

WITHDRAWING SUPPORT: A PREHOSPITAL PROTOCOL FOR ALCOHOL WITHDRAWAL

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I think it is important to note that we are taking the opportunity to talk about alcohol withdrawal exactly 12 hours after last call last night, so this may be particularly pertinent to some of us. I know it is for the Eagles.



Level I Agitation Center!

I have made the argument before that in addition to being a level 1 trauma center, we are also a level one agitation center, and a lot of that agitation is related to alcohol.

Alcohol



We really like our alcohol in Colorado

Alcohol Problem



One could easily argue we have an alcohol problem

Alcohol Problem



And when you have an alcohol problem, and here is more evidence we don't drive better with alcohol, this equals an inevitable alcohol withdrawal problem!

Withdrawal



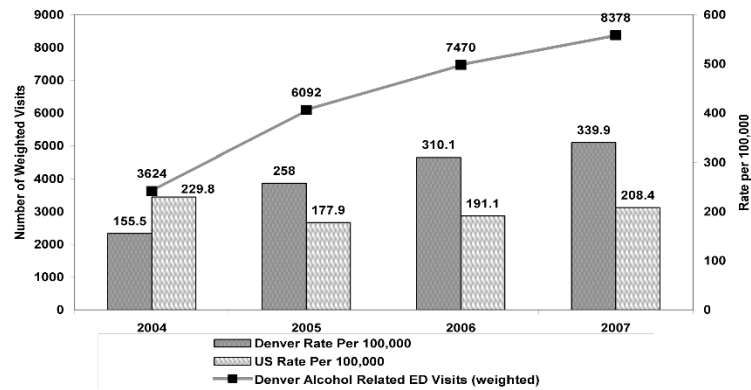
And certainly you are going to feel like this, but alcohol withdrawal can also be some of the sickest patients you are ever going to encounter

Withdrawal



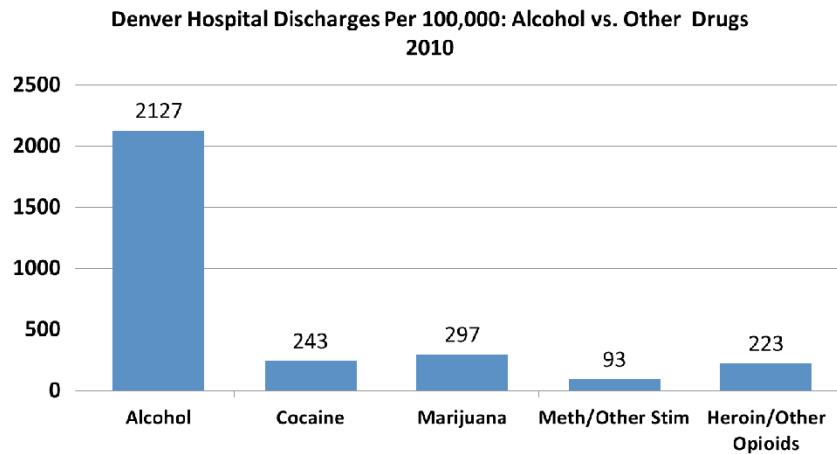
Denver ETOH Visits Compared to US Rates

Exhibit 12: Number and Rate of Weighted Denver Alcohol Emergency
Department Visits Compared to the US Rate:
2004-2007



It isn't just my impression that we have this problem.

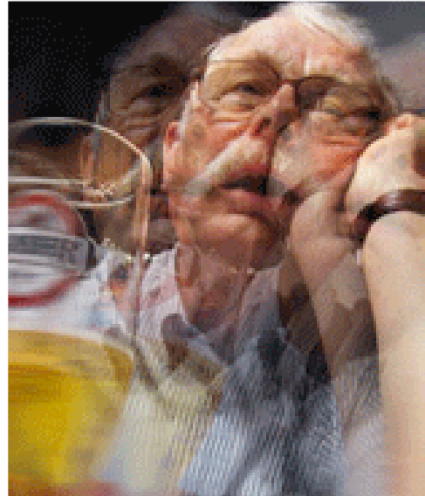
Alcohol related to Hospital Discharges



We worry a lot about various drugs of abuse, but this slide shows we have far more hospital discharges from admissions related to alcohol than all the others combined. So we realize we have a problem and set about writing a protocol for the consistent management of these patients.

The Articles

- Early, quickly-escalating doses of benzodiazepines reduce the need for intubation
 - Gold et al
 - Crit Care Med 2007



We recognized we were doing this a lot and there was a lot of variability as to how we were treating alcohol withdrawal, so we sat down as a hospital system and tried to define best practices when treating alcohol withdrawal anywhere in our system.

The Articles

- Go big or go home
 - Spies et al
 - Intensive Care Med
 - 2003
- Escalate early with benzodiazepines
 - Daepfen et al
 - Arch Intern Med
 - 2002



Don't bother with the small doses.

Why Prehospital?

- Health-system wide protocol
- Emphasis on
 - Early
 - Aggressive
- Up to 30 minutes earlier



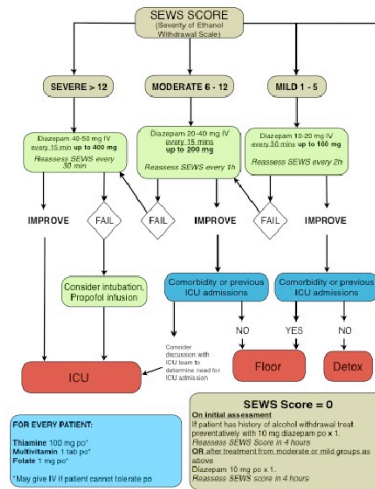
When I heard early and aggressive, I thought prehospital. It also does make a difference of about 30 minutes if they get them in the field versus getting them in the ED and if we accept that we should be aggressive early on these patients, 30 minutes makes a difference.

The Scale

- Severity of Ethanol Withdrawal Scale
 - SEWS
 - Anxious
 - Nauseous
 - Sweating
 - Tremor
 - Agitated
 - Oriented
 - Hallucinations
 - Vital signs

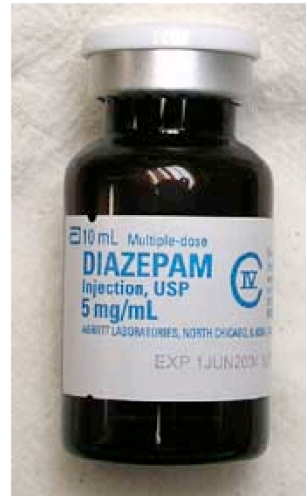


SEWS



The Drug

- Diazepam
 - Valium
 - Pharmacokinetics
 - Lipid soluble
 - Gets into the brain fast
 - Active metabolites
 - Persistent, titrating effect
 - Rectal is available!- Droperidol
 - If any hallucinations



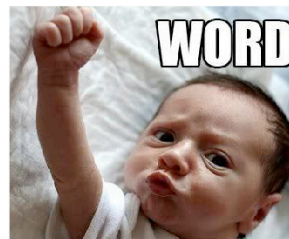
The Protocol

- Severe (>12)
 - 40-50 mg valium IV every 15 minutes
 - Up to 400 mg!
- Moderate (6-12)
 - 20-40 mg valium every 15 minutes
- Mild (1-5)
 - 10-20 mg valium every 30 minutes

We give 10 mg at a time, and have given as much as 40 mg to a single patient (all we have in the ambulance).

Prevention

- Sell alcohol on Sundays
 - 28% reduction
- 24 hours?



Summary

- Not enough data yet to say we have clearly made a difference
 - Fewer intubations
 - Fewer ICU admits
 - Shorter hospital stay
- So far so good
 - No cases needed prehospital or early ED intubation

