

# Managing pain in palliative care

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# Palliative care – a reminder

Palliative care is an approach that improves the **quality of life** of patients and their families facing the problems associated with **life-threatening illness**, through the prevention and relief of **suffering** by means of early identification and impeccable assessment and treatment of pain and other **problems, physical, 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 nor 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 patient's 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

# Definition of PAIN

- An unpleasant sensory and emotional experience which we primarily associate with tissue damage or describe in terms of such damage or both.

(It is a combined **sensory, emotional** and **cognitive** phenomenon)

# PAIN as an experience

- According to the person's capacity to control it effectively and to ascribe a meaning to it e.g. pain post-op (accepted), pain from cancer (maybe not so accepted)



# Concept of pain

- Nociception can be influenced by non-nociceptive pathophysiologic (e.g. abnormal nervous system processing) or psychological factors
- It is **SUBJECTIVE** to the patient (patient is reporting a true experience), even in the absence of an obvious demonstrable origin. *Pain is what the patient says it is*



# Acute pain

- An event which alerts the organism to the presence of harmful stimuli in the internal or external environment
- Ends predictably
- May provoke an autonomic response
- May follow cancer therapy
- Incident pain/episodic



# Chronic pain

- repetitive stimulus in which there is recurrent and/or progressive tissue injury, e.g. cancer, osteoarthritis
- *“chronically painful”*; persistent nociceptor activation
- ...hard to predict an end
- ...often gets worse
- evokes a different emotional response
- Often no meaning can be ascribed to it



# Aetiology of pain

- Tumour itself
  - nerve root compression
  - liver capsule pain
  - bone metastases
- Caused by treatment
  - chronic post-operative
  - peripheral neuropathy following chemotherapy
- Related to cancer/debility
  - muscle spasm
  - pressure areas
  - herpes zoster
  - constipation
- Unrelated concurrent disorders
  - osteoporosis
  - angina
  - arthritis
  - UTIs

# Pain threshold

- Useful concept in management of pain
- Encompasses the two models of physiology and psychology
- Central pathway connections and inhibitory pathways from the pre-frontal (emotional) cortex, hypothalamus: influence of emotions and arousal on patient's pain tolerance threshold



# Pain threshold

- Cannot be measured but can be modified
  - control of other symptoms
  - good quality sleep
  - feeling secure
  - psychological support
  - explanation
  - relaxation, massage
  - diversional activities
  - reduce anxiety/depression



## Physical

- Cancer-disease itself
- Therapy side effects
- Non cancer pathology
- Chronic fatigue
- Insomnia

## Spiritual

- Meaning of life
- Culture
- Religion/Belief
- Helplessness

## Emotional

- Anger
- Anxiety
- Sadness
- Loss
- Fear
- Disfigurement

```
graph TD; Physical --> TotalPain[Total Pain]; Spiritual --> TotalPain; Emotional --> TotalPain; Social --> TotalPain;
```

Total Pain

## Social

- Relationships
- Roles
- Cultural Attitude

# Pain assessment

- Why pain assessment?
  - To help with a diagnosis
  - To help with the appropriate treatment/management
  - To assess loss of function caused by the pain and the appropriate measures required to correct this

# Principles of pain assessment

- Obtain a **detailed history**, including pain characteristics, intensity etc
- Do a **psycho-socio-spiritual** assessment
- Do a **physical examination**
- Provide a diagnosis
- Set short term realistic goals (aim to minimise pain)
- Review regularly



SITES  
SEVERITY  
NATURE  
DURATION  
PERIODICITY  
PRECIPITANTS  
RELIEVING FACTORS  
NUISANCE VALUE  
SIGNIFICANCE  
EXAMINATION  
INVESTIGATION  
TABULATION/RECORDING  
REVIEW

# Pain assessment

- Associated phenomena
  - sweating, restlessness, vomiting, loss of sensation
- Analgesic history
  - what drug, dosage, effect
- Enquire about mobility, sleep, ADL, contact with children, social

# Pain assessment

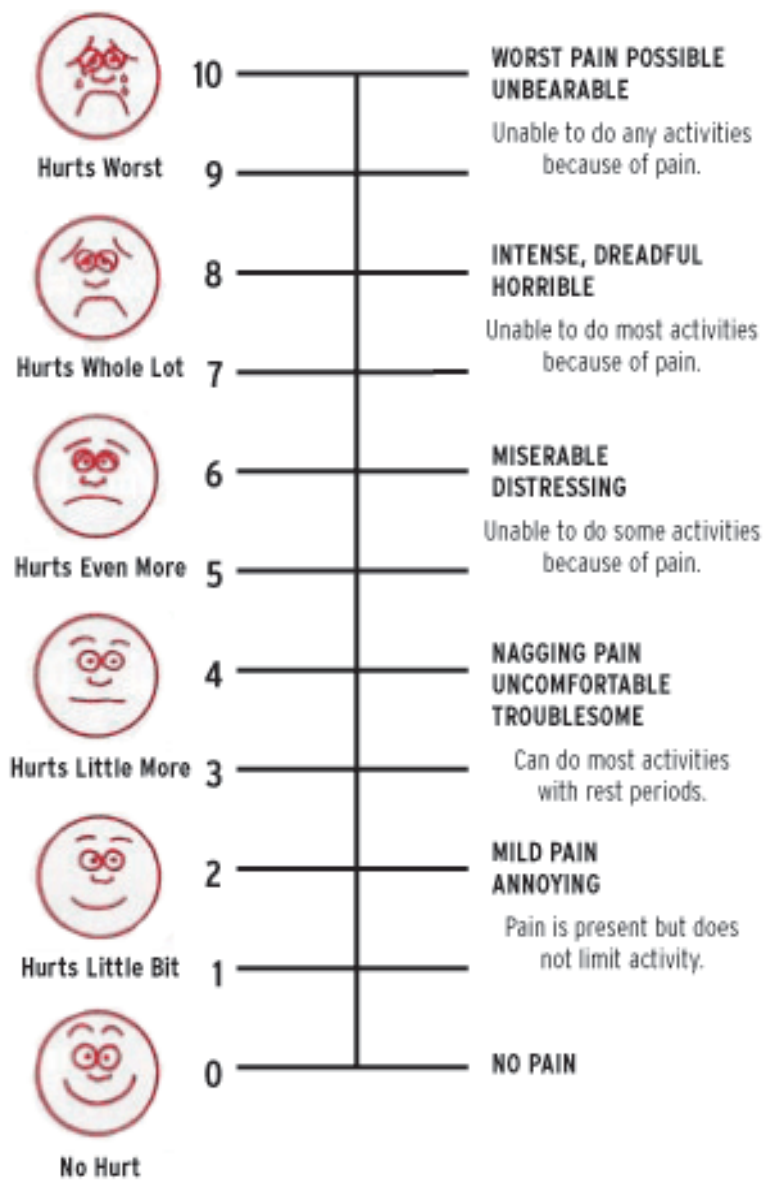
- Look out for non-malignant pains
- Ask patient what he thinks is the cause of pain, correct misconceptions, explain, reassure.  
Cancer~pain~cancer~death, therefore maybe pain~death
- Psychological assessment, fears, weakness, anxiety, worry, concerns...
- Spiritual assessment...

# Measurement of pain

- Quantifying the intensity of pain is an essential part of initial and ongoing pain assessment
- A variety of validated pain scales are available to assist in the measurement of pain. It is recommended that the clinician select a method of assessing pain intensity and incorporate it into routine clinical use,

# Pain measurement

- **Uni-dimensional scales**
  - verbal rating scale (VRS)
  - numeric rating scale (NRS)
  - visual analogue scale (VAS)
- The choice of pain scale may depend on the patient's age, ability to communicate, or other specific circumstances



No Hurt

On a scale of  
“1 to Stepping on a Lego”  
how much pain are you in?

## LEGO PAIN ASSESSMENT TOOL

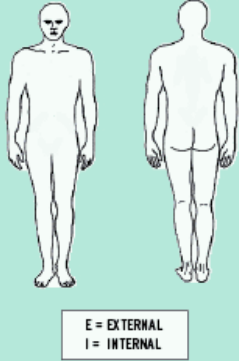


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# McGill Pain Questionnaire

PATIENT'S NAME _____		DATE _____	TIME _____	AM/PM _____		
PPI: 5 (1-10) (11-15) (16) (17-20) (1-20)		A	E	M	PRKT)	PPI

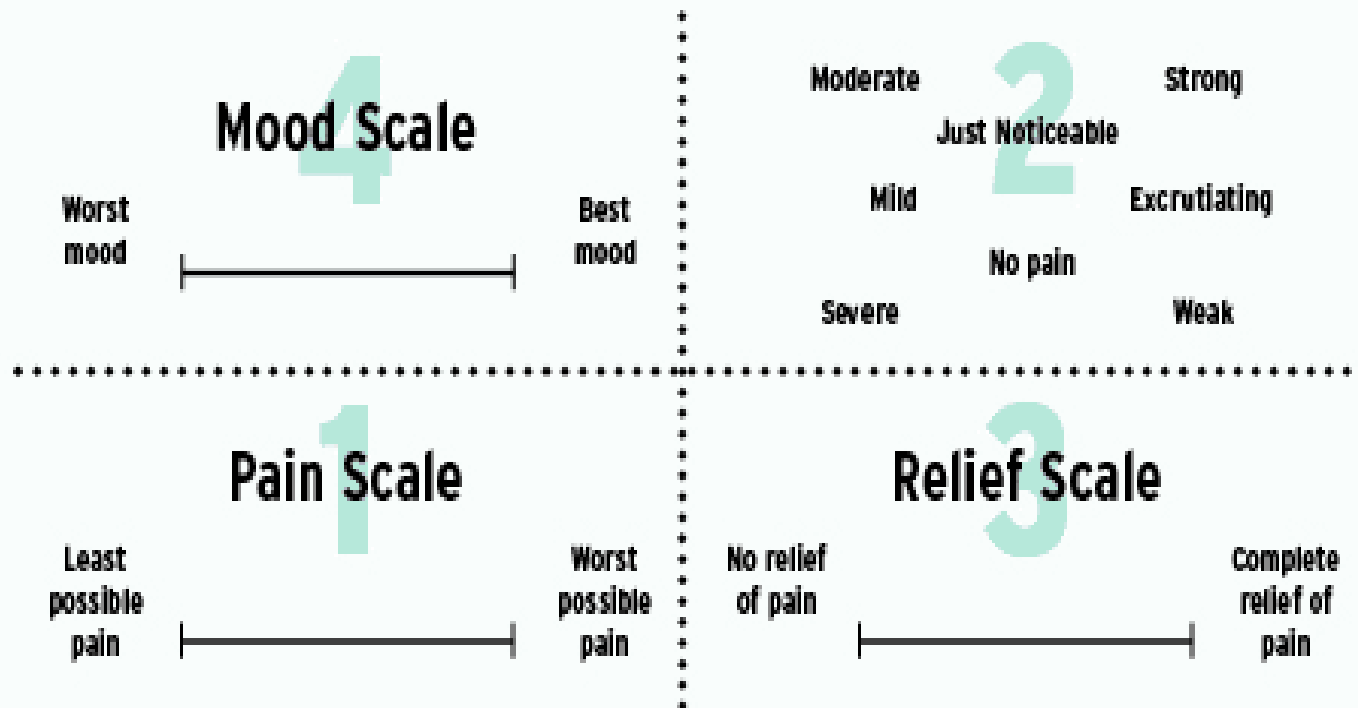
  

1 FLICKERING _____ QUIVERING _____ PULSING _____ THROBBING _____ BEATING _____ POUNDING _____	11 TIRING _____ EXHAUSTING _____	BRIEF _____ MOMENTARY _____ TRANSIENT _____	RHYTHMIC _____ PERIODIC _____ INTERMITTENT _____	CONTINUOUS _____ STEADY _____ CONSTANT _____	
2 JUMPING _____ FLASHING _____ SHOOTING _____	12 SICKENING _____ SUFFOCATING _____				
3 PRICKING _____ BORING _____ DRILLING _____ STABBING _____ LANCINATING _____	13 FEARFUL _____ FRIGHTFUL _____ TERRIFYING _____	E = EXTERNAL I = INTERNAL			
4 SHARP _____ CUTTING _____ LACERATING _____	14 PUNISHING _____ CRUELING _____ CRUEL _____ VICIOUS _____ KILLING _____				
5 PINCHING _____ PRESSING _____ GNAWING _____ CRAMPING _____ CRUSHING _____	15 WRETCHED _____ BLINDING _____	COMMENTS:			
6 TUGGING _____ PULLING _____ WRENCHING _____	16 ANNOYING _____ TROUBLESOME _____ MISERABLE _____ INTENSE _____ UNBEARABLE _____				
7 HOT _____ BURNING _____ SCALDING _____ SEARING _____	17 SPREADING _____ RADIATING _____ PENETRATING _____ PIERCING _____	COMMENTS:			
8 TINGLING _____ ITCHY _____ SMARTING _____ STINGING _____	18 TIGHT _____ NUMB _____ DRAWING _____ SQUEEZING _____ TEARING _____				
9 DULL _____ SORE _____ HURTING _____ ACHING _____ HEAVY _____	19 COOL _____ COLD _____ FREEZING _____	COMMENTS:			
10 TENDER _____ TAUT _____ RASPING _____ SPLITTING _____	20 NAGGING _____ NAUSEATING _____ AGONIZING _____ DREADFUL _____ TORTURING _____				
		PPI			
		0 NO PAIN _____ 1 MILD _____ 2 DISCOMFORTING _____ 3 DISTRESSING _____ 4 HORRIBLE _____ 5 EXCRUCIATING _____			

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## Memorial Pain Assessment Card



Note: Card is folded along broken line so that each measure is presented to the patient separately in the numbered order.

Sources: Fishman, Pasternak, Wailenstein, et al., 1987. Used with permission.

# Pain management - principles

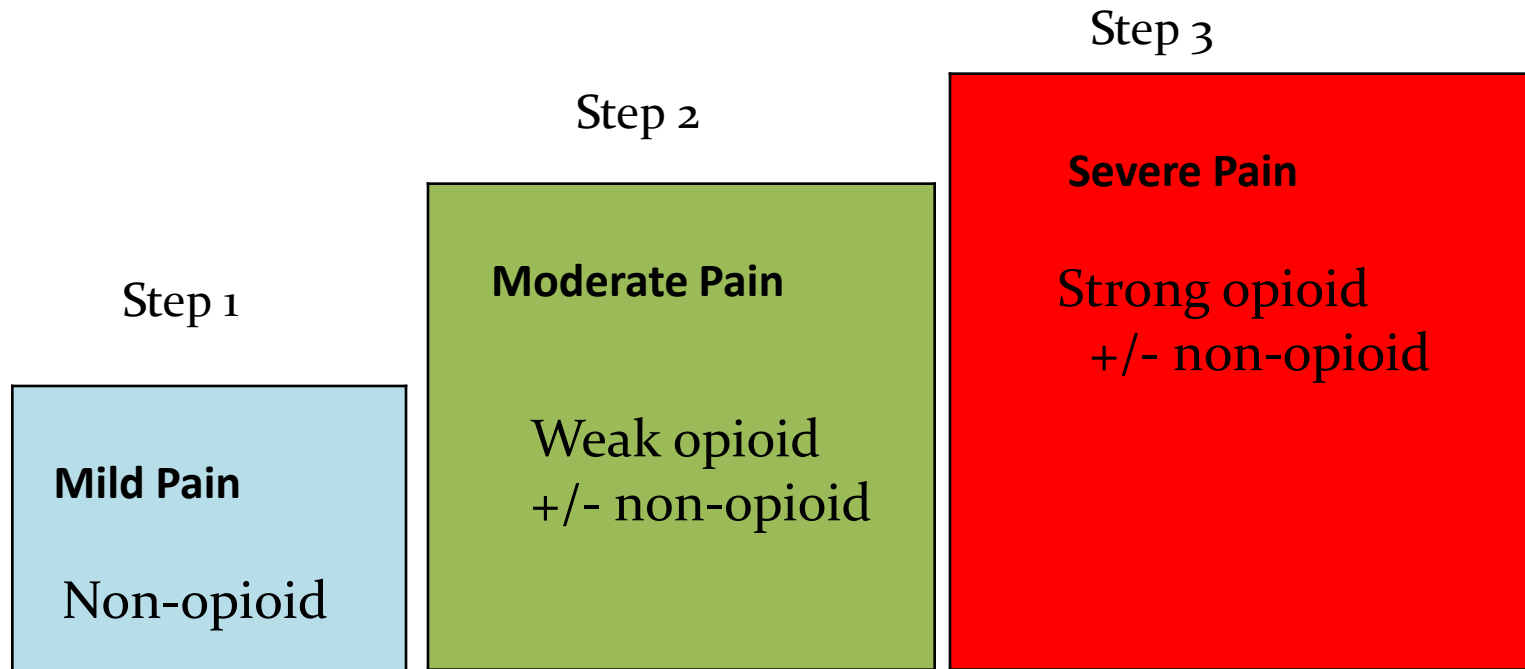
- Set short term realistic goals, e.g. sleep at night, pain free on movement
- Includes prevention and prompt response not crises intervention, use as required medications
- Skilful prescribing tailor-made to patient and cause
- Keep an open mind; drug and non-drug measures
- Discuss and explain to patients and families
- Give support
- Involve the MDT – remember total pain may require total approach
- Review the outcomes regularly

# Pain management

## **by the mouth, by the clock, by the ladder (individual)**

- increasing the strength of analgesic following any increase in pain
- know well the properties of at least one drug at each level
- balance against distressing side-effects
- consider other routes of administration
- consider adjuvant therapy at each stage
- tailor make according to each patient's response

# WHO Analgesic Ladder



Adjuvants including steroids  
Psychological aspects  
Specific therapies

# Pain in advancing cancer

- $\frac{3}{4}$  have pain
- $\frac{1}{4}$  have no pain
- $\frac{1}{5}$  have one pain
- $\frac{4}{5}$  have two or more pains
- $\frac{1}{3}$  have four or more pains

# Initiating morphine in opioid naïve patients

- start with small regular oral (if possible) of immediate release drug
- titration with slow release morphine is less effective than immediate release and is not recommended
- prescribe morphine elixir (immediate release) (2.5 to 5 mg) every four hours regularly and titrate

# Morphine

- prescribe 'when/as required' doses of 1/5th to 1/6th of the regular 24 hour dose for 'breakthrough', 'episodic' or 'incident' pain
- document the amount of morphine taken
- once a stable dosing regimen is achieved (2 to 3 days) convert to a long-acting preparation
- calculate the total 24 hour dose of immediate release morphine required from 'breakthrough' and regular dosing, divide by two and give twice daily
- 'when required' doses of 1/5th to 1/6th of the regular 24 hour dose should be prescribed as immediate release once again for pain between doses

# Morphine

- if the patient can no longer swallow
- give  $\frac{1}{2}$  the total 24 hour oral dose by continuous subcutaneous infusion
- 'when/as required' doses of  $\frac{1}{5}$ th to  $\frac{1}{6}$ th of the regular 24 hour dose should be prescribed once again for pain between doses



# Opioid rotation

- opioid rotation (or changing from one opioid to another) is often used when tolerance to the analgesic effects of opioids (stimulation of NMDA receptors) or severe adverse effects occur
- works because of the difference in the mix of opioid receptors stimulated by each individual opioid in each individual patient
- most often from morphine to oxycodone, fentanyl or methadone
- rotation should only occur under supervision and by a specialist as conversion doses are difficult to predict

# Practice points for morphine

- No upper dose – can be slowly up-titrated until effective dose reached (as long as the pain is opioid sensitive)
- Always start combination laxative (stool softener plus stimulant) e.g. Movicol<sup>®</sup> etc
- Nausea and drowsiness are common when starting, but usually settle within one week. Warn about driving

# Oxycodone and hydromorphone

- better oral availability than morphine
- alternative to morphine
- also indicated if patient experiences side effects with morphine:
  - sedation
  - delirium
  - hallucinations
  - nausea and/or vomiting
  - pruritis

# Oxycodone and hydromorphone

- Plasma concentrations increase with renal failure (by about 50%)
- Half life prolonged by about 1 hour in renal impairment
- Safer to use in renal impairment than morphine, but dose might need reducing in renal impairment. Avoid in severe impairment

# Fentanyl transcutaneous patch

## Indications

- Side effects from morphine (laxative dose can be halved once starting on fentanyl)
- Renal failure
- Poor compliance with oral medications or aversion to tablets
- Dysphagia

# Methadone

- longer half-life than morphine and complex pharmacokinetics. Dose conversions are complex and the response is variable – seek specialist help

# Pethidine

- has short duration of action (2-3 hrs)
- **no** place in palliative care

# Barriers to pain assessment and adequate management

- **Patient related**
  - Reluctance to report pain
  - Reluctance to follow treatment recommendations
  - Fear of tolerance and addiction
  - Concern about side-effects
  - Belief that pain is an inevitable consequence and must be accepted
  - Fear of disease progression
  - Fear of injections

# Barriers to pain assessment and adequate management

- Professional-related
  - Failure to evaluate and appreciate the severity of the pain problem
  - Poor assessment of pain
  - Knowledge deficits in cancer pain assessment and treatment and lack of perception thereof
  - Misconceptions re drug side-effects, drug combinations, tolerance, addiction.



# Barriers to pain assessment and adequate management

- **Institutional-related**
  - Lack of a language of pain
  - Failure to use validated pain measurement tools in clinical practice
  - Lack of time committed to pain as a priority
  - Lack of economic resources committed to its treatment
  - Serious legal restrictions to drug prescribing and availability

# Weak opioids

## Tramadol

- in pain associated with cancer, morphine is more effective than tramadol
- oral tramadol is 5 times weaker than oral morphine.
- many side effects – often not any advantage in using it

# Weak opioids

## Codeine/dihydrocodeine

- 10 times weaker than morphine
- Metabolised to morphine (10%)
  - 5-10% Caucasians may be unable to metabolise to morphine
  - Combination with other opioids is illogical
- Once maximum codeine dose reached (240mg/24 hours) start patient on recommended morphine dose (2.5 – 5mg every four hours)

