

MANAGEMENT OF CANCER PAIN

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CURRENT EVIDENCE BASED CONCEPTS:

- Pain is a frequent complication of cancer, and is common in many other life-limiting illnesses

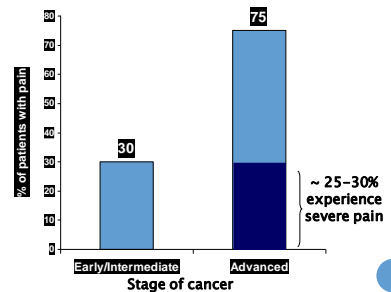
PAIN – AN UNMET CLINICAL NEED IN CANCER: THE EPIC SURVEY

- Cancer pain is often poorly recognised and treated
- Phase 1: EPIC survey evaluated pain in 4947 people with cancer
 - Prevalence of pain was 72.7%
 - 23.1% received no pain medication
- Phase 2: EPIC in depth analysis in 573 people
 - Incidence of breakthrough pain 63.7%
 - 58.7% experience pain frequently

<http://www.epicsurvey.com/>

10/7/2008

PAIN IS THE MOST COMMON TREATABLE SYMPTOM OF CANCER



Pargeon et al. *Pain Symptom Manage* 1999;18:358-368.

CURRENT EVIDENCE BASED CONCEPTS:

- Pain that is not well controlled
 - significant distress and disability
 - despite the availability of best practice approaches to pain management
 - wide variability in how pain is treated in practice

CURRENT EVIDENCE BASED CONCEPTS:

- Increasing complexity of cancer treatment (longer survival of patients)
- Pain before diagnosis
- During treatment
- Chronic pain after cancer treatment
- Advanced cancer/terminal care

CURRENT EVIDENCE BASED CONCEPTS:

- Cancer pain approach
 - Holistic
 - Multimodal
 - Mechanism-based
 - Starts at diagnosis

PRINCIPLES OF PAIN MANAGEMENT – WHO 3 STEP LADDER



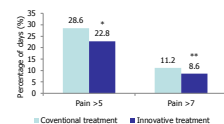
World Health Organisation. Cancer pain relief: with a guide to opioid availability. 1996

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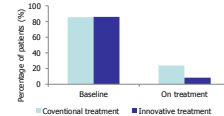
WHAT IS THE APPROACH TO HIS PAIN?

- Take a good history
- Examination
- Appropriate investigations
- What is the cause of his pain
- High index of suspicion that it is cancer
- What are appropriate treatment options
 - Immediate
 - Longterm
- Minimising treatment side effects
- Education on Pain and its management
- Looking at the 'whole person'

A TWO STEP ANALGESIC APPROACH



- Patients receiving Step 3 opioids early had superior pain relief



- Fewer patients receiving Step 3 opioids early were dissatisfied with therapy

*p<0.001; **p<0.023
Conventional treatment: treated according to WHO 3 step ladder
Innovative treatment: direct move to Step 3

Mahori. Support Cancer Care 2005;13:888-94

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SUMMARY

- The prevalence of chronic pain is high
 - Up to 80% of patients report chronic pain following surgery
- Many patients do not receive adequate pain control
- Chronic pain is best managed using a multimodal approach
- The WHO analgesic ladder if implemented can be effective in 80%–90% of patients
- Early escalation to Step 3 of the WHO ladder may provide benefits to patients' analgesia and quality of life

Higginson. Prof Pain Res Manage 1997;8:707-16
<http://www.elsevier.com>
Verelstede. Cancer 1987;59:850-56

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MOST CANCER PATIENTS AROUND THE WORLD STILL DO NOT HAVE ADEQUATE PAIN RELIEF WHY?

BARRIERS TO EFFECTIVE PAIN MANAGEMENT

- Clinician Related
 - Uncertainty about the role of opioid therapy
 - Misconceptions about opioids
 - Lack of formal pain assessment procedures
- Patient Related
 - Ineffectual pain reporting
 - Fear of opioid drugs
 - Poor compliance
- Systems Related
- Lack of opioids / adjuvant drugs
- Lack of MDT approach
- Lack of pain Mx as a priority

EFFECTIVE PAIN MANAGEMENT

- Good pain assessment by clinicians
- Adequate understanding of opioid pharmacology
- Understanding the myths surrounding opioid use
- Understanding the use of adjuvant medications
- Pro-active in talking to patients about known barriers at the time of introducing pain management
- Treating drug side-effects effectively
- Process of follow up and ongoing management

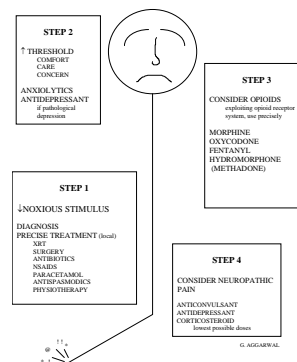
MECHANISTIC APPROACH TO CANCER PAIN MANAGEMENT:

The four step approach *Lickiss 2001*

Based on adequate assessment and diagnosis of the mechanism of pain

1. To identify and reduce the noxious stimulus
2. Psychosocial assessment of the patient
3. Optimise opioids
4. Co-analgesics, including neuropathic pain

APPROACH TO PAIN MANAGEMENT IN PATIENTS WITH CANCER RELATED PAIN 4 STEP APPROACH SHONEN INSTITUTE OF PALLIATIVE MEDICINE



CASE 1: HOW WOULD YOU MANAGE HIS PAIN?

- Opioid titration with Morphine (equiv)
 - Constipation: route of opioids and bowel care
- Regular laxatives
- Paracetamol
- NSAID with gastro protective agent (PPI)
- Bisphosphonates: monthly for 3-6 months
- Radiotherapy if isolated area or
- Psychosocial status?
- Education (analgesics/ opioid fears / side effects)

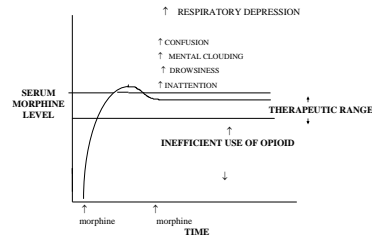
PHARMACOLOGY OF CANCER PAIN

- Never opioids alone!
- Opioids
- Paracetamol
- NSAID'S
- Steroids
- Adjuvants
 - TCA / Anticonvulsants / NMDA antag / anti-tumour therapies
- Novel therapies
- Anti-cancer therapies (chemo, RT, hormonal, targeted)

UNFOUNDED FEARS OF MORPHINE

- Abuse of morphine linked with its therapeutic use
- Addiction (physical dependence / psychological addiction)
- Too early in the course of the disease
 - Morphine can be continued for many months
 - When pain subsides morphine can be weaned down and discontinued
 - Continues to be effective in the terminal stage
- Excessive sedation
- Respiratory depression

OPIOID PRECISION



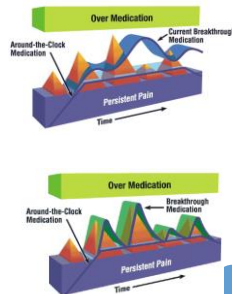
Dr G. AGGARWAL

OPIOIDS ON RESPIRATION

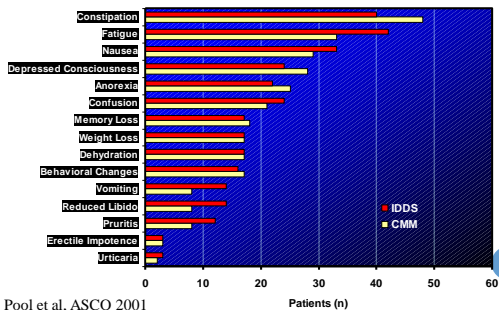
- Mechanism for effect on dyspnoea: not reduction of ventilatory rate, overall ventilation or sedation
- Can depress respiration but an effect of rate of rise of the opioid dose (titration rate)
- Steady state level of opioid
 - Negligible effect on respiratory drive
 - And on sedative effects
 - *Hallenbeck, JPM, 2012*
- Pain: stimulant to respiratory drive

BREAKTHROUGH PAIN

- Important to allow for breakthrough pain
- Limited by type, duration and half life of opioids
- Adjuvants and cancer treatments important



PREVALENCE OF OPIOID SIDE EFFECTS IN 150 PATIENTS WITH SEVERE CANCER PAIN



Pool et al, ASCO 2001

CASE 1: HOW WOULD YOU MANAGE HIS PAIN?

- Opioid titration with Morphine (equiv)
 - Constipation: route of opioids and bowel care
 - Regular laxatives
- Paracetamol
- NSAID with gastro protective agent (PPI)
- Bisphosphonates: monthly for 3-6 months
- Radiotherapy if isolated area or
- Does he have neuropathic pain?
 - TCA or anticonvulsants
- Steroids: 4 mg or 8-16mg if cord compression
- Surgical decompression if cord compression followed by RT (timing)
- Chemotherapy may be considered if widespread disease
- Education (analgesics/ opioid fears / side effects)
- Psychosocial status?

IS ORAL MORPHINE STILL THE FIRST CHOICE OF OPIOID FOR MODERATE TO SEVERE CANCER PAIN: A SYSTEMATIC REVIEW WITH THE EPCRC GUIDELINES PROJECT 2010

- No further information to previous Cochrane review: limitation of efficacy and tolerability data
- Oral morphine, oxycodone and hydromorphone have similar efficacy and toxicity in this patient population

ADJUVANTS

- Paracetamol
 - Mixed evidence base for its efficacy in cancer pain
 - Should be used with opioids especially in the titration phase
- NSAID's
- Antidepressants
 - NNT 2-5 (non cancer studies)
- Anticonvulsants
 - NNT 3 (non cancer studies)
 - Gabapentin / Lyrica
- NMDA receptor antagonists
- Steroids
- Antispasmodic drugs

AUSTRALIAN PAIN SOCIETY EVIDENCE-BASED RECOMMENDATIONS FOR THE PHARMACOLOGIC MANAGEMENT OF NEUROPATHIC PAIN..

- Noradrenergic antidepressants: Nortryptiline, desipramine, amitryptiline, venlafaxine, duloxetine
- Calcium channel alpha 2-delta ligands Gabapentin, pregabalin
- Sodium channel antagonists Topical (and intravenous) lignocaine
- Opioid agonist Morphine, oxycodone, methadone
- Partial opioid agonist Tramadol

ANTI-CANCER TREATMENTS

- Bisphosphonates
 - NNT 11 at 4 weeks, 7 at 12 weeks
- Radiotherapy
- Chemotherapy
- Hormonal
- Targeted therapies
- Radiopharmaceuticals

PAIN INTERVENTIONS

- TENS
- Massage, acupuncture
- Regional blocks and neurolytic blocks
 - Coeliac plexus, intercostal, trigger points
- Spinal analgesia (opioids and anaesthetics)
 - Epidural catheter, Intra-thecal
- Surgical procedures
 - Decompression
 - Vertebro-plasty

PSYCHOLOGICAL ASSESSMENT AND SUPPORT

- ▶ The relationship of pain experience and the whole person
- ▶ The psychological status of a person impacts on their pain perception and pain behaviour
- ▶ Effect on the emotional and psychological well being
- ▶ Effect on relationships, social responses
- ▶ Impact on work, financial security, recreation

THRESHOLD ISSUES

- Assessment of their psychological and psychosocial dimensions
- Assess level of anxiety or depression
- Prior coping mechanisms
- Enquire about support structure
- The impact of: breaking bad news, progression of disease
- Treat pathological anxiety and/or depression
- Ongoing support (psychosocial, spiritual)
- Education: pain, meaning, significance of pain, side effects, myths

CANCER PAIN SUMMARY

- The majority of cancer pain can be effectively treated with available drugs and best practice management strategies
 - which includes regular assessment of pain
- Comprehensive approach begins at diagnosis
- Mechanism-based
- Multimodal management that is patient centred and individualised

CANCER PAIN SUMMARY: CONT'D

- For moderate to severe cancer pain
 - “around the clock” coverage by long-acting strong opioids
 - availability of “as needed” doses of immediate release opioids continues to be recommended as best practice. (Dy SM 2010)
 - pre-emptive doses of immediate release opioids for predictable episodes of breakthrough pain. (Caraceni 2012)
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CANCER PAIN SUMMARY

- Strong evidence supports treating cancer pain with non-steroidals, opioids, radionuclides and radiotherapy (Lorenz KA 2008)
- Bisphosphonates are effective in the treatment of malignant bone pain (Qaseem 2008)
- Oral morphine, oxycodone and hydromorphone all have similar efficacy and toxicity in opioid naïve cancer patients. (Caraceni 2011)
- According to updated recommendations from the European Association of Palliative Care, any of these opioids can be used as first line strong opioids. (Caraceni 2012)



CANCER PAIN SUMMARY: CONT'D

- Recent evidence-based guidelines for neuropathic pain
 - first line adjuvant treatment
 - antidepressants, either tricyclics, or duloxetine or venlafaxine,
 - anticonvulsants, either gabapentin or pregabalin
 - amitriptyline and gabapentin are the two agents recommended for neuropathic pain in recent guidelines from the European Association of Palliative Care
 - Opioids are also effective in neuropathic pain, and may be co-administered as first line treatments, alongside adjuvants
- (Care search)

