



PAIN AS 5TH VITAL SIGNS TRAINING MODULE FOR NURSES & ASSISTANT MEDICAL OFFICER: TOWARDS PAIN FREE HOSPITAL CONCEPT



PAIN FREE PROGRAMME | KEMENTERIAN KESIHATAN MALAYSIA | UNIT AUDIT KLINIKAL

PAIN AS 5TH VITAL SIGN

- 2008-2010: Implemented as policy nationwide
- Currently: one of the requirements for PAIN FREE HOSPITAL



**PEKELILING KETUA PENGARAH KESIHATAN BILANGAN 9 TAHUN 2008;
PELAKSANAAN TAHAP KESAKITAN SEBAGAI TANDA VITAL KELIMA
(PAIN AS FIFTH VITAL SIGN) DI HOSPITAL-HOSPITAL KEMENTERIAN
KESIHATAN (KKM87/P1/1/1/3(24) TARIKH : 24 OGOS 2008)**

- **Mandatory to carry out Pain as 5th Vital Sign**
- **To provide routine assessment, treatment and documentation of pain score.**

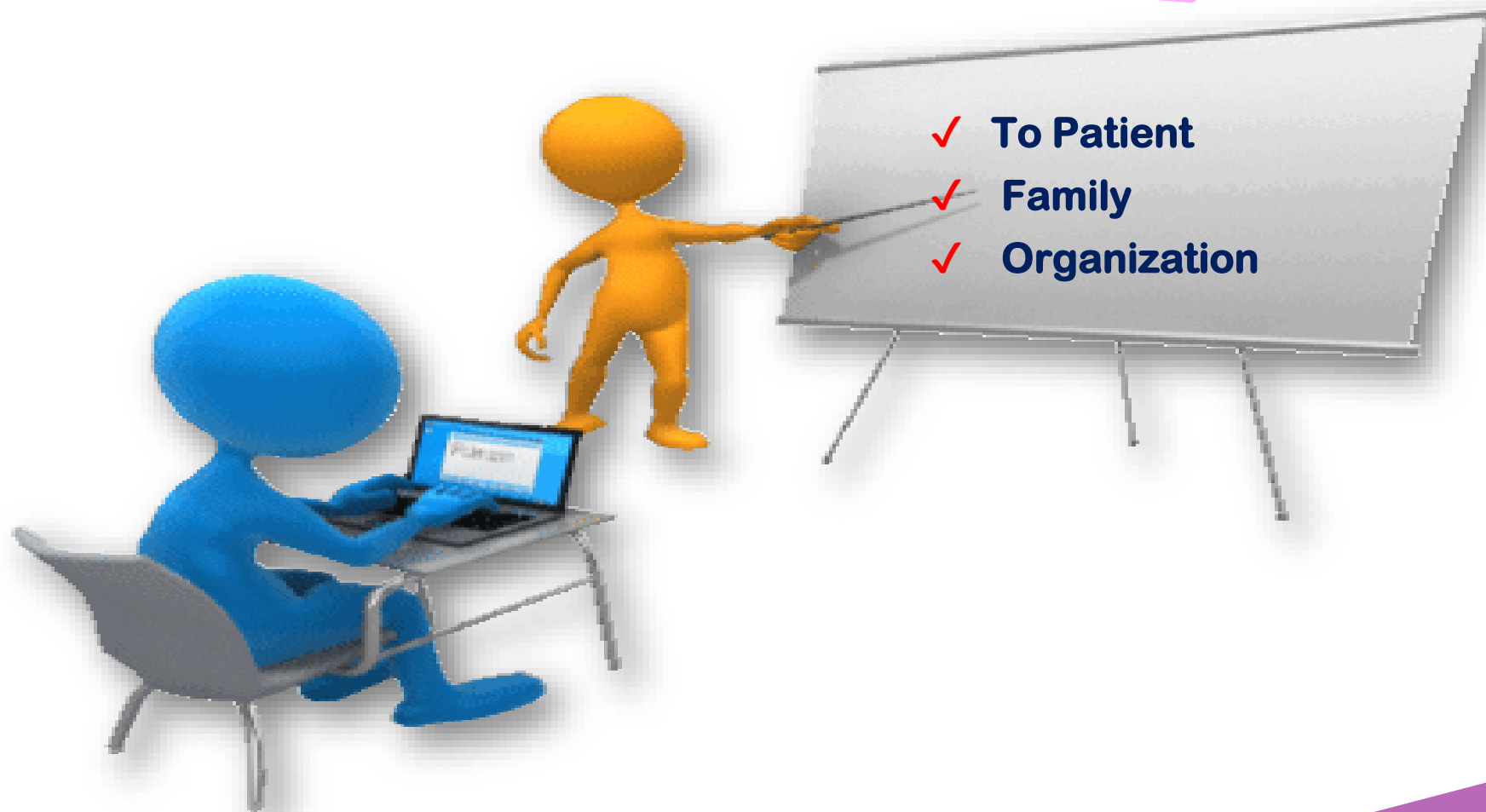
POLICY STATEMENT ON PAIN FREE HOSPITAL PROGRAM



- ✓ Pain is one of the vital signs
- ✓ Pain is assessed in all patients
- ✓ Standardized pain assessment tools must be applied consistently
- ✓ Healthcare providers should listen and respond promptly to patient's report of pain and manage appropriately
- ✓ Healthcare facility staff should be continually educated and aware about pain assessment and management



WHO BENEFITS FROM PAIN AS 5TH VITAL SIGN



BENEFITS OF PAIN AS 5TH VITAL SIGN

- To provide holistic patient care
- To educate pain level correctly
- To give effective treatment
- To promote early ambulation
- To reduce post operative complication
- To enhance healing, reduce length of stay
- To reduce health cost
- To promote self patient interactions
- To promote self satisfaction
- To improve quality of life , sleep and appetite (activity of daily live)
- To reduce psychological distress

WHEN SHOULD PAIN BE ASSESSED?

- 1) At **regular intervals-as** the 5th vital sign routine observation of BP, HR, RR and temperature. This can be **done 4 hourly, 6 hourly or 8 hourly**
- 2) **On admission of patient**
- 3) **On transfer-in** of patient
- 4) At other times apart from scheduled observations:
 - **½ to 1 hour after administration** of analgesics and nursing intervention for pain relief
 - **Before, during and after any painful procedures** in the ward
e.g. Wound dressing
 - **Whenever patient complains of pain.**



CRITERIA FOR PAIN FREE HOSPITAL

1. Have written policy of pain assessment and pain management in hospital
2. Implement pain as 5th vital sign
3. Standardized treatment protocols for management of acute pain
4. Train all healthcare staff on knowledge and skills in pain assessment and management
5. Patient education and involvement in their pain management
6. Regular audits on pain assessment and management
7. Policy and guidelines on MIS
8. Policy and guidelines on Day care Surgery
9. MDT approach in pain management
10. Incorporate non pharmacological and T&CM management



TRAINING OBJECTIVES

1. To improve understanding of pain
2. To teach the framework of pain assessment and pain management
3. To ensure effective implementation of pain as the 5th vital sign
4. To reduce barriers to pain management
5. To meet the objectives of Pain Free Programme Hospital Concept



DEFINITION OF PAIN

Unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage

(International Association for the Study of Pain (IASP) – 16th July 2020)



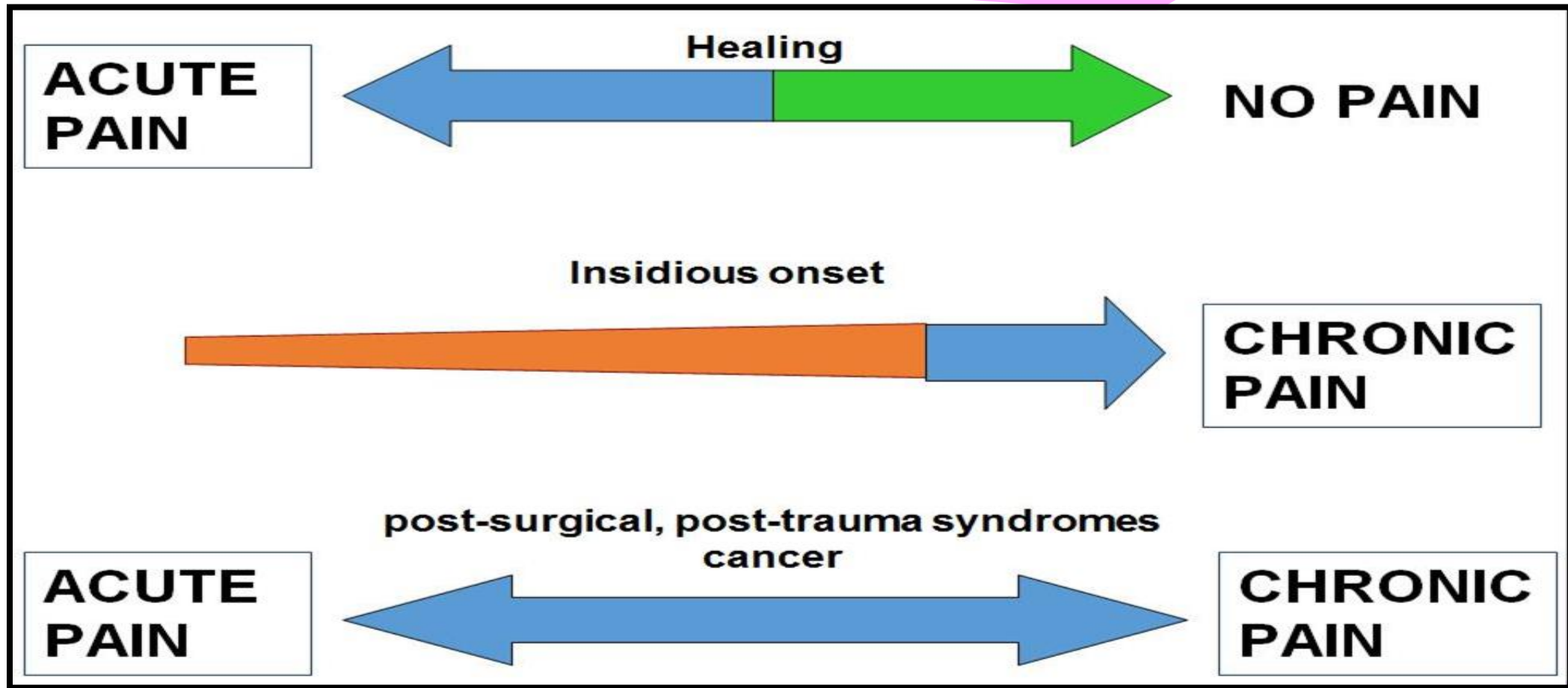
**IT IS WHAT THE PATIENT
SAYS.....**



CLASSIFICATION OF PAIN

Acute Chronic	Pain of recent/ sudden onset Last for more than 3 months, cannot identify cause Pain persist even after wound is healed
Cancer Non-cancer	Progressive; Many different causes; May be a mixture of acute and chronic pain. Acute or chronic
Nociceptive/ physiological pain	Obvious tissue injury or illness, Somatic = bones and tissue = well localised Visceral pain –abdomen, thoracic cavity Nature of pain : sharp or dull
Neuropathic “Pathological pain”	Nervous system damaged or abnormality May not see tissue injury; Nature of pain: Burning, tingling (electric sensation, shooting ± numbness, pins and needles, Not well localised

SPECTRUM OF PAIN

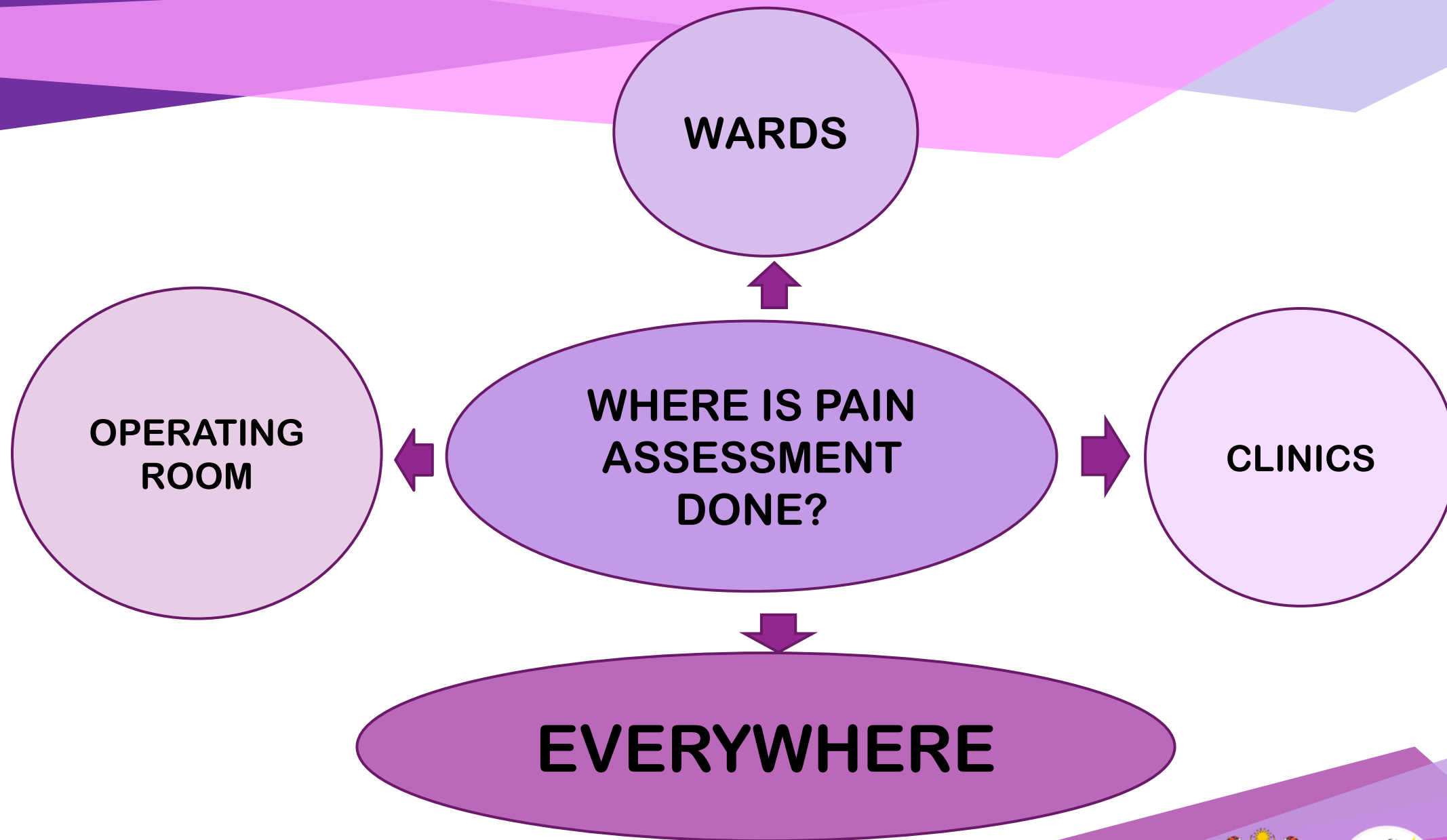


COMMON CAUSES

ACUTE PAIN	CHRONIC PAIN	NEUROPATHIC PAIN
<ul style="list-style-type: none">• Traumatic/ Fracture / Surgery• Burn• Arthritis• Abscess• Myocardial infarction• Labour pain & child birth	<ul style="list-style-type: none">• Chronic headache• Chronic backpain• Chronic abdominal pain• Chronic pelvic pain• Cancer pain	<ul style="list-style-type: none">• Acute shingles• Post spinal cord injury• Brachial plexus injury• Post herpetic neuralgia• Diabetic periphery neuropathy• Post stroke pain

DIFFERENCE BETWEEN ACUTE AND CHRONIC PAIN

	ACUTE PAIN	CHRONIC PAIN
Onset & Timing	<ul style="list-style-type: none"> • Sudden, shorten duration • Resolves when tissue heal 	<ul style="list-style-type: none"> • Onset-insidious • Persists despite healing
Signal	A warning sign of actual or potential tissue damage	Not a warning sign
Severity	Depends on amount of tissue damage	No correlation “Good days” & “Bad Days”
CNS involve?	<ul style="list-style-type: none"> • CNS intact • Acute pain is a SYMPTOM 	<ul style="list-style-type: none"> • CNS may be dysfunctional • Chronic pain is a DISEASE
Physiological effects	Less, but unrelieved pain anxiety & sleeplessness (improves when pain is relieved)	Results in depression, anger, fear, social withdrawal, etc
Common causes/examples	Surgery, farctures, burns, myocardial infarct, labour pain, any inflammation e.g.abscess	Chronic headache, back pain, pelvic pain, cancer pain, neuropathic pain-post stroke pain, etc.



WHO DOES THE PAIN ASSESSMENT?

- ✓ **DOCTORS**
- ✓ **NURSES**
- ✓ **ASSISTANT MEDICAL OFFICERS**
- ✓ **PHYSIOTHERAPISTS**
- ✓ **OCCUPATIONAL THERAPISTS**
- ✓ **STUDENTS: NURSES & ASSISTANT MEDICAL OFFICERS**



APPROACH TO PAIN MANAGEMENT

Rat



APPROACH TO PAIN MANAGEMENT

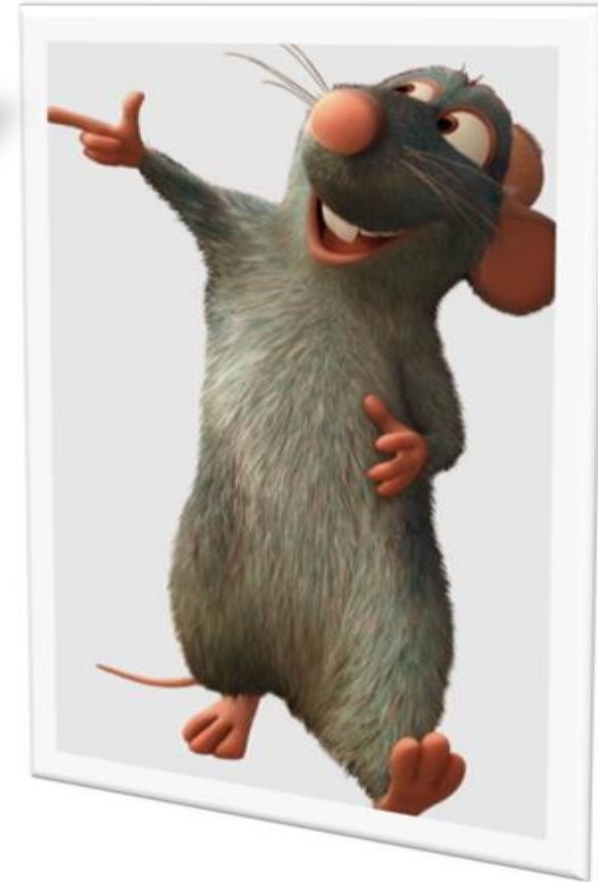


- **RECOGNISE**
- **ASSESS**
- **TREAT**

APPROACH TO PAIN MANAGEMENT

R-RECOGNIZE

- Does the patient have pain ?
- Do other people know the patient has pain ?
- Do you know the patient has pain ?
- Recognize pain behaviors , facial expression



APPROACH TO PAIN MANAGEMENT



A- ASSESS

Type Of Pain

- ❖ Acute / Chronic
- ❖ Nociceptive
- ❖ Neuropathic

Cancer/Non Cancer Pain

- ❖ Other Factors Affecting pain :
- ❖ Parents Not around
- ❖ Financial Problems
- ❖ Emotional

APPROACH TO PAIN MANAGEMENT

T-TREAT

- ☐ What non drug treatments can I use ?
- ☐ What drug treatments can I use ?
- ✓ Which route of administration ?
- ✓ Oral, IV, SC



WHAT WILL HAPPEN WHEN PAIN IS NOT TREATED APPROPRIATELY



PATHOPHYSIOLOGICAL CONSEQUENCES OF UNRELIEVED ACUTE PAIN

Cardiac system	↑ HR ,BP, O2 demand, risk MI
Respiratory system	↓ Alveolar ventilation, pneumonia
Gastrointestinal	↓ Motility, vomiting, ileus
Musculoskeletal	Immobility, DVT
Immunity	Lowers immune system
Personal	ADL/QOL, self-esteem; depression, poor appetite, social deprivation
Economic	Increase burden-going to treatment Financial burden

HOW TO ASSESS PAIN?

- ✓ Important to:
 - **Listen** and **believe** the patient
- ✓ Take a **pain history**:
 - “Tell me about your pain...”



TAKING PAIN HISTORY

1. Ask the patient :

Listen and believe the patient who complains of pain.

Pain history. is taken using the acronym:

P :Place or site of pain

A :Aggravating factors (What makes the pain worse?)

I :Intensity (Pain score)

N :Nature and neutralizing factors (What makes the pain less?)

2. During the first assessment you should :

Score the pain severity and document the site of pain in the remarks





WHICH PAIN ASSESSMENT TOOL & HOW TO USE IT ?

HOW TO DO PAIN ASSESSMENT?

1. **Greet** patient/ Salam
2. Inform the **purpose**: to get the patient's correct pain score for proper treatment
3. **Show and teach** patient pain assessment tool
4. If "0" (smiling face): No pain
If "10" (crying face): worst pain imaginable
What is your pain score now?



SELECTION OF ASSESSMENT TOOL

Recommendation by Ministry of Health (MOH)

AGE	SCALE
ADULT	MOH PAIN SCALE
PAEDIATRIC:	
< 1 month	NIPS (Neonatal Infant Pain Scale)
1 month - 4 years	FLACC SCALE
4 - 7 years	FACES SCALE
> 7 years	MOH PAIN SCALE
Language barrier/Cognitively Impaired Patient	FLACC SCALE
Patient ventilated & sedated	CPOT/ BPS
Pain Assessment In Advanced Dementia	PAINAD

CLINICAL TECHNIQUE FOR MEASUREMENT OF PAIN

SELF REPORTING BY THE PATIENT

- ✓ Gold standard
- ✓ Best method

OBSERVER ASSESSMENT

- ✓ Observation of behavior and vital signs
- ✓ Functional assessment



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 sleep)	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

MOH PAIN SCALE

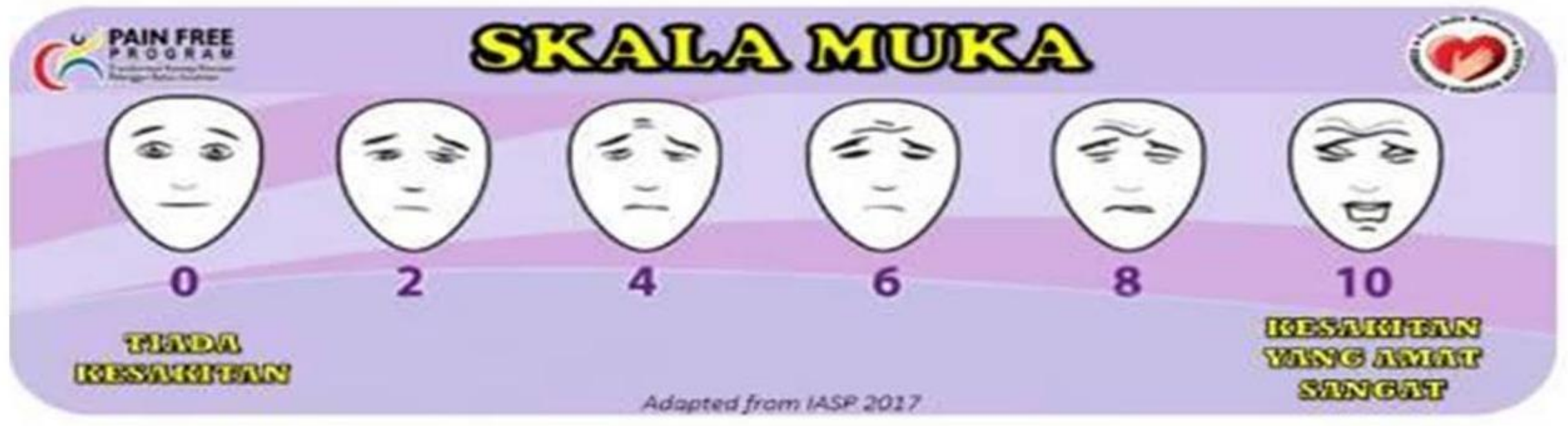


On a scale of '0' to '10' (show the pain scale)

If "0" = No pain, and "10": worst pain you can imagine
What is your pain score now?

Patient is asked to show the severity of pain, which is recorded as a number (0 to 10)

IASP FACES SCALE



- ✓ Self reported tool
- ✓ Aged 4 – 7 years old
- ✓ Numbers must not be mentioned

FLACC SCALE (1 MONTH-4 YEARS)

CATEGORY	SCORE		
	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 down
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 sob, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging or being talked to distractable	Inconsolable

- ✓ Observational tools
- ✓ Look at behavioural changes
- ✓ Observe for 2-5 minutes



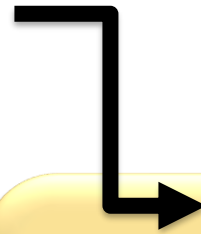
SKALA FLACC (1 BULAN- 4 TAHUN)

KATEGORI	SKOR		
	0	1	2
Wajah	Tiada ekspresi tertentu di wajah atau dalam keadaan tersenyum	Kadang terlihat muka berkerut, murung, tidak bermaya atau tidak bersemangat	Rahang terkancing, dagu bergetar (pada kadar kerap hingga berterusan)
Kaki	Kedudukan biasa atau selesa	Keadaan tidak selesa, resah atau tegang	Menendang-nendang atau membengkokkan kaki
Aktiviti	Berbaring tenang. berkedudukan biasa, bergerak dengan selesa	Berguling, berganjak depan dan belakang, tegang	Meringkuk, kaku atau mengelupur
Tangis	Tidak menangis(tidur atau terjaga)	Merengek dan kadang-kadang mengeluh	Menangis berterusan, berteriak dengan teresak esak, sering mengeluh
Kebolehpujukan	Tenang	Masih dapat dipujuk sesekali sentuhan, pelukan atau kata-kata, masih boleh dialih perhatian	Sukar dipujuk

FLACC SCORE

(By Observation)

- Paediatric (1 month – 4 yrs)
- Cognitively impaired patient



Observe for 2-5 minutes

- I. Observe patient's behaviour
- II. Select score according to behaviour
- III. Add the scores to get the total

UNABLE TO ASSESS PAIN?

Unable to Score' is no longer applicable



NOW



BEHAVIORAL OBSERVATION TOOLS


- When the patient's self assessment is not possible
- A validated, reliable and easy-to-use tool should be applied
- The authors of the PAD SCCM guidelines of 2013 analyzed six behavioural scales
 - BPS non-intubated (BPS-NI), CPOT, NVPS, PBAT, PAIN algorithm
- The most reliable and validated behavioural = BPS and CPOT

1. CPOT (Critical Care Patient Observation Tool)

- ✓ Simple, inexpensive and non-invasive tools to improve patient outcome
- ✓ pain, agitation and delirium assessment will focus our nursing interventions
- ✓ Most valid and reliable behavior pain scale for use in ICU patient

- 0-8 behavioral scale
(2 point of each category)
- ✓ facial expression
 - ✓ body movement
 - ✓ muscle tension
 - ✓ ventilator tension or verbalization

HOW TO SCORE CPOT

Indicator	Score		Description
Facial expression 	Relaxed, neutral	0	No muscle tension observed
	Tense	1	Presence of frowning, brow lowering, orbit tightening, and levator contraction or any other change (eg, opening eyes or tearing during nociceptive procedures)
	Grimacing	2	All previous facial movements plus eyelid tightly closed (the patient may have mouth open or may be biting the endotracheal tube)
Body movements	Absence of movements or normal position	0	Does not move at all (does not necessarily mean absence of pain) or normal position (movements not aimed toward the pain site or not made for the purpose of protection)
	Protection	1	Slow, cautious movements, touching or rubbing the pain site, seeking attention through movements
	Restlessness	2	Pulling tube, attempting to sit up, moving limbs/thrashing, not following commands, striking at staff, trying to climb out of bed
Compliance with the ventilator (intubated patients) <i>or</i> Vocalization (nonintubated patients)	Tolerating ventilator or movement	0	Alarms not activated, easy ventilation
	Coughing but tolerating	1	Coughing, alarms may be activated but stop spontaneously
	Fighting ventilator	2	Asynchrony: blocking ventilation, alarms frequently activated
	Talking in normal tone or no sound	0	Talking in normal tone or no sound
	Sighing, moaning	1	Sighing, moaning
	Crying out, sobbing	2	Crying out, sobbing
Muscle tension Evaluation by passive flexion and extension of upper limbs when patient is at rest or evaluation when patient is being turned	Relaxed	0	No resistance to passive movements
	Tense, rigid	1	Resistance to passive movements
	Very tense or rigid	2	Strong resistance to passive movements, inability to complete them
Total	___/8		

^a Adapted with permission from Gélinas et al.¹

CPOT = 0



0 Facial Expression: No muscle tension / relaxed

0 Body Movement: None

0 Muscle Tension: Relaxed

0 Compliance with Ventilator: Alarms not active & easy to ventilate

CPOT = 8



② Facial Expression: grimacing

② Body Movement: restlessness

② Muscle Tension: very tense

② Compliance with Ventilator: fighting, asynchrony & alarms



2. BEHAVIORAL PAIN SCALE (BPS)

ITEM	DESCRIPTION	SCORE
Facial expression	Relaxed	1
	Partially tightened (e.g. brow lowering)	2
	Fully tightened (e.g. eyelid closing)	3
	Grimacing	4
Upper limb movements	No movement	1
	Partially bend	2
	Fully bend with finger flexion	3
	Permanently retracted	4
Compliance with mechanical ventilation	Tolerating movement	1
	Coughing but tolerating ventilation for the most of the time	2
	Fighting ventilator	3
	Unable to control ventilation	4

- Total score varies from 3 to 12
- Scores ≤ 3 no pain.
- Scores 4-5 mild pain.
- Scores 6-11 an unacceptable amount of pain.*
- Scores ≥ 12 maximum pain.*
- Target score < 5 .
- Validated in English, French and Mandarin.

3. MULTIDIMENSIONAL ASSESSMENT

PAINAD:

Pain Assessment In Advanced Dementia

- simple, valid and sensitive tool for detecting pain in people with advanced dementia and non-communicative patients
- useful to assess whether pain management strategies have been successful

*Total scores range from 0 to 10 (based on a scale of 0 to 2 for 5 items)

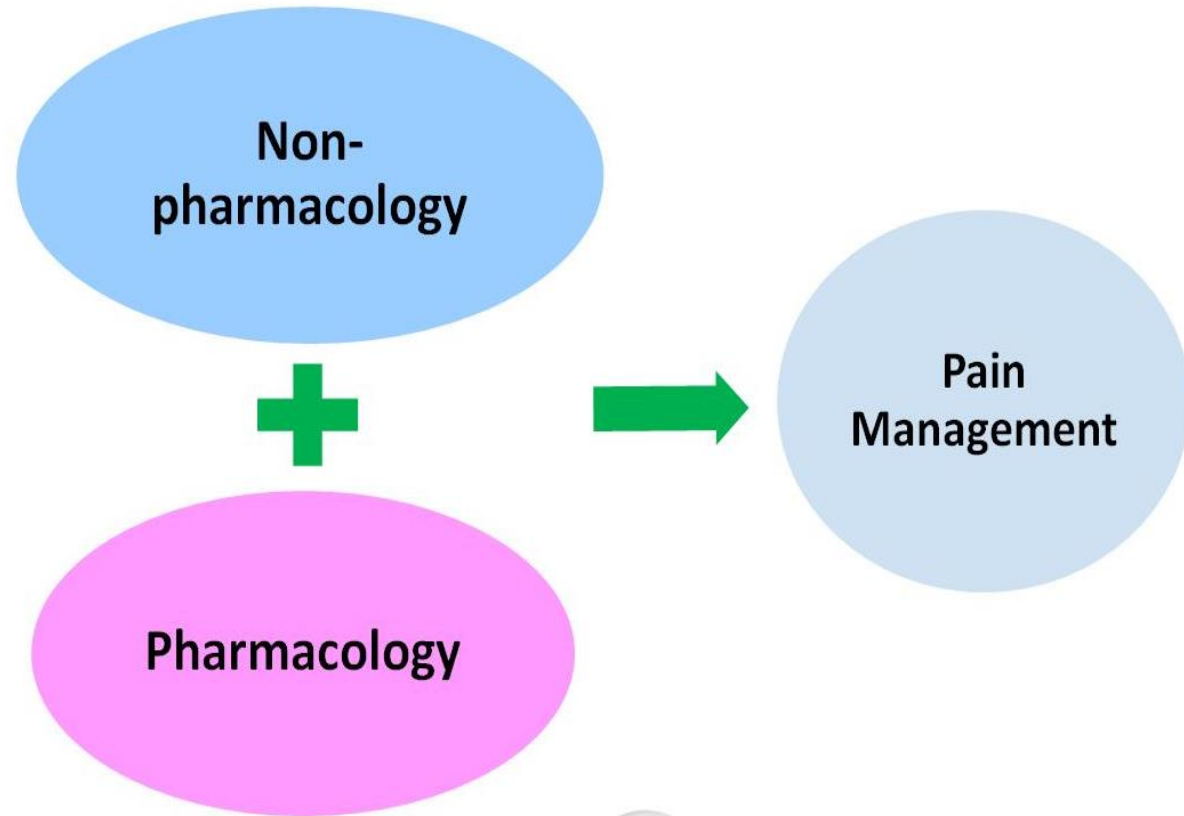
Obtained scores are NOT TO BE USED to inter absolute pain intensity i.e. a score of 10 on the PAINAD is not necessarily equal to an NPS rate of 10 (severe pain). Instead, compare the total score to the previous score received. An increased score suggests increase in pain, while a lower a score suggests pain is decreased.

ITEM	0	1	2	Score
Breathing independent of vocalization	Normal	Occasional labored breathing. Short period of hyperventilation	Noisy labored breathing. Long period of hyperventilation. Cheyne-stokes respirations	
Negative vocalization	None	Occasional moan or groan. Low-level of speech with a negative or disapproving quality	Repeated troubled calling out. Loud moaning or groaning. Crying.	
Facial expression	Smiling or inexpressive	Sad, frightened, frown	Facial grimacing	
Body language	Relaxed	Tense. Distressed pacing. Fidgeting	Rigid. Fists clenched. Knees pulled up. Pulling or pushing away. Striking out	
Consolability	No need to console	Distracted or reassured by voice or touch	Unable to console, distract or reassure	
TOTAL*				





PAIN MANAGEMENT



NON- DRUG TREATMENT

PHYSICAL

- ✓ **Rice**
- ✓ **Surgery**
- ✓ **Acupuncture, massage & Physiotherapy**

PSYCHOLOGICAL

- ✓ **Explanation**
- ✓ **Reassurance**
- ✓ **Counselling**
- ✓ **Patient and Caregiver education & support**

EXAMPLES OF NURSING ACTION AND OTHER NON DRUG TECHNIQUES FOR PAIN MANAGEMENT

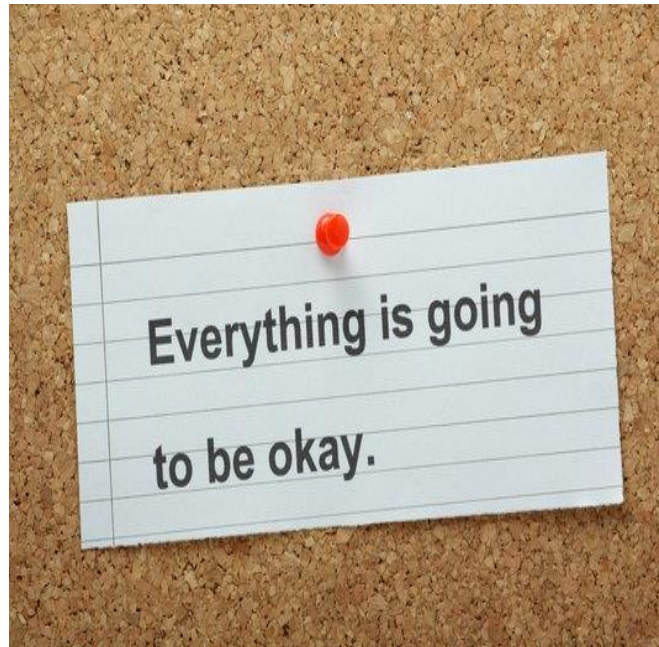
	ACTION
Check possible causes of pain	Blocked urinary catheter Swollen intravenous site Uncomfortable position of patient
Reassurance	Explanation about the cause of the pain Information about the analgesia that you are going to give
Relaxation technique	Deep breathing Meditation
Topical application	Heat therapy Ice / cold pack / cryotherapy
Touch therapy	Massage
Distraction technique	Reading Listening to music /radio Watching TV

NON PHARMACOLOGICAL METHODS TO RELIEVE PAIN

REASSURANCE



EXPLANATION



COUNSELLING

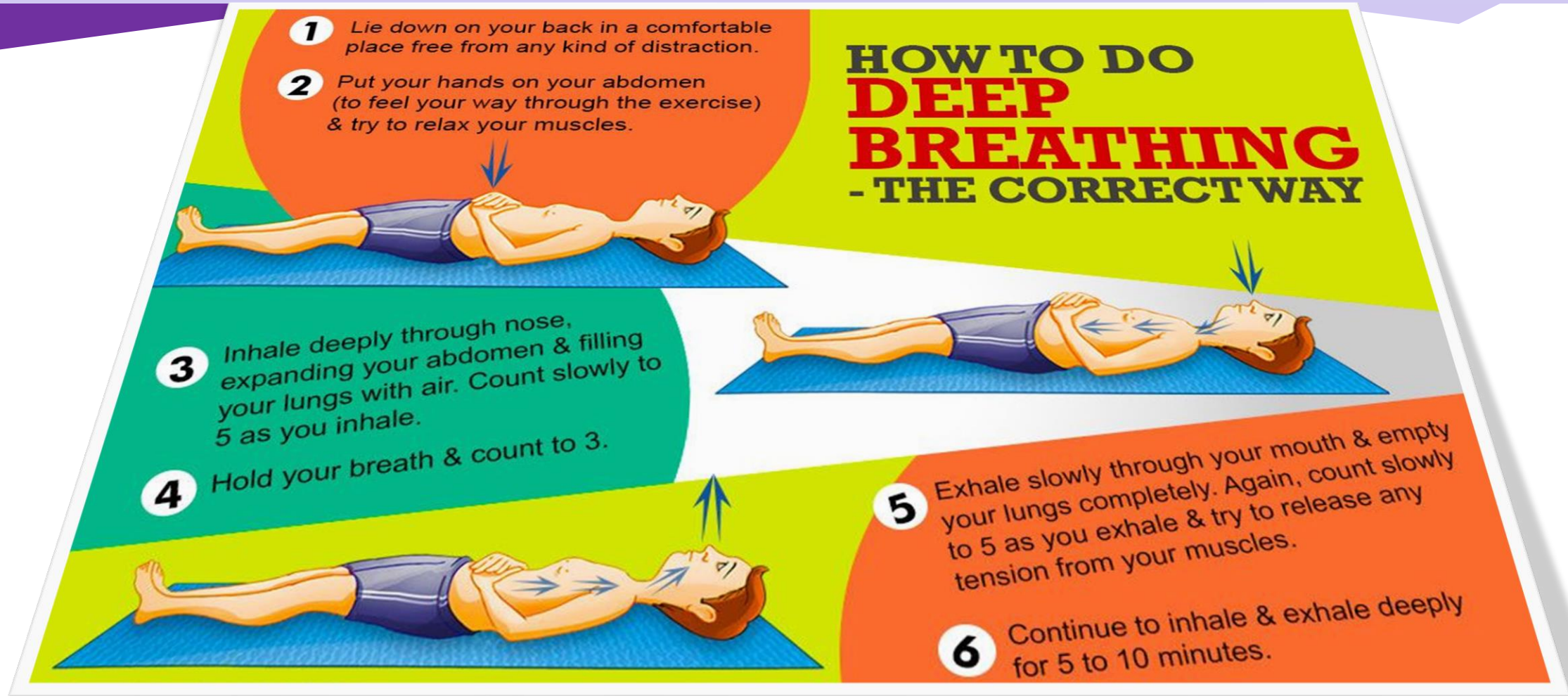


NON PHARMACOLOGICAL METHODS

- Relaxation
- Distraction
- Music
- Guided image



RELAXATION TECHNIQUE

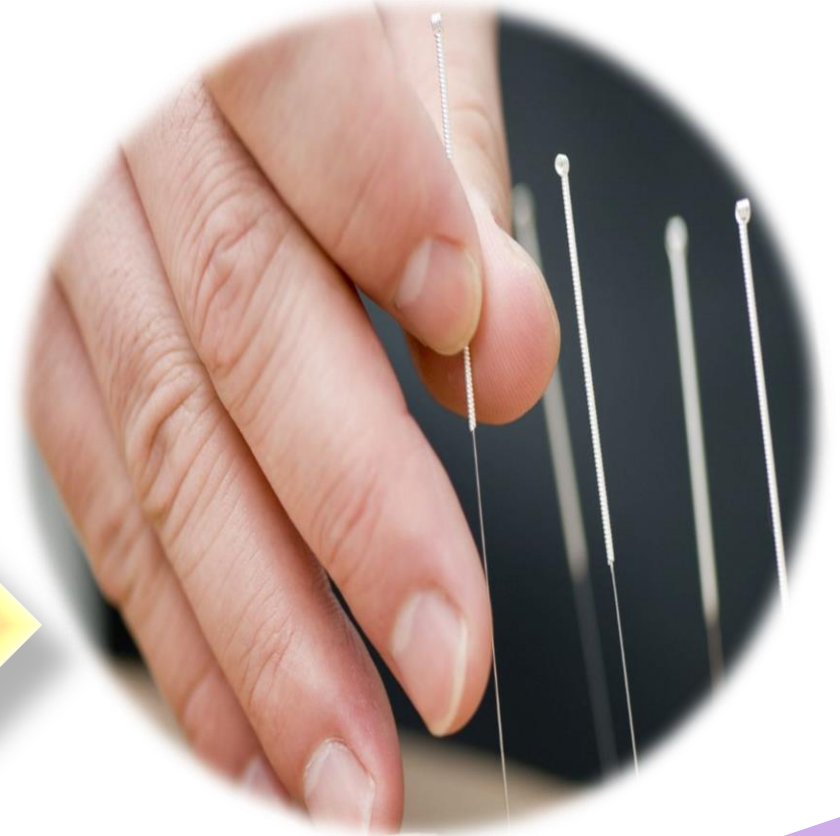


NON PHARMACOLOGICAL METHODS TO RELIEVE PAIN



MASSAGE

**NEEDLING
THERAPY**



NON PHARMACOLOGICAL METHODS TO RELIEVE PAIN

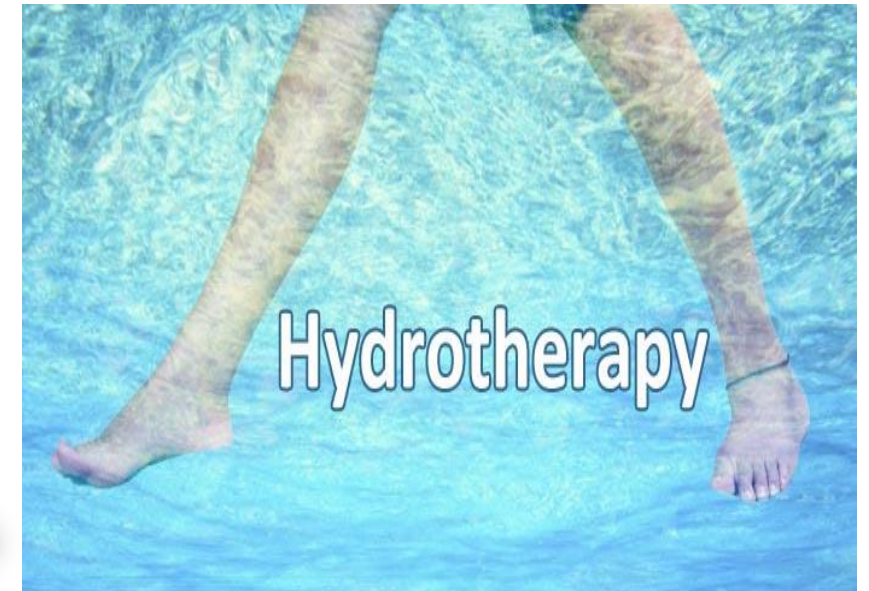


NON PHARMACOLOGICAL METHODS TO RELIEVE PAIN



ICE

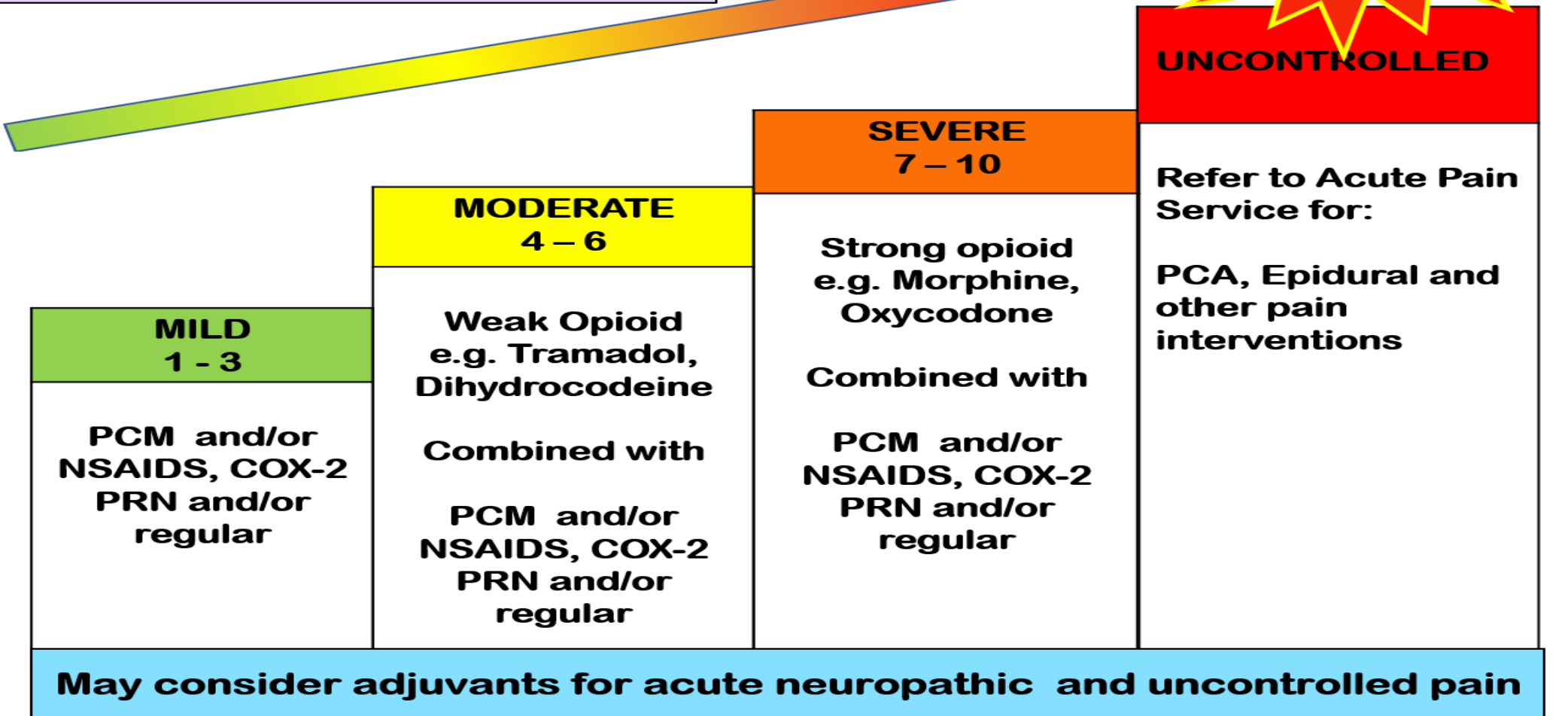
HYDROTHERAPY



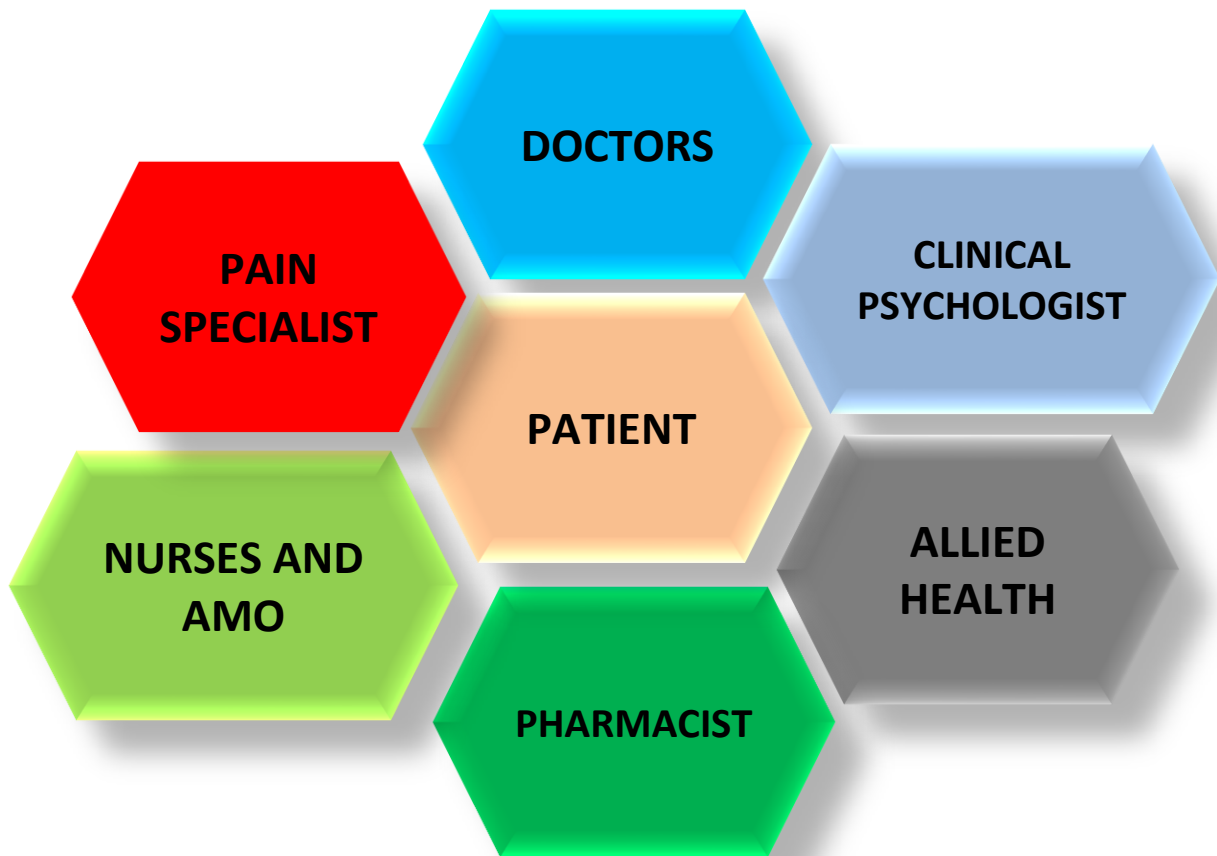
PHARMACOLOGICAL METHOD TO RELIEVE PAIN



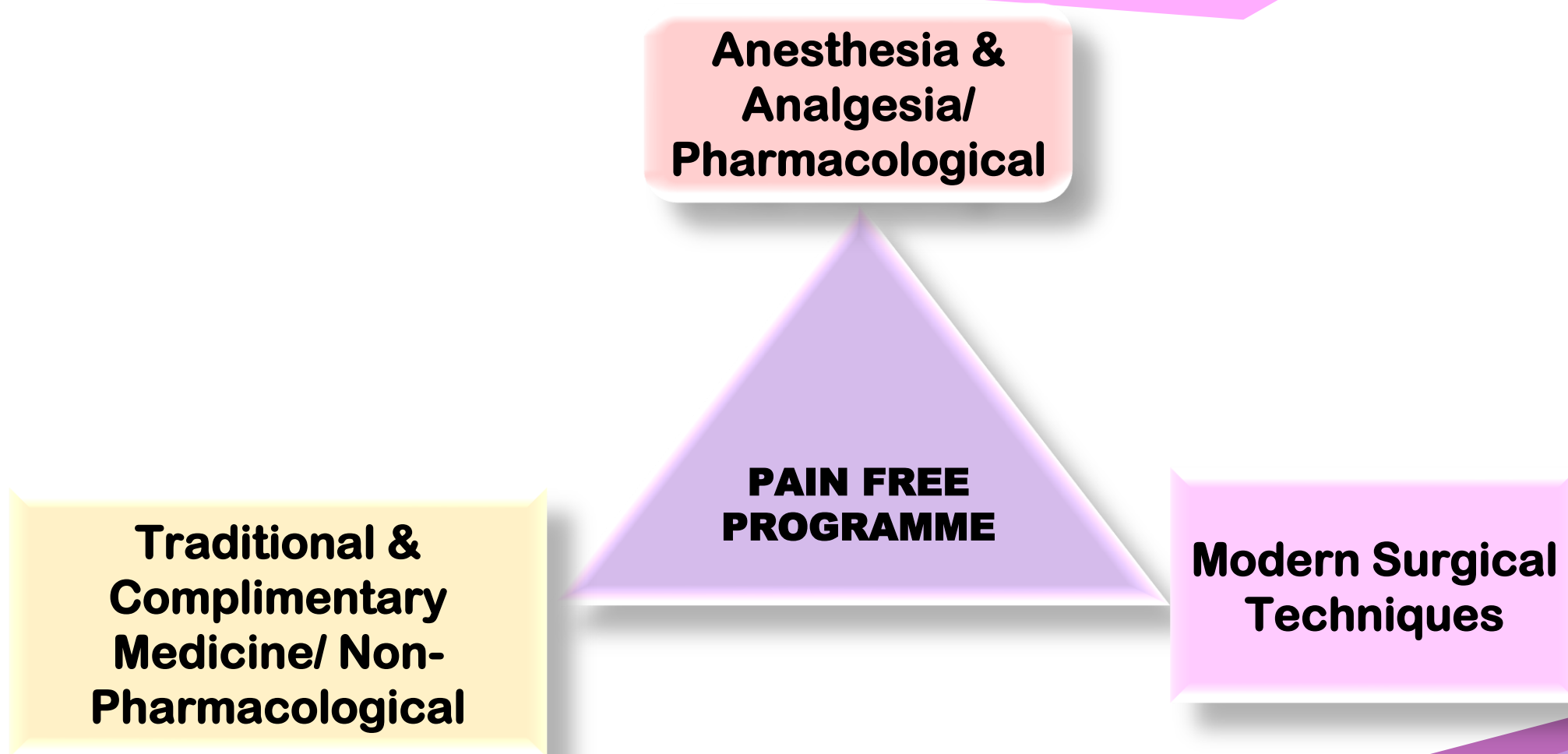
MODIFIED ANALGESIC LADDER



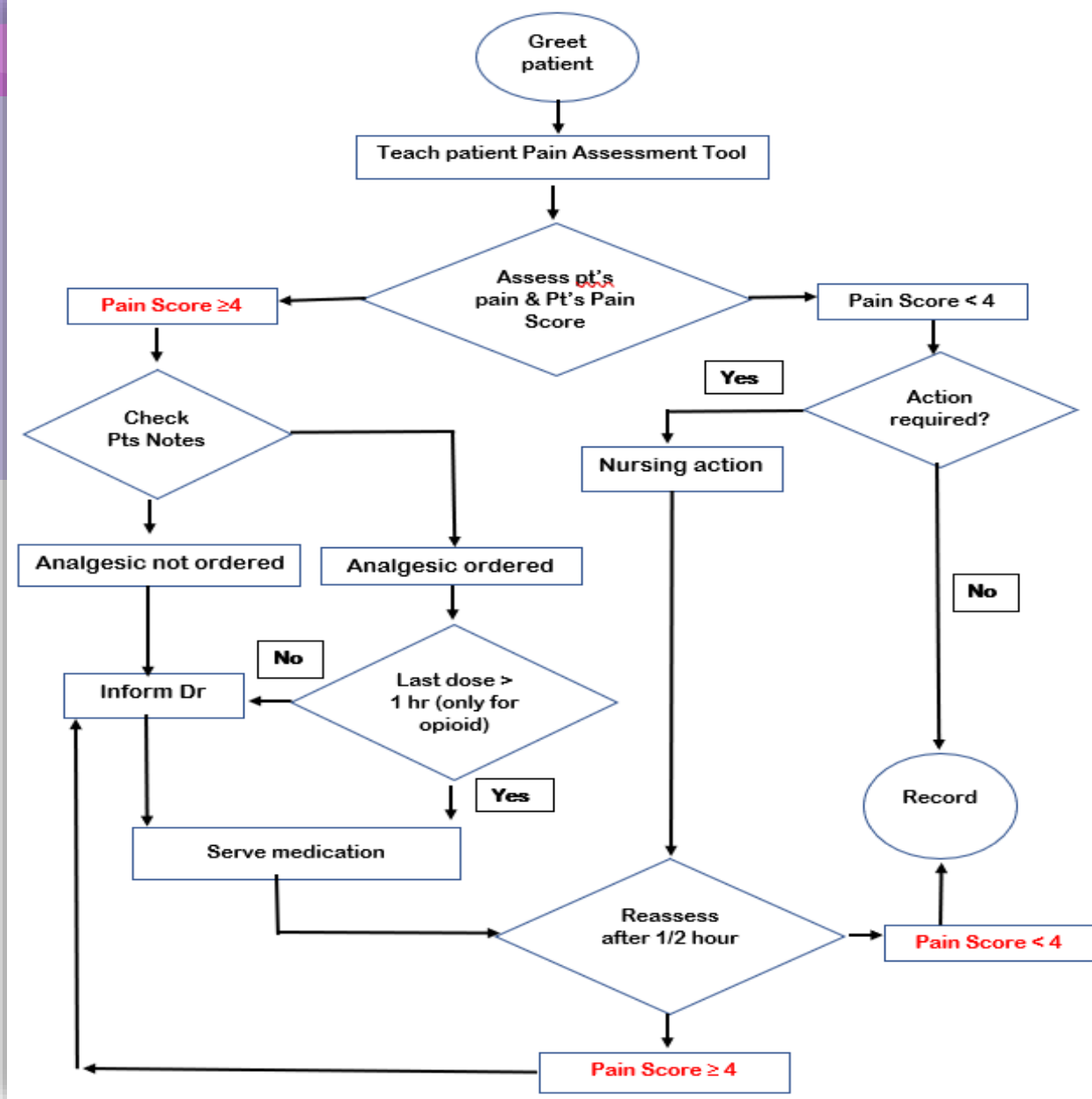
MULTIDISCIPLINARY TEAM APPROACH



COMPONENTS OF PFH



PAIN AS 5TH VITAL SIGN: FLOW CHART FOR NURSES & ASSISTANT MEDICAL OFFICER



NURSING (VITAL SIGNS) OBSERVATION CHART

PS.KKM.1/2014

Patient's Name :

Age :

Ward :

DATE	TIME	BP	PR	RR	T ° C	PS	SPO2	Remarks

REMARKS :

- **LEG ELEVATED & REASSURANCE GIVEN**
- **REASSURANCE & COLD COMPRESS GIVEN**

PARTOGRAM CHART FOR PAIN ASSESSMENT IN O & G

HOSPITAL **PARTOGRAPH** (PER-OBST-303)

NAME:
AGE:
RN:
DATE OF ADMISSION:
DATE AND TIME TO LR:
DIAGNOSIS:

Non Pharmacological Pain Management
B : Breathing
M : Soft tissue manipulation
P : Positioning
TENS : TENS
Ar : Aromatherapy
Au : Audio

FETAL HEART RATE

LIQUOR MOULDING

(cm) CERVIX Plot 'X'

Descent of HEAD Plot 'O'

Hour Time

Contractions Per 10 Min

Pain Score (Units)(Rate/min)

OXYTOCIN

Non Pharmacological Pain Management

Drugs and Intravenous Fluid given

Pulse and Blood Pressure

Urine { Temp (°C)
Albumin
Sugar
Acetone
Volume
Glucometer (mmol/L)

Latent Phase

Active Phase

Alert

Action

Hour Time: 0 to 24

QUIZ

	QUESTION	ANSWER
1	In <u>acute pain</u> does opioid prescription has high risk for addiction?	NO
2	Should Pain assessment <u>ONLY</u> be done when the patient complains of pain?	NO
3	If pain relief is given to the patient regularly WILL IT mask all signs of complications or severity of disease?	NO
4	If a patient with <u>acute pain</u> keeps asking for morphine will he be addicted to MORPHINE ?	NO
5	During wound dressing if the patient complains of pain, what do you do?	Stop dressing Follow flow chart P5VS

IN A NUTSHELL : WHEN PAIN IS WELL MANAGED



ROLES & RESPONSIBILITY FOR EFFECTIVE PAIN MANAGEMENT

- ✓ Know How To Use The Pain Assessment Tool
- ✓ Carry Out Pain Assessment
- ✓ Give Prompt Nursing Action/ Non-pharmacological Technique
- ✓ Provide Prompt Pain Relief
- ✓ Observe Side Effects Of Analgesia
- ✓ Reassess Pain Score & Record In The Observation Chart
- ✓ Monitor Patients Pain Regularly
- ✓ Educate Patient & Family On Pain Assessment/ Treatment
- ✓ **RECORD ALL OBSERVATION AND ACTION IN REAL TIME**



THANK YOU



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