Withdrawal Management of Physical Dependence on Alcohol

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Presenter Disclosure

George Kolodner, M.D., FASAM has no relevant financial relationships which would require disclosure.

Withdrawal Management: Two Goals

1. Short term: safety and comfort
2. Long term: transition into ongoing treatment and recovery

Benzodiazepines

- Proven usefulness for 50 years
- Are the current standard of care

Symptom Triggered Librium Taper

- First day: 50 mg hourly until anxiety is relieved (50 to 300 mg)
- First night: 50 mg at bedtime
  - Repeat hourly x 2 until asleep
- Second day: 50 mg x 1 – 2 in A.M.
- Second night: 50 mg at bedtime
  - Repeat in one hour if not asleep
- Third night: 50 mg at bedtime if needed

Why Change?

- Addictive potential
- Motor impairment, ataxia
- Sedation and cognitive changes interfere with psychosocial interventions
- Potential for delirium
- Limited effectiveness for delirium tremens

Alternative Agent: Anticonvulsants

- Act on hyperactive glutamatergic system
- Useful in mild to moderate withdrawal severity
- Useful for extended use to reduce "post-acute withdrawal symptoms"
- Problem: not adequate alone for severe withdrawal (CIWA > 20)

Alcohol: Effect of Chronic Heavy Intake

- Down-regulation of GABA inhibition
- Up-regulation of excitatory glutamatergic activity

New Approach: "Benzodiazepine Sparing"

- Benzodiazepines as deliriogenic
- Using GABA agent in a down-regulated system
  - Need mega-doses ("tolerance")

  - Jose Maldonado, Crit Care Clin 33 (2017) 559–599
    - http://dx.doi.org/10.1016/j.ccc.2017.03.012

Alcohol: Effect of Chronic Heavy Intake

- Down-regulation of GABA inhibition
- Up-regulation of excitatory glutamatergic activity
- **Up-regulation of norepinephine activity ("adrenergic storm")**

Noradrenergic Hyperactivity

- Anxiety
- Agitation
- Tremor
- Tachycardia
- Elevated blood pressure

Treatment Innovation: Add Alpha-2 Agonist to Anti-convulsant

- Guanfacine (Tenex)
  - Oral
- Clonidine
  - Oral, transdermal patch (Catapres)

Choice of Medications

- Gabapentin
  - Not metabolized by liver
  - Some concern about addictive potential
  - Alternatives: carbamazepine, valproate
- Guanfacine
  - Less hypotension and sedation than clonidine

Mild to Moderate Withdrawal

- Day 1
  - Guanfacine 1 mg, gabapentin 300 mg
  - Repeat in one hour if withdrawal discomfort > 2
  - Continue repeat of gabapentin as needed
  - Guanfacine 1 mg at bedtime
  - Librium 50 mg hs prn (variable)
- First 2 weeks
  - Guanfacine 2 to 3 mg daily, reduce by 50% after first week, then discontinue
  - Gabapentin 1200 to 1800 mg daily
- 6 months
  - Reduce and continue gabapentin 600 to 1200 mg

Severe Withdrawal

- Day 1 same except:
  - Guanfacine 4 mg instead of 3 mg
  - Gabapentin 1500 to 2400 mg
  - Add Librium 50 mg prn during day up to 150 mg
    - HS: 50 mg, repeat prn x 2
- Day 2
  - Librium 50 to 100 mg hs
- 6 months
  - Reduce and continue gabapentin 600 to 1200 mg

Delirium Tremens: Dexmedetomidine

- Parenteral alpha-2 agonist
- Brand name: Precedex
- Initially used for delirium, now applied to delirium tremens to reduce benzodiazepine use
  - Not FDA approved for DTs

Using Broad Withdrawal Discomfort Scale to Guide Medication Decisions

- If zero is feeling completely comfortable and ten is the worst withdrawal you have ever had, what number would you put on your withdrawal discomfort right now?
- Goal is zero to one

Thank you