



What can We Learn from our No Pain Policy?

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Objectives

- Use of Opioid analgesia in Australia.
- Hospitalisation & Deaths from opioid use.
- Opioid abuse in Australia.
- Accidental paediatric opioid exposure.

Case 1

- ▶ 68F on peritoneal dialysis has a 5 weeks history of acute lower back pain that failed to respond to simple analgesia.



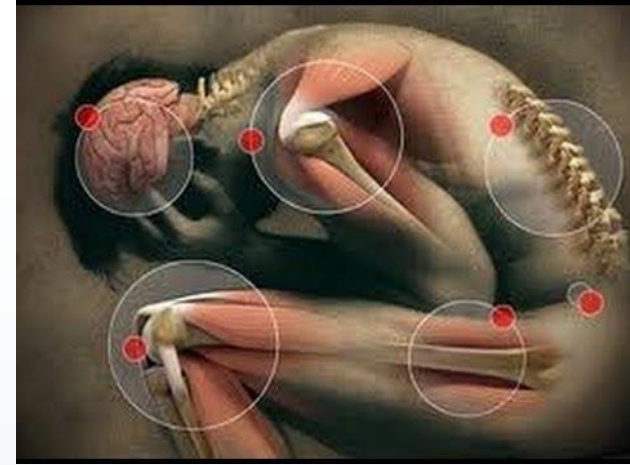
What analgesia would you prescribe for her?

- A. Endone
- B. Ibuprofen plus (ibuprofen 200 mg, codeine 12.8 mg)
- C. Panadeine forte (paracetamol 500 mg, codeine 30 mg)
- D. Targin (oxycodone, naloxone)
- E. Pregabalin

Progress

- Commenced on targin/endone/pregabalin.
- Supratherapeutic ingestion of APAP (4g panadol + 3.99g panadol osteo).
- Presented to ED, decreased GCS
- Responded to naloxone.
- GCS 12 on 200mcg/hr naloxone, RR 12, pupils 3mm

introduction



- Opioids have expanded its use in both acute & chronic pain.
- Between 1992-2012, there was a **15-fold increase** in the number of PBS listed opioid prescriptions (500,000 to 7,500,000) in Australia.
- In 1998, 65% of hospitalisation was due to heroin poisoning, 23% due to 'other opioids'. By 2009, 'other opioids' accounted for 58%.
- Harm from misuse, diversion and abuse to individuals, and cost to the community is significant.

The number opioid preparations available in Oz

Opioids available in Australia for prescription	Number of opioid preparations available in Australia* for analgesia	Number of opioid preparations available in Australia* to treat opiate addiction
Alfentanil	2	0
Buprenorphine	5	5
Codeine	2	0
Dextropropoxyphene	1	0
Fentanyl	43	0
Hydromorphone	5	0
Methadone	2	5
Morphine	87	0
Oxycodone	37	0
Pethidine	4	0
Tapentadol	5	0
Tramadol	48	0
Total	241	10

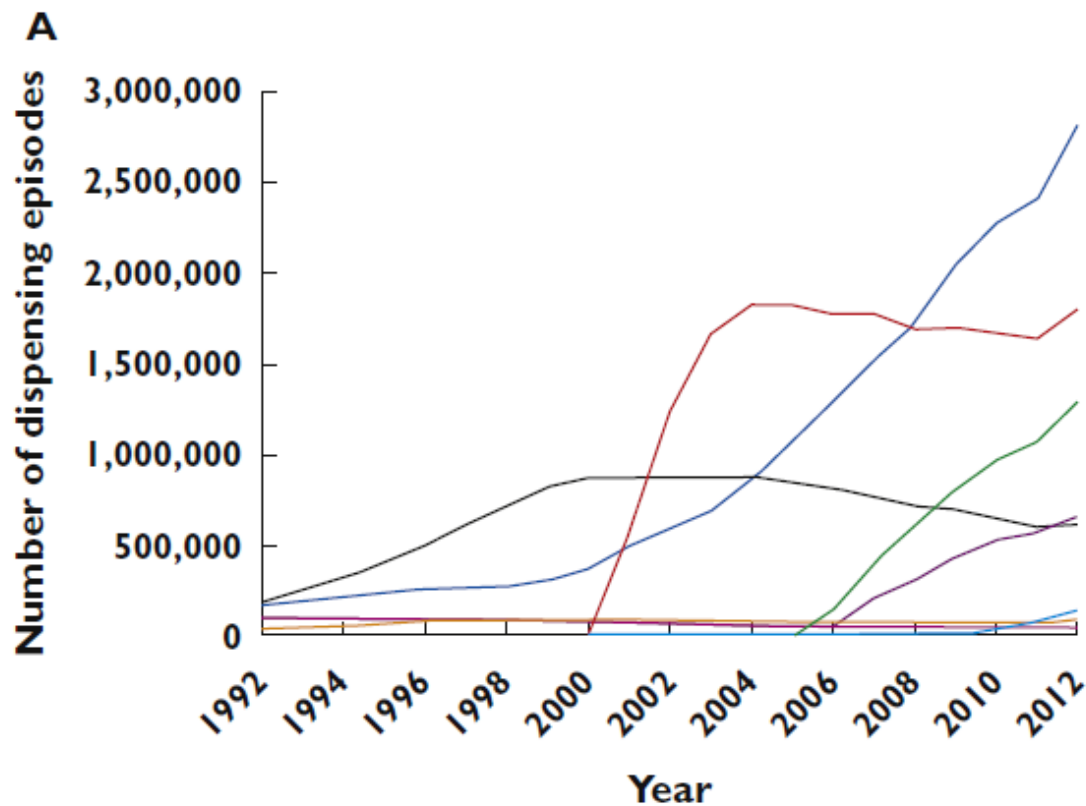
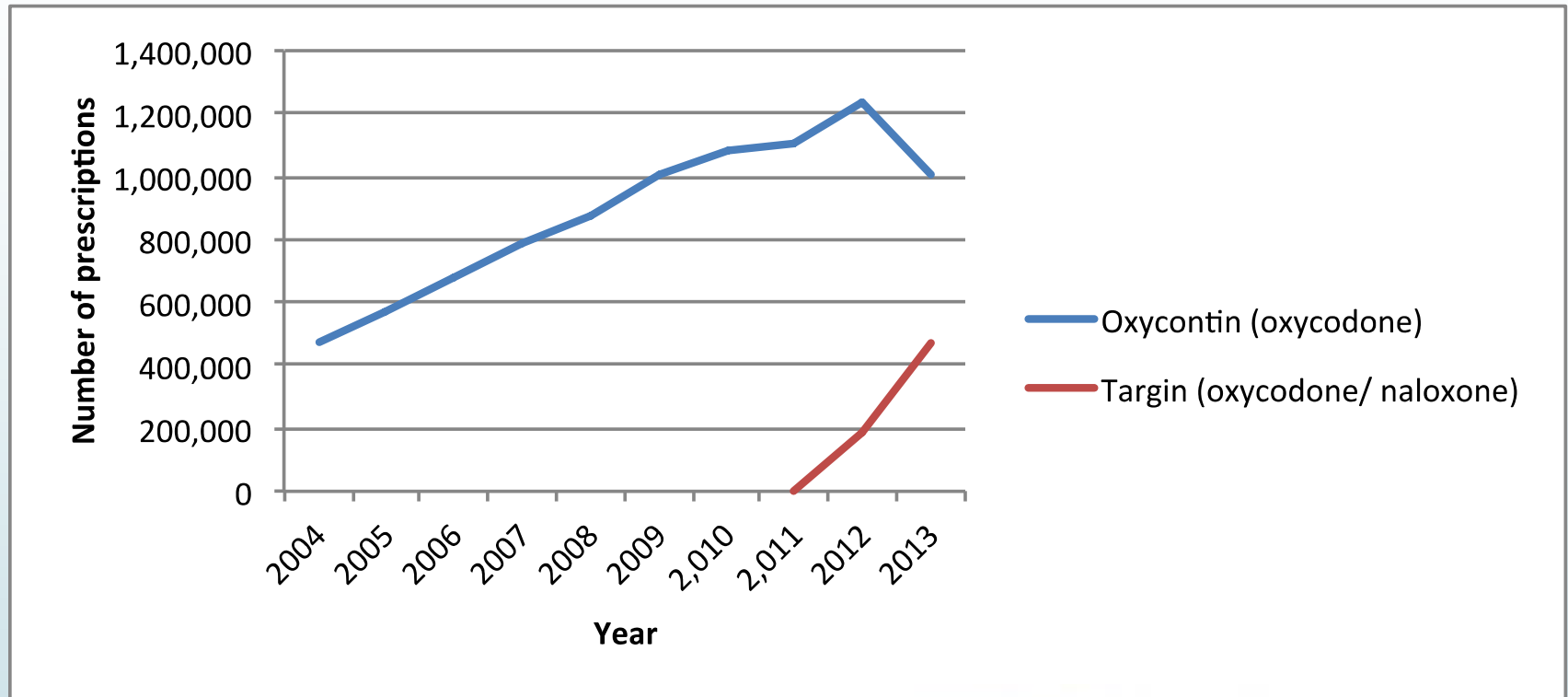
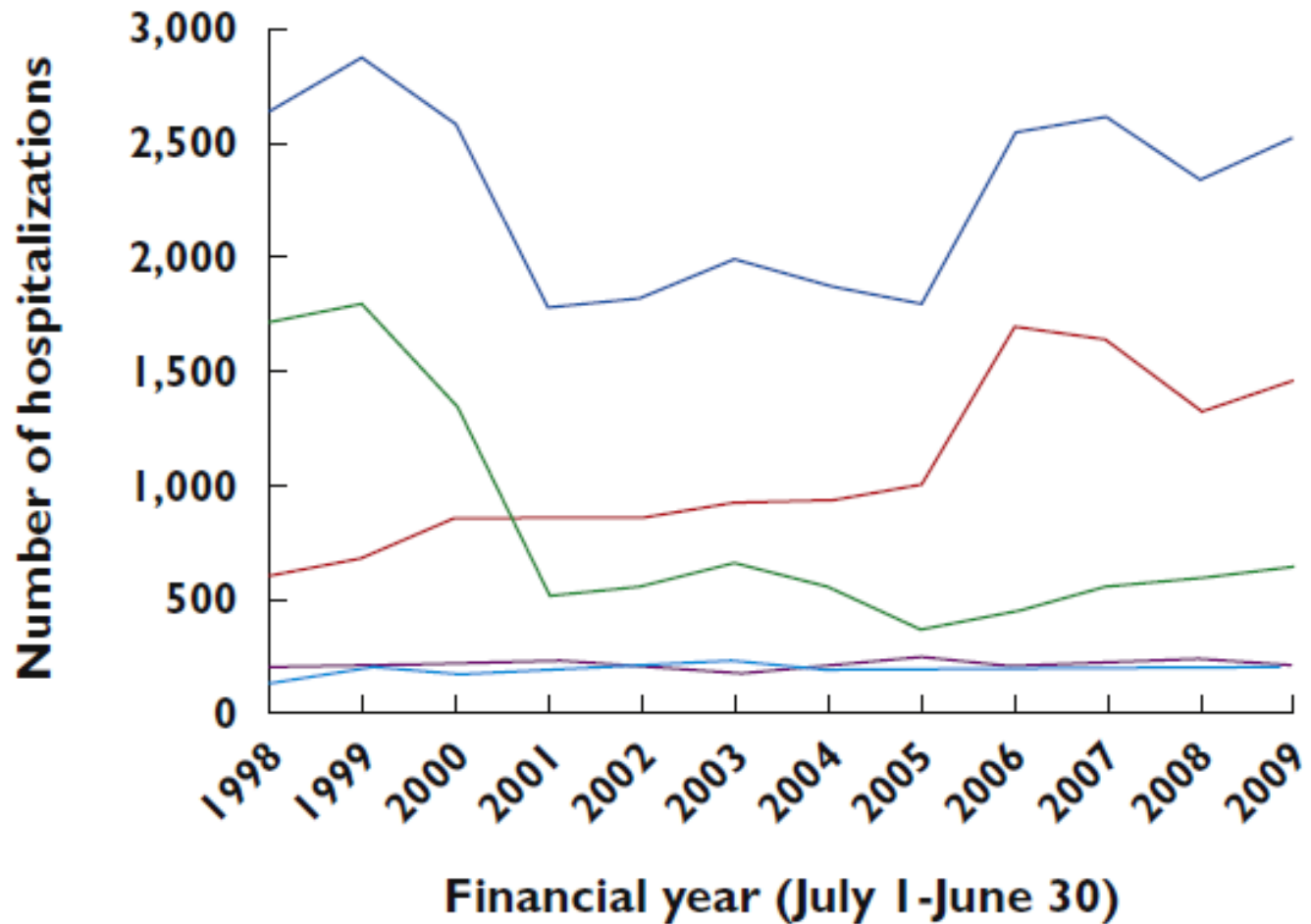


Figure 1

(A) Number of dispensing episodes for opioid analgesics by medicine in Australia: 1992–2012. (B) Benefits paid by the Australian government for opioid analgesics in Australia: 1992–2012. —, oxycodone; —, tramadol; —, buprenorphine; —, fentanyl; —, morphine; —, hydromorphone; —, methadone; —, codeine

Controlled release OXYCODONE prescriptions dispensed on the PBS In Australia from 2004-2013





Number of hospitalizations by opioid poisoning type across Australia: 1998–2009. —, total; —, other opioids; —, heroin; —, methadone; —, other and unspecified narcotics

Table 2: National opioid drug deaths 2007-2011, by intent and opioid drug *

Intent of deceased	Heroin	Methadone	Oxycodone	Tramadol	Morphine (without codeine detected)	Codeine (without morphine detected)	Morphine and codeine detected together	Possible codeine combination product	All opioid drugs
	(N=1,127)	(N=845)	(N=762)	(N=328)	(N=630)	(N=573)	(N=515)	(N=769)	(N=4,102)
Unintentional	87.6%	78.6%	63.9%	62.8%	70.3%	53.8%	70.5%	59.7%	71.2%
Intentional Self-Harm	4.6%	6.4%	23.6%	24.1%	15.1%	31.4%	15.3%	26.5%	15.8%
Other	0.0%	≤1%	≤1%	≤1%	1.1%	≤1%	0.0%	≤1%	≤1%
Natural Causes (no intent) ^	≤1%	3.2%	3.7%	4.0%	4.8%	4.2%	5.4%	4.5%	3.6%
Undetermined / Unlikely to be known	6.8%	11.6%	8.4%	8.5%	8.6%	9.9%	8.3%	8.7%	9.0%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

- The majority of opioid related deaths were unintentional (72%).
- 75% of opioid related deaths occurred in combination with non-opioid drugs in particular benzodiazepines.



Facts about codeine phosphate



- ▶ While low dose (10-20 mg) codeine is ineffective, high dose (25-60 mg) codeine is effective, and can be given in combination with paracetamol or ibuprofen.
- ▶ About **10% Caucasians** are slow metabolisers and so codeine is not metabolised to morphine, hence there is a lack of analgesic effect.
- ▶ Patients who are dependent on codeine are more likely to be older, in employment, female & have chronic pain.
- ▶ Panadeine forte should not be prescribed for more than 4 days to breast feeding patients due to the risk of mother being a fast metaboliser.

Case 2



- 33 y.o. male
- History of opioid dependence and prescription shopping.
- Injected 5 x 10mg fentanyl patches over the past 24hrs by dissolving patch in vinegar.
- Over the past 24hrs has also taken up to
 - Alprazolam 2mg x 30-50
 - Oxycontin 240mg
- Found by girlfriend GCS 3 RR 3-4. CRP commenced
- Given Naloxone 3 x 400mcg IMI by ambo's with improvement in resp effort and level of consciousness.
- Admitted to HDU and discharged on day 4.

Case 3



- ▶ 3 yr old 20kg boy
- ▶ Found by the parents with a decreased LOC
- ▶ On CDA arrival:
 - ▶ GCS = 3-4
 - ▶ RR = 8, HR = 150, O₂sats = 82%- 94%
 - ▶ Pin point pupils = 1 mm
 - ▶ Febrile 39C

On arrival to hospital



- ▶ Parents report one missing tablet of 8mg of Buprenorphine
- ▶ Mx: Given bolus & then infusion of naloxone with little improvement.
- ▶ Patient intubated & transferred to Children Hospital ICU.
- ▶ Remained apnoeic over next few days.
- ▶ Outcome:
 - ▶ Acquired brain injury
 - ▶ Spastic dystonic quadriplegia
 - ▶ Global developmental delay
 - ▶ Seizures





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The under recognized toll of prescription opioid exposure on young children

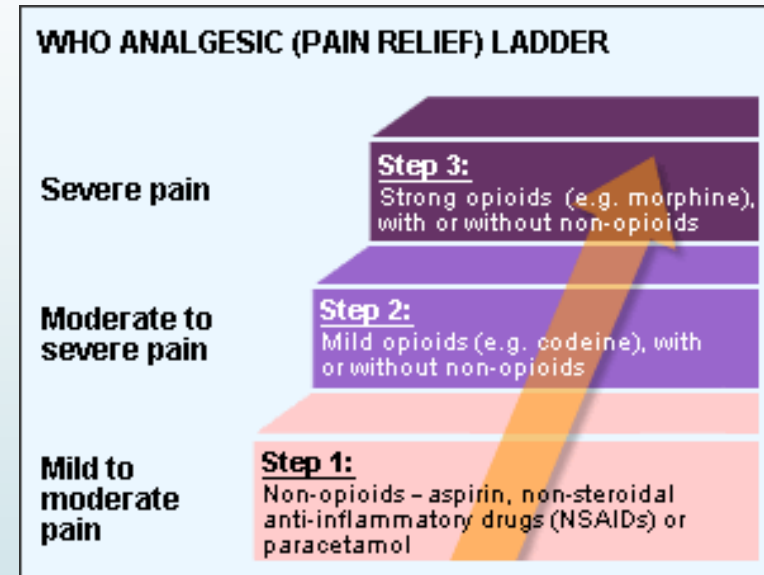
- ▶ Poison Center Data : Researched Abuse, Diversion and Addiction-Related Surveillance (RADARS) System.
- ▶ 9,179 children exposed to a prescription opioid. (2003-2006)
- ▶ The median age was 2.0 years (range newborn to 5.5 years), and 54% were boys.
- ▶ Exposures to any opioid were associated with:
 - ▶ 8 deaths,
 - ▶ 43 major effects (life threatening or resulted in disability)
 - ▶ 214 moderate effects.

Bailey, Campanna, Dart, RADARS system investigators

[Ann Emerg Med. 2009;53:419-424.]

How to reverse the pendulum?

- Medical personnel needs to be trained about the prescription of different opioid drugs.
- Use the analgesic ladder and management guidelines for acute & chronic painful conditions.
- Non-pharmacological treatment should be used in conjunction with analgesia.
- Vigilant about identifying patients with possible overmedications.
- A prescription monitoring system accessible to prescribers and pharmacist.



Conclusion



- There is a need to change the culture of prescribers & consumers in the understanding of the management for acute & chronic pain.
- Educate medical health professionals & patients in the safe & appropriate use of opioids.
- Set up a national prescription monitoring system to assess the use of opioids by patients.

Acknowledgements

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