More than Pain
Palliative Care as a whole I

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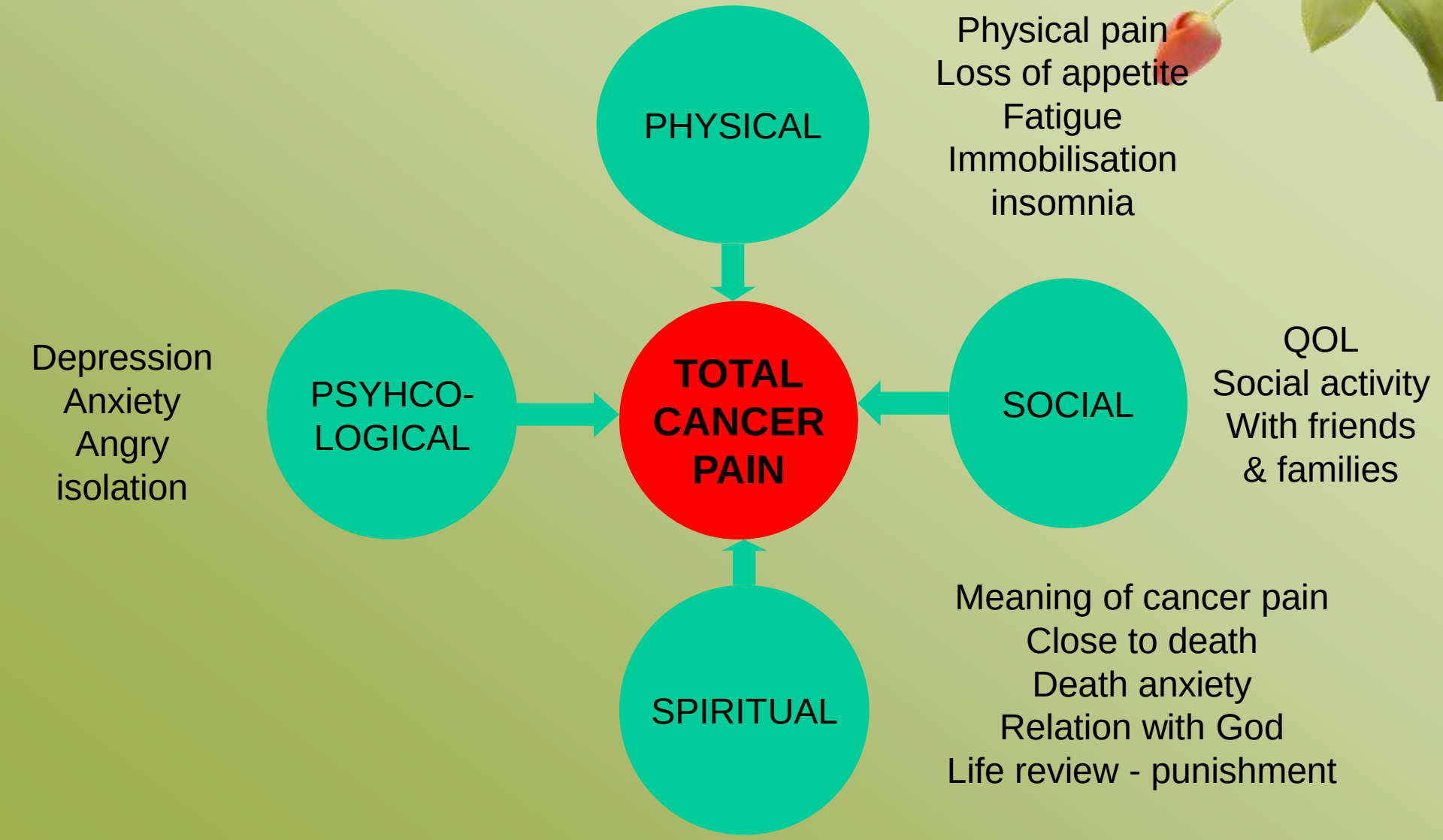
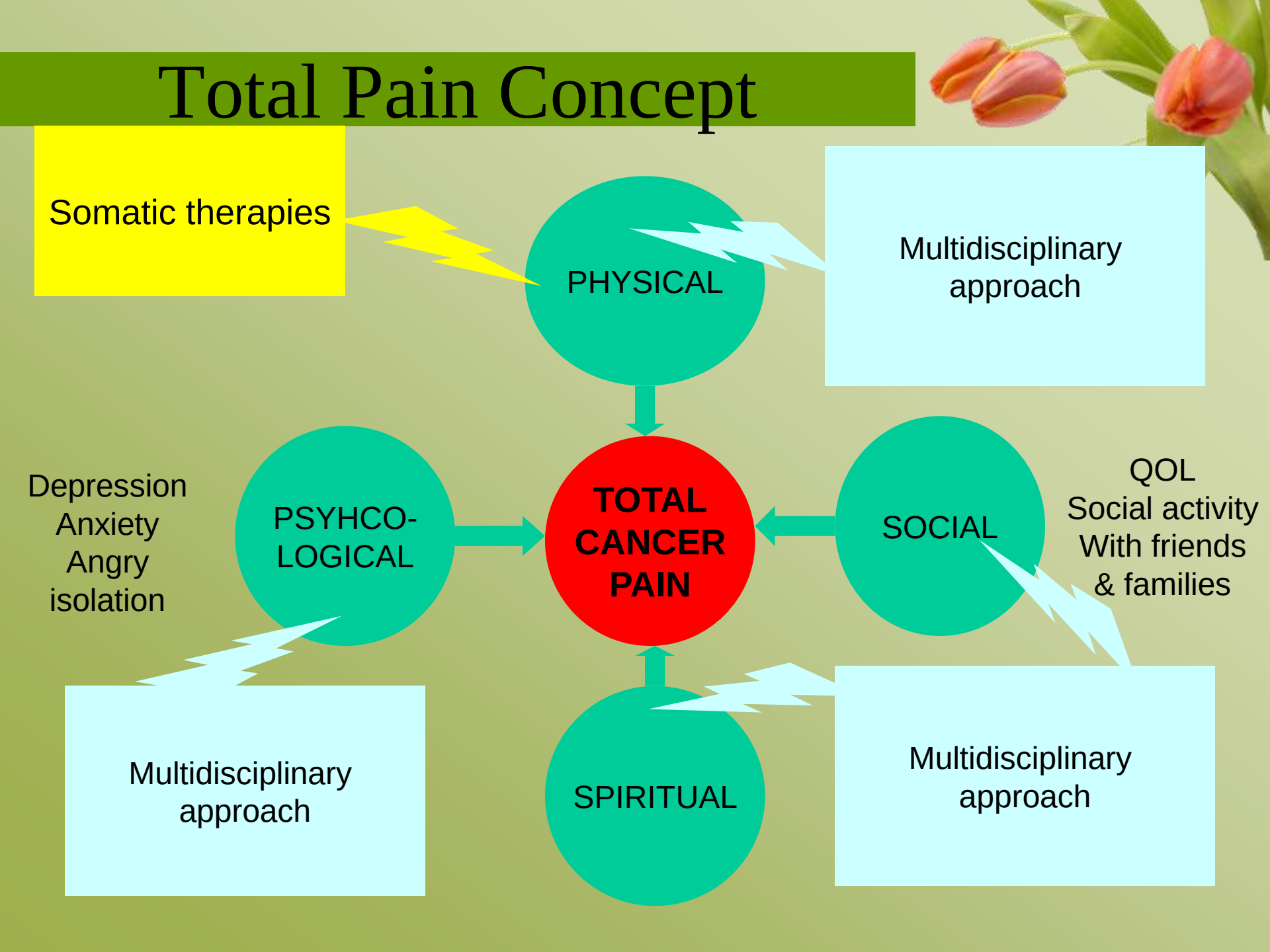
Content

- Total cancer pain concept in assessment & management
  - Case illustration
- Highlight important point on use of strong opioid in cancer pain
- Use of palliative sedation in EOL care

Total Pain Concept



Total Pain Concept

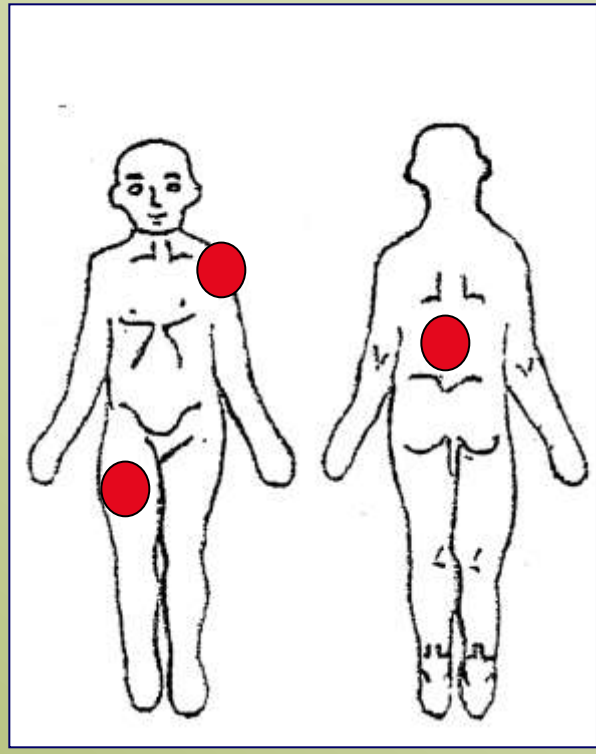


Total Cancer Pain Concept

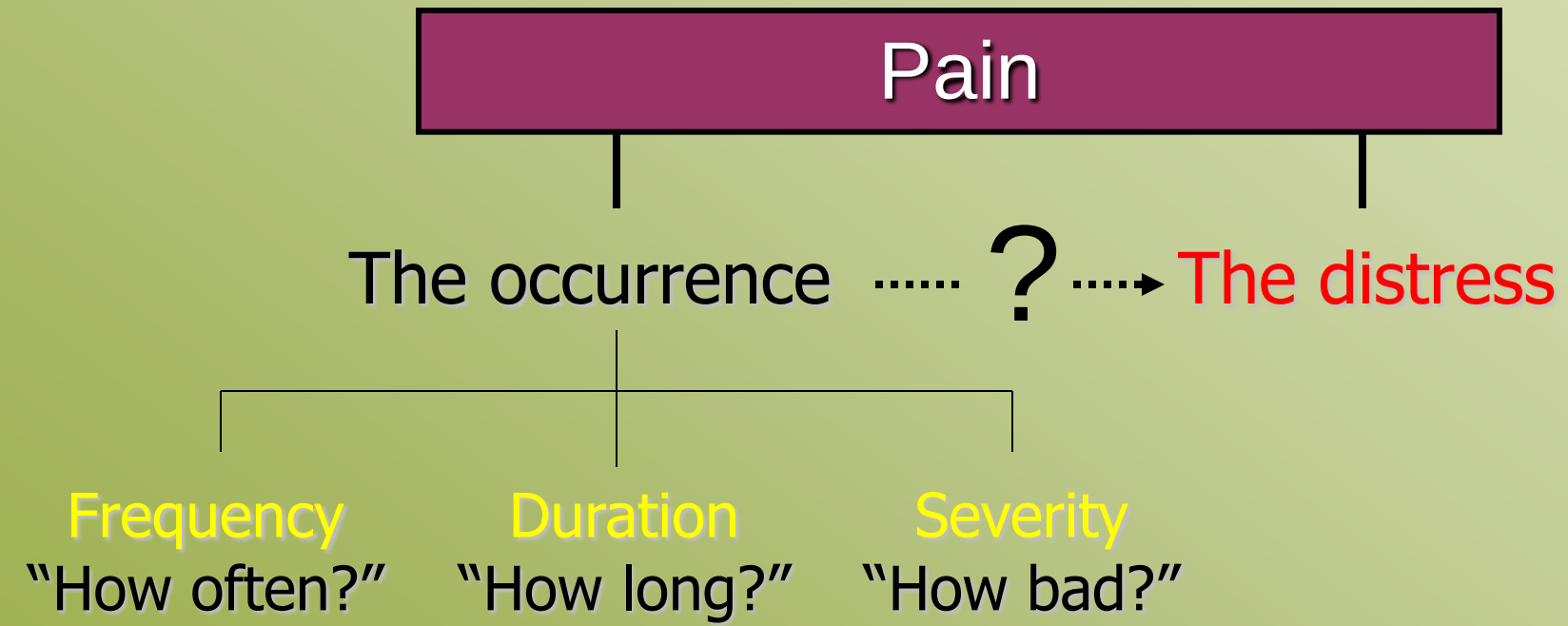
Pain Assessment

Assessment of Cancer PAIN

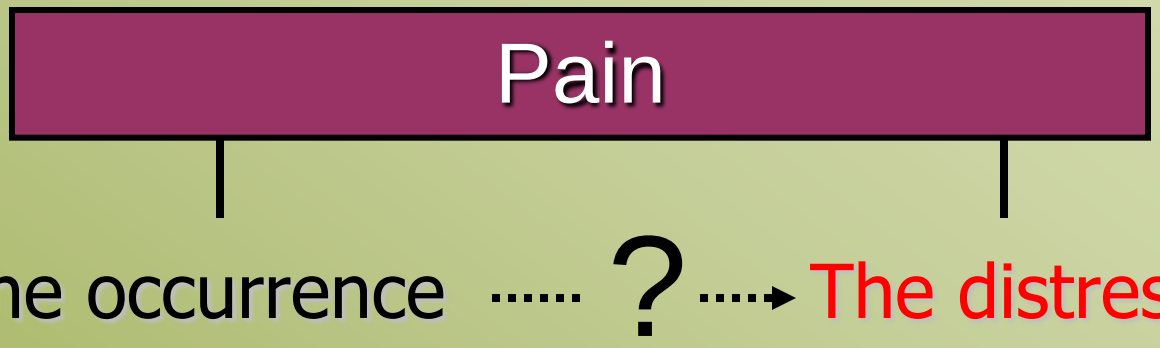
Site – multiple locations
Duration & frequency
Temporal pattern – episodic/ continuous intensity
Precipitating factor & relieving factors
Nature of pain
&



Revised Concept of Pain



Revised Concept of Pain



Patient's own perception and interpretation as affected by

physiological,

psychological,

Social,

Spiritual factors

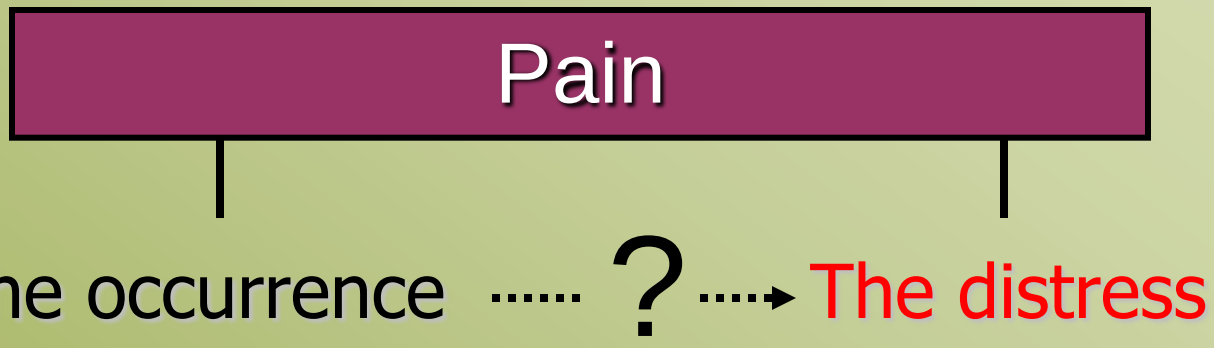
Case 1: A Man with liver cancer

- M/70
- Known history of incurable HCC
- Slip and fall at home while in the toilet
- With minor head injury with bruises and laceration over eye brows
- Seen A&E and suture done

Case 1: A Man with liver cancer

- Do you feel any pain over the head after the injury?
- He said “ It’s very minor, as it is only superficial, it can be cured”
- “ The most distress is not the head but the abdomen, as it grow bigger and bigger, it cannot be cure.”

Revised Concept of Pain



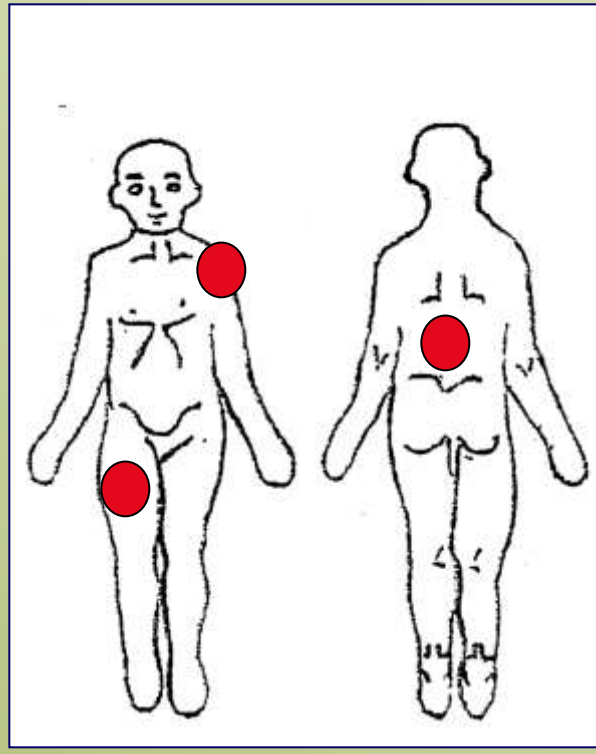
Patient's own perception and interpretation

Pain due to minor head injury can be cure
Pain due to Cancer cannot be cure and it will be more severe
Increase pain over cancer area, means times run short

Assessment of Cancer PAIN

Site – multiple locations
Duration & frequency
Temporal pattern – episodic/ continuous intensity
Precipitating factor & relieving factors
Nature of pain
&

DISTRESS/IMPACT



Total Cancer Pain concept in Pain Assessment

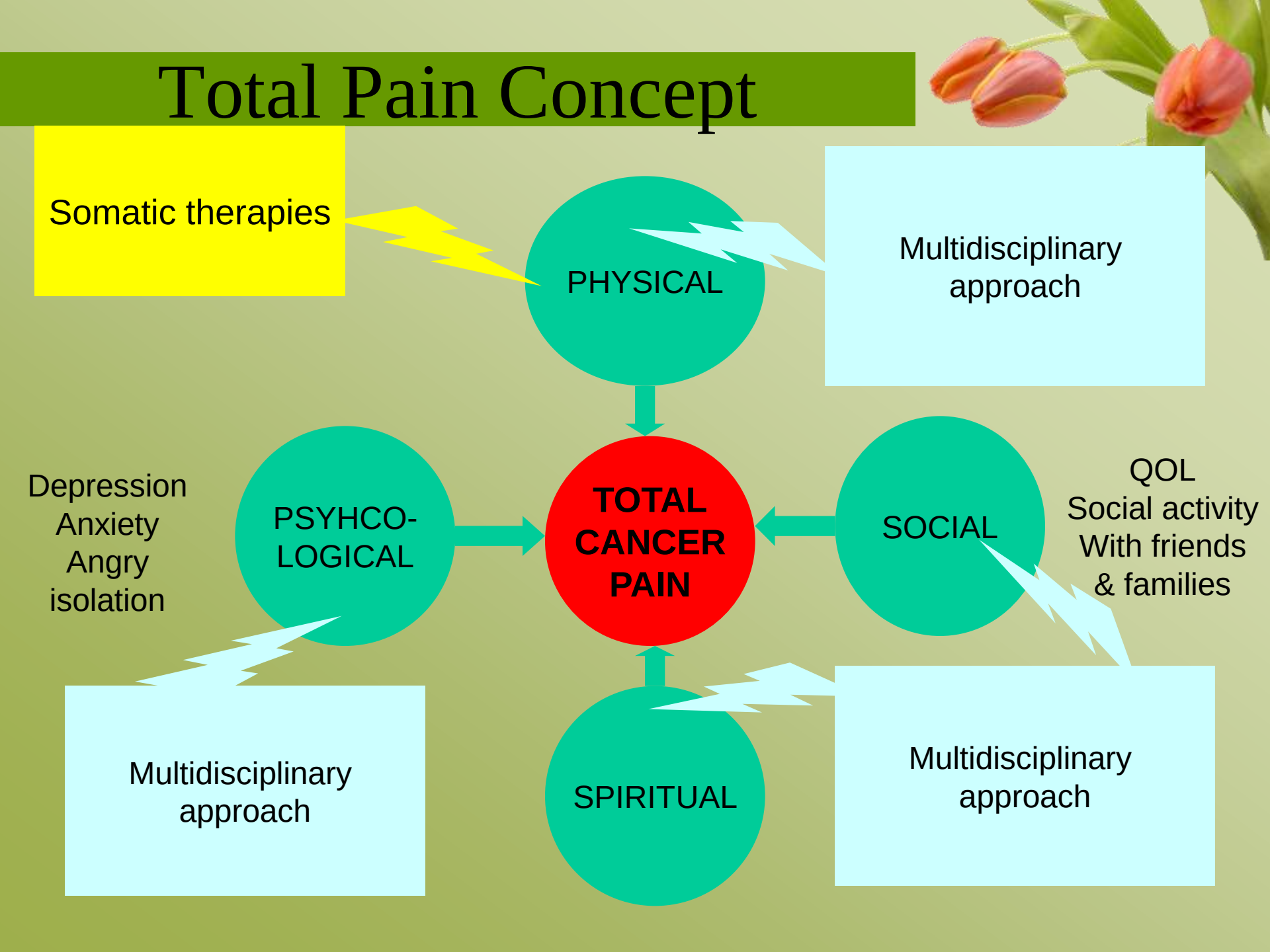
Take Home message

- Pain (all symptoms) is an unique experience of the patients
- Even pain intensity, pain frequency, pain durations are same, the distress are different between different patients
- Because distress will affected by that particular patient own perceptions and interpretation.
- Good cancer pain assessment is not only assess physical part but associate psychological, social and spiritual impact

Total Cancer Pain Concept

Cancer Pain Management

Total Pain Concept



Palliative Care Team

Doctor

Nurse

Physiotherapist
&
Occupational therapist

Home care Nurse

MSW

Pastoral care worker

Clinical Psychologist

Volunteer


Pallintive Care Team of Caritas Medical Centre
2007

Case 2 – A lady with bone pain

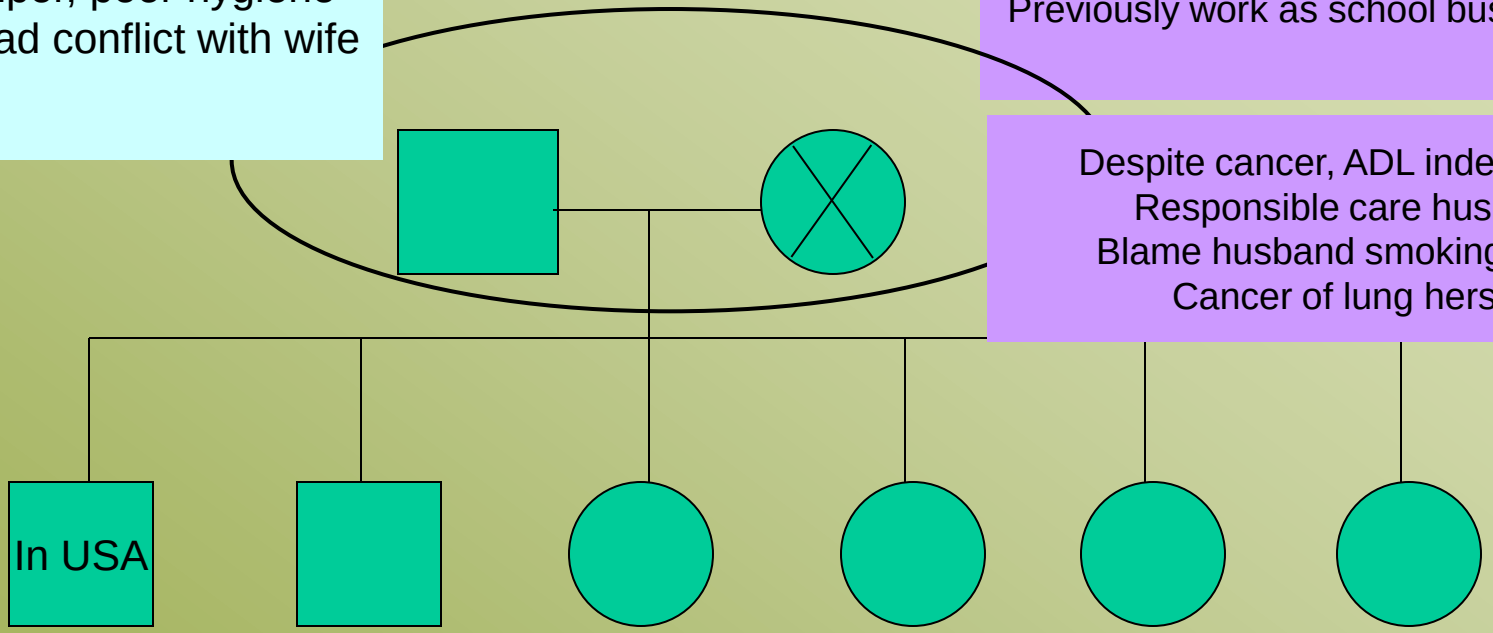
- F/76
- CA lung with mediastinal LN and bone metastasis (right humeral head)
- Reviewed by oncologist, decided not for chemotherapy or target therapy
- Suggest Palliative Radiotherapy to humeral head but refused by patients as pain control satisfactory with analgesic (NSAID and panadol)
- Regular follow up in our PC unit and home care visit

Family tree

Smoker, blind
Bad tempor, poor hygiene
Always had conflict with wife

Live with husband
In public housing flat
Born in Macau, no education, nonsmoker
moved to HK after marriage >50 years
Previously work as school bus assistance

Despite cancer, ADL independent
Responsible care husband
Blame husband smoking → get
Cancer of lung herself



Key carer
Day time stay with patients
House wife

Work as clerk
Stay with patient at night

All married with children and live apart

Home care nurse visit

Patient sitting in the dinning room with commode chair next to her

Accompany by 3rd daughter

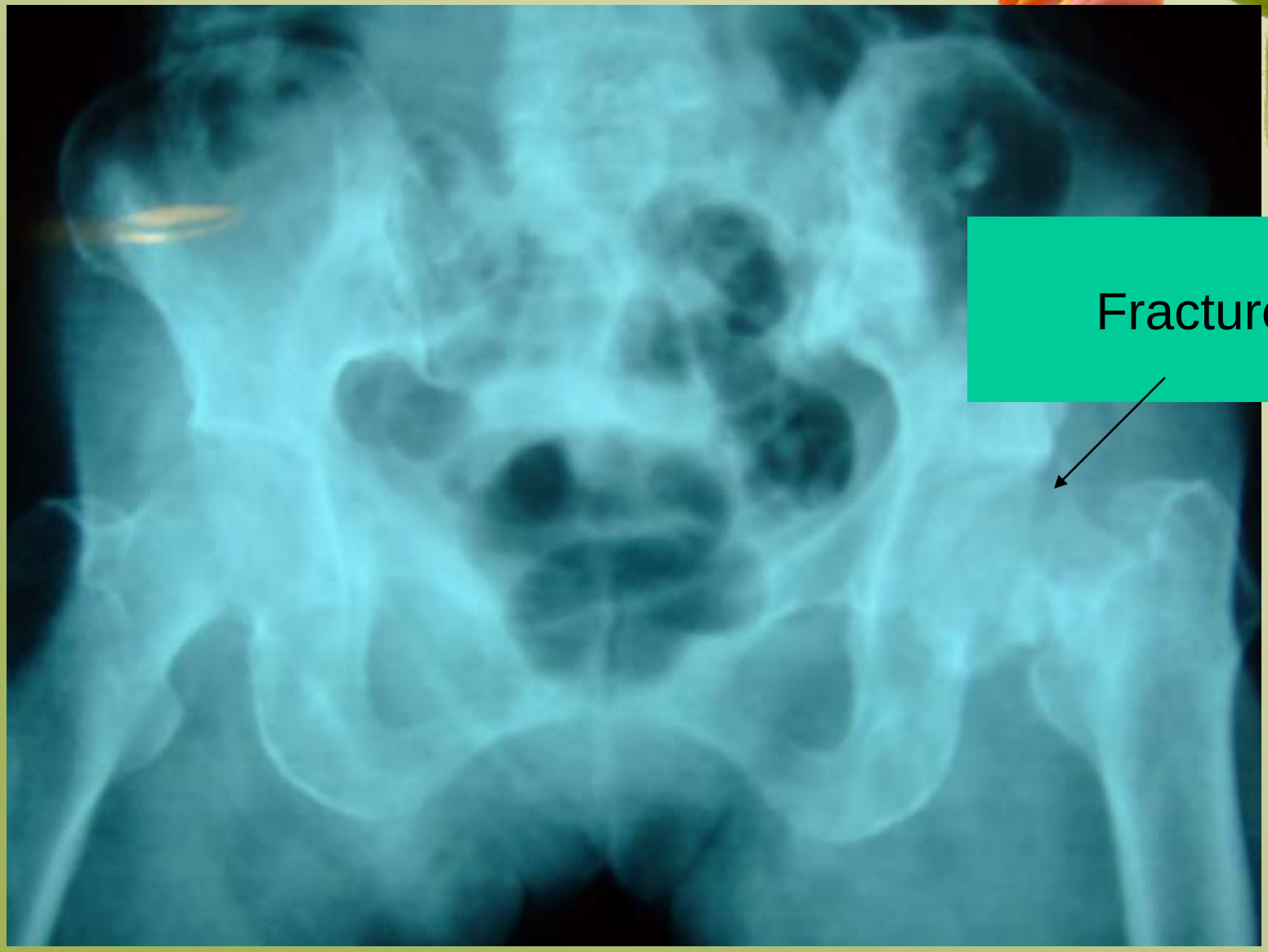
Husband – not in the home

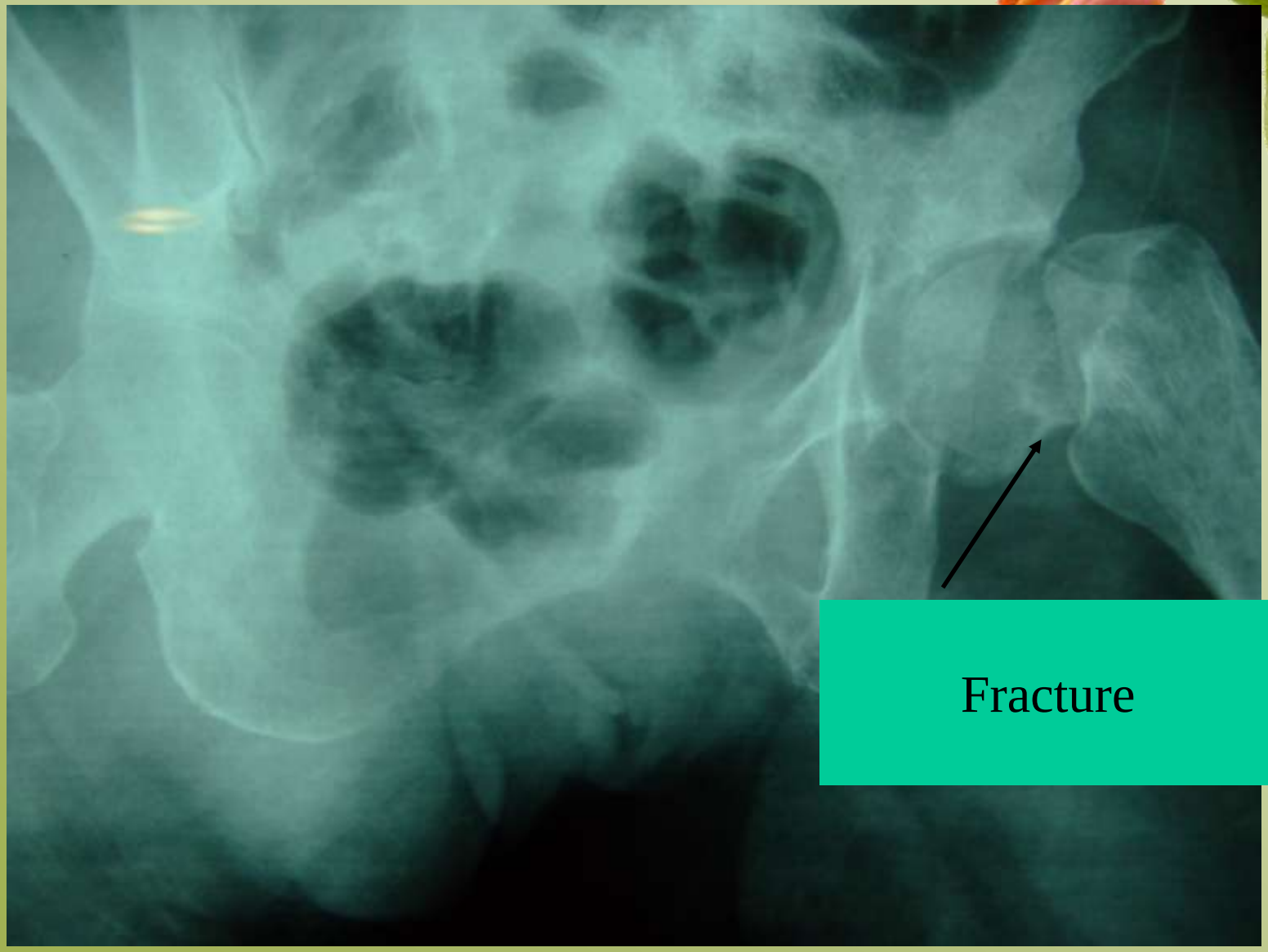
Patient frowning, crying complained of severe left hip pain

In order to avoid transferral, prefer sitting day and nights in the dinning room

Admission

- Physical – severe left hip pain
- Psychological – “ felt worthlessness”, felt herself as a burden to children”, express want to suicide by jump from height
- Social – isolated, can only sit in the dinning room
- Spiritual – life is meaningless, punishment from god….


Fracture


Fracture

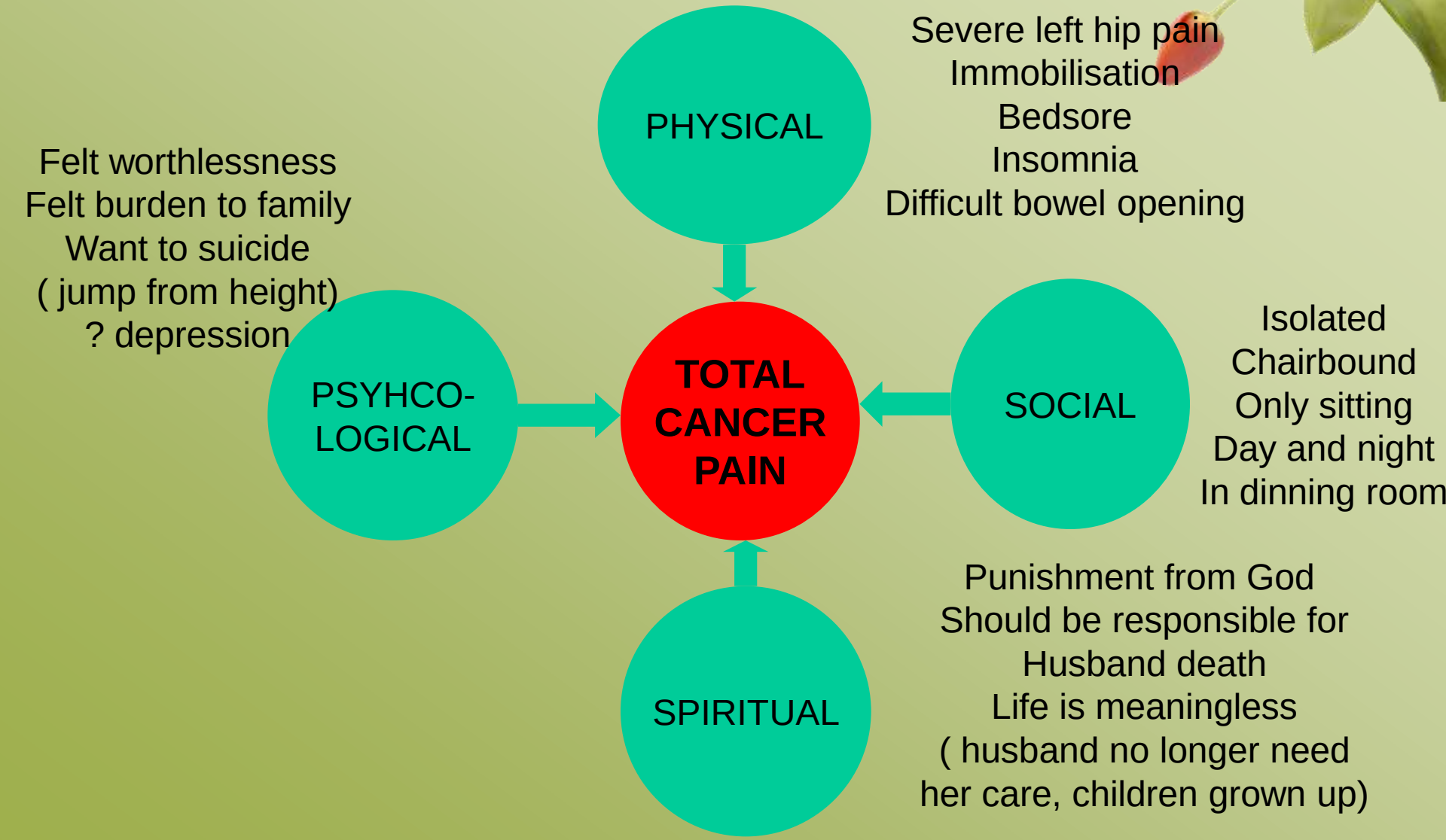
Sudden death of husband just before patient have severe hip pain

- "…I never thought that my husband will die earlier than me…. I still quarrel with him on that morning of making all the area dirty.."
- ".. Not until my daughter come home and bring him to hospital .. But on the same night.. She told me, he was dead… because of…perforation of bowel.."
- "…he told me he had some abdominal pain…I still quarrel with him.. Why I cannot notice earlier… if he can admit to hospital earlier, he may still survive…."
- "…afterwards I got severe hip pain.. Is it a punishment?.. I must have doing something very wrong..?
- " I have nothing left behind… husband no longer need me to take care ?

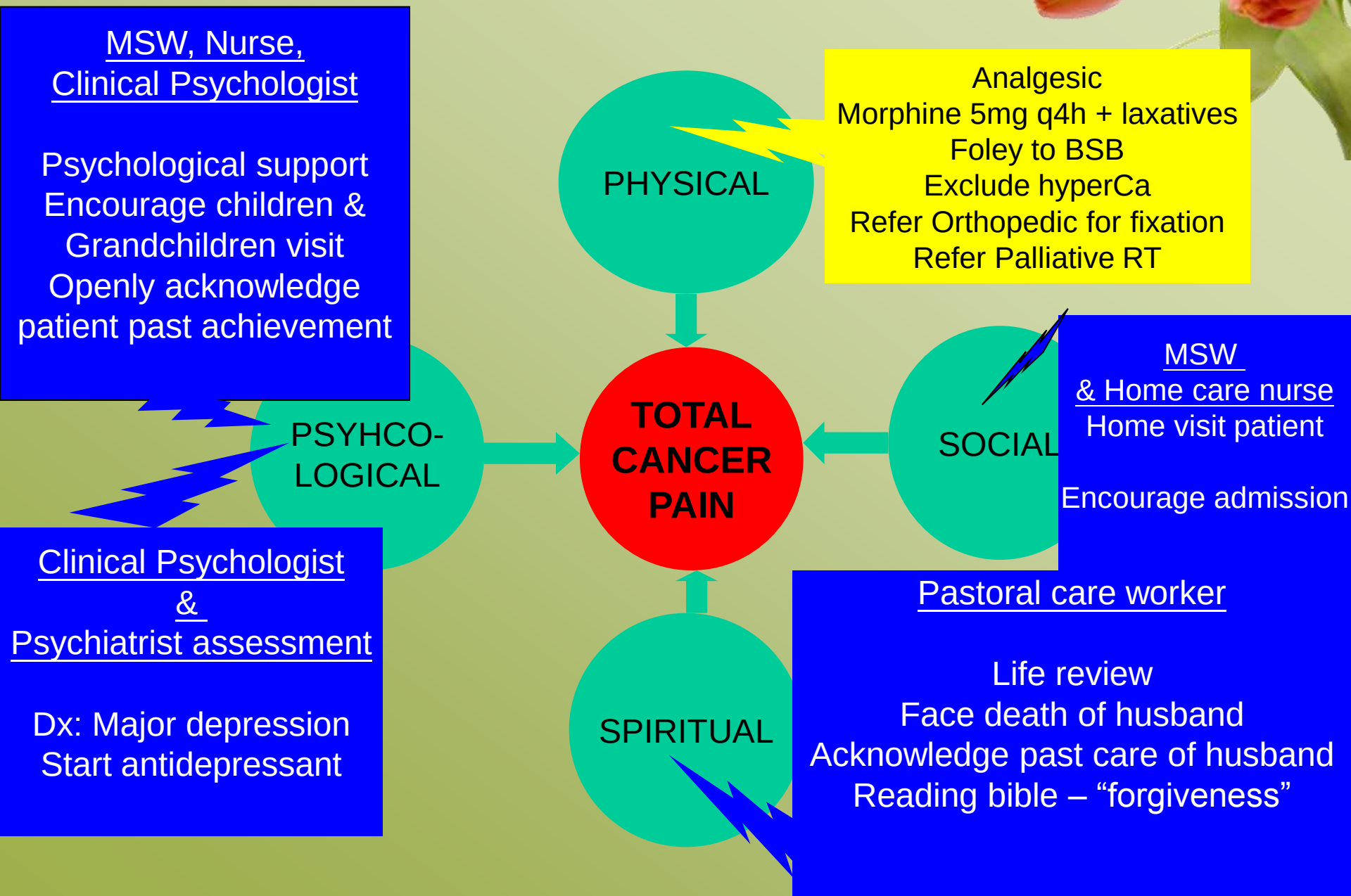
- Refuse treatment – refuse radiotherapy, refuse operation

- Want to die, want to suicide, felt guilty to husband death, felt great burden to family

Total Pain Concept



Total Pain Concept



Managing PAIN in advanced cancer

General Approach to Cancer Pain management
Important point on use of strong opioids

Symptom management approach

PAIN

Specific treatment

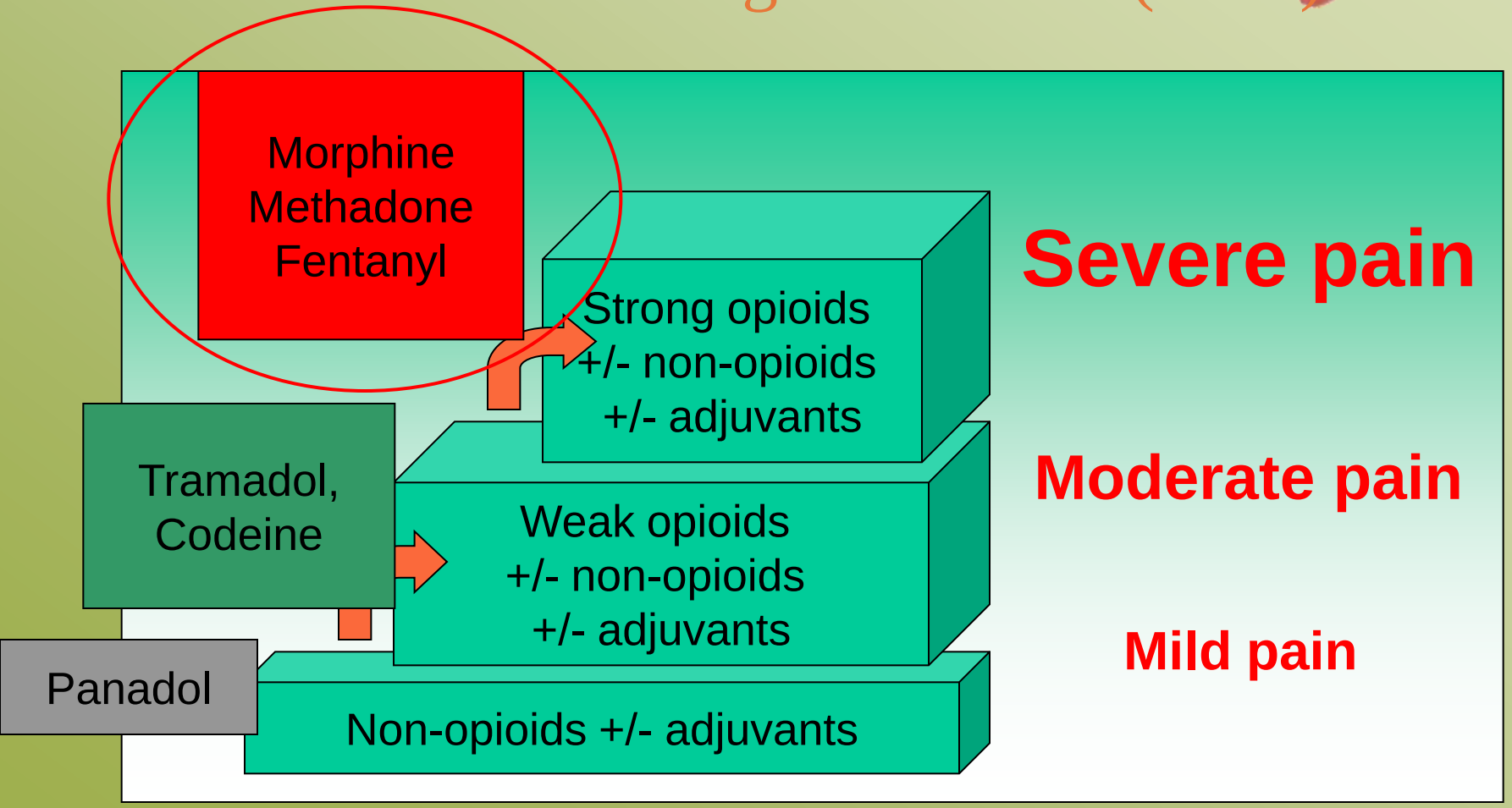
- **Cancer – RT / CT / Surgery**
  Bone secondaries/ malignant bowel obstruction
- **Other underlying causes**
  Post herpetic neuralgia/
  Osteoarthritis/ gouty arthritis

General management

- **Pharmacological**
  Opioids & non-opioids
  Co-analgesics
  Anaesthetic procedures
  e.g. nerve blocks, epidural catheter
- **Non-pharmacological**
  TENS, relaxation, massage

Right drug for different intensity of pain

WHO Analgesic Ladder (1986)



Effect of all strong opioid

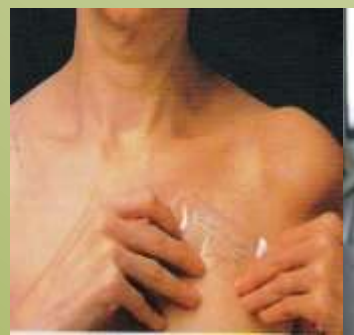
Beneficial effect	Adverse effect
Analgesic	Constipation (occurred almost in all patients, won′t developed tolerance)
Antitussive	Dizziness (usually will subsided after 1 week)
Relief of dyspnoea	Nausea, vomiting (occurred in ½ patients put usually will subsided after 1 week)
Anti-diarrhoea	Hallucination (auditory or visual e.g insect crawling)
	sedation
	sweating
	pruritis
	Dry mouth
	Myoclonus
	Urinary retention
	Respiratory depression

WHO Ladder 3

Strong opioid preparation available in Hong Kong

- Morphine
  - oral
    - Syrup morphine
    - MST
  - injection
    - iv, imi, sc, epidural, intrathecal
- Methadone
  - oral
  - injection

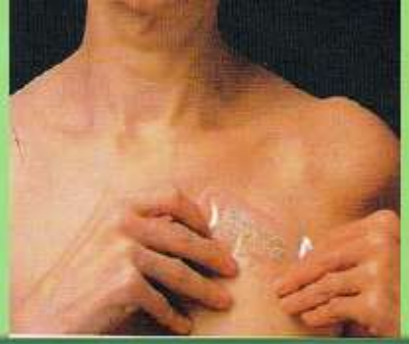
- Fentanyl
  - transdermal



  - injection

Morphine	Methadone	Fentanyl
1st line treatment in moderate to severe cancer pain No special advantage of iv over oral morphine Potency ratio Oral: sc 1:2 Oral to iv: 1:3 Starting dose: morphine 2.5mg q4h po Slowly titrate up	Act on opioid receptor & **NMDA receptor** May have additional Benefit on neuropathic pain Starting dose: Methadone 2.5mg bd/tid **NEED VERY SLOW TITRATION due to variable pharmacokinetics**	Selective mu 1 R agonist Cause less S/E esp constipation, confusion converting from morphine to fentanyl can cause withdrawal symptoms **Fentanyl Patch is ONLY used in opioid tolerant patient with analgesic dosage stabilised**
AVOID morphine in ESRF Morphine active metabolites Will accumulate in renal failure	SAFE IN ESRF Not recommended for use by nonspecialist	SAFE In ESRF **iv/ sc fentanyl is used In titration phase**

Fentanyl Patch (Durogesic)



- Overdose of fentanyl leading to death or life-threathening condition in patients using transdermal fentanyl patches for pain control was repeatedly reported by FDA

蘋果日報　2010-12-03
教育家陳麗玲裁定死於不幸

【本報訊】已故教育家陳樹渠的妻子陳麗玲**使用過量芬太尼止痛貼猝死**，死因聆訊審結，陪審團昨裁定她死於不幸。

對於死者使用過量的芬太尼止痛貼致死，死因陪審團昨建議醫生不可處方過量芬太尼，須由需要時使用，改爲至少72小時處方一次。由於本案斷斷續續拖延逾一年才審結，裁判官吳承威頒令陪審團在未來10年獲豁免出任陪審員。

長子決追究責任

陳麗玲長子陳燿璋聞判後表示，他與三名弟妹早前已入稟法院，向醫生兼契女游逸燕、腦神經專科醫生祁理治、香港港安醫院及其經營者基督復臨安息日會(香港)有限公司追究疏忽責任及索償，陳燿璋稱只爲懲戒犯錯的人，所得賠償會全數用作慈善。

陳燿璋又稱，雖然陪審團以3比2裁決亡母死於不幸，未能反映游醫生涉及刑事罪行。但她只是放射診斷專科醫生，並非內科或腦科醫生，卻透過醫院處方大量危險藥物予自己，**加上病人紀錄「唔清唔楚」**，他促請醫務委員會及立法機關跟進，以決定她是否違法。

使用過量芬太尼

死者陳麗玲（69歲）97年在美國治乳癌時跌傷背，多年來須以針灸及止痛貼減輕背痛。至07年10月6日因服用過量安眠藥入住港安醫院，獲契女游逸燕醫生開出一塊可使用3天的止痛貼。陳於同月10日出院時，腦神經專科醫生祁理治替她處方安眠藥，**游另開出6塊含芬太尼的止痛貼**。同月15日次女燭蓮發現陳在渣甸山莅園家中全身發抖及腹瀉。17日中午，菲傭發現陳在床上不省人事，送院後證實死亡。警方在睡房只起回三塊止痛貼。**法醫剖屍發現死者血液內芬太尼含量遠高於可致命水平。**

Dose conversion to fentanyl patch

Oral 24-hour morphine (mg/day)	Fentanyl patch dosage (mcg/hr)
<60	12
60 - 135	25
135 - 224	50
225 - 314	75
315 - 404	100
405 - 494	125
495 - 584	150
585 - 674	175
675 - 764	200

Janssen Pharmaceuticals (2008, February)

Contraindications for using fentanyl patch

- Life threatening hypoventilation could occur, fentanyl patch is **contraindicated** in:
  - Patient who are opioid naive
  - Management of:
    - acute pain
    - post op pain
    - mild pain
    - intermittent pain

Risk Alert published by HA
(issue 4 May 08)

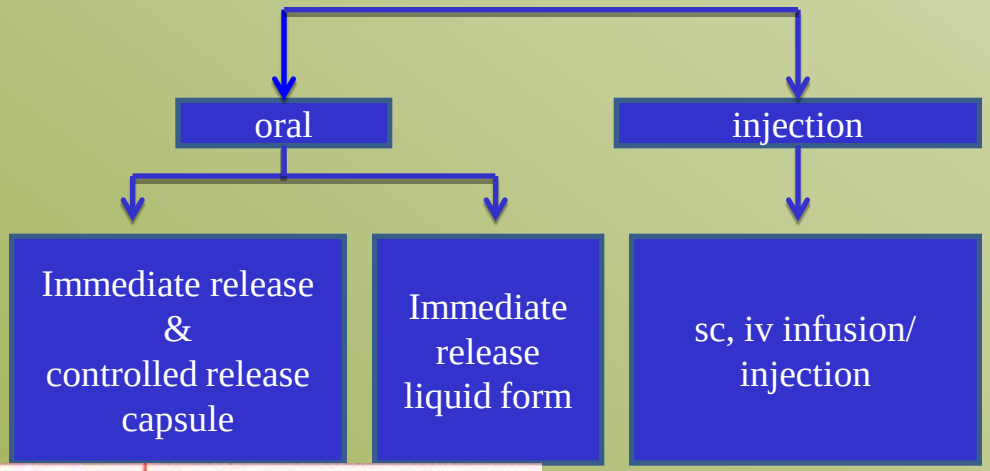
Problems associated with Fentanyl Patches		Recommendations
Mis-prescribed	• Initial dose too high • To patients with pre-existing respiratory compromise or opioid naïve patients • Incorrect indications	• Prescribe the lowest dose needed • Prescribe only as indicated for **opioid tolerant patients with persistent, moderate to severe chronic pain**
Mis-used	• Multiple patches applied • Patch replaced too frequently • Patch used in addition to other opiates	• Document the location as well as the time of application and removal of patches • Be aware of sign of overdose • **Make patient education mandatory**
Improper storage/ disposal	• Unintentional access and accidental application by children	• Store and dispose in a secure manner
Heat exposure	• Increased absorption through the skin due to heat exposure	• Avoid exposing patches to excessive heat, e.g heating pads, electric blankets, hot bath

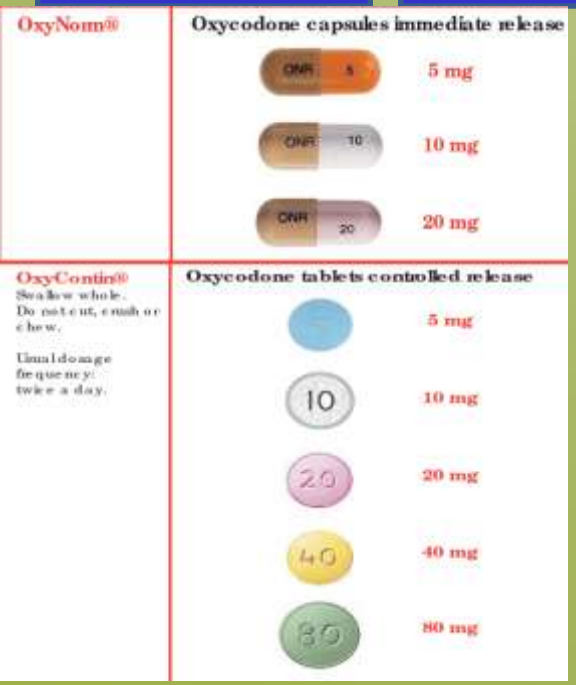
Education and Information to patient/caregiver

- Deliver information sheet on using the fentanyl patch to patient is helpful for patient education

- Deliver a record sheet for patient to record the fentanyl patch administration at home

Oxycodone





- Oxycodone has been used clinically in USA for > 80 yrs
- Available in market of USA, Europe, UK, Australia, etc
- Registered in Hong Kong 2012

Characteristics of oxycodone

Opioid agonist, act on kappa, mu & delta receptor

Analgesic potency twice of morphine
1mg oral oxycodone =2mg oral morphine
2mg oral oxycodone = 1mg iv oxycodone

No ceiling dose

High oral bioavailability
60-80%

Effective in moderate to severe chronic pain

More predictable PK profile

S/E profile ≈ morphine
Some studies shown less N/V, hallucination, pruritis

Metabolised to noroxycodone & oxymorphone by cytochrome P450 (CYP3A4 and CYP2D6) in liver
Both metabolites had insignificant analgesic effect & excreted by kidney

In renal impairment (CrCl< 60ml) or liver impairment, suggest ↓ 1/3 to ½ of usual dose
Drug interaction occurs with co-administration of cytochrome P450 inducer or inhibitor

Use of opioid analgesics in the treatment of cancer pain: evidence-based recommendations from the EAPC

Augusto Caraceni, Geoffrey Hanks*, Stein Kaasa*, Michael I Bennett, Cinzia Brunelli, Nathan Cherny, Ola Dale, Franco De Conno, Marie Fallon, Magdi Hanna, Dagny Faksvåg Haugen, Gitte Juhl, Samuel King, Pål Klepstad, Eivor A Laugsand, Marco Maltoni, Sebastiano Mercadante, Maria Nabal, Alessandra Pigni, Lukas Radbruch, Colette Reid, Per Sjogren, Patrick C Stone, Davide Tassinari, Giovambattista Zeppetella, for the European Palliative Care Research Collaborative (EPCRC), on behalf of the European Association for Palliative Care (EAPC)*

Lancet Oncol 2012; 13: e58–68

Systematic reviews include 9 randomised trials involved 654 patients, compared oral morphine, oxycodone and hydromorphone, there are no significant differences in efficacy and the tolerability profiles was similar.

EAPC Recommendation 2012 :

Weak recommendation that any one of these drugs
can be used as first choice for moderate to severe cancer pain

Tips for Good Cancer Pain Control

Choose analgesic according to pain severity

Choose analgesic according to type of pain

Anticipate, prevent, and treat opioid S/E

Active clarification of myths and concern

Set realistic goals

Attention to details

Reassess and reassess

Tips for Good Cancer Pain Control

Set realistic goals

Optimal dose of analgesic	**The optimal dose is that gives maximal pain relief with minimal S/E**
Optimal pain relief ↓ **(more realistic)**	**Pain free** **Acceptable pain** **Not bothersome pain** **No pain when at rest** **Not waken up by pain during sleep**
Minimal side effects ↓ **(more realistic)**	**No side effects???** **Acceptable side effects** **Controllable side effects**

Important points on use of strong opioid in cancer pain

Take Home message

- Morphine is the first line treatment of moderate to severe cancer pain
- Potency of morphine oral: sc: iv = 1:2:3
- Avoid morphine in renal failure patients
- Methadone had variable pharmacokinetics and reserve for use by specialist
- Fentanyl patch is ONLY used in opioid tolerant, persistent severe pain and in stable phase (use iv/ sc fentanyl during titration phase)
- Education to patient is MANDATORY when use fentanyl patch

Use of Palliative Sedation in EOL care

Definition

Graeff AD, Dean M. Journal of Palliative Medicine, 2007

Palliative Sedation

Use of sedative medications to relieve intolerable and refractory symptoms by a reduction in patient consciousness
The degree of sedation necessary to reduce suffering may vary from superficial to deep

Refractory symptoms

Symptoms for which all possible treatment failed,
or it is estimated that no methods are available for palliation within the time frame and the risk-benefit ratio that the patient can tolerate

Assessing refractory symptoms

Refractory or Difficult?

- Difficult symptoms ≠ Refractory symptoms
- One symptom may have multiple likely underlying causes; Some reversible
- Even if underlying cause is irreversible, palliation is often possible

Team discussion with involvement of specialist
for search for any reversible underlying cause
before initiation of palliative sedation is the MOST IMPORTANT

Common reason of use of palliative sedation

Author	Ojeda Martin	Fainsinger	Porta	Chiu	Fainsinger	Caraceni	Maltoni	Mean
Year	1997	1998	1999	2001	2000	2012	2012	
No of pts	448	76	486	251	387	129	327	
Delirium/ agitation	37%	91%	21%	57%	34%	60%	53%	50%
Dyspnea	74%	9%	23%	23%	33%	58%	31%	36%
Pain	6%	-	23%	10%	81%	2%	19%	24%
Hemorrhage	8%	-	9%		-	4%	4%	6%
Anxiety/ psychological distress	-	-	36%		-	7%	42%	28%

STEP 1 **Discussion with patient & family**	1. Involve patient if mentally capable 2. Explain aim of sedation is to relieve symptom & NOT hasten death 3. Inform communication may be impaired 4. Inform death due to underlying illness may occur during sedation 5. CPR will not be carried out as this is futile especially with sedation 6. Worries should be addressed and final decision should be respected
STEP 2 **Documentation** in patient record	1. Reason of use palliative sedation 2. Life expectancy of the patient 3. Date and time of discussion on palliative sedation 4. Members of family involved in discussion 5. Reason of refusal
STEP 3 **Drug prescription**	**Midazolam:** Starting 15mg Midazolam CSCI over 24 hrs OR 10mg Midazolam iv infusion over 24 hrs if iv access available Extra bolus Midazolam 2.5mg sc OR Midazolam 1mg iv (if iv access available) prn if symptoms poorly control Haloperidol, opioid and other drugs adjusted accordingly
STEP 4 **Reassessment**	Twice daily and PRN Assess sedation status/ symptoms control/ resp rate/ emotion of family and staff Step up or decrease midazolam according to sedation status and symptom control

KWC Palliative medicine guidelines, 2011

Use of Palliative Sedation in EOL

Take Home message

Palliative sedation is one of the important therapy in selected palliative care patients with refractory symptoms

Before starting palliative sedation, discussion with palliative medicine specialist is recommended

Procedural guidelines are helpful to set standards of best practice for palliative sedation

Ends

&

Discussions