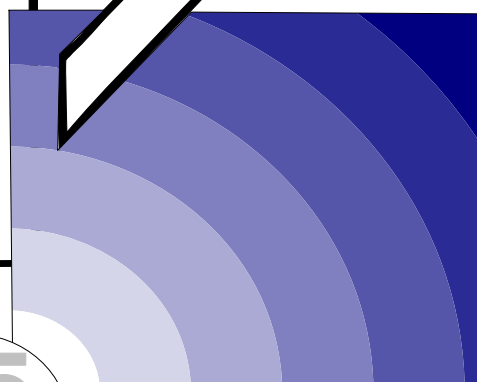


# CLIP

15 minute Worksheet



## Helping the patient with pain

### 8: Changing opioids

Advanced level

Produced by  
**Coleman Education  
 Centre**  
**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**  
 Consultant in Palliative Medicine  
 St. Oswald's Hospice, Newcastle City  
 Hospitals NHS Trust and  
 Northgate&Prudhoe NHS Trust

**Margaret Kindlen,**  
 Palliative Care Nurse advisor

**Sarah Alport**  
 Macmillan Nurse  
 Newcastle upon Tyne

#### Aim of this worksheet

To understand how to convert from one opioid to the other, looking at dose conversions and routes of administration

#### How to use this worksheet

- You can work through this worksheet by yourself, or with a tutor.
- Read the case study below, then work on the questions overleaf.
- The work page is on the right side, the information page is on the left.
- Work any way you want: you can try answering from your own knowledge (in which case fold over the information page), you can use the information page (this is not cheating- you learn as you find the information), or you can use other sources of information
- It should take you about 15 minutes. If anything is unclear, discuss it with a colleague.
- If you think any information is wrong or out of date let us know
- Use the activity on the back page and take this learning into your workplace

#### 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 has been troubled with nausea and vomiting and is finding it hard to keep her tablets down. She has been on oral morphine for several months, but is asking if it can be given any other way.**

v13: 2008



Changing opioids would be easy IF all opioids had the same potency, range of adverse effects and were available by the same routes of administration. **Life is never that simple!**  
 We will now look at changing doses and routes (for issues about different adverse effects, see CLIP worksheet 6 *Alternatives to Morphine*)

**Write**

**From this list of oral opioids, choose the 3 strongest, and the 3 weakest (the list is in alphabetical order, so no clue there!)**

- buprenorphine
- codeine
- dextromoramide
- diamorphine
- dihydrocodeine,
- fentanyl
- hydromorphone
- morphine
- pethidine

3 strongest
-------------

3 weakest
-----------

**Write**

**Next to the left hand list, write the routes of administration available**  
 O = oral, SL = sublingual, I = injection (subcutaneous, intravenous, or intramuscular) D = transdermal

**Write**

**Pat is on 60mg of morphine daily**  
 Check the table opposite and write in the equivalent daily dose of other opioids  
 If the chart says 'nr', write in 'not recommended'

Opioid	Dose per day
codeine (oral)	mg
oxycodone (oral)	mg
diamorphine (subcutaneous)	mg

Opioid	Dose per day
Hydromorphone (oral)	mg

Opioid	Dose in mcg/hour
fentanyl (transdermal)	mcg/hr

**Think**

**Now think about the available routes of administration for these opioids. Which opioids could you use in Pat?**

Ask a

**Finally- if you gave Pat a more potent (stronger) opioid, would her pain be better relieved?**

colleague

## FURTHER ACTIVITY: Changing opioids

- Find a patient on dihydrocodeine. Using the conversion chart on page 2, calculate how much daily oral morphine they would need.
- Find a patient on morphine. Using the conversion chart on page 2, calculate how much daily subcutaneous morphine they would need

## FURTHER READING: Changing opioids

### Journal articles

Ashby M, Fleming, Wood M *et al* Plasma morphine and glucuronide (M3G and M6G) concentrations in hospice patients. *Journal of Pain and Symptom Management* 1997; **14**: 157 - 167.

Clark AJ, Ahmedzai SH, Allan LG, Camacho F, Horbay GL, Richarz U, Simpson K. Efficacy and safety of transdermal fentanyl and sustained-release oral morphine in patients with cancer and chronic non-cancer pain. *Current Medical Research & Opinion*. 2004; **20**(9): 1419-28.

Hanks GW, Conno F, Cherny N, Hanna M, Kalso E, McQuay HJ, Mercadante S, Meynadier J, Poulain P, Ripamonti C, Radbruch L, Casas JR, Sawe J, Twycross RG, Ventafridda V. 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.

Hanks GW, Forbes K. Opioid responsiveness. *Acta Anaesthesiologica Scandinavica*. 1997; **41**: 154-8.

Hawley P, Forbes K, Hanks GW. Opioid rotation: Does it have a role? *Palliative Medicine*. 1998; **12**(1): 60-4.

Kirvela M, Lindgren L, Seppala T, Olkkola KT. The pharmacokinetics of oxycodone in uremic patients undergoing renal transplantation. *Journal of Clinical Anesthesia*. 1996; **8**(1):13-8.

Mazoit JX, Sardouk P, Zetlaoui P *et al*. Pharmacokinetics of unchanged morphine in normal and cirrhotic patients. *Anaesthesia and Analgesia*, 1987; **66**: 293-98.

Nugent M, Davis C, Brooks D, Ahmedzai SH. Long-term observations of patients receiving transdermal fentanyl after a randomized trial. *Journal of Pain and Symptom Management*. 2001; **21**(5): 385-91.

Portenoy RK, Thaler HT, Inturrisi CE *et al* The metabolite morphine-6-glucuronide contributes to the analgesia produced by morphine infusion in patients with pain and normal renal function. *Clinical Pharmacology and Therapeutics* 1992; **51**: 422-431.

Sarhill N, Walsh D, Nelson KA. Hydromorphone: pharmacology and clinical applications in cancer patients. *Supportive Care in Cancer*. 2001; **9**(2): 84-96.

### Resource books and websites

*A Guide to Symptom Relief in Palliative Care*, 5<sup>th</sup> ed. Regnard C, Hockley J. Abingdon: Radcliffe Medical Press, 2004

*Cancer Pain Relief and Palliative Care*. Geneva : WHO, 1990.

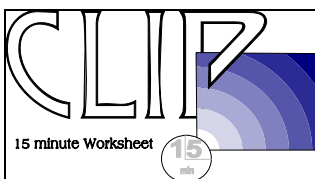
*Oral Morphine, Information for Patients, Families and Friends*. Twycross R., Lack S.A. Beaconsfield Publishers. 1988.

*Oxford Textbook of Palliative Medicine* 3rd ed. Doyle D, Hanks G, Cherny NI, Calman K eds. Oxford : Oxford University Press, 2003.

*PCF3- Palliative Care Formulary*, 3<sup>rd</sup> ed. Twycross RG, Wilcock A. Abingdon: Radcliffe Medical Press, 2003. Also on [www.palliativedrugs.com](http://www.palliativedrugs.com)

*Symptom Management in Advanced Cancer*, 3rd edition. 2001. Twycross RG, Wilcock A. Abingdon: Radcliffe Medical Press.

*Wall and Melzack's textbook of pain*, 5th ed. Stephen B. McMahon and Martin Koltzenburg, eds. Edinburgh : Elsevier Churchill Livingstone, 2006.



**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 needs
- Helping patients with reduced hydration and nutrition
- Procedures in palliative care
- Understanding and helping the person with learning disabilities
- The last hours and days
- Bereavement

Also available online on

[www.helpthehospices.org.uk](http://www.helpthehospices.org.uk) (click on 'e-learning')