

The pain of it all

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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), pain from chronic illness...?



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
- * Will follow trauma
- * 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
- * Could it be called ‘acute persisting pain’?



Aetiology of pain

- Cancer
 - 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

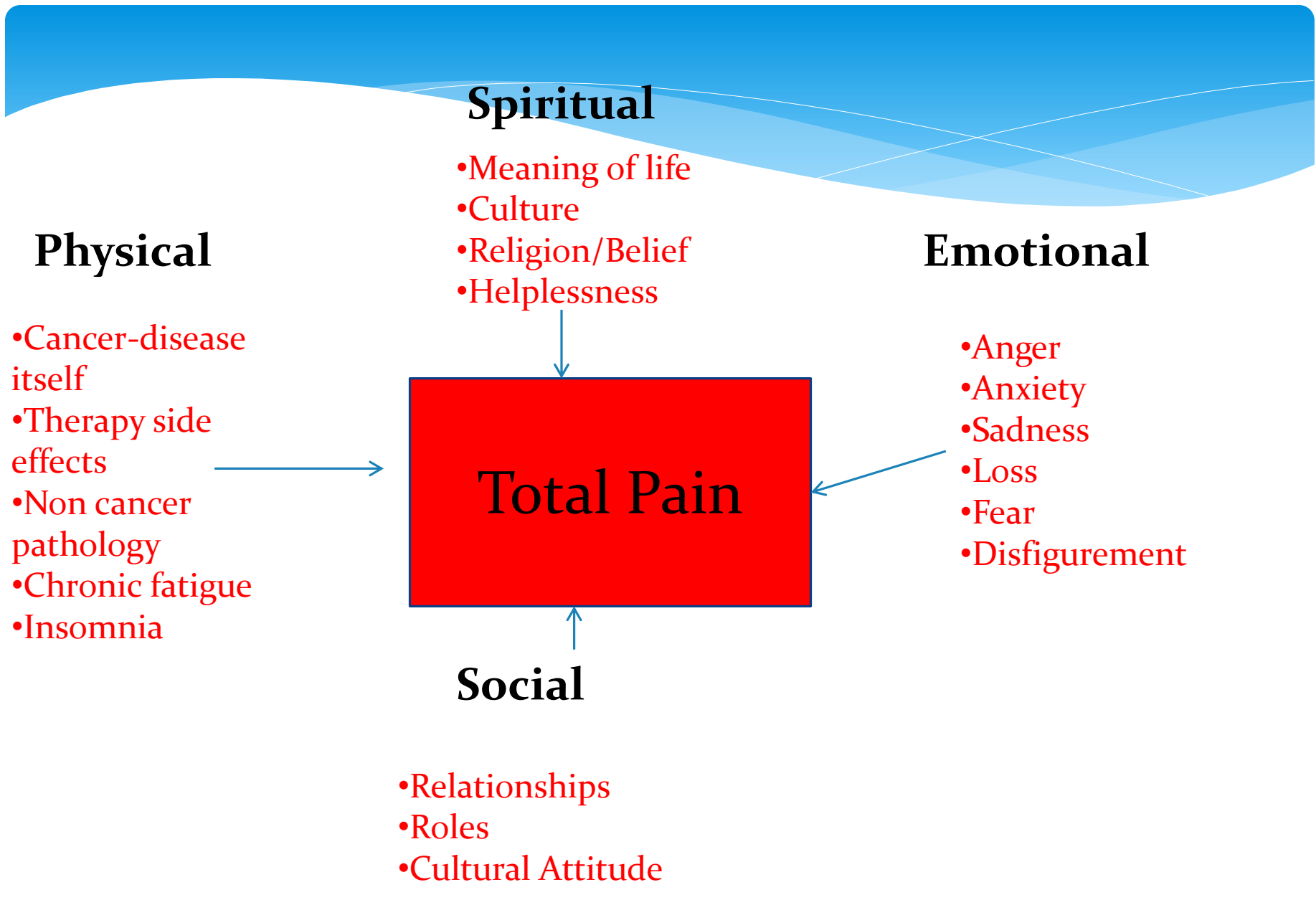
- Useful concept in management of pain
- Encompasses the two models of physiology and psychology
- Central pathway connections and inhibitory pathways from the pre-frontal (emotional) cortex, hypothalamus: influence of emotions and arousal on patient's pain tolerance threshold



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
 - being 'at peace'





Pain assessment


- * Why bother with proper pain assessment?

Pain assessment

- * Why bother with proper 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

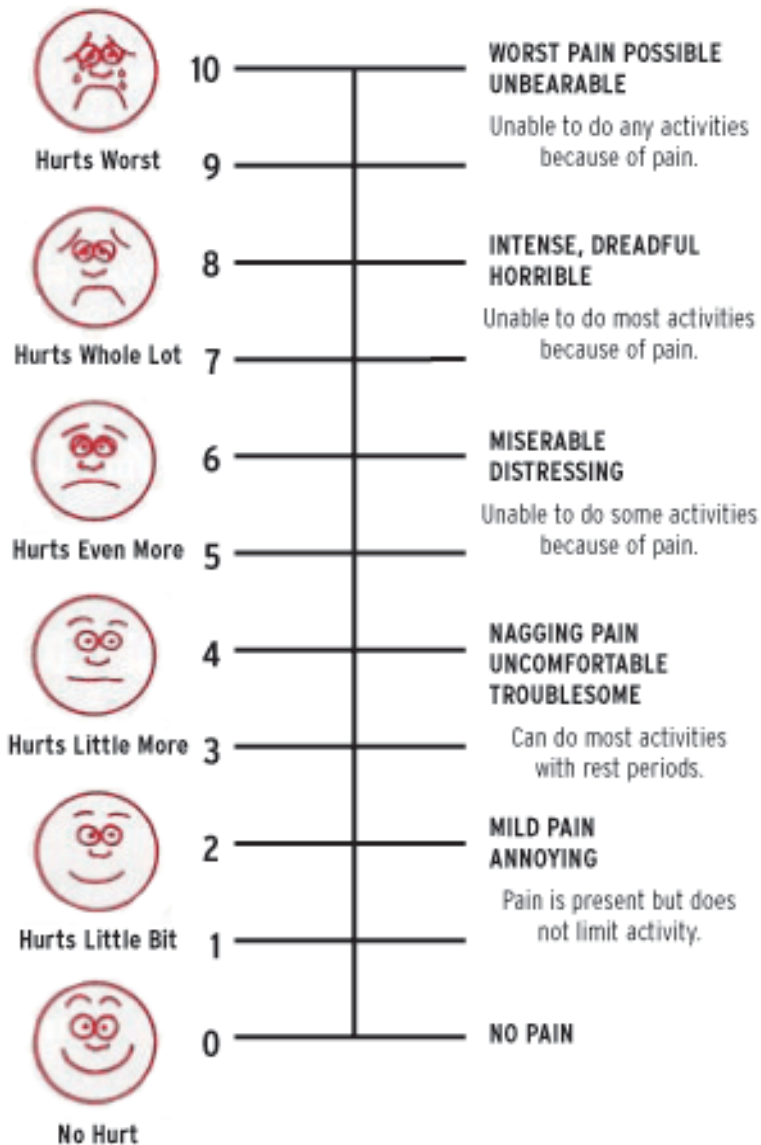
- * Look out for all pains
- * Ask patient what s/he thinks is the cause of pain, correct misconceptions, explain, reassure. For example - cancer~pain~cancer~death, therefore maybe pain~death
- * Psychological assessment, fears, weakness, anxiety, worry, concerns...
- * Spiritual assessment...

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
- * Select a method of assessing pain intensity and incorporate it into routine clinical use

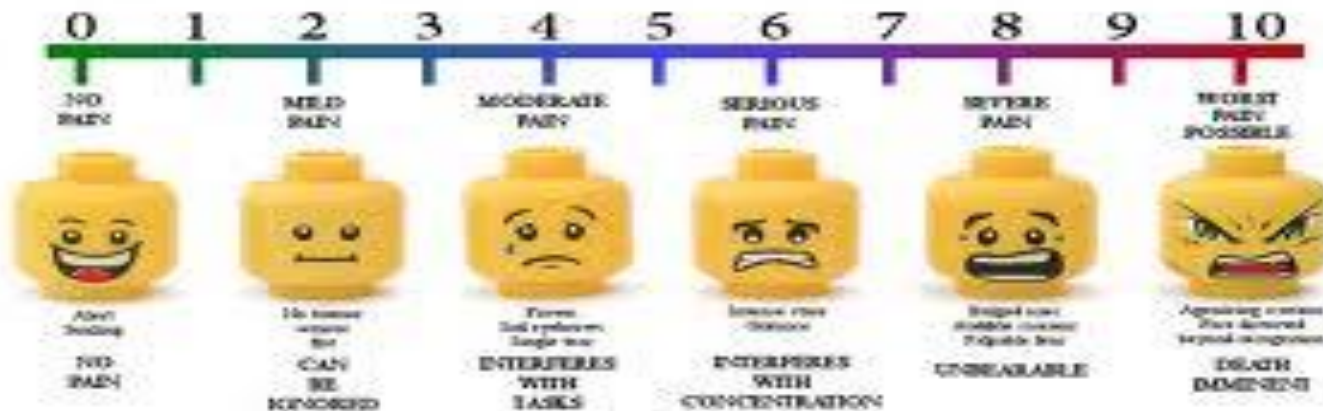
Pain measurement

- * **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



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

LEGO PAIN ASSESSMENT TOOL



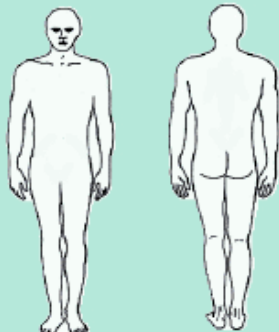
Copyright © 2010 The LEGO Group. www.TheLEGOGroup.com. This chart is not printed, published, or otherwise by the LEGO Group.

McGill Pain Questionnaire

PATIENT'S NAME _____		DATE _____	TIME _____	AM/PM _____		
PRI: S (H0) (H-15) (I6) (T7-20) (1-20)		A	E	M	PR(KT)	PPI

<div>1 FLICKERING _____</div> <div>2 JUMPING _____</div> <div>3 PRICKING _____</div> <div>4 SHARP _____</div> <div>5 PINCHING _____</div> <div>6 TUGGING _____</div> <div>7 HOT _____</div> <div>8 TINGLING _____</div> <div>9 DULL _____</div> <div>10 TENDER _____</div>	<div>11 TIRING _____</div> <div>12 SICKENING _____</div> <div>13 FEARFUL _____</div> <div>14 PUNISHING _____</div> <div>15 WRETCHED _____</div> <div>16 ANNOYING _____</div> <div>17 SPREADING _____</div> <div>18 TIGHT _____</div> <div>19 COOL _____</div> <div>20 NAGGING _____</div>	<div>0 NO PAIN _____</div> <div>1 MILD _____</div> <div>2 DISCOMFORTING _____</div> <div>3 DISTRESSING _____</div> <div>4 HORRIBLE _____</div> <div>5 EXCRUCIATING _____</div>
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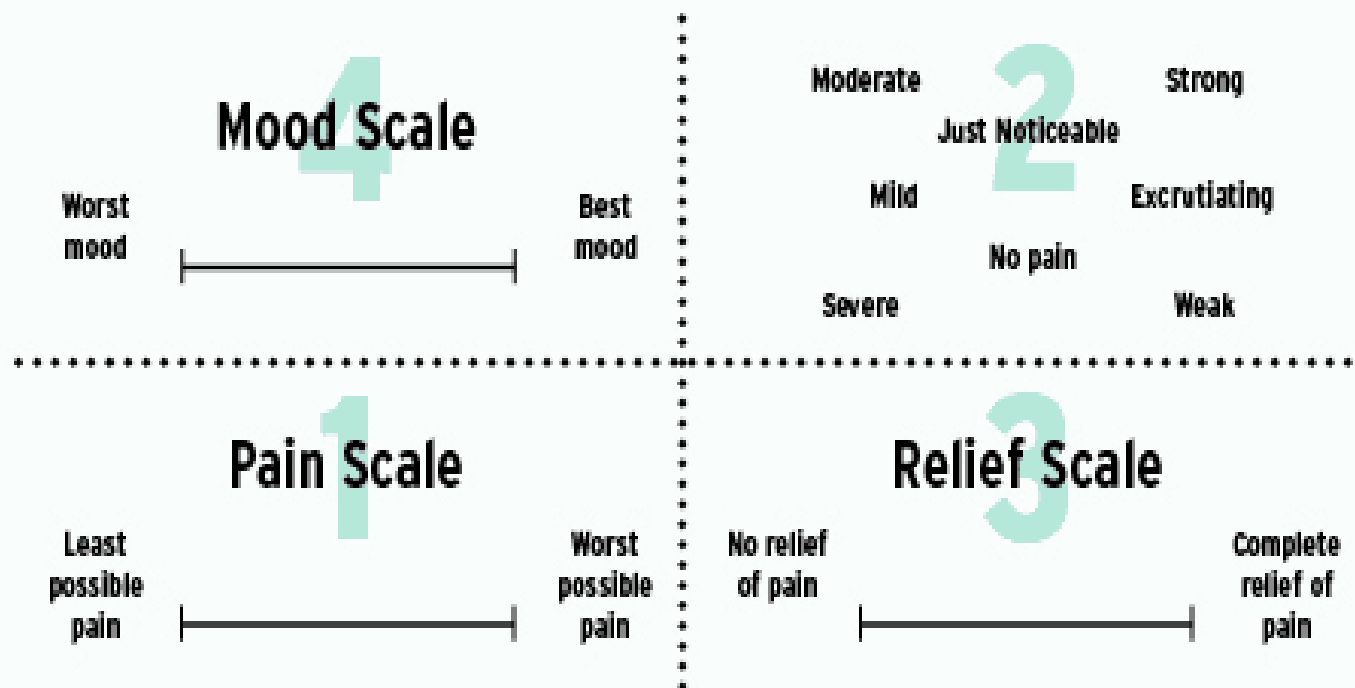
BRIEF _____	RHYTHMIC _____	CONTINUOUS _____
MOMENTARY _____	PERIODIC _____	STEADY _____
TRANSIENT _____	INTERMITTENT _____	CONSTANT _____



E = EXTERNAL
 I = INTERNAL

COMMENTS:

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

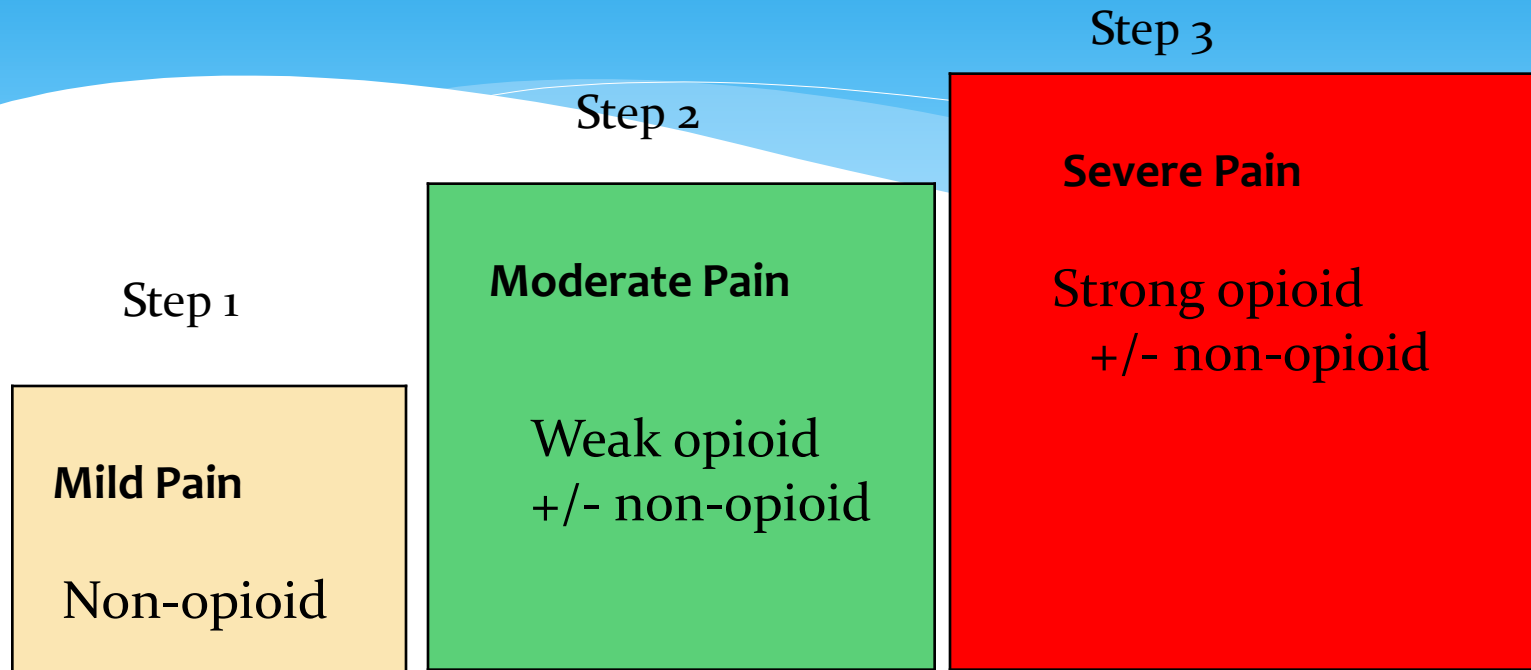
- * Set short term realistic goals, e.g. sleep at night, pain free on movement
- * Includes prevention and prompt response not crises intervention, use as required medications
- * Skillful prescribing tailor-made to patient and cause
- * Keep an open mind; drug and non-drug measures
- * Discuss and explain 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
Psychosocial and spiritual aspects
Specific therapies

Pain in advancing cancer for example

- * $\frac{3}{4}$ 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 $\frac{1}{5}$ th to $\frac{1}{6}$ th 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 $\frac{1}{5}$ th to $\frac{1}{6}$ th 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[®] 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)

Common symptoms to look for...

Gastrointestinal system

- Nausea/vomiting
- Constipation
- Diarrhoea
- Intestinal obstruction

Mouth care

- Taste alteration/dry mouth

Central nervous system

- Depression
- Delirium
- Disorders of sleep and wakefulness

‘Terminal’ restlessness

Anxiety/fear

- Respiratory system
- Dyspnoea (breathlessness)
- Cough
- Hiccup
- Excessive (retained) secretions

Haemoptysis

Itch (pruritus)

Sweating

Questions?