Oxycodone Update

Vicki Newton CNC
Acute Pain Management
HMCN 2015
Is oxycodone morphine?
Is oxycodone synthetic morphine?
Are MSContin and OxyContin interchangeable?
Can you give oxycodone to a patient with a morphine “allergy”
When was oxycodone first synthesised?
Oxycodone is from the opium alkaloid thebaine. Semi synthetic opioid analgesic
Oxycodone is an opioid agonist and binds to mu, kappa and delta opioid receptors
Receptors in the CNS, Dorsal Horn and Periphery (intestine)
Similar in potency and side effects to morphine.
Pharmacokinetics

Onset within 30-45 mins
Peak time of 45-90 mins
Half life: 2-4 hrs

Order 1-20mg 3/24 prn
Dosage based on age
Age related dosing not weight

Formula:
100-pts age = mgs morphine in 1st 24/24 (after loading)
OxyNorm®

OxyNorm: Normal release

Capsules in strengths of 5, 10, and 20mg.
Syrup 5mg/5mls and concentrate 10mg/1ml
Suppositories 30mg 6/8hrly
Parenteral 10mg/ml (20mg/2mL)

Advantages:
less capsules, cheaper, more flexibility
Endone®

Endone: Normal release 5mg tablets

Disadvantages:
Cost, quantity of tablets, no dose flexibility
Oxycodone SR - OxyContin®

Continuous/slow release medication
Biphasic absorption
Initial absorption approx 40% of the active drug in 1/24
Remainder absorption over the next 11 hours
Steady state of OxyContin is achieved in 24hrs.
Need to give immediate release PRN until steady state achieved
Parenteral oxycodone

Converts 1:1 with morphine IV/SC
No active metabolites
Longer action than fentanyl
Binds to kappa receptors
?Less nausea

Not first line - use when unable to have morphine and fentanyl not appropriate
Advantages of oxycodone

Oral opioid not affected by paracetamol or aspirin restrictions.
Converts approx 1:1 with morphine IV
Converts approx 1:1.5 with morphine orally
No active metabolites
Safer in renal insufficiency and elderly
Oxycodone abuse

Oxycodone has become one of the most widely-abused prescription opioids, Tablets able to be crushed and snorted or injected. Tablets are also dealt and sold-on, with the drug trading illegally for up to $50 per tablet
Reformulation

Oxycontin® 10-80mg strengths have been reformulated
Harder to crush for unsanctioned routes of administration such as snorting and injecting, with the intention of reducing diversion.

*5mg strength has not been reformulated.
OxyContin

After multiple strikes with a hammer

After more than 20 hammer strikes and pulling apart with fingers

After adding 2ml of water to ‘crushed’ pill
Oxycontin and naloxone 2:1
Oxycontin - agonist  Naloxone – antagonist
Oral naloxone binds to the receptors in the GUT

Naloxone can reduce constipation - 25%
Rebound diarrhoea may occur initially
If intact liver oral naloxone is unlikely to result in a systemic absorption

Dosages: 5/2.5, 10/5, 15/7.5, 20/10, 40/20mg
Max dose: 40/20mg BD

The empty prolonged-release tablet matrix may be visible in the stool.
Advantages of Targin

Provides equivalent analgesia to that of oxycodone controlled-release (CR) tablets
Opioid induced constipation

*Everyone taking regular opioids should increase their fluid and fibre intake and exercise levels to reduce the risk of opioid-induced constipation.
Disadvantages of Targin

Targin is not recommended for pre-operative use or within the first 12-24 hours post-operatively¹. Contraindicated in moderate or severe hepatic impairment²
*Reduce the dose with mild hepatic impairment
LFT’s before commencing
No evidence regarding potential for problematic or illicit use
Limited usefulness for people who need high doses of opioids
Long-term efficacy data regarding effect on constipation are lacking³
Cost, pathology, ongoing monitoring

¹Mundipharma Pharmaceuticals Limited
²Mundipharma Pty Ltd. Targin product information. 12 May 2010.
Case History

60 y/o male post multiple surgeries
Hemicolectomy - Wound dehiscence, Anastomotic leak
Closure of stoma - Opioid tolerant D/c on 20mg Oxycontin and PRN oxycodone

Commenced on Targin 40/20 by GP with oxycodone for breakthrough
Increasing pain - no surgical cause, used up authority no more analgesia
Sent to ED for assessment
LFTS – GGT 252
Put back on OxyContin!!
# SERUM CHEMISTRY

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Summary

Oxycodone is not morphine
No active metabolites
Drug of choice for elderly
Oxycontin reformulated
Targin to be used cautiously
Caution with morphine in the elderly
Answers

Oxycodone is not codeine
Oxycodone is not morphine
Oxycodone is not synthetic morphine
OxyContin and M.S. Contin are not interchangeable
Oxycodone can be given with a morphine “allergy”
Oxycodone first synthesised in 1916
Questions?