



St. Vincent's Hospital, Melbourne
Australia



ST VINCENT'S
HEALTH AUSTRALIA

Opioids and Driving

Victorian Opioid Management ECHO
Department of Addiction Medicine
St Vincent's Hospital Melbourne 2019
With thanks to E. Ogden

UNDER THE STEWARDSHIP OF MARY AIKENHEAD MINISTRIES

ROAD TRAFFIC INJURIES: THE FACTS

1.25 million

road traffic deaths occur every year

#1

cause of death among
those aged **15-29** years



3 out of 4

road deaths are
among men





Opioid related impairment

- **Diverse class of medication**
 - Different onset times
 - Varied half-lives
 - Varied receptor affinities
- **Acute effects:**
 - Impaired concentration
 - Sedation
 - Slowing of information processing
 - Tracking impairment and dynamic visual acuity changes



Naïve or Chronic?

Some strong data suggests that risks are highest in the first 1-2 weeks after a prescription

Long term use mitigates most of the side effects of opiates and their effects on driving ability

But what does the data show?

What about OAT?

- **Methadone**

- No difference in traffic violation rate
- No difference in accident rate
- Infrequent in fatal drivers - 0.1%

Stout, P.R. and L.J. Farrell, *Opioids-Effects on human performance and behavior*. Forensic Science Review, 2003. 15(1): p. 29-58.

- **Buprenorphine**

- Less impairment than methadone

Soyka, M., et al., *Less driving impairment on buprenorphine than methadone in drug-dependent patients?* Journal of Neuropsychiatry, 2001. 13(4): p. 527-528.

Impairment reflects the OTHER DRUGS TAKEN not the OAT!

Norwegian Data

MEN	7 days	14 days
Opium alkaloids	2.0	1.9
Benzodiazepine tranquilisers	3.1	2.7
Benzodiazepine hypnotics	4.1	3.2
NSAIDS	1.6	1.3
Selective β -blockers	1.4	1.3
Penicillins	1.4	1.2
Ca receptor antagonists	0.8	0.8
Any prescribed drug	1.4	1.3

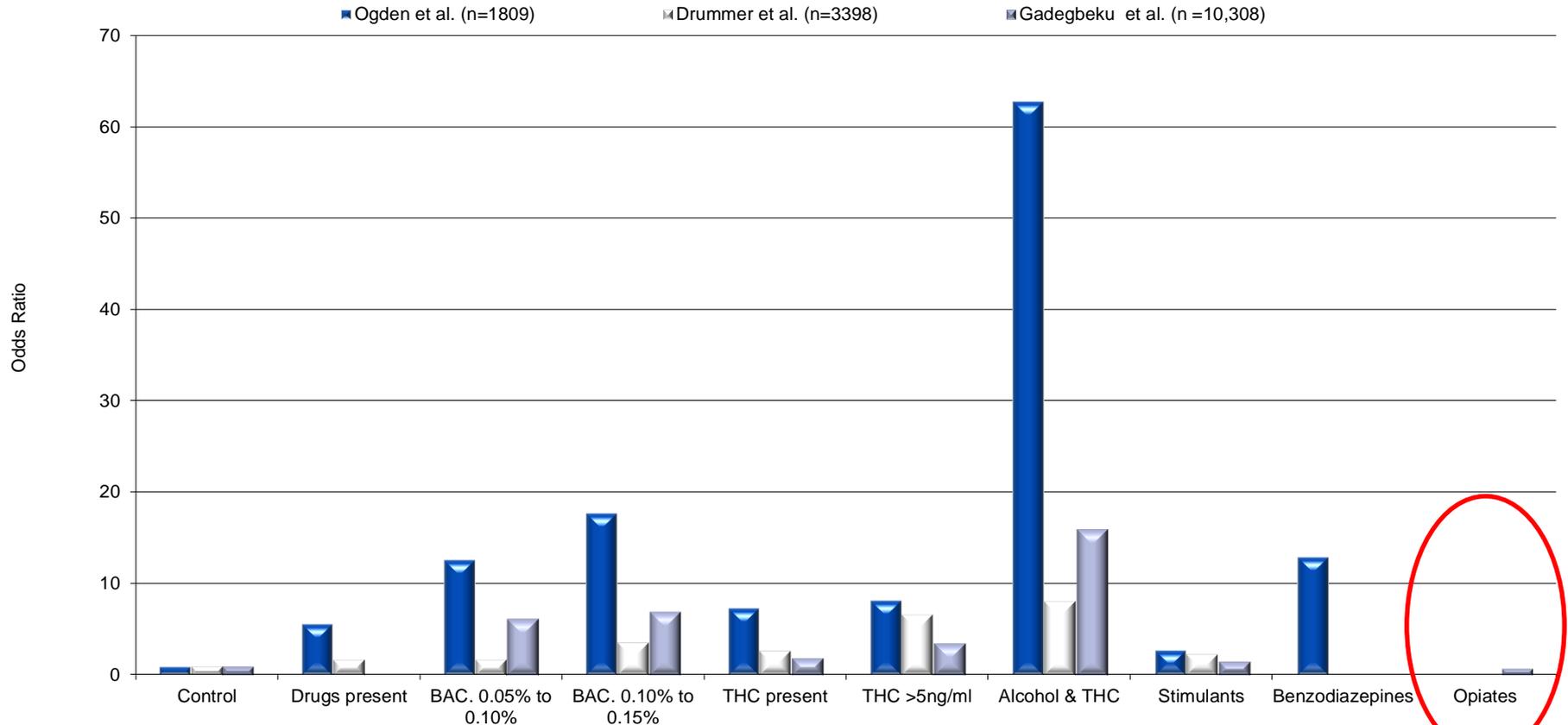
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Benzodiazepine hypnotics	1.7	1.8
NSAIDS	1.5	1.3
Selective β -blockers	1.5	1.3
Penicillins	0.7	1.2
Ca receptor antagonists	1.3	0.8
Any prescribed drug	1.3	1.2

- **3.1 million patients reviewed.**

Effect of Opioids

Category	Odds of responsibility
No drugs	1.0
Alcohol <0.05%	1.02
0.05% to 0.08%	1.11
> 0.08%	12.4
Cannabis (THC)	3.0
Amphetamine type stimulants	4.1
Benzodiazepines	5.2
Opiates/opioids	1.02
Antidepressants	1.8
Antihistamines	0.7

Relative Odds



Drummer, O.H., et al., *The involvement of drugs in drivers of motor vehicles killed in Australian road traffic crashes*. Accident Analysis And Prevention, 2004. **36**(2): p. 239-48.

Ogden, E., et al., *The relationship between accident culpability and presence of drugs in blood from injured Victorian drivers.*, in *19th International Council on Alcohol Drugs and Traffic Safety*. 2010: Oslo.

Gadegbeku, B., E. Amoros, and B. Laumon, *Responsibility study: main illicit psychoactive substances among car drivers involved in fatal road crashes*. Annals Of Advances In Automotive Medicine 2011. **55**: p. 293-300.



Mitigating risk

How do we as practitioners minimise the risk for opioid affected patients?

- Minimise driving around dose changes (up or down)
- Minimise dose of opioid as much as possible
- Single prescriber (SafeScript)
- **Minimise other concomitant medications, especially psychoactive medications or other CNS acting agents**
- Clear documentation of discussions with patients about risk mitigation
- Encourage patients to cease or minimise alcohol use whilst on opioids



Determining safety

How can we determine if a patient is safe to drive?

- **No standardised testing**
- **SDLP testing can help inform about a patient's safety, but not 100%**
 - Standard Deviation of Lane Position
 - Number of lane departures
- **Cognitive testing with active variable testing**

Determining safety

Simulated driving

- Safer
- No agreed standards



On-road assessment

- Inherent risk
- Requires skilled assessor



Australian Guidelines?

Austrroads has the following to say about opiates:

- **Opioids.** There is little direct evidence that opioid analgesics (e.g. hydromorphone, morphine or oxycodone) have direct adverse effects on driving behaviour. Cognitive performance is reduced early in treatment, largely due to their sedative effects, but neuroadaptation is rapidly established. This means that patients on a stable dose of an opioid may not have a higher risk of a crash. This includes patients on **buprenorphine and methadone** for their opioid dependency, providing the dose has been stabilised over some weeks and they are not abusing other impairing drugs. **Driving at night** may be a problem due to the persistent miotic effects of these drugs reducing peripheral vision.
- **Opioid dependency** includes patients taking opioid medication for chronic pain. People on stable doses of opioid analgesics for chronic pain management and people taking buprenorphine or methadone for their opioid dependency may not have a higher risk of a crash than the general population, providing the dose has been stabilised over some weeks and they are not abusing other impairing drugs.
- The risk of impairment due to unsanctioned use of opioids or other sedatives is a consideration. Short-acting opioids, particularly parenteral forms, may cause fluctuation in blood levels of opioids, which would be expected to be incompatible with safe driving. People using these agents should be referred for assessment by an appropriate specialist such as an addiction medicine specialist or addiction psychiatrist.

Summary



Opiates are generally safe with regards to driving provided:

- **Patient has stabilised on the dosage**
- **No other CNS acting agents concurrently**
- **No alcohol use**

Patient safety and fitness to drive does not have a standard testing mechanism.

- **Need to consider harms caused from lack of access to services from not driving**
- **Need to consider potential harms caused from MVAs**

ALWAYS document discussions regarding driving safety with patients.