Opioids and Safety Sensitive Jobs

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Upshot

- The combination of physician promotion, industry marketing and regulatory activities appears to have inadvertently launched the greatest reported iatrogenic and advocagenic epidemic of fatalities in U.S. history.

MMWR. 1/13/12; 61(01):10-13.

National Overdose Deaths
Number of Deaths from Prescription Drugs

Source: National Center for Health Statistics, CDC Wonder
Opioids Context: **Higher** fatalities than MVC fatalities. Ergo -+ Much, much higher risk

- Syrus

  50 BC

*There are some remedies worse than the disease* 2000 2004

Photo: C. Porucznik

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**Driving and work safety**

"In the absence of signs or symptoms of impairment, there is no evidence that patients maintained on stable doses of COT should be restricted from driving."61 62**


Safety Sensitive (Critical) Work

Acute or chronic opioid use for safety sensitive jobs

- E.g., operating motor vehicles, other modes of transportation, forklift driving, overhead crane operation, heavy equipment operation, and tasks involving high levels of cognitive function and judgment.

- 12 epidemiological studies. Norway (3.1M), Ontario (550k), UK (50k), etc.
  - 11/12 studies have elevated risks of motor vehicle crash
    - 29-190% increased risk
  - One with n=28 had OR=2.3, 95% CI 0.87-6.32. (Movig 04)

- Dose-response relationships (Gomes 13; Bachs 09)
  - Strong and weak opioids (e.g., codeine, tramadol)
  - Unsafe actions before crash (Dubois 10)
  - Elevated risk reversed with cessation (Gibson 09)

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- Not Recommended, Evidence (C)

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- 2008
- 2007 3.1M
- 2011
- 2009
- 2012
- 2010
- 2003
- 2004
There is moderate evidence to support the contention that licit use of opioids increases the risk of a motor vehicle crash. Several large and recent studies link opioid use to increased risk of driver fatalities, driver injury, crash risk, and unsafe driver actions. Most identified studies show increased risk. However, many of the findings are drawn from the same large European dataset, and many of them also classify all opioids together. Results for specific opioids are more limited and less convincing.
Dose Escalation (Naliboff 2011)

- RCT
- Tight “Hold the line” vs. loose dose escalation policies
- N = 135
- No differences in function
- 27% misuse, no differences between groups

Opioid Dose Limits in Subacute and Chronic Pain

- Maximum daily dose for subacute or chronic pain patients 50mg Morphine Equivalent Dose (MED) (Dunn 10; Bohnert 11)
- With functional improvements may consider >50mg MED up to 100mg.
- BUT, risks of death much greater and more intensive monitoring recommended. Lower doses should be considered in high risk patients.
- Recommended, Evid (I)

Simulator Studies
**Simulator Studies** (n=20, with negative controls), FMCSA Evidence Report 2014.

Considered “indirect measures of driver performance”
- Impaired cognition
- Psychomotor functions/driving simulators
- Psychomotor vigilance tasks (e.g., attention, vision, auditory perception, reaction time)

Many sample sizes ~20

Examples:
- Amato 2013: Negative re. codeine in healthy volunteers
- Nilsen 2011: Negative re. codeine, but implied chronic pain impaired.
- Gaertner 2006: Oxycodone dose correlated with 3 measures of impaired driving among chronic users.
- Schumacher 2011: Chronic opioid use impairs driving simulator performance.

Most acute use studies positive.

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**FMCSA Evidence Report 2014**

There is moderate evidence that illicit use of opioids negatively impacts indirect measures of driver performance. Studies generally found indicators of impairment, especially for drug-naive individuals. Impairment was most pronounced on psychomotor vigilance tasks related to pertinent driving skills such as attention, vision, auditory perception, and reaction time. Fewer studies included driving simulators or roadside driving tests; however, where these tests were included, findings tended not to be significant. Findings vary across drug and dose.

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**Opioid Painkiller Prescribing**

Making a Difference: State Successes

- **New York** 75%↓
  - **2012 Action:** Not the coupled prescriptions to check for double prescription drug monitoring program before prescribing oxycodone.
  - **2013 Result:** Saw a 75% drop in patients who were seeing multiple prescribers to obtain the same drugs, which would put them at higher risk of overdose.

- **Florida** 50%↓
  - **2010 Action:** Required health care providers to dispense prescription pain medications from the pharmacy.
  - **2012 Result:** Saw more than 50% decrease in overdose deaths from oxycodone.

- **Tennessee** 36%↓
  - **2012 Action:** Required health care providers to check the state’s prescription drug monitoring program before prescribing oxycodone.
  - **2013 Result:** Saw a 36% drop in patients who were seeing multiple prescribers to obtain the same drugs, which would put them at higher risk of overdose.
NIOSH Motor Vehicle Safety Program 2015

Preventing impaired driving
We have considered having a policy that prohibits workers from operating a vehicle under the influence of alcohol, legal and illegal drugs, or prescription and over-the-counter medications that could affect their ability to drive safely.

We have given workers information about the possible effects of prescription and non-prescription medications on their ability to drive safely.

Thank You !!