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

PHYSICAL
- Physical pain
- Loss of appetite
- Fatigue
- Immobilisation
- Insomnia

SOCIAL
- QOL
- Social activity
- With friends & families

PSYCHO-LOGICAL
- Depression
- Anxiety
- Angry
- Isolation

SPIRITUAL
- Meaning of cancer pain
- Close to death
- Death anxiety
- Relation with God
- Life review - punishment

TOTAL CANCER PAIN
Total Pain Concept

**Somatic therapies**

**PHYSICAL**
- Depression
- Anxiety
- Angry
- Isolation

**PSYCHOLOGICAL**

**TOTAL CANCER PAIN**

**SOCIAL**
- With friends & families

**SPIRITUAL**

**QOL**

**Multidisciplinary approach**

**Multidisciplinary approach**

**Multidisciplinary approach**

**Loss of appetite**
**Fatigue**
**Immobilisation**
**Insomnia**

**Meaning of cancer pain**
- Close to death
- Death anxiety
- Relation with God
- Life review - punishment

**Depression**
**Anxiety**
**Angry**
**Isolation**

**Somatic therapies**

**Multidisciplinary approach**
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

Pain

The occurrence

Frequency
“How often?”

Duration
“How long?”

Severity
“How bad?”

?→ The distress
Revised Concept of Pain

Pain

The occurrence \(\rightarrow\) The distress

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

Pain

The occurrence  

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

- Somatic therapies
- Depression
- Anxiety
- Angry
- Isolation
- Multidisciplinary approach

- Physical pain
- Loss of appetite
- Fatigue
- Immobilization
- Insomnia

- QOL
- Social activity
  - With friends
  - & families

- Psychological pain
- Meaning of cancer pain
  - Close to death
  - Death anxiety
  - Relation with God
  - Life review
  - Punishment

- Spiritual pain

- Multidisciplinary approach

- Total Cancer Pain
Palliative Care Team

Doctor

Nurse

Physiotherapist & Occupational therapist

Home care Nurse

MSW

Pastoral care worker

Clinical Psychologist

Volunteer
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

In USA

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

Key carer
Day time stay with patients
Housewife

Work as clerk
Stay with patient at night

All married with children and live apart

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
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
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

- **PHYSICAL**
  - Severe left hip pain
  - Immobilisation
  - Bedsore
  - Insomnia
  - Difficult bowel opening

- **SOCIAL**
  - Isolated
  - Chairbound
  - Only sitting
  - Day and night
  - In dining room

- **SPIRITUAL**
  - Punishment from God
  - Should be responsible for husband death

- **PSYCHOLOGICAL**
  - Felt worthlessness
  - Felt burden to family
  - Want to suicide (jump from height)
  - ? depression

- **TOTAL CANCER PAIN**

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Total Pain Concept

MSW, Nurse, Clinical Psychologist
Psychological support
Encourage children & Grandchildren visit
Openly acknowledge patient past achievement

Clinical Psychologist & Psychiatrist assessment
Dx: Major depression
Start antidepressant

TOTAL CANCER PAIN

PHYSICAL

Analgesic
Morphine 5mg q4h + laxatives
Foley to BSB
Exclude hyperCa
Refer Orthopedic for fixation
Refer Palliative RT

SOCIAL

Pastoral care worker
Life review
Face death of husband
Acknowledge past care of husband
Reading bible – “forgiveness”

MSW & Home care nurse
Home visit patient
Encourage admission

PSYCHOLOGICAL

Felt worthlessness
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Want to suicide (jump from height)

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Felt worthlessness
Felt burden to family
Want to suicide (jump from height)
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

- Non-pharmacological
  - TENS, relaxation, massage
Right drug for different intensity of pain

WHO Analgesic Ladder (1986)

Morphine, Methadone, Fentanyl

Strong opioids
+/- non-opioids
+/- adjuvants

Mild pain

Moderate pain

Weak opioids
+/- non-opioids
+/- adjuvants

Panadol

Non-opioids +/− adjuvants

Severe pain

Tramadol, Codeine

Panadol

Non-opioids +/− adjuvants
### Effect of all strong opioid

<table>
<thead>
<tr>
<th>Beneficial effect</th>
<th>Adverse effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analgesic</td>
<td>Constipation (occurred almost in all patients, won’t developed tolerance)</td>
</tr>
<tr>
<td>Antitussive</td>
<td>Dizziness (usually will subsided after 1 week)</td>
</tr>
<tr>
<td>Relief of dyspnoea</td>
<td>Nausea, vomiting (occurred in $\frac{1}{2}$ patients put usually will subsided after 1 week)</td>
</tr>
<tr>
<td>Anti-diarrhoea</td>
<td>Hallucination (auditory or visual e.g. insect crawling)</td>
</tr>
<tr>
<td></td>
<td>sedation</td>
</tr>
<tr>
<td></td>
<td>sweating</td>
</tr>
<tr>
<td></td>
<td>pruritis</td>
</tr>
<tr>
<td></td>
<td>Dry mouth</td>
</tr>
<tr>
<td></td>
<td>Myoclonus</td>
</tr>
<tr>
<td></td>
<td>Urinary retention</td>
</tr>
<tr>
<td></td>
<td>Respiratory depression</td>
</tr>
</tbody>
</table>
WHO Ladder 3

Strong opioid preparation available in Hong Kong

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

- Methadone
  - oral
  - injection

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

- Overdose of fentanyl leading to death or life-threatening 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致死，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，死因聆訊團昨建議醫生不可處方過量芬太尼，須由需要時使用，改為至少72小時處方一次。由於本案斷斷續續拖延逾一年才審結，裁決官吳承威頒令陪審團在未來10年獲豁免出任陪審員。

陳耀璋又稱，雖然陪審團以3比2裁決死者死於不幸，未能反映過醫生意外及刑事罪行。

但她只是放棄診斷專科醫生，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構跟進，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，多年來須用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，獲及不時復見醫生開出止痛貼。

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，另再開出6塊含芬太尼的止痛貼。

同月15日次女陳麗驚發現陳在港昐山苣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

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

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)

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

Effective in moderate to severe chronic pain

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

High oral bioavailability 60-80%

No ceiling dose

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
Systematic reviews include 9 randomised trials involved 654 patients, compared oral morphine, oxycodone and hydromorphine, 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

<table>
<thead>
<tr>
<th>Optimal dose of analgesic</th>
<th>The optimal dose is that gives maximal pain relief with minimal S/E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimal pain relief</td>
<td>Pain free&lt;br&gt;Acceptable pain&lt;br&gt;Not bothersome pain&lt;br&gt;No pain when at rest&lt;br&gt;Not waken up by pain during sleep</td>
</tr>
<tr>
<td>(more realistic)</td>
<td></td>
</tr>
<tr>
<td>Minimal side effects</td>
<td>No side effects??&lt;br&gt;Acceptable side effects&lt;br&gt;Controllable side effects</td>
</tr>
<tr>
<td>(more realistic)</td>
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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
<table>
<thead>
<tr>
<th>Author</th>
<th>Ojeda Martin</th>
<th>Fainsinger</th>
<th>Porta</th>
<th>Chiu</th>
<th>Fainsinger</th>
<th>Caraceni</th>
<th>Maltoni</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of pts</td>
<td>448</td>
<td>76</td>
<td>486</td>
<td>251</td>
<td>387</td>
<td>129</td>
<td>327</td>
<td></td>
</tr>
<tr>
<td>Delirium/agitation</td>
<td>37%</td>
<td>91%</td>
<td>21%</td>
<td>57%</td>
<td>34%</td>
<td>60%</td>
<td>53%</td>
<td>50%</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>74%</td>
<td>9%</td>
<td>23%</td>
<td>23%</td>
<td>33%</td>
<td>58%</td>
<td>31%</td>
<td>36%</td>
</tr>
<tr>
<td>Pain</td>
<td>6%</td>
<td>-</td>
<td>23%</td>
<td>10%</td>
<td>81%</td>
<td>2%</td>
<td>19%</td>
<td>24%</td>
</tr>
<tr>
<td>Hemorrhage</td>
<td>8%</td>
<td>-</td>
<td>9%</td>
<td>-</td>
<td>-</td>
<td>4%</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Anxiety/psychological distress</td>
<td>-</td>
<td>-</td>
<td>36%</td>
<td>-</td>
<td>7%</td>
<td>42%</td>
<td>28%</td>
<td></td>
</tr>
</tbody>
</table>
**STEP 1**
Discussion with patient & family
- Involve patient if mentally capable
- Explain aim of sedation is to relieve symptom & NOT hasten death
- Inform communication may be impaired
- Inform death due to underlying illness may occur during sedation
- CPR will not be carried out as this is futile especially with sedation
- Worries should be addressed and final decision should be respected

**STEP 2**
Documentation in patient record
- Reason of use palliative sedation
- Life expectancy of the patient
- Date and time of discussion on palliative sedation
- Members of family involved in discussion
- 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