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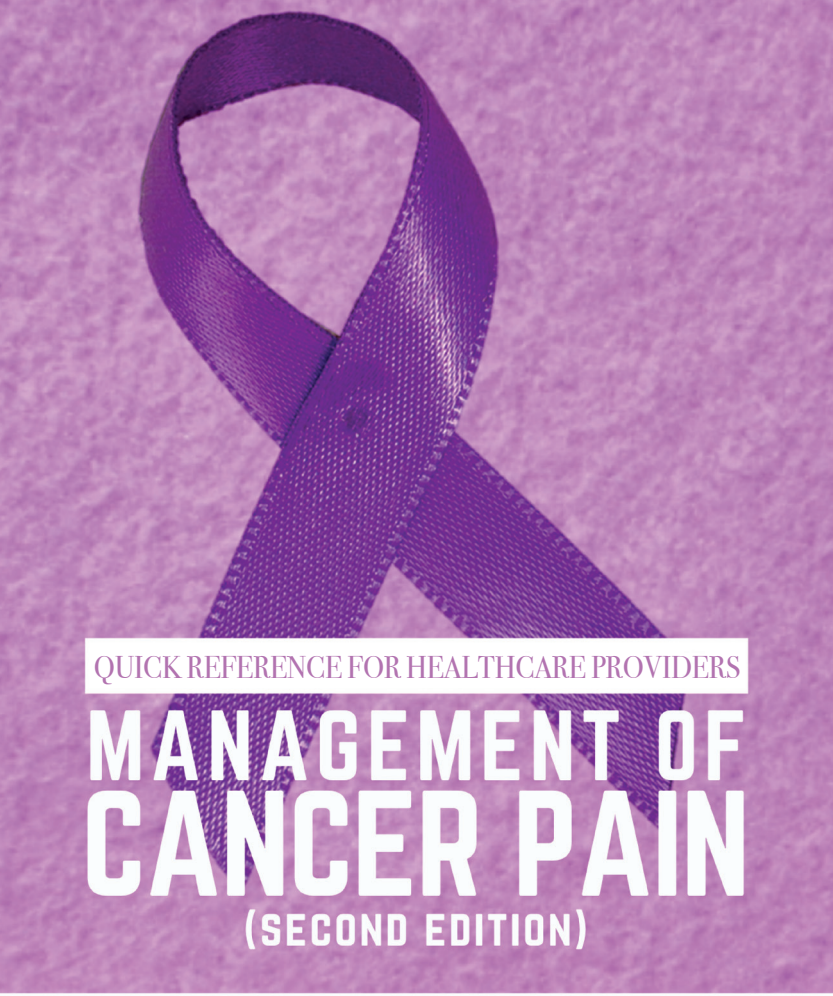

QUICK REFERENCE FOR HEALTHCARE PROVIDERS

MANAGEMENT OF CANCER PAIN

(SECOND EDITION)

Ministry of Health Malaysia

Malaysian Association for the Study of Pain

Academy of Medicine Malaysia

KEY MESSAGES

01 
Cancer pain is prevalent at 40 - 70% with a third of patients experience moderate to severe pain despite treatment & many have their symptoms go unrecognised.

Appropriate pain assessment tools should be used regularly on patients with cancer pain & documented accordingly. 

02

03 
The treatment of cancer pain should be based on the World Health Organization (WHO) Analgesic Ladder.

Oral morphine is the preferred choice in moderate to severe cancer pain in children & adults. 
04

05 
Children & adults with cancer pain on opioid should be prescribed with rescue analgesia if required to ensure optimal pain control.

In cancer patients with renal and/or liver impairment, all opioids should be used with caution & at reduced doses and/or frequency. 
06

07 
Adjuvant medications may be used in specific cancer pain syndromes while bone targeting agents or radiotherapy in those with painful bone metastasis.

Psychoeducation, psychological & spiritual interventions should be considered in managing cancer pain. 
08

09 
Patients with poor pain control despite optimal pharmacological therapy should be referred to specialists trained in interventional pain management.

Cancer patients should be followed-up for their pain management either in the specialist outpatient clinic, primary care clinic or home. 
10

This Quick Reference provides key messages & a summary of the main recommendations in the Clinical Practice Guidelines (CPG) Management of Cancer Pain (Second Edition).

Details of the evidence supporting these recommendations can be found in the above CPG, available on the following websites:
Ministry of Health Malaysia: www.moh.gov.my
Academy of Medicine Malaysia: www.acadmed.org.my
Malaysian Association for the Study of Pain: https://www.masp.org.my

CLINICAL PRACTICE GUIDELINES SECRETARIAT
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Medical Development Division, Ministry of Health Malaysia
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E-mail: htamalaysia@moh.gov.my

CLASSIFICATION OF CANCER PAIN BASED ON PATHOPHYSIOLOGY

Nociceptive Pain	○ Pain due to tissue damage associated with an identifiable somatic or visceral lesion. ○ Subdivided into somatic & visceral types based on nature of tissue injury.
❖ Somatic Pain	▪ Character: aching, stabbing or throbbing, & usually well localised. e.g. bone metastases, ulcers
❖ Visceral Pain	▪ Character: cramping or gnawing when due to obstruction of hollow viscus; aching, sharp or throbbing when due to tumour involvement of organ capsule ▪ Pain is usually diffuse & difficult to localise, & may be referred to somatic structures. ▪ e.g. intestinal obstruction, liver metastases
Neuropathic Pain	○ Character: burning, pricking, electric-like, shooting or stabbing, & sometimes may have a deep aching component ○ Pain is usually located in the area innervated by the compressed/ damaged peripheral nerve, plexus, nerve root or spinal cord. ○ Pain is often associated with loss of sensation in the painful region. ○ Allodynia or dysaesthesia may be present.

POINTS FOR HISTORY TAKING

Characteristics of pain	• Site - single/multiple • Quality - sharp/dull/throbbing/colicky, etc. • Intensity - pain score • Timing - persistent/episodic/on movement/spontaneous • Radiation of pain • Aggravating & relieving factors • Associated symptoms: numbness, abnormal sensation, hyperalgesia, allodynia, etc.
Cancer history	• Site(s) - primary/metastatic • Treatment(s) – surgery/chemotherapy/radiotherapy/targeted therapy
Medication	• Analgesia • Side effects • Concurrent medications including traditional/alternative medications • Treatment response/adherence
Co-morbidities	• Renal/liver disease • Cardiac/respiratory disease • Cognitive impairment • Other pain conditions - acute/chronic • Previous alcohol or drug abuse
Psychosocial-spiritual aspects	• Emotional/psychological - depression/anxiety/stress, etc. • Meaning of pain to patient • Effects on activities of daily living/appetite/sleep • Effects on socio-economic functioning • Perception of pain & pain medications

PAIN SCALE RECOMMENDED USE IN ADULTS & PAEDIATRICS

PATIENTS	AGE	ASSESSMENT
Peadiatric	1 month to 4 years	Face Legs Activity Cry Consolability (FLACC)
Peadiatric	4 years to 7 years	Revised FACES
Peadiatric	≥7 years to 17 years	Numerical rating scale (NRS)
Adult	18 years & above	• Visual Analogue Scale (VAS) • Verbal Rating Scale (VRS) • NRS • Faces Pain Scale (FPS)
Adult	Cognitively impaired/ Learning disability	• FLACC • Pain Assessment in Advanced Dementia (PAINAD) Scale

Recommended Pain Scales

1. Combined NRS & VRS

The MOH pain scale: combines NRS, VAS & Face scales

2. Faces Pain Scale

MOH Face Scale

3. 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 & 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, distractible	Difficult to console

4. PAINAD Scale

Item*	0	1	2	Score
Breathing independent of vocalisation	Normal	Occasional laboured breathing Short period of hyperventilation	Noisy laboured breathing Long period of hyperventilation Cheyne-Stokes respirations	
Negative vocalisation	None	Occasional moan or groan Low-level 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**	

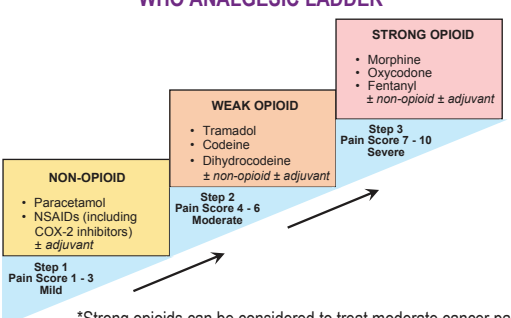
*Five-item observational tool.

**Total scores range from 0 to 10 (based on a scale of 0 to 2 for 5 items), with a higher score indicating more severe pain (0="no pain") to 10="severe pain")

5. Verbal Rating Scale (VRS)

No pain	0
Mild pain	1
Moderate pain	2
Severe pain	3
Very severe pain	4

WHO ANALGESIC LADDER



*Strong opioids can be considered to treat moderate cancer pain.[23, level I]

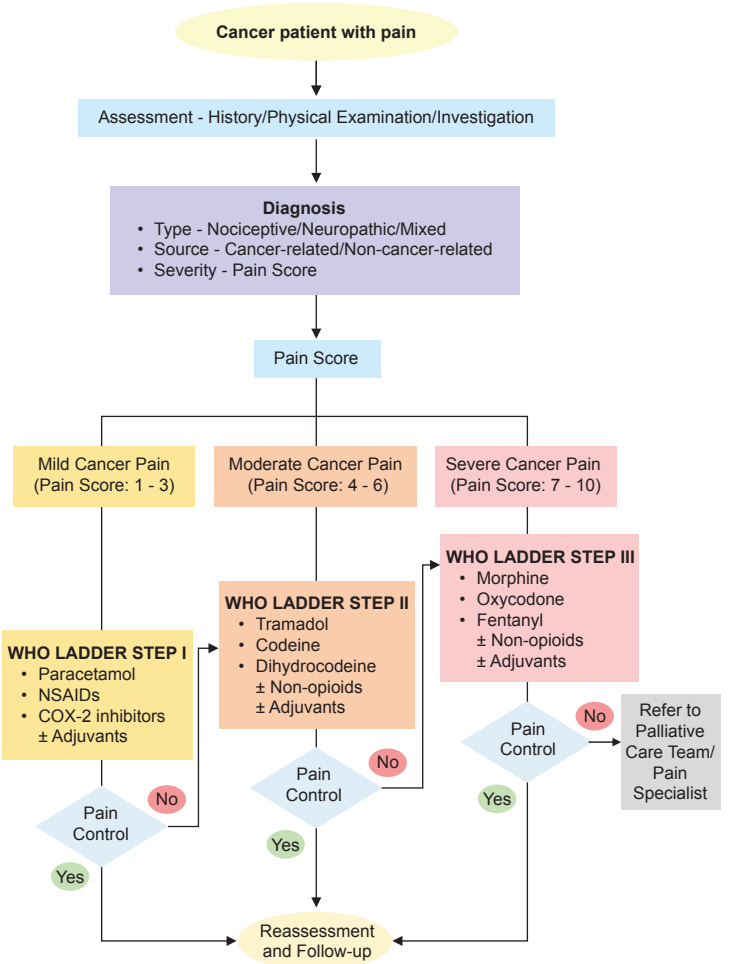
SUGGESTED DOSE CONVERSION RATIO IN THE DIRECTION SPECIFIED

FROM \ TO	Oral morphine mg/day	SC morphine mg/day	Oral oxycodone mg/day	SC oxycodone mg/day	TD fentanyl mcg/h
Oral morphine mg/day		2	1.5	3	3
SC morphine mg/day	2		0.7	1.5	1.5
Oral oxycodone mg/day	1.5	0.7		2	2
SC oxycodone mg/day	3	1.5	2		1
TD fentanyl mcg/h	3	1.5	2	1	

MULTIPLY **DIVIDE**

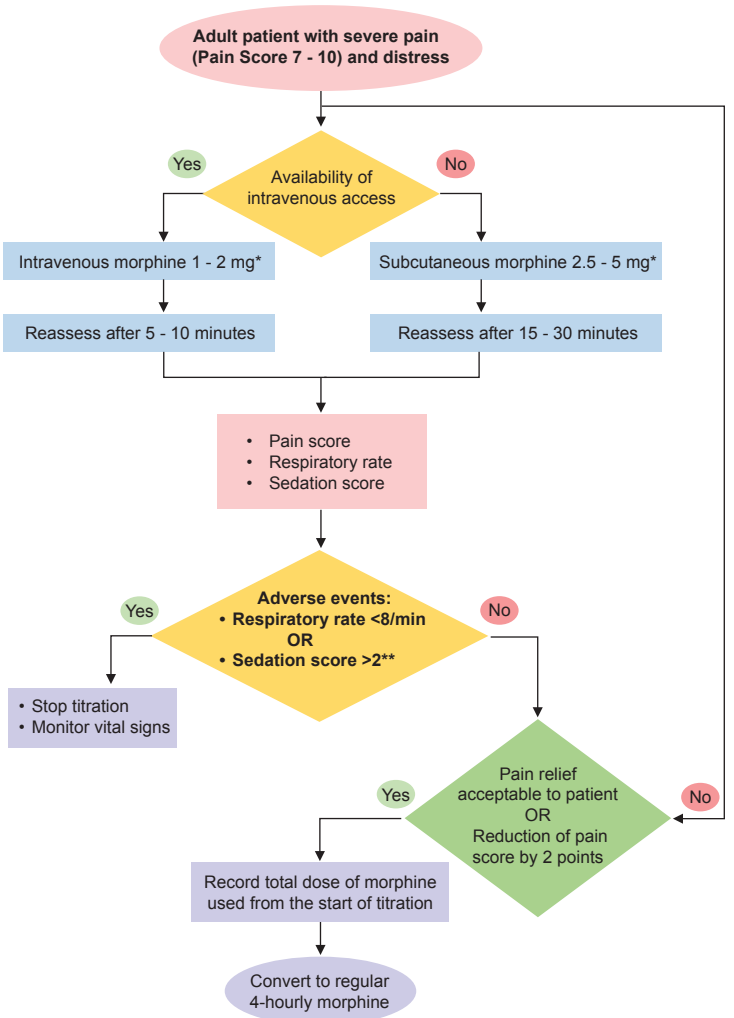
1. Calculate the total 24-hour opioid dose in mg (for fentanyl, note that the hourly rate is in mcg).
2. Begin at the left-hand column & identify the opioid currently used.
3. Select the alternative opioid from the top row.
4. Identify the box where the column & row intersect. Determine the conversion factor to divide or multiply in order to obtain the 24-hour dose of the alternative opioid.
5. Divide the 24-hour dose according to the dosing frequency required (e.g. BD dosing divided by 2 & 4-hourly dosing divided by 6).
6. Rescue doses for breakthrough pain for each opioid are calculated as approximately 1/6 to 1/12 of the total daily dose.
7. Additional conversions:
   - Per oral (PO) dihydrocodeine 90 mg/day = PO morphine 10 - 12 mg/day
   - PO tramadol 150 mg/day = PO morphine 15 - 30 mg/day
   - Transdermal fentanyl 25 mcg/hour = continuous subcutaneous (SC)/intravenous (IV) infusion fentanyl 25 mcg/hour
   - SC morphine = IV morphine
8. This conversion chart should only be used as a guide & treatment must be individually tailored for patients based on clinical assessment.
9. When changing from one opioid to another, consider a dose reduction of 25 - 50% due to incomplete cross-tolerance.

ALGORITHM 1. MANAGEMENT OF CANCER PAIN IN ADULTS



NSAIDs: Non-steroidal anti-inflammatory drugs
COX-2: cyclooxygenase-2
*Strong opioids can be considered to treat moderate cancer pain[23, level I]

ALGORITHM 2. TITRATION OF MORPHINE FOR RAPID PAIN RELIEF IN ADULTS WITH SEVERE PAIN & DISTRESS



*For patients already on opioids, the bolus dose of morphine should be 10% of the total 24-hour morphine requirement converted to intravenous/subcutaneous equivalent. For elderly, frail or renal impaired patients, use lower dose of the given range.

For details on sedation score, see **Appendix 3 in the CPG.

SUGGESTED MEDICATION DOSAGES & ADVERSE EVENTS IN ADULTS

Drug	Recommended Dosages	Side Effects	Remarks
Paracetamol	0.5 - 1 gm, 6 - 8-hourly Maximum (max) : 4 gm/day	Rare	Consider dose reduction in hepatic impairment.
Non-selective Nonsteroidal anti-inflammatory Drugs (NSAIDs)			
Diclofenac sodium	50 - 150 mg daily, 8 - 12 -hourly Max: 150 mg/day	Peptic ulcer, gastrointestinal (GI) bleed, platelet dysfunction, renal impairment, cardiac events	Consider dose reduction in renal impairment. Higher doses increase the risk of GI & cardiovascular (CV) complications.
Mefenamic acid	250 - 500 mg, 8-hourly Max: 1500 mg/day		
Ibuprofen	200 - 400 mg daily, 8-hourly Max: 2400 mg/day		
Selective NSAIDs			
Celecoxib	200 - 400 mg, 12 - 24-hourly Max: 400 mg/day	Renal impairment, cardiac events	Use the lowest effective dose for the shortest possible duration. Consider dose reduction in renal impairment & CV disease.
Etoricoxib	60 - 90 mg daily Max: 120 mg/day		
Weak Opioids			
Tramadol	50 - 100 mg, 6 - 8-hourly Max:400 mg/day	Drowsiness, dizziness, nausea, vomiting, constipation	Consider dose reduction in renal impairment.
Dihydrocodeine tartrate	30 - 60 mg, 6 - 8-hourly Max: 240 mg/day		
Strong Opioids			
Morphine	Starting dose (oral): 3 - 5 mg 4-hourly of immediate release (IR) morphine	Drowsiness, dizziness, nausea, vomiting, constipation	No max. dose in cancer pain. Sustained release oral morphine & controlled-release oxycodone should be given as 12-hourly dosing. TD fentanyl can only be used when opioid requirements are stable, & never in an opioid naïve patient.
Oxycodone	Starting dose (oral): 5 mg of IR 4 - 6-hourly		
Transdermal (TD) fentanyl	Equianalgesic dose of total 24 hours opioid requirement (refer to **Dose Conversion Ratio Table**)		
Antidepressants			
Amitriptyline	Start with 12.5 - 25 mg on night Max: 150 mg/day (Max dose seldom required) Usual effective dose 25 - 75 mg ON)	Anticholinergic effects, arrhythmias, QT prolongation	Use with caution in the elderly & patients with cardiac disease, glaucoma, renal impairment & seizure risk.