

CLIP

15 minute Worksheet



Helping the patient with pain

4: Choosing an analgesic

Intermediate level

Produced by
St. Oswald's Hospice
Regent Avenue
Gosforth
Newcastle-upon-Tyne
NE3 1EE

Tel: 0191 285 0063
Fax: 0191 284 8004

This version written and
edited by:

Claud Regnard Honorary
consultant in Palliative Care
Medicine at St. Oswald's
Hospice

Phillip Caisley Staff Grade
Doctor, St. Oswald's Hospice

Aim of this worksheet

To understand the principles of choosing an analgesic.

How to use this worksheet

- You can work through this worksheet by yourself, or with a tutor.
- Read the case study below, and then turn to the Work page overleaf.
- Work any way you want. You can start with the exercises on the Work page using your own knowledge. The answers are on the Information page - this is not cheating since you learn as you find the information. Alternatively you may prefer to start by reading the Information page before moving to the exercises on the Work page.
- This CLiP worksheet should take about 15 minutes to complete, but will take longer if you are working with colleagues or in a group. If anything is unclear, discuss it with a colleague.
- If you think any information is wrong or out of date let us know.
- Take this learning into your workplace using the activity on the back page.

Case study

Pat is a 36 year old woman, married with two sons aged 12 and 9. She had problems with her bowels for several months before some rectal bleeding made her see her GP. Investigations revealed a carcinoma of the sigmoid colon with liver metastases. She copes, with some denial, and refuses to tell her sons.

She has colic, a skin pressure pain, a neuropathic pain and a pain due to muscle tension.

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Types of analgesic

Analgesics with a primary action

- Non-opioids** eg. paracetamol, nefopam.
- Weak opioid agonists** eg. codeine, dihydrocodeine, tramadol.
- Strong opioid agonists** eg. morphine, diamorphine, hydromorphone, fentanyl, methadone, oxycodone.
- Opioid partial agonist/antagonists** eg. buprenorphine.
- Nonsteroidal anti-inflammatory drugs (NSAIDs)** eg. ibuprofen.
- NMDA antagonists** eg. ketamine
- Nitrous oxide** (1:1 with oxygen as Entonox).

Analgesics with a secondary action

(known as co-analgesics or adjuvant analgesics)

- Adrenergic pathway modifiers** eg. clonidine.
- Antibiotics** eg. for painful cellulitis.
- Anticonvulsants** eg. carbamazepine, gabapentin, valproate
- Antidepressants** eg. amitriptyline, duloxetine, imipramine, nortriptyline, venlafaxine.
- Antispasmodics** (smooth muscle relaxants) eg. hyoscine butylbromide.
- Antispastics** (skeletal muscle relaxants) eg. baclofen.
- Corticosteroids** eg. dexamethasone.
- Membrane stabilising drugs** eg. lidocaine
- Nonsteroidal anti-inflammatory drugs (NSAIDs)** eg. ibuprofen.

NB. NSAIDs are weak primary analgesics, but their main action is through a secondary anti-inflammatory action, hence they are in both lists

Analgesic staircase

The WHO staircase uses non-opioids, weak opioids and strong opioids as the three steps.

The most obvious limitation is that this approach only works for pain that responds to opioids:

- opioids are not local anaesthetics and they cannot 'numb' all pain.
- many pains respond poorly to opioids (eg. colic, pressure sores, fracture)

There are two consequences:

- 1) The WHO staircase encourages the use of secondary analgesics at every stage.
- 2) It's necessary to think about an analgesic staircase for every person and pain.

Creating an individualised analgesic staircase

Pain can have many causes, and several pains can co-exist, sometimes in the same site. Each patient therefore needs an individualised analgesic staircase.

- For skin pressure pain the staircase is very different and might have these three steps:
 - 1) Pressure relieving aids and position changes
 - 2) Analgesic staircase (paracetamol, weak opioids, strong opioids); topical strong opioid
 - 3) If the pain is severe, ketamine or spinal analgesia.
- In severe pain in cancer, it is usually worth starting with opioids since several pains are often present together and at least one of these is likely to be opioid-sensitive.
- If the remaining pain has a neuropathic element then start up a 'neuropathic pain staircase':
 - gabapentin 100mg 8-hourly. Titrate the dose to pain and adverse effects. For gabapentin some people need (and tolerate) up to 1200mg 8-hourly.
 - consider adding imipramine 10mg at night (with caution if they are elderly or frail). Titrate the dose to pain and adverse effects. Typical dose range is 20-50mg at night, but some people need (and tolerate) doses up to 150mg at night. See also the CliP worksheet on *Persisting Pain*.
- If the above fail, try the next steps of ketamine or spinal analgesia- these will need referral to a pain or palliative care specialist.

Frequent follow up is often needed.

Some principles to remember

- Different analgesics work with different pains
- Some analgesics work through secondary mechanisms
- Different pains may need different approaches (not just analgesics)

Not all analgesics are the same- so we have to make choices. Some analgesics work directly by blocking pain pathways- these are primary analgesics. Others work through an indirect mechanism- these are secondary analgesics.

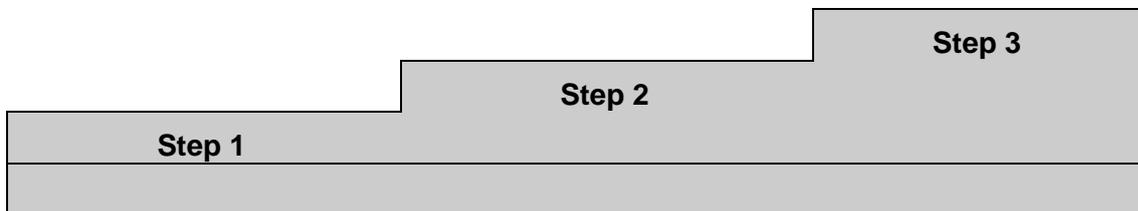
- Think it over**
- Think of some primary analgesics (eg. what you'd use for a headache)
 - Think of analgesics that work by a secondary mechanism (eg. what you'd use for colic).

Analgesics with primary action	Analgesics with a secondary action (also known as co-analgesics or adjuvant analgesics)

The World Health Organisation suggested you should start with simple analgesics, building up to more potent ones in several steps. They called this the **analgesic staircase**.

Write

Write in the steps of the WHO analgesic staircase



Q. Would all pains respond to this approach?

Q. Where do the secondary analgesics fit in this staircase?

Write

Try writing an analgesic ladder for Pat's skin pressure pain.



FURTHER ACTIVITY: Choosing an analgesic

Review the analgesics of a patient with pain.
Identify which are primary analgesics and which have a secondary action

FURTHER READING: Choosing an analgesic

Journal articles and book chapters

Hanks GW, *et al.* Expert Working Group of the Research Network of the European Association for Palliative Care. Morphine and alternative opioids in cancer pain: the EAPC recommendations. *British Journal of Cancer*. 2001; **84**(5): 587-93.

Hawkins C, Hanks GW. The gastroduodenal toxicity of nonsteroidal anti-inflammatory drugs: a review of the literature. *Journal of Pain and Symptom Management*. 2000; **20**(2):140-51.

Hanks GW, Conno F, Cherny N, Hanna M, *et al.* Expert Working Group of the Research Network of the European Association for Palliative Care. Morphine and alternative opioids in cancer pain: the EAPC recommendations. *British Journal of Cancer*. 2001; **84**(5): 587-93.

Knudsen AK. *Et al.* Classification of pain in cancer patients--a systematic literature review. *Palliative Medicine*. 2009; **23**(4): 295-308.

Lussier D, Portenoy RK. Adjuvant analgesics in pain management. In: *Oxford Textbook of Palliative Medicine* 4th ed. Hanks G, Cherny NI, Christakis NA, Fallon M, Kaasa S, Portenoy RK. eds. Oxford : Oxford University Press, 2010, p 706-34.

Twycross R, Wilcock A, Stark Toller C. Pain relief. In, *Symptom Management in Advanced Cancer, 4th ed.* Nottingham: palliativedrugs.com, 2009. pp. 13-59.

Further resources

A Guide to Symptom Relief in Palliative Care, 6th ed. Regnard C, Dean M. Oxford: Radcliffe Medical Press, 2010

e-lfh: e-Learning for Healthcare contains a range of online self-learning programmes, including several relating to end-of-life care (e-elca). Registration is required but is free. <http://www.e-lfh.org.uk/projects/e-elca/index.html>

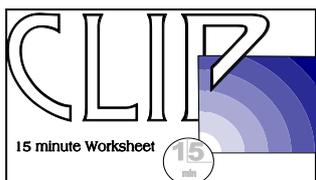
Twycross RG. (1999) *Morphine and the Relief of Cancer Pain: information for patients, families and friends*. Beaconsfield: Beaconsfield Publishers.

Oxford Textbook of Palliative Medicine 4th ed. Hanks G, Cherny NI, Christakis NA, Fallon M, Kaasa S, Portenoy RK. eds. Oxford : Oxford University Press, 2010.

PCF4- Palliative Care Formulary, 4th ed. Twycross RG, Wilcock A. www.palliativebooks.com

Symptom Management in Advanced Cancer, 4th edition. Twycross RG, Wilcock A, Stark-Toller C. Oxford: Radcliffe Press, 2009

Wall and Melzack's Textbook of pain, 5th ed. McMahon SB, Koltzenburg M, eds. Edinburgh : Elsevier Churchill Livingstone, 2005.



Current Learning in Palliative care
An accessible learning programme for health care professionals

15 minute worksheets are available on:

- An introduction to palliative care
- Helping the patient with pain
- Helping the patient with symptoms other than pain
- Moving the ill patient
- Psychological and spiritual needs
- Helping patients with reduced hydration and nutrition
- Procedures in palliative care
- Planning care in advance
- Understanding and helping the person with learning disabilities
- The last hours and days
- Bereavement

Available online on
www.clip.org.uk