OXYCONTIN - USE AND MISUSE

OHRDP Conference

February 28th 2011

What is Oxycontin?

- Opioid drug (heroin, morphine, codeine, fentanyl, methadone)
- Acts on opiate receptors
- Contains oxycodone
- Same ingredient as in Percocet/Percodan , Oxycocet/Oxycodan, Endocet/Endodan)
- Released in 1996
- Available in 10mg, 20mg, 40mg, 80mg sustained-release tablets

Opioid Equivalency Chart

Source: Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain Appendix B-8, National Opioid Use Guideline Group

	Equivalence to oral morphine 30 mg:	To convert to oral morphine equivalent, multiply by:	To convert from oralmorphine, multiply by:
Morphine	30 mg	1	1
Codeine	200 mg	0.15	6.67
Oxycodone	20 mg	1.5	0.667
Hydromorphone	6 mg	5	0.2
Meperidine	300 mg	0.1	10
Methadone and tramadol	Morphine dose equivalence not reliably established.		

Opioid Equivalency Chart

Source: Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain Appendix B-8, National Opioid Use Guideline Group

Transdermal fentanyl*	60–134 mg morphine = 25mcg/h
	135–179 mg = 37 mcg/h
	180–224 mg = 50 mcg/h
	225–269 mg = 62 mcg/h
	270–314 mg = 75 mcg/h
	315–359 mg = 87 mcg/h
	360–404 mg = 100 mcg/h

Use

- Role in pain management
- Moderate to severe pain
- Cancer pain or other chronic pain
- Slow release tablet formulation
- Long lasting pain relief (8 to 12 hour relief)
- High dose single ingredient product

Side Effects

MINOR

- Constipation
- Dry mouth
- Pinpoint pupils
- Heartburn
- Nausea/Vomiting
- Sleepiness
- Sweating
- Headache

MAJOR

- Chest pain
- Breathing difficulties
- Skin rash

Misuse

- Pure opiate – no acetaminophen/aspirin
- 1.5 to 2 times more potent than morphine
- 10-20 times more potent than codeine
- Heroin like effect
- Easy to bypass slow release mechanism
- High dose (issue in non-tolerant/addiction prone individual)

Issues

- Addiction
- Tolerance
- Withdrawal
- Abuse
- I.V. use – HIV, hepatitis
- Overdose

Why does addiction occur?

- Natural painkillers (endorphins) do not work properly
- Fewer endorphins produced
- Withdrawal occurs in absence of external supply
- Nerve cells degenerate
- Larger amount required to maintain effect

Withdrawal

- May begin as early as 6 hours
- Peaks at 72 hours
- Cramping/Diarrhea/Vomiting
- Anxiety
- Runny nose
- Irritability
- Body aches
- Insomnia

Overdose

- Low tolerance
- Other opiates
- Alcohol
- Sedatives
- Benzodiazepines
- Antihistamines
- Barbiturates

Signs of Overdose

- Slow breathing
- Seizures
- Muscle weakness
- Cold clammy skin
- Loss of Consciousness
- Coma
- Death

Trends in opioid use and dosing among socio-economically disadvantaged patients

- GOMES, T., JUURLINK, D., DHALLA, I., MAILIS-GAGNON, A., PATERSON, J., MAMDANI, M.. Trends in opioid use and dosing among socio-economically disadvantaged patients. Open Medicine, North America, 5, jan. 2011. Available at: http://www.openmedicine.ca/article/view/421/373

- 6 year study from 2003 to 2008
- Opioid use in Ontario Drug Benefit recipients
- 15 to 64 years of age
- Non-cancer

Opioid dispensing rates, by opioid therapy group, 2003–2008

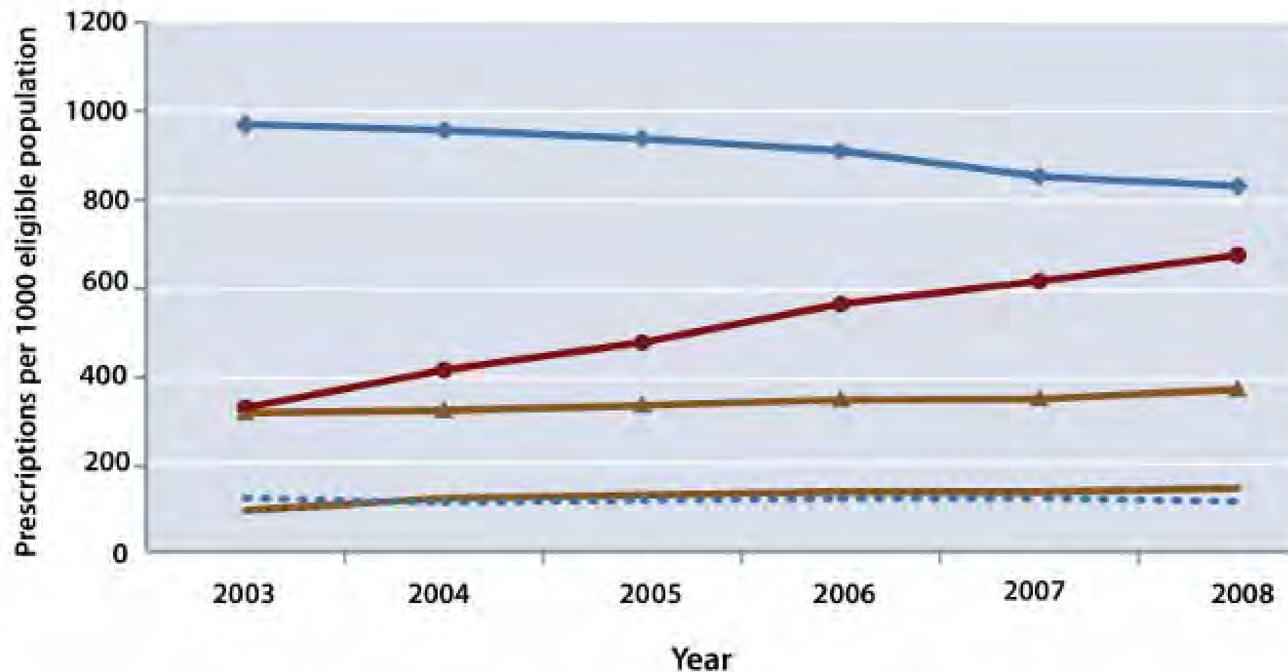

Figure 2: Opioid dispensing rates, by opioid therapy group, 2003–2008

Estimated mean daily dose of opioid medication dispensed (as mg oral morphine or equivalent), by opioid therapy group, 2003–2008

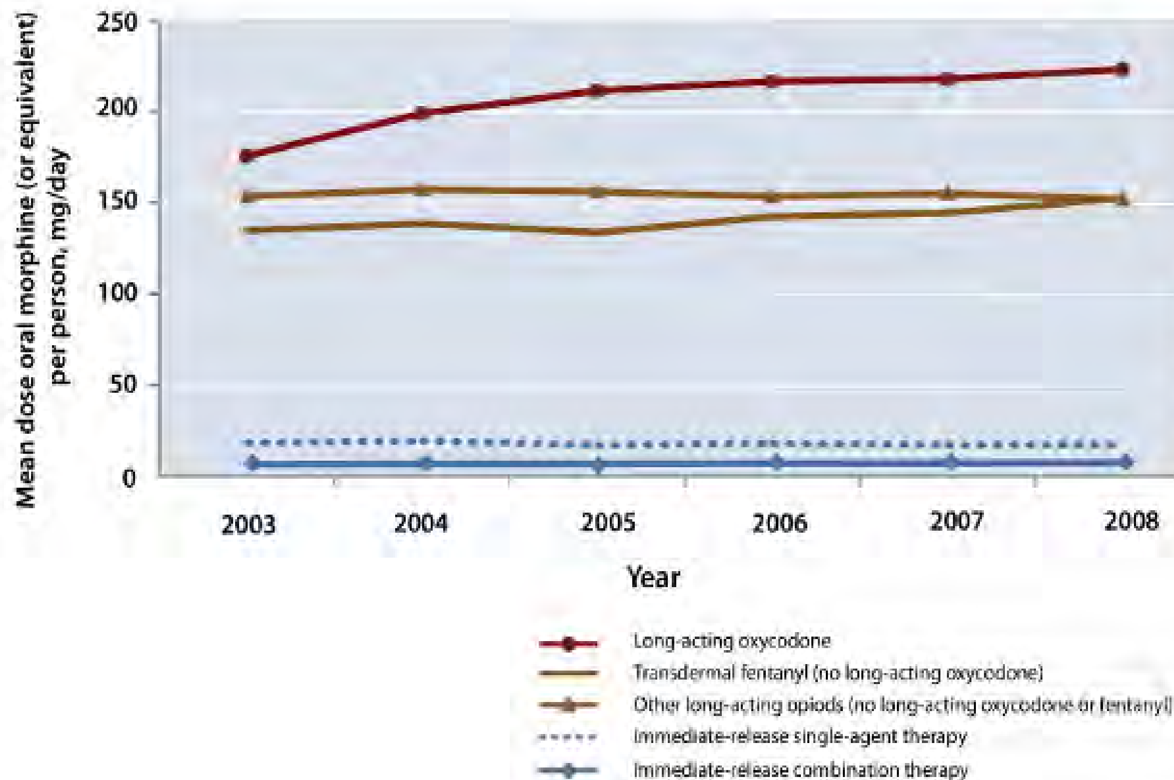

Figure 3: Estimated mean daily dose of opioid medication dispensed (as mg oral morphine or equivalent), by opioid therapy group, 2003–2008

Figure 4: Percentage of participants with a prescription for high or very high doses of oral morphine (or equivalent)

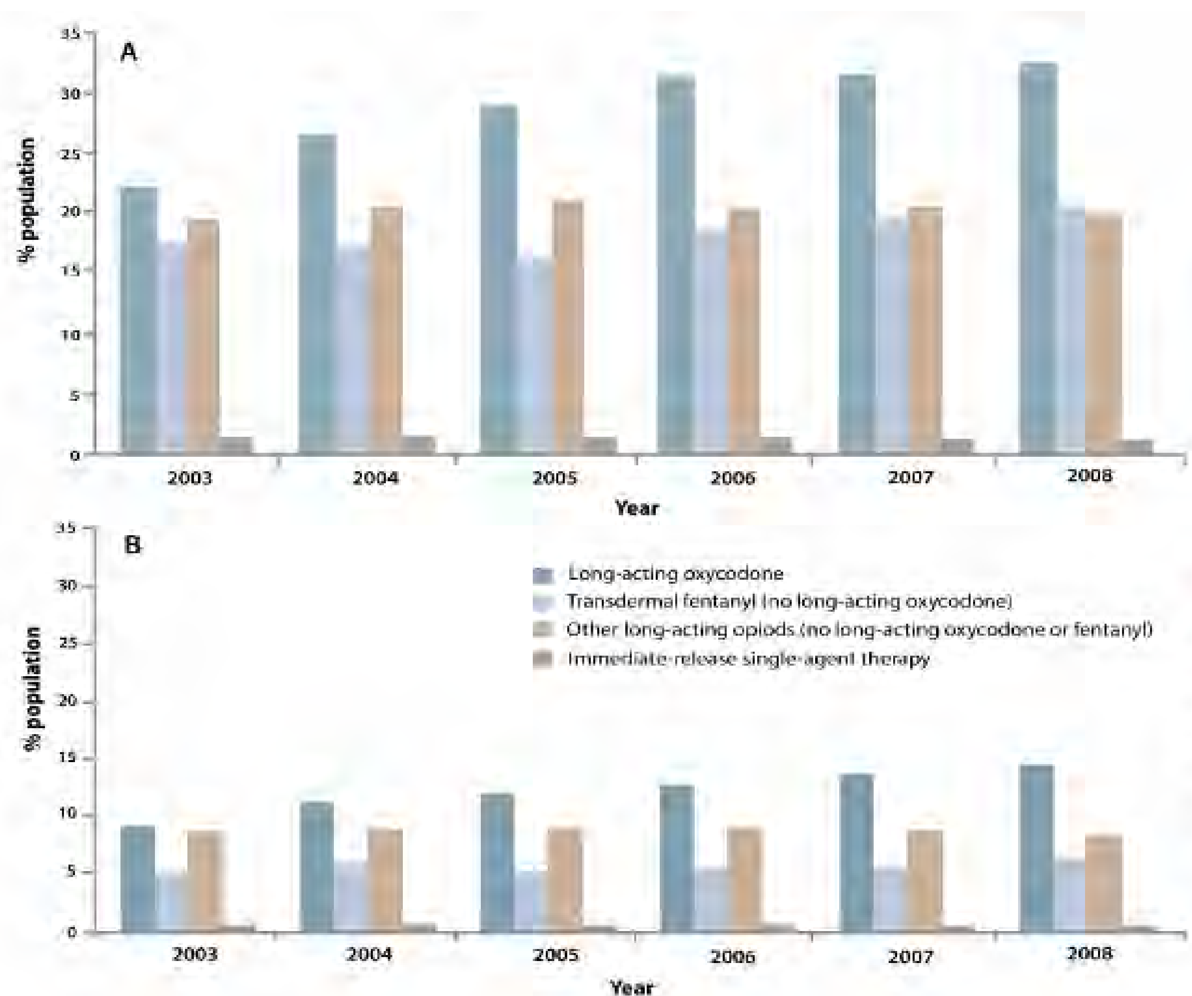

Figure 4: Percentage of participants with a prescription for high or very high doses of oral morphine (or equivalent), by year and opioid group. **A**: High-dose therapy (201–400 mg/day of oral morphine or equivalent). **B**: Very-high-dose therapy (> 400 mg/day of oral morphine or equivalent). Note: Data for immediate-release combination therapy were excluded from this analysis because of the small number of participants in this group.

Findings

- The use and dose of opioids for non-malignant pain has increased substantially
- Primarily due to the rise in use of long-acting oxycodone and, to a lesser extent, fentanyl
- A strong association between opioid-related mortality and the dose of opioid dispensed.

2003 to 2008

- Opiate prescribing increased by 16.2%
- Annual use of long-lasting oxycodone increased by 142.2%
- Average daily dose of long-lasting oxycodone increased by 27.4%
- By 2008 – 1 in 3 patients was receiving an average daily dose of Oxycontin that exceeded clinical guidelines
- Almost 1% of patients with prescriptions for very high doses of opioids (> 400 mg morphine equivalent) died from opioid-related causes over a 2-year period

Research suggestions

- The analgesic potency of oxycodone, which is about 1.5–2 times more potent than morphine and 10–20 times more potent than codeine is not recognized
- Greater awareness of opioid prescribing guidelines
- Better appreciation of the possible hazards of long-acting opioids, particularly long-acting oxycodone.
- Improved opioid education