-threatening conditions so that patients survive with acceptable functional status and quality of life. While providing therapeutic interventions, clinicians should also attend to patients' discomfort and control any distressing symptoms. However, when death appears inevitable or the possibility of restoring meaningful life becomes remote, the patient should be accorded a dignified death.

WHO WILL NOT BENEFIT FROM INTENSIVE CARE?

- The clinician is obligated to provide the best possible service within the confines of limited resources. Following this, the priority of admission into the intensive care unit shall be for the critically ill patients who are most likely to survive and resume a functional life.
- Patients who are highly unlikely to benefit from life-support therapy include:
 - Severe, irreversible brain condition impairing cognition and consciousness
 - End stage cardiac, respiratory or liver disease with no options of transplant
 - Metastatic cancer unresponsive to treatment
 - Advanced age with poor functional status due to multiple chronic organ dysfunctions
 - Severe disability with poor quality of life
 - Advanced disease of progressive life-limiting condition
 - Those who have explicitly stated their wish not to receive life-support therapy
 - The goals of care for such patients should have ideally been discussed earlier with them or their families before they become critically ill.

PROGNOSTICATION OF INTENSIVE CARE OUTCOME

- Prognostication of critically ill patients being treated in the intensive care unit is never easy or precise. Severity scoring systems are of limited value in predicting outcome in individual patients.
- The clinician needs to draw from his own expertise and experience in identifying patients who are unlikely to benefit from further aggressive life-support therapy. Besides reviewing the patient's course of disease, the clinician must weigh the benefits against the burden of continuing life support therapy.
- End-of-life discussion with the family (or patient, whenever possible) should be initiated early, sometimes even upon admission and not necessarily wait until the burden of treatment outweighs the benefit. The patient can continue to receive life-support therapy following initiation of end-of-life discussion until a final decision is made.
- End-of-life decision should be integrated with the patient's or family's values and hence strict evidence-based decision cannot be applied. These decisions need to be individualised.
- The determinants of poor intensive care outcome are multifactorial. They are not to be considered in isolation, but in the context of the entire history and clinical status of the patient. Some of the determinants listed below can help the clinician recognise when to initiate discussion on end-of-life decisions
 - Severity of illness
 - Multi-organ failure
 - No period of clinical improvement despite optimal therapy
 - Pre-existing advanced chronic condition e.g. congestive cardiac failure, chronic lung disease, chronic liver disease

- History of cardiac arrest
 - Recurrent ICU admission during single hospital admission
 - Recurrent unplanned hospital admission within the last 6 months
 - Poor and deteriorating performance status prior to admission e.g. NYHA Class 3 or 4, limited self-care, > 50% of the day spent in bed.
 - Underlying diagnosis remains unknown despite extensive investigations
- When faced with prognostic uncertainty, treatment should be continued to allow a clearer assessment to be made with additional time and consultation with other clinicians.

WITHDRAWAL OR WITHHOLDING OF LIFE-SUPPORT THERAPY

- As the patient's critical illness progresses and when the burden of treatment options outweighs its benefit, the clinician should initiate discussion on withdrawal or withholding of life-support therapy. Allow the patient a natural and dignified death by not prolonging the dying process.

There is no single way to withdraw or withhold life-support therapy in the critically ill. The actual practice needs to be individualised to address physical, psychological, social and spiritual needs of the patient and family.

- When the direction of care has changed from curative intent to comfort, the principles of palliative care should be enforced, including maintaining comfort and dignity, controlling symptoms, attending to psychological and spiritual needs, and supporting the family.
- The steps in decision-making to withdraw or withhold life-support therapy are outlined below.
 - Obtain medical consensus among the teams managing the patient.

- Communicate the decision to the family (or patient, whenever possible) and guide them to concur with the medical decision. This shared decision-making should be done by a senior clinician who has built a rapport with the family.
- Allow the family time to come to terms with the impending loss of their loved ones.
- In the event of disagreement between the clinician and the family, a time-limited trial of therapy with clear goals of treatment is an approach frequently used in conflict resolution.
- All decisions regarding the withdrawal or withholding of therapy should be documented in the patient's case notes. It should include the basis for the decision, with whom the decision was made, and specific treatments to be withheld or withdrawn.

WITHDRAWAL OF MECHANICAL VENTILATION

- The ethical principles of withdrawal or withholding mechanical ventilation are similar to other medically inappropriate therapies.
- Despite no ethical difference between withdrawal or withholding of mechanical ventilation, the former usually generates more concern because the possible short interval from withdrawal to death may be mistaken for terminating the patient's life. In actual fact, the intention in withdrawing mechanical ventilation, a treatment no longer of any benefit, is to stop postponing death.
- The practical aspects of withdrawal from mechanical ventilation are outlined below:
 - Prepare and educate the family on what to expect to help reduce fear and encourage involvement.
 - De-medicalise the process by minimising monitoring, deactivating alarms and discontinuing laboratory or radiological tests.
 - Discontinue any medication or therapy that does not contribute to patient comfort eg. vasoactive agents, antibiotics, dialysis.

- Initiate analgesia with continuous intravenous opioids if the patient is not already on. Consider a loading dose and titrate to effect. Intravenous benzodiazepine may be added to treat anxiety. The principle of “double effect” of opioids is ethically acceptable. The beneficial effect of relieving of pain and symptoms is intended and outweighs the side-effects of depressing ventilation and perhaps, hastening death.
 - Perform suction of endotracheal tube, gastric tube and oro/nasopharynx tube.
 - Position the patient slightly lateral with head minimally elevated.
 - Administer atropine or glycopyrrolate if there is excessive respiratory secretions.
- There are basically 2 methods of withdrawal of mechanical ventilation. The primary objective in either case is the patient’s comfort.
 - **Terminal weaning** (i.e. gradually reducing the set ventilator parameters while leaving the endotracheal tube in place)

This method allows for better titration of sedatives and may be less traumatic to families, though it may prolong the dying process. It may be the preferred option in patients who have excessive respiratory secretions.
 - **Terminal extubation** (i.e. removal of the endotracheal tube and the patient spontaneously breathes room air)

Terminal extubation removes the discomfort from the endotracheal tube and restores the “natural” end-of-life process. However, the family may interpret the ensuing noisy breathing or agonal breaths as discomfort. This method may also be misinterpreted as abandonment of care.
 - Reassess frequently to ensure patient comfort and be attentive to the needs of the family.

CHAPTER 15:ETHICS IN PALLIATIVE CARE

DR. LAM CHEE LOONG, BMEDSCI, BMBS , MRCP(UK)

INTRODUCTION

Clinical ethics in practice concerns decision making and the reflections, process and reasoning in attempting to reach the right moral choices. Decisions regarding health care delivery are not always clear cut and the right choices for one may not always be what is right for others. While no model of ethics is totally comprehensive and all encompassing, the Biomedical Model is often used for its accessibility and applicability in practice. It does not give answers, rather provides a framework to help weigh up decisions.

BIOMEDICAL MODEL OF ETHICS

- 4 principles:
 - *Autonomy* - the right of an individual to govern themselves and make decisions concerning their care
 - *Beneficence* - actions should seek to do good and bring benefit to patients
 - *Non-maleficence* - no harm should be done
 - *Justice* - being fair, to the patient, others, and society
- The principles themselves may sometimes be in conflict but they should all be considered in attempting to reach a decision concerning medical care.
- Alongside these principles, several other factors warrant consideration
 - Respect for the sanctity of life
 - A doctor's duty to alleviate suffering
 - Goals of care (Curative vs life prolonging/controlling vs comfort/palliation)
 - Utility - doing the most good for the most people
 - Proportionality - every treatment has benefits and harms/burdens. Actions taken should produce more good than harm

An example of an ethical dilemma:

A 92 year old lady lives in a nursing home and has advanced dementia. She is admitted for a third time in the last 6 months with pneumonia. She has no mental capacity to make decisions herself. Functionally, she is bedbound and conscious but unable to converse normally. She requires assistance with all aspects of daily care - feeding, toileting, dressing, bathing. There is also a grade III pressure sore. Her family request that all be done to save her life.

Issues to ponder:

- **Autonomy**
 - Does she truly lack capacity for decision making?
 - Did she express what she would want prior to this?
 - Is her family's request based on her values or their own?
 - Is keeping her alive what she may have wished for?
- **Beneficence**
 - Antibiotics may help the infection and improve survival but further aspiration is likely. Is treatment truly beneficial?
 - Will nasogastric feeding help? As this does not entirely prevent aspiration will it give a true benefit?
- **Non-maleficence**
 - Overall prognosis from advanced dementia with aspiration is poor hence does prolonging her life do more harm in terms of quality of life and prolonging suffering?
 - Is treatment burdensome - cannulation, blood tests?
 - Will ventilation cause more harm in terms of discomfort and loss of dignity?
- **Justice**
 - is continuing treatment fair to the patient?
 - Is stopping treatment an infringement on her right to life?
 - Are the costs of the treatment and nursing home fair to the patient and her family?
 - Would utilizing resources be appropriate in this circumstance when they may be spent in other areas?

What are the goals of care? It may be easier to follow the family wishes, but is it the right choice for the patient to whom our duty lies?

- Ethical decision making requires weighing up all pros and cons given as much information and understanding one can gather of a case.
- If in doubt, discuss the case with others for more clarity.
- Our attitudes and own valued judgments should not influence the decision.

CARDIOPULMONARY RESUSCITATION

- Cardiopulmonary Resuscitation (CPR) is a potentially life saving intervention but a complex issue as conflicts may arise between the expectations of the patient, family, and doctors as to its risks and benefits.
- Decisions regarding CPR only determine whether CPR will be performed or not in the event of a cardiac arrest
- It refers to the practice of performing CPR ALONE, and does not influence the preceding and subsequent care
- DNAR (Do not attempt resuscitation) decisions DO NOT mean basic or medical care are stopped - fluids, antibiotics, feeding and other care measures or interventions may still be appropriate after a DNAR decision has been made
- DNAR decisions may not foresee all circumstances - a reversible, unforeseen event may require intervention (eg choking on a foreign body or an acute haemorrhage)
- DNAR decisions are case-by-case decisions not blanket policies for patients with particular underlying diagnoses
- Many deaths are foreseeable and it is good medical practice to make resuscitation decisions actively to prevent what may be inappropriate or unnecessary treatment
- In attempting to make a DNAR decision, the following factors should be borne in mind
 - Effective and clear communication is paramount
 - There is no specific requirement to raise resuscitation decisions if a cardiac arrest/deterioration is not anticipated unless requested by the patient

- If a cardiac arrest occurs unexpectedly, a default presumption for CPR is reasonable and treatment should administered with the goal of reversing the event
 - Is CPR likely to be a feasible/appropriate treatment option?
 - In some circumstances, CPR is very unlikely to succeed, particularly in actively dying patients. There is no absolute obligation to provide it if the medical team feel it is not a valid treatment option and attention should be focussed on communicating the situation and prognosis, plans to proactively manage comfort and preparing the patient and family for an imminent death unambiguously
 - If CPR may be a feasible/appropriate treatment option in a mentally competent patient, the issue should be discussed clearly, accurately and honestly with the patient if they wish to participate in the discussion (or chosen representative with the patient's consent) and a decision agreed.
 - If CPR may be feasible/appropriate in someone lacking mental capacity, the following should be ascertained
 - Presence of an Advance Directive/Living Will/Advance Decision to Refuse Treatment
 - Proxy decision maker from an Advance Care Plan to assist the decision making
 - What the patient's views and wishes would have been had they had mental capacity to guide a best interest decision
 - The patient and family may seek a second opinion if they are not satisfied with the primary team decision
 - Decisions should be communicated to the rest of the team and reviewed if circumstances change
-
- Patients have rights to treatments but at the same time, there is no absolute professional obligation that a doctor must conform to a patient's wishes and accede to demands.
 - In any decision/action, the patient is always the priority and the doctor must act for the good of the patient.

EUTHANASIA AND ASSISTED DYING

- Euthanasia is illegal in Malaysia. It remains a challenging, and often poorly understood topic as definitions vary. Actions may often be misinterpreted and misunderstood as the practice of euthanasia.
- By itself, the term euthanasia, derived from Greek, refers to (a) good (eu-) death (thanatos). In clinical practice however, the practice of euthanasia refers to deliberate actions that intentionally hasten the death of a patient, at the patient's request, in order to relieve intractable suffering and distress.
- Some KEY aspects of euthanasia are:
 - INTENTION/GOAL is to cause the death of a patient – successful outcome is for immediate death to occur
 - It must ALWAYS be voluntary – the patient must competently request for it. If the patient is unconscious or does not request for it, the action is murder.
 - It must always be ACTIVE – the doctor must deliberately perform an action that is expected to cause death. (Passive euthanasia is therefore a misnomer and withholding life sustaining treatment is not euthanasia.)
 - It intends to relieve suffering by KILLING the person.
- Assisted Dying, also known as Physician Assisted Suicide (PAS) or Physician Assisted Dying, is also illegal in Malaysia. In this situation, the physician provides the means for a patient to end their life however the action of taking the life is conducted by the patient. Eg. providing lethal dose of medications to commit suicide.
- In Malaysia as euthanasia is illegal, any act of euthanasia can be charged under the penal code as murder or culpable homicide.

WITHDRAWAL AND WITHHOLDING TREATMENT

In some circumstances, the withdrawal and withholding of life sustaining treatments is sometimes justifiably practiced in medicine, particularly where:

- A patient declines intervention, or requests an intervention be stopped.
 - *In accordance with the practice of autonomy (unless the patient lacks mental capacity).*
- Treatment is disproportionate (burdens outweigh benefits)
 - *The role of a doctor is not to distress patients further with treatments that have no/limited benefits.*
- Medical futility
 - *Where a treatment is very unlikely to work, either from a very low likelihood of success, to an inability to restore a quality/function of life acceptable to a patient.*

Cessation or withholding of treatment on these grounds is different from euthanasia in that:

- INTENTION/GOAL is to respect autonomy, or stop a treatment that is very unlikely to work to achieve a goal, or to relieve a patient from a distressing treatment administered by a physician with little benefit. The GOAL is NOT TO HASTEN DEATH
- The best interest is to respect autonomy or relieve suffering from a medical action that health care providers are delivering that is not achieving the desired outcome. DEATH is NOT the best interest
- It stops suffering through the REMOVAL/WITHHOLDING of a medical intervention and not killing

The patient MAY die as a result of the withdrawal/withholding of treatment but if death does not follow, no further action to hasten it should take place. Death is a possible consequence, but not the goal of withdrawal and withholding. The action taken and intention of the action is not to bring about death. Death is actually caused by an underlying, irreversible medical condition, or a condition that a patient volitionally refuses treatment administered for their own reasons.

The role of medicine is not to subject competent people to treatments they refuse, neither is it to continue burdensome and futile treatments that may be painful and distressing, and actually cause suffering.

People have a right to live, and they also have a right to allow natural progression of disease to occur especially when medicine no longer works, or they no longer wish to receive it.

If trials of treatment are instituted, the option of stopping them, even life sustaining treatments, should be open, particularly if the goals of medicine are not being achieved and more harm is being done.

Decisions on withdrawing and withholding life sustaining therapy should not be motivated by a desire to bring about death

Withdrawal and withholding of treatment if practiced appropriately, is NOT EUTHANSIA

ADVANCE CARE PLANNING (ACP)

- Is a voluntary process involving patient
- May take place with or without the family present although decisions and discussions should be shared to increase awareness and facilitate the patient's wishes
- Made by patients who have decision making capacity
- Is not a one-off encounter where decisions are made and fixed as views may change over time and as situations evolve.
- Care plans should be reviewed regularly to ensure consistency and validity
- The details, depth and extent of ACP discussions is patient determined/driven but may require some guidance
- The decisions should be free from coercion

- The ACP process makes enquiries to understand factors such as:
 - Patient values, thoughts and attitudes towards life, healthcare preferences and the views of the future
 - Goals, wishes in life, what is important, and what makes life worthwhile
 - Ideas, concerns, and expectations of current health
 - Preferences of care - place of care, place of death, how, where and who to spend last days with
 - Treatment preferences and dislikes, worries, difficulties, unacceptable situations
 - Generally, anything the patient would like or feel open to discuss regarding future care
- Following discussions, a clearer picture and understanding should be gained regarding a person's:
 - Preferred plans for care and what is important to them
 - Wishes about care (treatments cannot be demanded but wishes guide what is preferred/acceptable)
 - Advance Medical Directives (usually refusals for specific treatments in clear circumstances)
 - Preferred people to act as proxy decision makers

Refusals of treatment/Advance Medical Directives/Living Wills

- For a refusal of a life sustaining medical treatment to be valid
 - It must be clear that the patient is refusing it even though death may be a consequence
 - It has to be specific to the situation
 - Must be made when mentally competent and without undue influence
- They should generally be respected if made by a competent patient unless there are grounds that indicate they may be invalid.

Plans, wishes, statements, directives and guidance from an ACP only become active when mental capacity is lost and they help guide decision making. At its core, ACP is about open and good communication.

- Generally, ACP is applicable to everyone and at any time. In terms of direct and immediate relevance, it would be suited to patients with a limited prognosis such as:
 - Advanced chronic illness - chronic heart failure, chronic respiratory disease, chronic kidney disease, neurodegenerative disorders (dementia, motor neurone disease), etc.
 - Incurable cancer
 - Acute illnesses not responding to treatments
- When to start ACP discussion?
 - Ask the surprise question, “Would you be surprised if this patient died in the next 12 months?” If answer is no, it may be appropriate to start ACP if a patient wishes.
 - Repeated admissions of increasing frequency may also indicate a declining condition.
- ACP aims to allow patients to guide and attempt to take control of their healthcare decisions in the event that they are unable to make decisions themselves in order that their preferences and wishes may be respected.
- Family members may not always know what a patient wishes unless this had been discussed before and it may help reduce family stress in decision making.
- Ideally, ACP should be documented and shared with key care providers.

In Malaysia advanced medical directives are not legally binding however the good communication, respect for autonomy, patient centred care and shared decision making are all aspects of good conduct and practice in delivering high quality care.

MENTAL CAPACITY

- Mental capacity indicates an ability to make one's own decisions regarding issues.
- Mental capacity may fluctuate over time and repeated efforts should be made to restore and reassess the integrity of the patient's capacity at a different time.
- Presumption of capacity:
 - all adults may make decisions on their behalf unless it can be proven otherwise
 - the onus of proof of mental incapacity rests with the person challenging it
- Mental capacity may vary depending on the complexity of the decision at hand - a lack of capacity for a particular decision does not indicate incapacity for another type of decision.
- A poor decision that healthcare staff do not agree with does not necessarily indicate a lack of mental capacity.

Test of capacity

- Is there is a concern that there is an impairment or disturbance in the function of the mind or brain?
 - If the answer is NO, then the patient is presumed to have mental capacity
 - If YES, proceed to check:

- | |
|---|
| 1. Can the person take in and understand the information relevant to the decision? |
| 2. Can the person retain the information long enough to make the decision? |
| 3. Can the person weigh up the information and reach a decision? |
| 4. Can the decision be communicated? |

All practical efforts should be taken to prove mental capacity is intact
eg: provide interpreter, use writing, gestures and psychiatric assessment.

- Failure of any of the four steps indicates a person lacks capacity for the specific decision at hand.
- Efforts should be made to improve their mental capacity if reversible causes are interfering (eg treating delirium or addressing depression)
- A best interest decision may need to be made in the interim.

Best interests

- Best interest decisions should encompass thoughts, both advantages and disadvantages on the following dimensions:
 - Medical consequences - outcome, burdens and benefits
 - Welfare consequences - impact on how (better or worse) the person lives their life
 - Social consequences - effects on relations, relationships and society
 - Emotional consequences - how the patient may feel about the decision
 - Ethical consequences - specific ethical considerations in reaching a decision
- Advanced Care Plans if available may help guide a best interest decision in informing on values and beliefs.
- Relatives and others familiar with the patient may be consulted to provide views on patient's values and beliefs.

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APPENDIX 1: MODIFIED CHARLSON CO-MORBIDITY INDEX FOR ESRF

Comorbidity		Points		
Coronary artery disease Congestive cardiac failure Peripheral Vascular Disease Cerebrovascular Disease Dementia COPD Diabetes without end-organ damage Connective Tissue Disease Peptic Ulcer Disease Mild Liver Disease		1 point for each condition		
Every decade above 40		1 point each decade (65 yrs = 3 points)		
Hemiplegia Mild to severe renal damage (including being on dialysis) Diabetes with end-organ damage Cancer (including leukemia and lymphoma)		2 points for each condition		
Moderate to severe liver disease		3 points		
Metastatic solid tumour AIDS		6 points for each condition		
Modified CCI Score Totals	Low Score (3 or less)	Moderate (4-5)	High (6-7)	Very High (8 or more)
Annual Mortality rate	0.03	0.13	0.27	0.49

APPENDIX 2 : BODE INDEX FOR COPD

Variable	Points			
	0	1	2	3
FEV1 (% predicted)	>65	50-64	36-49	<35
Distance walked in 6 mins (metres)	>350	250-349	150-249	<149
MMRC dyspnoea scale	0-1	2	3	4
Body-Mass Index	>21	<21		
Correlation of BODE score with mortality				
BODE score	1-year mortality	2-year mortality	52-month mortality	
0-2	2%	6%	19%	
3-4	2%	8%	32%	
5-6	2%	14%	40%	
7-10	5%	31%	80%	

APPENDIX 3: PALLIATIVE PROGNOSTIC SCORE FOR CANCER

Prognostic Factor	Partial Score
Dyspnoea <ul style="list-style-type: none"> • Absent • Present 	0 1
Anorexia <ul style="list-style-type: none"> • Absent • Present 	0 1.5
Karnofsky Performance Status <ul style="list-style-type: none"> • >50 • 30-40 • 10-20 	0 0 2.5
Clinicap prediction of survival <ul style="list-style-type: none"> • >12 weeks • 11-12 weeks • 9-10 weeks • 7-8 weeks • 5-6 weeks • 3-4 weeks • 1-2 weeks 	0 2.0 2.5 2.5 4.5 6.0 8.5
Total WBC count (cell/mm ³) <ul style="list-style-type: none"> • Normal: 4,800-8,500 • High: 8,501-11,000 • Very High: >11,000 	0 0.5 1.5
Lymphocyte percentage <ul style="list-style-type: none"> • Normal: 20.0%-40.0% • Low: 12.0% -19.9% • Very low: 0%-11.9% 	0 1.0 2.5
Score	30 day survival probability
0-5.5	>70%
5.6-11.0	30-70%
11.1-17.5	<30%

APPENDIX 4 : LIST OF ABBREVIATIONS

ACP	-	Advanced Care Plan
Aq	-	Aqueous
BD	-	Latin: <i>bis in die</i> (Bidaily)
COX-2	-	Cyclooxygenase-2
COPD	-	Chronic Obstructive Pulmonary Disease
CPR	-	Cardiopulmonary Resuscitation
CSCI	-	Continuous Subcutaneous Infusion
CT	-	Computed Tomography
CVS	-	Cardiovascular
DVT	-	Deep Venous Thrombosis
DNAR	-	Do Not Attempt Resuscitation
Eg	-	Latin: <i>Exempli gratia</i> (for example)
Etc	-	Latin: <i>et cetera</i> (and other things)
GI	-	Gastrointestinal
IV	-	Intravenous
ICU	-	Intensive Care Unit
NSAIDs	-	Non-Steroidal Anti-Inflammatory Drugs
NG	-	Naso-Gastric
NYHA	-	New York Heart Association
OD	-	Latin: <i>omne in die</i> (Once daily)
ON	-	Latin: <i>omne nocte</i> (Every night)
PRN	-	Latin: <i>pro re nata</i> (as needed)

LIST OF ABBREVIATIONS

SC	-	Subcutaneous
SSRI	-	Selective Serotonin Reuptake Inhibitor
SVCO	-	Superior Vena Cava Obstruction
Sy	-	Syrup
T	-	Tablet
TD	-	Transdermal
TDS	-	Latin: <i>ter die</i> (three times a day)
TPN	-	Total Parenteral Nutrition
QID	-	Latin: <i>quarter in die</i> (four times a day)

APPENDIX 5 : LIST OF PALLIATIVE CARE SERVICES & HOSPICES

PALLIATIVE CARE SERVICES		
HOSPITAL	TEL	WEBSITE
Institut Kanser Negara*	03-88925555	http://www.moh.gov.my
Hospital Selayang, Selangor*	03-61203233	http://www.hselayang.moh.gov.my
Pusat Perubatan Universiti Malaya, Kuala Lumpur *	03-79494422	http://www.ummc.edu.my
Pusat Perubatan Universiti Kebangsaan Malaysia, Kuala Lumpur *	03-91455555	http://www.ppukm.ukm.my
Clinical Trial Centre, Universiti Teknologi MARA, Sg Buloh*	03-61265000	http://www.medicine.uitm.edu.my
Hospital Tuanku Ja'afar, Negeri Sembilan	06-7623333	http://www.htjs.moh.gov.my
Hospital Melaka, Melaka	06-2707653	http://www.hmelaka.moh.gov.my
Hospital Raja Permaisuri Bainun, Perak	05-5222245	http://www.hipoh.moh.gov.my
Hospital Bukit Mertajam, Kedah	04-5383333	http://www.hospbm.moh.gov.my
Hospital Sultanah Bahiyah, Kedah	04-7303333	http://www.hsbas.moh.gov.my
Hospital Pulau Pinang, Pulau Pinang	04-2293333	http://www.hpp.moh.gov.my
Hospital Tengku Ampuan Afzan, Pahang	09-5133333	http://www.htaa.moh.gov.my
Hospital Sultanah Nur Zahirah, Terengganu	09-6233333	http://www.hsnzkt.moh.gov.my
Hospital Raja Perempuan Zainab II, Kelantan	09-7485533	http://www.hrpz2.moh.gov.my
Hospital Queen Elizabeth, Sabah	088-206258	http://www.qeh.moh.gov.my
Hospital Duchess of Kent, Sabah	089-212111	http://www.hdok.moh.gov.my
Hospital Tawau, Sabah	089-773533	http://www.htwu.moh.gov.my
Hospital Umum Sarawak, Sarawak	082-208069	http://www.hus.moh.gov.my

*Centres with Specialist Palliative Care service

LIST OF PALLIATIVE CARES SERVICES AND HOSPICES

PALLIATIVE CARE SOCIETIES/HOSPICES		
SOCIETY	TEL	WEBSITE/E-mail
Malaysian Hospice Council	03- 33242125	http://www.malaysianhospicecouncil.blogspot.com malaysianhospicecouncil@gmail.com
Hospis Malaysia	03-91333936	http://www.hospismalaysia.org info@hospismalaysia.org
Hospice Klang (Covering Klang area)	03-33242125	http://www.hospiceklang.org hpsklang@gmail.com
Kasih Hospice Care Society (Covering North KL up to Sg Buloh/Rawang area)	03-79607424	http://www.kasihfoundation.org admin@kasihfoundation.org
Assunta Palliative Care Centre (Covering South KL Kajang/Bangi area)	03-79543389	Aspacc.assuntahospital@gmail.com
Pertubuhan Hospice Negeri Sembilan	06-7621216	http://pertubuhanhospicenegerisembilan.com hospicens2012@yahoo.com
Hospice Malacca	012-6235115	drrajagopal@hotmail.com
Palliative Care Association of Johor, JB	07-2229188 / 07-2228858	http://www.pcajb.com nancyyee.pcajb@gmail.com
Persatuan Hospice Ark, JB	07-5560878	Hospice_ark@hotmail.com
Persatuan Hospis Pahang	018-5994614	hospispahang@gmail.com
Persatuan Hospis Terengganu	09-8593333	Drnona31765@gmail.com
Persatuan Hospis Kedah	04-7713487	http://hospiskedah.blogspot.com sriwahyu2006@yahoo.com.my
Persatuan Hospis Negeri Kelantan	09-7452000	drimisairi@yahoo.com
NCSM Penang	04-2284140	http://www.ncsmpenang.org ncsmpg@gmail.com
Penang Hospice Society	04-2284140	http://www.penanghospice.org.my penanghospicesociety@gmail.com
Pure Lotus Hospice of Compassion, Penang	04-2295481	lyanshih@gmail.com
Perak Palliative Care Society (PPCS)	05-5464732	http://www.ppcs.org.my admin@ppcs.org.my
Taiping Palliative Society	05-8072457	veraliew@hotmail.com

LIST OF PALLIATIVE CARES SERVICES AND HOSPICES

PALLIATIVE CARE SOCIETIES/HOSPICES		
SOCIETY	TEL	WEBSITE/E-mail
Kuching Hospice Cancer Care	082-337689	cancercare@gmail.com
Sarawak Hospice Society	082-276575	http://www.sarawakhospicesociety.org tangtiengswee@gmail.com
Home Care Hospice Programme, Kota Kinabalu, Sabah	088-222315	http://www.sabah.org.my/scss/cancer sabahcancersociety@yahoo.com
Palliative Care Association of Kota Kinabalu, Sabah	088-231505	http://www.sabah.org.my/pcakks pcakk@yahoo.com
Persatuan Hospis Tawau	089-711515	hospistwu@gmail.com
The Hospice Association of Sabah, Sandakan	089-632219	http://www.hospicedk.com hospicesandakan@yahoo.com.my
Persatuan Hospice St Francis Xavier, Keningau, Sabah	087-339114	Lucyliew41@gmail.com

