Box 4

Calculation of hydromorphone dose

Formulae:

Oral oxycodone dose over 24 hours x 2 = oral morphine dose
Oral morphine dose over 24 hours / 7.5 = oral hydromorphone dose

Step 1: Convert previous 24-hour oxycodone dose to equivalent morphine dose

example:

Oral oxycodone in past 24 hours	Equivalent morphine dose
Routine = 400mg (200mg + 200mg)	800mg
Breakthrough = 120mg (60mg + 60mg)	240mg
Total = 520mg	1040mg

Step 2: Convert morphine dose to equivalent hydromorphone dose

example:

Oral morphine equivalent in past 24 hours	Equivalent hydromorphone dose
Total = 1040mg	139mg (1040 / 7.5)

Step 3: Reduce dose by one-third for safety

example:

One-third of 139mg = 46mg (approx)
139mg – 46mg = 93mg

Hydromorphone dose for 24 hours = 93mg

Administered as:
Hydromorphone (modified release) 48mg (2 x 24mg capsules) twice daily OR
Hydromorphone (normal release) 15mg (approx) every four hours (6 x 2.6mg capsules)
Breakthrough dose (one-sixth) = 15mg (approx) (6 x 2.6mg capsules)