



# Assessment & Management of Pain

## For CHO/SN





# LEARNING OBJECTIVES



- What is pain and concept of “Total Pain”
- What are the causes of pain and concept of “PQRST” of pain
- What are the methods for assessment of pain
- Describe various drugs for managing pain
- Describe the use of opioids in pain management



# WHAT IS PAIN?

- An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage.
- Onset- sudden/ slow; intensity- mild to severe, course- constant/ recurring, with predictable/ without predictable end.
- If duration of pain is more than 6 months- CHRONIC PAIN.

Difficult for patient to tell location, intensity, aggravating/ reliving factors,

Chronic Malignant Pain

Chronic Non-malignant Pain



# PRINCIPLES OF PAIN MANAGEMENT

1. Consider patient as a "whole"

2. Evaluate symptoms thoroughly

3. Effective communication

4. Correct the correctable

5. Keep drug treatment simple

6. Review and adjust treatment regularly

7. Use non-pharmalogical treatment too

8. Plan in advance and keep staff informed

9. Ask for help





# FACTORS THAT “ENHANCE” & “RELIEF” THE PAIN

Enhance	Relief
Disease Progression- not taking treatment, improper treatment, wrong treatment,	Seeking proper treatment with adherence to treatment
Exhaustion	Adequate sleep, rest, family support, follow-up, “TOTAL CARE”
loss of sleep	
Anxiety	
Despair	
Anger	
Feeling of isolation	
Loneliness	
Fear	



## PQRST of pain

**P =**  
**Provokes/Precipitating/Palliating**

- What causes pain?
- What makes it better?
- What makes it Worse
- What previous treatment have you tried to relieve your pain?
- Were they effective?

**Q =**  
**Quality**

- What does your pain feel like?
- What words would you use to describe your pain?
- Is it sharp?
- Dull?
- Stabbing?
- Burning?
- Crushing?

**R =**  
**Radiates**

Where does the pain radiate?  
Is it in one place?  
Does it go anywhere else?  
Did it start elsewhere and now localised to one spot?

**S =**  
**Severity**

- On a scale of 0 to 10 with 0 being no pain and 10 being the worst pain you can imagine, how much does it hurt right now?
- How much does it hurt at its worst?
- How much does it hurt at its best?

**T =**  
**Time of pain**

- When did your pain start?
- How often does it occur?
- Has its intensity changed?
- How long does it last?



# APPLICATION OF PQRST- GROUP ACTIVITY

- During your house visit, you came across Mohan, 35 year male, suffering from Oral Cancer (Stage III, metastases to lung, kidney and brain). Before asking “how do you feel today” he kept his hand on his face and cried and told you it is “better to be dead” than this suffering. He also adds that chewing/ drinking increases the pain and only sleeping relived it. He also adds that the pain is as sharp as someone is pricking him needles whole day, which also radiated to neck and ear region. Now no medicine is working on it and usually pain is up and down whole day.
- His wife adds sometimes the pain is so severe that he woke up crying and shouting from his bed.
- On asking history you got to know that initially the pain was started from buccal mucosa and eventually tongue, palate, neck and ear got involved.

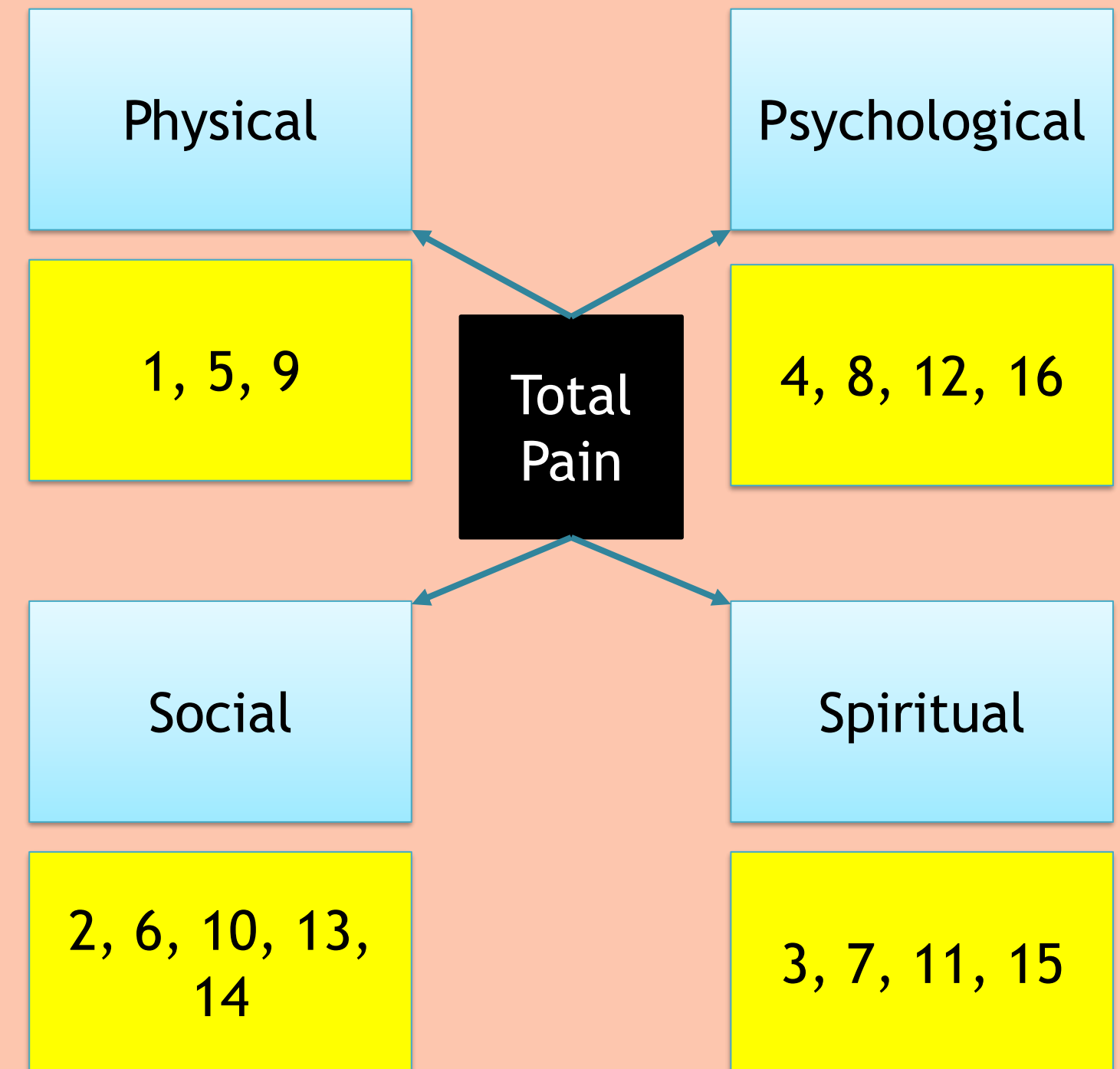




# CONCEPT OF TOTAL PAIN- PAIN

## BASKET ACTIVITY

1. Comorbid causes
2. Loss of job
3. Loss of faith
4. Depression
5. Caused by treatment
6. Loss of role and social status
7. Finding meaning
8. Anxiety
9. Caused by cancer
10. Financial concern
11. Anger at fate/ God
12. Fear of suffering
13. Worries about future
14. Dependency
15. Fear of unknown
16. Past experience of illness







# PAIN SCALES FOR MEASUREMENT OF INTENSITY OF PAIN

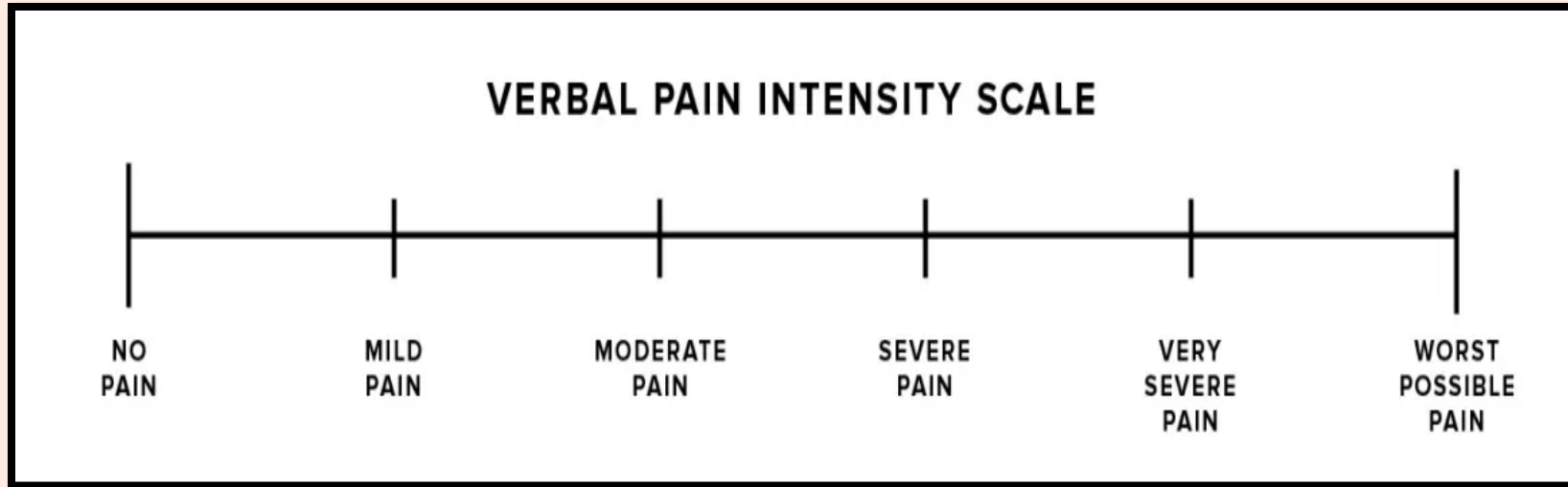
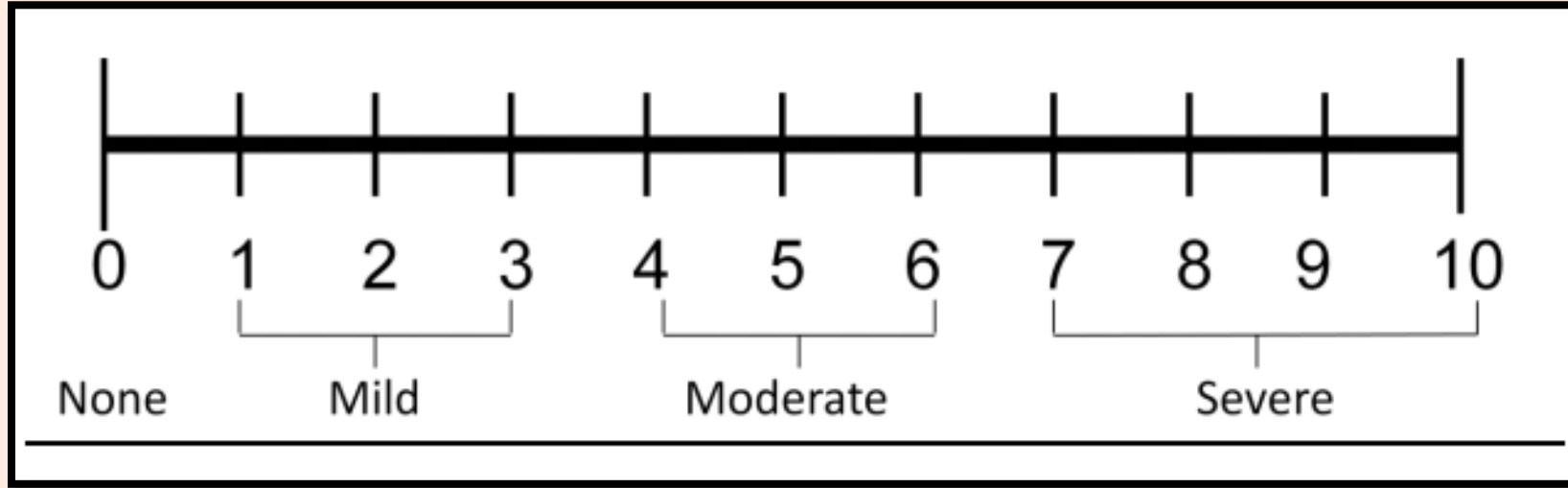
- Two types
- Multidimensional- explores all dimension of pain, time consuming, not suitable at OPD setting
- Unidimensional- assess the intensity of in quick time.

They are of many types like:

- Numeric Rating Scale
- Verbal Rating Scale
- Visual Analog Scale
- Verbal Descriptor scales
- Faces Pain Rating Scale







0 Pain Free	1 Very Mild	2 Discomforting	3 Tolerable	4 Distressing	5 Very Distressing	6 Intense	7 Very Intense	8 Utterly Horrible	9 Excruciating Unbearable	10 Unimaginable Unspeakable
No Pain	Minor Pain			Moderate Pain			Severe Pain			
Feeling perfectly normal	Nagging, annoying, but doesn't interfere with most daily living activities. Patient able to adapt to pain psychologically and with medication or devices such as cushions.			Interferes significantly with daily living activities. Requires lifestyle changes but patient remains independent. Patient unable to adapt pain.			Disabling; unable to perform daily living activities. Unable to engage in normal activities. Patient is disabled and unable to function independently.			

### Verbal Descriptor Scale (Pain Thermometer)

Pain intensity rating scale good for use with any individuals including those with moderate to severe cognitive impairment.

This tool is formatted for use as a pocket-sized pain scale. Copy column 1 and column 2 on opposite sides of paper, laminate and provide for individual use.

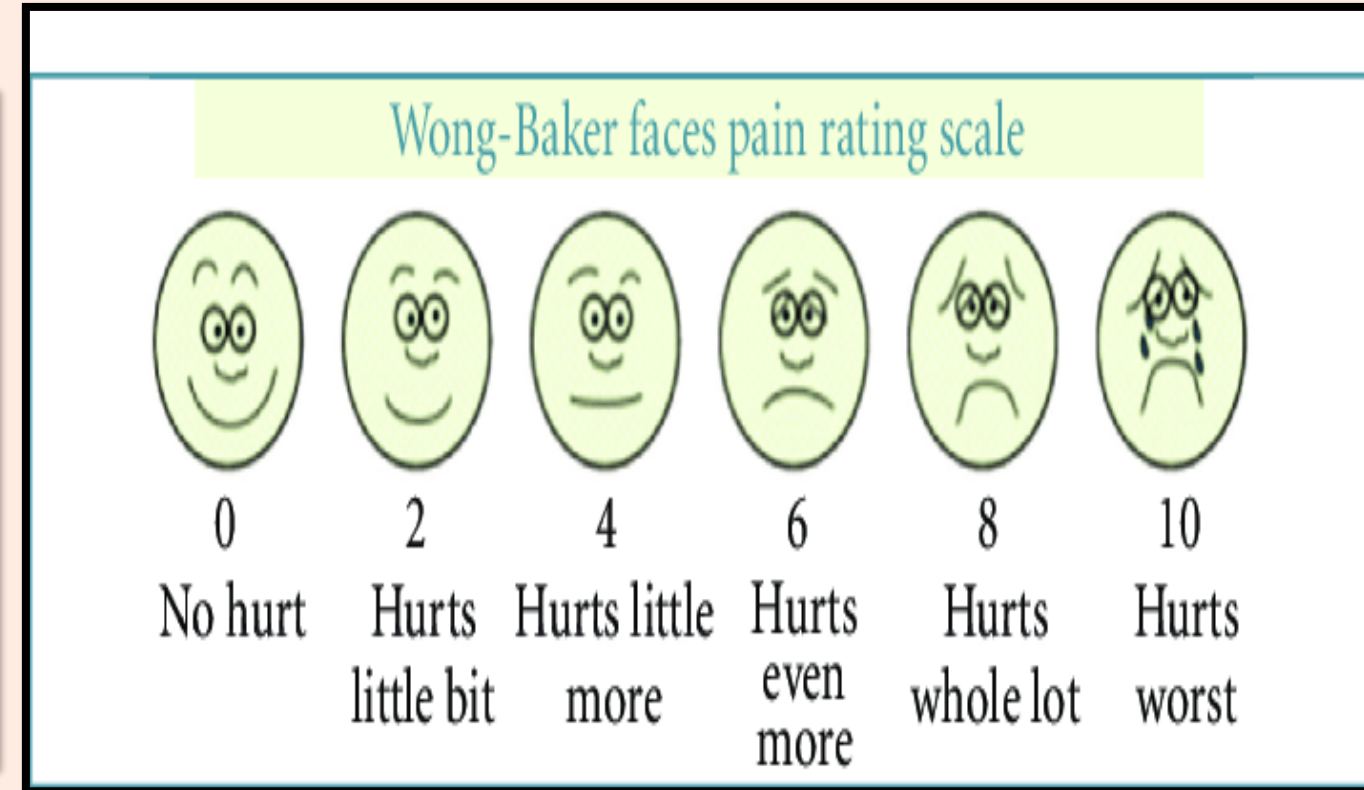
#### PAIN THERMOMETER SCALE

- Pain Thermometer Use:** Good for use with any patient, including those with moderate to severe cognitive impairment or who have difficulty communicating verbally. Have the patient point to the word on the thermometer that best shows how bad or severe their pain is NOW
- Pain Thermometer Scoring:** Document the words that the elder points to on this tool. Evaluate the change in pain words selected by the elder over time to determine the effectiveness of pain treatments.

(Herr & Mobily, 1993)

#### Pain Thermometer Scale

Point to the words that best show how bad or severe your pain is NOW







# TYPES OF PAIN

Nociceptive Pain	Neuropathic Pain
Usually acute in nature	Usually chronic in nature
Develops in response to a specific situation for e.g. Pain due to broken ankle	Develops due to damage to nervous system for e.g. numbness, burning sensation of sole in diabetic patient
Goes away as situation improves e.g. when ankle heals pain goes away	Seen in diabetes, multiple sclerosis, stroke, cancer etc.
	Usually controlled by controlling the underlying disease like controlling blood glucose in case of diabetes.



# LET US TALK ABOUT DRUGS - MANAGEMENT OF PAIN



# MANAGEMENT PRINCIPLES

1. By **Clock**: Prescribe round the clock doses in contrast to SOS doses for effective pain relief.

2. By **Mouth**: Start with oral immediate-release opioids, titrate to effective dose before switching to sustained-release opioids.

3. By the **Ladder**: Once the patient is started on the analgesic ladder, they must be reviewed regularly to titrate the exact dose requirements and to assess for side effects, change of pain quality etc.

STEP I - (MILD PAIN): Non-opioid (Paracetamol), NSAID (Diclofenac or ibuprofen)

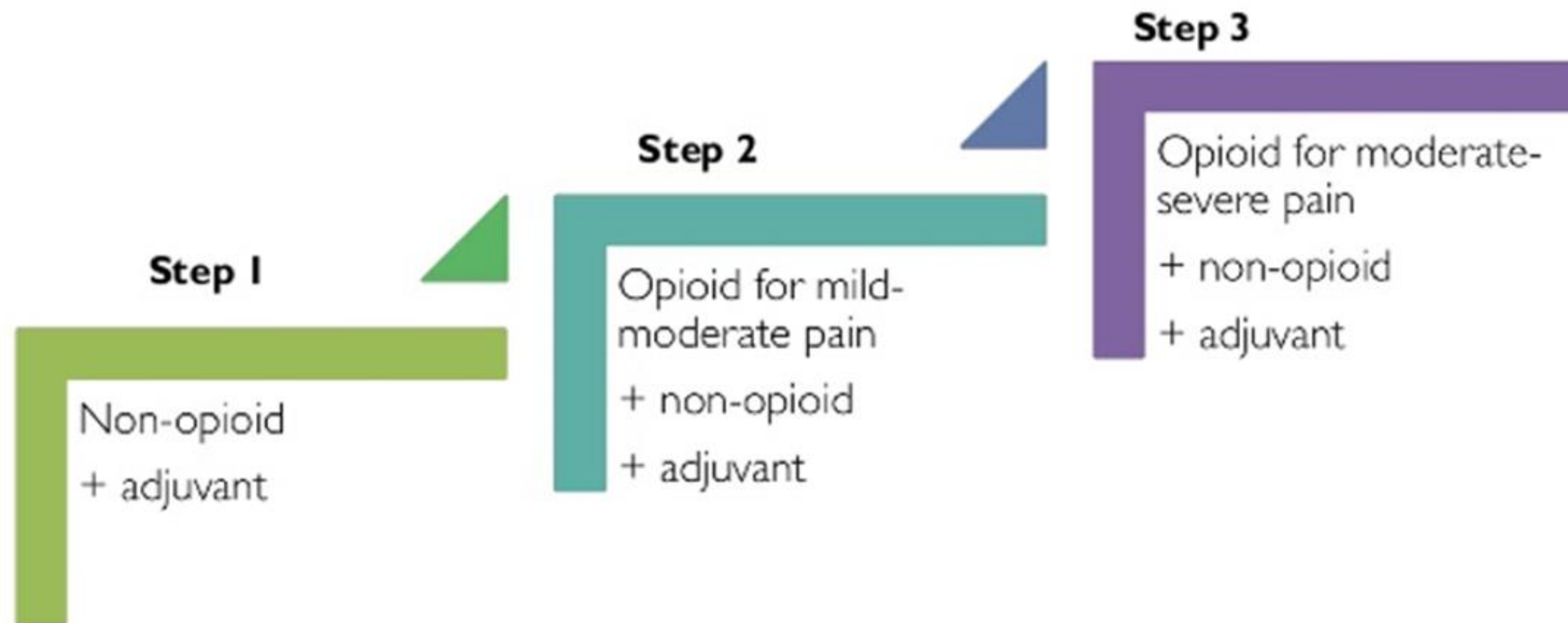
STEP II – (MODERATE PAIN): Weak opioids: Codeine, Tramadol

STEP III – (SEVERE PAIN): Strong Opioids: Morphine, Fentanyl, Buprenorphine



# WHO PAIN RELIEF LADDER

## WHO's Pain Relief Ladder





# ADJUVANT ANALGESICS (CO-ANALGESICS)

An adjuvant analgesic is a drug, which is not an analgesic in its prime function but, in combination with an analgesic, can enhance pain control.

E.g.

- Anti-emetics
- Anti-depressants
- Anti-convulsant
- Muscle relaxant
- Antispasmodic
- Antibiotics
- Anxiolytics
- Antacids



# CONCEPT OF BREAKTHROUGH PAIN

- When pain breaks through a baseline level of analgesia, for instance, while changing wound dressings, body movement, defacation, rectal examination, manual evacuation.
- Drugs that can be used during that period are:
  1. Sublingual Ketamine 10-25 mg (approximately 0.2-0.5 mg/kg)
  2. Nitrous oxide (Entomox) inhalation
  3. An extra dose of oral or subcutaneous Morphine sulphate 20 minutes prior to the procedure (s.c injections to be used for patients unable to swallow on their own)
  4. Midazolam 2.5-5 mg s.c/Lorazepam 0.5 mg sublingually to alleviate anxiety.
  5. Sublingual Fentanyl



# CLASSES OF DRUGS USED IN NEUROPATHIC PAIN

## 1. Tricyclic Antidepressants

- The mechanism of analgesic action occurs principally by facilitation of descending inhibitory pathways. E.g. **Amitriptyline**, **Imipramine**.
- Lower doses than the dose commonly required for depression will be effective in neuropathic pain.

## 2. Anticonvulsants

- Gabapentin** is the only anticonvulsant licensed for treating neuropathic pain

## 3. Anaesthetic Agents

- Anaesthetic agent like **ketamine** causes dissociative anaesthesia and shown to be analgesic at sub-anaesthetic doses.

## 4. Other Drugs

- Topical **Lignocaine** / **Bupivacaine**: Topical lignocaine or bupivacaine may be useful for superficial localized areas of pain such as fungating wounds for short periods
- Capsaicin** cream (0.75%) may be used for the pain from postherpetic neuralgia.



# ORAL MORPHINE

- Morphine administered by oral route is the choice for cancer pain.
- It is administered as tablets (i.e., 10 mg, 20 mg)
- No standard dose for chronic cancer pain, the correct dose is that which controls pain with minimal side effects
- Dose to be titrated for each patient.
- Do not forget to prescribe a laxative and antiemetic for constipation and nausea/vomiting

## Myths about Morphine:

- Only for patients with cancer
- Only when the end of life is near
- Addiction/dependence is always present
- Respiratory depression is very common.
- Can't be used for children



# GUIDELINES FOR STARTING A PATIENT ON ORAL MORPHINE



1. Indicated in patients with pain who do not respond to the optimized combined use of a non-opioid and a weak opioid.
2. The starting dose of morphine is calculated to give a greater analgesic effect than the medication already in use
  - If the patient was previously receiving a weak opioid, give 10 mg QID or 20-30 mg BD.
  - If changing from an alternative potent opioid (such as fentanyl, methadone), a much higher dose of morphine may be needed
  - If the patient is frail and elderly, a lower dose could help to reduce initial drowsiness, confusion and unsteadiness, i.e., 5 mg QID
3. Because of accumulation of an active metabolite, a lower and/or less frequent regular dose may be preferable, especially in renal failure, i.e., 5-10 mg TDS

If the patient takes two or more p.r.n. doses in 24 hours, the regular dose should be increased by 30-50% every 2-3 days.



# GUIDELINES FOR STARTING A PATIENT ON ORAL MORPHINE



4. Upward titration of the dose of morphine stops when either the pain is relieved or intolerable or undesirable effects supervene.
5. Because of poor absorption, morphine may not be satisfactory in patients troubled by frequent vomiting or those with diarrhoea or an ileostomy.
6. Supply an antiemetic in case the patient becomes nauseated, such as ondansetron, metoclopramide, domperidone, haloperidol.
7. Prescribe stimulant laxatives. Adjust the dose as necessary. Suppositories and enemas remain necessary in about 1/3rd of patients.
8. Warn patients about the possibility of initial drowsiness.
9. If swallowing is difficult or there is persistent vomiting, morphine may be given PR by suppository; the dose is the same as PO.

For outpatients, write out the drug regimen in detail with time, name of drug and amount to be taken and arrange for follow-up

# ORAL MORPHINE- DRUG DOSING

- Morphine is given QID regularly ‘by the clock’ with once p.r.n. doses of an equal amount
- After 1-2 days, adjust the dose upwards if the patient still has pain or using two or more p.r.n. doses per day. Keep a watch on “Over Sedation” & “Constipation”- MC SIDE EFFECTS
- Continue QID regularly with once p.r.n. doses of an equal amount
- A double dose at bedtime obviates the need to wake the patient up for a 6 hourly dose in early morning
- Morphine does not cause acidity or heartburn so that it can be taken before or after food.

# MORPHINE SIDE EFFECTS

1. **Constipation-** Rx: Tablet Bisacodyl 10 mg HS or Syrup Lactulose 15-20 ml HS
2. **Nausea and vomiting-** Rx: Usually self-limiting within 1 week. Prescribe Tablet Metoclopramide 10 mg TDS or Tablet Haloperidol 1.5-2.5 mg HS.
3. **Drowsiness-** Rx: Initial drowsiness may be a sign of effective pain relief in a sleep-deprived patient. Stimulants such as dextroamphetamine may be helpful if sedation persists
4. **Delirium-** Rx: Assess for reversible causes like hypercalcemia and UTI. If no other cause apparent consider haloperidol 2.5-5 mg HS
5. **Myoclonus:** May respond to benzodiazepines but may be a sign of opioid toxicity requiring hydration, opioid dose reduction or switching
6. **Pruritus-** Rx: Ondansetron



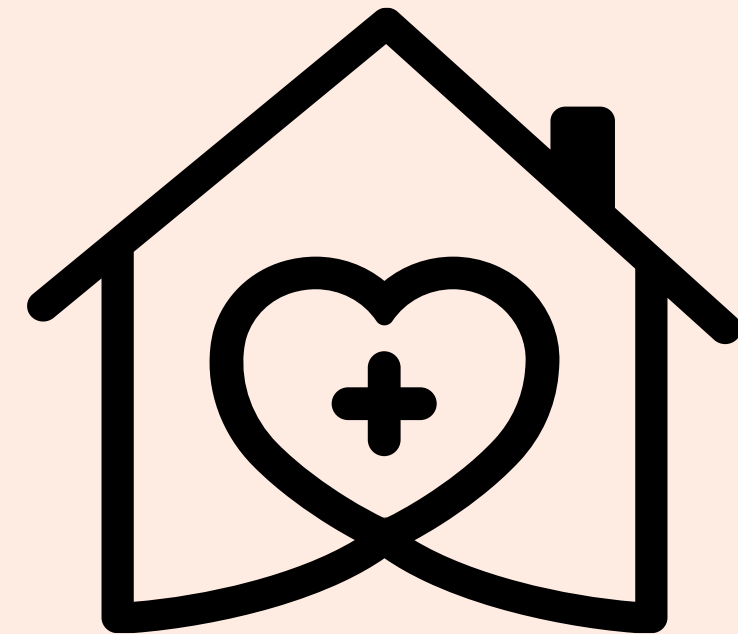


# NON MEDICAL (DRUG) INTERVENTION FOR PAIN

1. **Cold applications:** Cold reduces pain, inflammation, and muscle spasticity by decreasing the release of pain-inducing chemicals and slowing the conduction of pain
2. **Heat applications:** Heat reduces pain through improved blood flow to the area and reduction of pain reflexes
3. **Massage of the painful area:** Massage interrupts pain transmission, increases endorphin levels, and decreases tissue oedema
4. **Progressive relaxation, imagery and music:** These centrally acting techniques for pain management work by reducing muscle tension and stress
5. **Others:** Acupressure, Transcutaneous electrical nerve stimulation (TENS)

# HOME CARE TEACHING

1. Teach the patient and family how to take/ give pain medications.
2. Explain the patient and caregiver about each analgesic's time of intake, duration, route, expected side effects and importance of PRN dose.
3. Write out the instructions clearly on the medicine envelope.
4. Encourage the patient to use complementary therapies like distraction, music, imagining a peaceful scene, as much as possible.
5. Explain the importance of drug compliance in pain management and discourage to stop any self-prescribed medications



# HOME CARE TEACHING

5. Teach the family how to give oral Morphine.

6. Teach the patient and family about the rectal route for Morphine administration in patients who can't take orally.

7. Advise family on additional methods for pain control- emotional support, physical method (touch, hot and cold application).

8. Give adequate information on managing side effects of Analgesic at home (Eg. Constipation- T. Dulcolax 5mg, dry mouth— ice chips, lemon pieces).







# EVALUATION

1. For pain management it is always preferable to initiate with oral morphine as compare to NSAIDS. T/ F
2. Ibuprofen is categorizes in “adjuvant analgesic” T/ F
3. Mention 3 side effects of morphine to look for \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
4. Morphine dose should be increased at least 20% in case of renal failure. T/ F
5. If the patient takes two or more p.r.n. doses in 24 hours, the regular dose should be increased by 30-50% every 2-3 days. T/ F
6. \_\_\_\_\_ is the only anticonvulsant licensed for treating neuropathic pain



# EVALUATION

1. For pain management it is always preferable to initiate with oral morphine as compare to NSAIDS. T/ F **F**
2. Ibuprofen is categorizes in “adjuvant analgesic” T/ F **F**
3. Mention 3 side effects of morphine to look for **CONSTIPATION** **OVER SEDATION** **N & V**
4. Morphine dose should be increased at least 20% in case of renal failure. T/ F **F**
5. If the patient takes two or more p.r.n. doses in 24 hours, the regular dose should be increased by 30-50% every 2-3 days. T/ F **T**
6. **GABAPENTIN** is the only anticonvulsant licensed for treating neuropathic pain



# Thank You

