

# Pain control in malignant disease

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Pain is a common symptom associated with cancer, even more so during the advanced stages. In intractable pain, the underlying principle of treatment is to encourage independence of the patient and an active life in spite of the symptom. WHO advises use of the 'WHO analgesic ladder':

- first step: simple analgesics – paracetamol, NSAIDs, tricyclic drugs or anticonvulsant drugs;
- second step: intermediate-strength opioids – codeine, tramadol;
- third step: strong opioids – morphine (pethidine has now been withdrawn).

Oral opiate analgesia is necessary when the less powerful analgesic agents no longer control pain on movement or enable the patient to sleep. Opioids may exhibit both dependence and addiction with long-term use. It is important to distinguish between addiction and dependence; the former is a psychosocial phenomenon whereas the latter is a purely physiological response to a given drug. Some patients experience 'breakthrough pain' (acute, excruciating and incapacitating), which occurs either spontaneously or in relation to a specific predictable or unpredictable trigger experienced by patients who have relatively stable and adequately controlled background pain. Opioid rotation or switching may be considered if a patient obtains pain relief with one opioid and has severe adverse effects. Oral morphine, which is often used for chronic pain, can be prescribed in short-acting liquid or tablet form and should be administered regularly every 4 hours until an adequate dose of drug has been titrated to control the pain over 24 hours. Once this is established, the daily dose can be divided into - - - two separate administrations of enteric-coated, slow-release morphine tablets (MST morphine) every 12 hours. Additional short-acting opioids (morphine/fentanyl) can then be used to - cover episodes of 'breakthrough pain'. Nausea treated using antiemetic agents does not usually persist, but constipation is - a frequent and persistent complication requiring regular prevention by laxatives. Infusion of subcutaneous, intravenous, - intrathecal or epidural opiate drugs

The infusion of an opiate is necessary if a patient is unable - to take oral drugs. Subcutaneous infusion of diamorphine - is effective and simple to administer. Epidural infusions of diamorphine with an external pump can be used in mobile - patients. Intrathecal infusions with pumps programmed by external computers are used; however, there is a possibility of the patient developing an infection with catastrophic effects. Intravenous narcotic agents may be reserved for acute crises, such as pathological fractures. - Neurolytic techniques in cancer pain These should only be used if life expectancy is limited and the diagnosis is certain. The useful procedures are:

- subcostal phenol injection for a rib metastasis;
- coeliac plexus neurolytic block with alcohol for the pain caused by pancreatic, gastric or hepatic cancer;
- intrathecal neurolytic injection of hyperbaric phenol;

Figure 23.9 Dual-lead spinal cord stimulator in the epidural space.

spinothalamic ascending pain pathway; this is a highly effective technique in experienced hands, selectively eliminating pain and temperature sensation in a specific limited area. Alternative strategies include: the development of anti-pituitary hormone drugs, such as tamoxifen and cyproterone, has enabled effective pharmacological therapy for the pain of widespread metastases instead of pituitary ablation surgery; palliative radiotherapy can be most beneficial for the relief of pain in metastatic disease; adjuvant drugs such as corticosteroids to reduce cerebral oedema or inflammation around a tumour, which may be useful in symptom control; tricyclic antidepressants, anticonvulsants and flecainide are also used to reduce the pain of nerve injury .

Summary box 23.11 Approximate equianalgesic potencies of opioids for oral administration Chou R, Gordon DB, de Leon-Casasola OA et al . Management of postoperative pain: a clinical practice guideline from the American Pain Society , the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists' Committee on Regional Anesthesia, Executive Committee, and Administrative Council. *J Pain* 2016; 17 (2): 131-57. Dansie EJ, Turk DC. Assessment of patients with chronic pain. *Br J Anaesth* 2013; 111 (1): 19-25. - Frerk C, Mitchell VS, McNarry AF et al . Difficult Airway Society 2015 guidelines for management of unanticipated difficult intubation in adults. *Br J Anaesth* 2015; 115 (6): 827-48. McLeod GA, McCartney CGL, Wildsmith JAW . Wildsmith and Armitage's principles and practice of regional anaesthesia , 4th edn. Oxford: Oxford University Press, 2012. Rawal N (ed.). Management of acute and chronic pain . London: BMJ Books, 1998. Sneyd JR. Recent advances in intravenous anaesthesia. *Br J Anaesth* 2004; 93 (5): 725-36. Thompson J, Moppett I, Wiles M. Smith and Aitkenhead's textbook of anaesthesia , 7th edn. Edinburgh: Elsevier, 2019.

Potency Equivalent dose to 10 mg oral morphine Codeine phosphate 0.1 100 mg Dihydrocodeine 0.1 100 mg Hydromorphone 5 2 mg Morphine 1 10 mg Oxycodone 1.5 6.6 mg Tapentadol 0.4 100 mg Adapted from the British National Formulary.

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