Does Treatment Work?
Carl Christensen MD PhD, FASAM
Clinical Associate Professor, WSU School of Medicine
Medical Director, Dawn Farm
Medical Director, Mich Health Recovery Prof Program

Disclaimers
- Speaker, Orexo
- Methadone provider, WSU
- Medical Director Dawn Farm (12 step)
- Buprenorphine provider
- Naltrexone provider

Qualifications:

Addiction and Recovery News
https://addictionandrecoverynews.wordpress.com/

Treatment: What Are We Looking For?
- Harm Reduction
- Abstinence
- Recovery

To Get This PowerPoint and copies of the Articles….
- Email ccmdphd@mac.com
- I will send you a Dropbox link with the PPT and all articles/abstracts
- May also be able to access Dropbox link through www.dawnfarm.org

Does Treatment Work? March 15, 2016
Harm Reduction

- Heroin addicts in Belgium are given Heroin
- Heroin addicts in Canada are given Dilaudid
- Methadone clinic patients are allowed to use Xanax and Norco
- Aim is to avoid the harmful effects of the drug (heroin) on patient and society
- Outcomes are HIV, HCV, crime, mortality, incarceration.
- Treatment can be med or med + psychosocial treatment.

Abstinence

- = absence of the drug
- Often measured by drug screens, etc
- Can apply to either ALL drugs or just the drug being treated (i.e., opioids)
  - i.e., High rate of cocaine use in methadone clinics
- Treatment can be med or med + psychosocial treatment.

What is Recovery?

A voluntarily maintained lifestyle with:

- Sobriety (abstinence)
- Health (physical, mental and social well-being)
- Citizenship (giving back = spirituality)
- Quality of Life?
  - http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3188817/

How are these Studies done?

- Anecdotal: rare events become common (Thalidomide)
- Observational: compare risk (smoking) and disease (lung cancer)
- Experimental: do a treatment (fluoride) and see the outcome (decreased cavities)
- Randomized: two or more groups, based on statistics
- Controlled: non-treatment group
- Blinded: don’t know which treatment you’re giving

What is the Gold Standard of Research?

- Level I: randomized, controlled experimental trial
- Level IIA: level I without randomization
- Level IIB: population studies: don’t control the research (case-control and cohort)
- Level IIC: no control group
- Level III: opinions of respected experts (Cochrane and other hot air)
Level I

- Pregnant heroin addicts are randomized to either methadone or buprenorphine (Suboxone).
- All patients get both liquid (mtd) and pills (bup), but only one of the drugs is active, the other is placebo.
- The nurses and doctors don’t know which one you’re on!
- The results are “unblinded” after they are over.

Level IIIB

- Look at hospital records of smokers and non-smokers, follow them and see who gets lung cancer (cohort study)
- Look at hospital records of patients with lung cancer and those who don’t (controls) and see how likely they were to smoke (case-control)

Level IIIC

- Patients with chronic pain are put on buprenorphine.
- Their pain scores go down.
- There is no control group.

Addiction: Do We Need to Be Here?

- Most people who have a problem with alcohol or drugs will stop on their own
- The majority of people who stop do so without treatment.
- Even many heroin “addicts” will “quit” and resume normal lives.

Is addiction a myth? http://www.peele.net/
Which patient has cancer?

A 45 year old with an ovarian tumor.

A 45 year old with an ovarian tumor.

Detox vs. Relapse

- The majority of alcoholics and addicts will experience either voluntary or involuntary abstinence (detox).
- However, the overwhelming majority will relapse.
- Causes include prolonged withdrawal, craving, compulsion, impulse control and cognitive impairment.

RELAPSE Prevention: Folklore or Science?

- “One is Too Many, a Thousand Not Enough” (Drug)
- “Don’t Get Hungry, Angry, Lonely or Tired” (HALT) (Stress Triggered)
- “Wet Faces and Wet Places” (Cue Triggered)

Drug Triggered Relapse: the “gas tank” (VTA)

Stress Triggered Relapse: Cortisol (from CRF)

Cue Triggered Relapse: Memory (Amygdala and Hippocampus)
With continued use: withdrawal (Locus Ceruleus)

So We Need To Treat:
- Physical withdrawal (short and long term): Hindbrain (LC)
- Craving and Compulsive Use: Mesolimbic system
- Impulsiveness: Mesolimbic system
- Impaired thinking: PFC

How Do You Treat Addiction?
- Voluntary/Forced Abstinence
- Counseling (CBT)
- Mutual Help Groups (AA/NA)
- Motivational Enhancement
- Medication Assisted Therapy

Where Do You Treat Addiction?
- Outpatient (1x/week)
- Intensive outpatient (3x+/week)
- Residential treatment (> 30 days)
- Therapeutic community (halfway house)
- Doctor's office (buprenorphine, naltrexone)

Treatments for Alcohol Dependence
- Alcoholics Anonymous
- CBT
- MET
- Medications for Alcohol Dependence

Does AA work?
http://addictionmyth.com

- “But in actuality, AA is the opposite: it is a society for people to remain sober temporarily and pretend to address their problems, while keeping open the possibility of relapsing and returning to drink and drugs at any time, which gives them the freedom (or excuse) to do whatever they want”.
- “…Something about it seems creepy and manipulative….. In fact, AA is a haven for liars, criminals and sociopaths…AA is a school for scoundrels.”
Cochrane Database?

- AUTHORS CONCLUSION: No experimental studies unequivocally demonstrated the effectiveness of AA or TSF approaches for reducing alcohol dependence or problems.
  - Ferri, 2006.
  - WHY?

Criteria to establish causation

- Strength of association
- Dose-response relationship
- Consistency of association
- Temporally-correct association
- Specificity of the association
- Coherence with existing information

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AA Effectiveness – Faith Meets Science

Lee Ann Kaskutas, Dr.P.H.
Alcohol Research Group, Emeryville, CA
School of Public Health, UC Berkeley

Presented at the Annual Meeting and Conference of the Federation of State Physician Health Programs (FSPHP)
April 25, 2012
Fort Worth, TX

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Abstinence & AA exposure

Ouimette et al., *J Stud Alcohol* 1998
Thurstin et al., *Int J Addict* 1987
Male VA inpatients
1 yr n = 3018; 18 mo n = 91

Criteria to establish causation

- Strength of association
- Dose-response relationship
- Consistency of association
- Temporally-correct association
- Specificity of the association
- Coherence with existing information

Abstinence & meeting amount

Moos et al., *J Clin Psychol* 2001
Male VA residential patients
n = 2376 (90 days)

Criteria to establish causation

- Strength of association
- Dose-response relationship
- Consistency of association
- Temporally-correct association
- Specificity of the association
- Coherence with existing information

Abstinence & meeting frequency

6 months prior to 2 year mark

LA Target Cities, outpatients
n = 262

Criteria to establish causation

- Strength of association
- Dose-response relationship
- Consistency of association
- Temporally-correct association
- Specificity of the association
- Coherence with existing information
Consistency across samples & time

Medications for alcohol dependence

Alcohol Metabolism and Disulfiram

Naltrexone (Rivea®)

Injectable naltrexone: O’Malley 2007

Injectable naltrexone: O’Malley 2007

Consistency across samples & time

= AA involvement

Alcohol Metabolism and Disulfiram

Ethanol $\rightarrow$ Acetaldehyde $\rightarrow$ CO₂

1: alcohol dehydrogenase:
   - M > W; younger > older; protective
   - metabolizes 1 drink/hour
2: aldehyde dehydrogenase:
   - Detoxifies acetaldehyde
   - Inhibited by Disulfiram (Antabuse)

Naltrexone (Rivea®)

- Blocks the opiate (μ) receptor
- Prevents you from using opiates
- Also blocks your endogenous (own) opiates: endorphins
- Opiate receptors responsible for alcohol craving
- Has been shown to reduce drinking (but only in research studies)

Injectable naltrexone: O’Malley 2007

- High dose 380 mg
- Low dose 190 mg
- Placebo
PLACEBO EFFECT!!!

Acamprosate (Campral®)

- Thought it worked through GABA
- Not known how it works: NMDA/Glutamate
- May decrease "number of drinking days"
- May reduce craving
- Often being used by patients being admitted to detox units.

The COMBINE trial

- Combinations of:
  - CBT
  - Placebo medication
  - Naltrexone
  - Acamprosate

COMBINE Trial: take a pill!!!!

- Patients receiving naltrexone or CBI + placebo had higher percent days abstinent (80.6 and 79.2) compared to the other groups; the combination of naltrexone and CBI was not more effective (77.1) than either intervention alone.
- Acamprosate, alone or combined with naltrexone or CBI, was not more effective than placebo.

The Sinclair Method:

"pharmacologic extinction"

- Taking/injecting naltrexone BEFORE you stop drinking leads to craving → relapse.
- Taking oral naltrexone one hour before drinking leads to extinction of reward (pleasure)
- Other activities are not affected
- Claims better response than with abstinence based tx.
- Ms. Glaser used it in her article for her risky drinking behavior
Baclofen

- Used for muscle spasticity in spinal cord injuries
- Acts similar to alcohol and benzodiazepines, but binds to its own site in the brain.
- Withdrawal cannot be treated; withdrawal seizures may occur.
- Has been used at high doses for alcohol dependence.
- Reports of decrease in daily drinking with high dose.

Treatment of Opioid Dependence

How Do You Treat Addiction?

Medication Assisted Therapy: opiates

- Agonists
  - Methadone
  - Buprenorphine +/- Naloxone
- Antagonists (NOT FOR PREGNANCY)
  - Naltrexone
  - Rivea (tablets)
  - Vivitrol (injections)

Benefits of Methadone Maintenance Therapy (MMT)


- Reduction in death rates
- Reduction in IVDU
- Reduction in # of crime days
- Reduced HIV seroconversion / HCV conversion
- Reduction to relapse to IVDU
- Improvement in health, employment & functional level  

CAREFUL!

Il 1988: reduction in IVDU
Ball 1988: reduction in IVDU

Ball 1988: resumption of IVDU!

Quality of Life with Methadone Maintenance Therapy (MMT): ???

- High mortality (>20%) and continued drug use in parents who attended MMT. J Addict Dis 2011 Jan; 30(1) 17-26
- Patients in Taiwan had improvement in QOL with MMT
  - Chou et al. BMC Psychiatry 2013, 13:190
- MMT patients get “better faster” than buprenorphine patients, Am J Drug Alcohol 2009: 104, 73-77
- MMT patients regain cognitive function
  - PLOS ONE 2014: 9(40) e94589

Methadone PILLS: for pain only
2% of prescriptions
30% of deaths

Buprenorphine

- A partial opiate agonist
- Less effective for withdrawal
- Less analgesic effect
- Less respiratory depression
- 4000+ PER YEAR WITH METHADONE
- Few OD deaths with buprenorphine
- Relative Risk of death: >4
  - Drug Alcohol Dep 2009: 104, 73-77
Agonist, partial agonist, antagonist…

Buprenorphine long-term follow up: Fiellin, 2008

- Of those who remained in treatment:
  - 91% were negative for opioids
  - 96% were negative for cocaine!
  - Satisfaction score: “86%”

Buprenorphine long-term follow up: Fiellin, 2008

Methadone vs. Bupx: Cochrane database

- “Buprenorphine is an effective treatment for heroin use in a maintenance therapy approach compared with placebo. However, methadone maintenance treatment at high dose is associated with higher rates of retention in treatment and better suppression of heroin than buprenorphine maintenance treatment.”
  - Methadone, however, has been found to be associated with more frequent overdose and death (4.8 vs 0.9/1000 patient-years) (Bell, 2009)

What about pregnancy?

Treatment Improvement Protocol (TIP)#40: SAMHSA

- Methadone is currently the standard of care in the United States for the treatment of heroin addiction in pregnant women.
- If such specialized services are refused by a patient or are unavailable in the community, maintenance treatment with the buprenorphine monotherapy formulation may be considered as an alternative.
Does Treatment Work? March 15, 2016

MOTHER STUDY

The New England Journal of Medicine

Original Article

Neonatal Abstinence Syndrome after Methadone or Buprenorphine Exposure

Hendrata E. Jones, Ph.D., Karol Kaltenbach, Ph.D., Sarah H. Heil, Ph.D., Susan M. Stone, M.D., Ph.D., Mara G. Copley, M.D., Arnnita M. Anira, Ph.D., O’Grady, Ph.D., Peter Selby, M.B., B.S., Peter R. Martin, M.D., and Gabriela Fischer, M.D.

Methadone vs. Buprenorphine: the MOTHER study

<table>
<thead>
<tr>
<th>Measure</th>
<th>Methadone</th>
<th>Buprenorphine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of MS required</td>
<td>10.4</td>
<td>1.1</td>
</tr>
<tr>
<td># of days in hospital</td>
<td>17.5</td>
<td>10</td>
</tr>
<tr>
<td>Duration of treatment for NAS</td>
<td>9.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Birthweight</td>
<td>2878</td>
<td>3093</td>
</tr>
<tr>
<td>% preterm delivery</td>
<td>19</td>
<td>7*</td>
</tr>
<tr>
<td>Positive drug screen at delivery</td>
<td>15%</td>
<td>9%*</td>
</tr>
<tr>
<td>Dropped out (why?)</td>
<td>18%</td>
<td>33</td>
</tr>
</tbody>
</table>

MS = morphine; NAS = neonatal abstinence syndrome

Vivitrol® (naltrexone) for opioid dependence

Krupitsky et al, Lancet 2011; 377: 1506-13
Comer et al, Arch Gen Psychiatry 2006; 63: 210-218

Vivitrol: abstinence

Vivitrol: craving

Vivitrol: treatment retention
Doc, when can I get off this sh*t (medication)?

Detoxing During Pregnancy?
Luty 2003

- 101 women underwent detox during pregnancy
- 40 successfully detoxed.
- No adverse fetal effects documented

Luty et al, J Sub Abuse Treat 24 (2003); 363 - 367

Treatment, not Detox

- The obstetrical and neonatal impact of maternal opioid detoxification in pregnancy


Inpatient Methadone Detox During Pregnancy (UT Dallas)

- 53/95 (56%) women were successful.
- Slow methadone taper was used.
- Average duration inpatient stay was 25 days for successful patients.
- Only 10% required tx for NAS; vs 80% of patients with positive UDS at del.
- By comparison: Success rates of MTD in pregnancy: 60 to 80%; over 50% have withdrawal at birth!

Detox from heroin using buprenorphine: Kakko

- 40 heroin addicts in Sweden were recruited.
- All were given buprenorphine and offered counseling.
- 20 were allowed to taper off.
- 20 remained on buprenorphine and continued counseling.
- A year later ....
Can you taper off buprenorphine without relapse?

**Phase 1**

- 654 pts
- 2 weeks BUP
- Taper 3 to 4 weeks
- 6 to 12 weeks

**Outcome Phase 1**

- Only 43 of 653 patients remained abstinent (6.6%)
- All others relapsed!!
- On to Phase 2!

**Phase 2**

- 360 pts
- 12 weeks BUP
- Taper 1 to 2 weeks
- 6 to 12 weeks
Outcomes Phase 2

- 49% stayed abstinent when they went back on buprenorphine!
- But when they were taken off buprenorphine again, only 8.6% remained abstinent!

Conclusions

- Buprenorphine was effective (~50%) at treating prescription pill addiction.
- Chronic pain was not a barrier to success.
- Less than 10% were able to remain abstinent during 2 attempts to taper off buprenorphine.
- Standard Medical Management (SMM) was as good as SMM plus Opioid Dependence Counseling.

Conclusions

- “MAT” is effective at decreasing opioid use.
- Stopping MAT will usually result in relapse & increased chance of death.
- Why would you expect otherwise?
- Buprenorphine and MMT have similar efficacy. Buprenorphine has a superior safety profile.
- Vivitrol® (injectable naltrexone) is effective at reducing opioid use.

No Mo MAT???

Friedmann and Schwartz Addiction Science & Clinical Practice 2012, 7:10
http://www.ascpjournal.org/content/7/1/10

COMMENTARY

Just call it “treatment”

Peter D Friedmann1* and Robert P Schwartz2

Do Mutual Aid Groups Work for Mental Illness/Addiction?

International J Psychosocial Rehabilitation 2, 64-68

A Review of Research on the Effectiveness of Self-Help Mutual Aid Groups

Elaina M. Kyroni, Ph.D. and Keith Humphreys, Ph.D.
Veterans Affairs Health Care System and Stanford University School of Medicine
Palo Alto, California

Citation

**Methadone treated vs. medication-free at 10 years: Peles J Addict Dis August 2015**

### Methadone vs. medication-free opiate recovery

A retrospective study compared 10 years of recovery outcomes among patients who used methadone versus those who went without medication. Methadone users were more likely to report chronic pain, psychiatric conditions, and poor sleep.

<table>
<thead>
<tr>
<th>Medication-free recovery</th>
<th>Methadone recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage receiving post-op recovery</td>
<td>Percentage receiving post-op recovery</td>
</tr>
<tr>
<td>25%</td>
<td>39%</td>
</tr>
<tr>
<td>50%</td>
<td>80%</td>
</tr>
<tr>
<td>75%</td>
<td>100%</td>
</tr>
<tr>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Journal of Addictive Diseases, August 2015

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**The Opioid Epidemic & Naloxone (Narcan®) Rescue**

Developed for Families Against Narcotics
http://www.familiesagainstnarcotics.org/

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**Naltrexone vs. Naloxone**

**Naltrexone**
- Oral (Rivex®) or IM (Vivitrol®)
- Slow onset
- Long acting (hours to weeks)
- Tightest binding to brain
- Used for PREVENTION of overdose (FDA)

**Naloxone**
- IV, IM, SC, or IN (Narcan®, Evzio®)
- Rapid onset
- Short-acting (minutes)
- Less tightly bound
- Used for TREATMENT of overdose (FDA)

---

**What Does Narcan NOT Do?**

- It will not reverse an overdose from alcohol, sedatives (Benzodiazepines such as Xanax, Valium, and Klonopin), muscle relaxants, or stimulants like Cocaine or Amphetamines.
- If there is more than one drug involved (usually Benzodiazepines and Opioids), it may partially revive the patient until EMS arrives.

---

**Naloxone formulations:**

- Oral
- IM
- SC
- IN

---

**Who is at Greatest Risk?**

- **Abstinence > 2 weeks:** treatment, jail, relapse.
- **Discontinuing MAT:** methadone, buprenorphine; Vivitrol® (naltrexone). (Volkow 2014: 50% decrease in OD deaths with MAT)
- **Mixing opioids with sedatives:** alcohol, benzodiazepines, muscle relaxers
- **FENTANYL**
OD deaths: heroin and Fentanyl: Washtenaw Co.

OD deaths: pills vs. heroin Washtenaw Co.

Fentanyl on Urine Drug Screen
Pregnant Patient

How To Do A Naloxone Rescue

Confirm OD

Sternal/Nasal RUB

- Make Sure They are Not Breathing
- (always) Call 911
- Do Rescue Breaths (not compressions)
- Give Naloxone
- Resume Rescue Breaths
- Repeat Naloxone every 3 mins

- Breathing: gurgling/snoring
- Pale, clammy skin
- Lim body
- Blue lips or fingernails
- Cannot wake with shout
- May have a pulse!

- Sternal Rub
- Under the nose
- Trapezius Squeeze
- Fingernail Squeeze
- Changing Level of Consciousness (LOC) treat as OD

OD Overdose Deaths

Summary by gender, age and type of death: OD Overdose Deaths among Washtenaw County Residents, 2011-2015

In 2011, there were all opioid overdose deaths among Washtenaw County residents. Fentanyl was found alone or in combination with heroin in 21 of these deaths (42%). Nine of these deaths were individuals under 25 (18%).

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan/March</th>
<th>April/June</th>
<th>July/Sept</th>
<th>Oct/Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>10</td>
<td>10</td>
<td>14</td>
<td>9</td>
</tr>
</tbody>
</table>

- Total Deaths: 54
- Some individuals test positive for more than one type of opioid.

- OD: Overflow Drug
- Marijuana Metabolites (THC)
- Opioids or Metabolites Detected
- But Not Listed On Prescription

- Cocaine
- Fentanyl
- Hydromorphone

- Sternal Rub
- Under the nose
- Trapezius Squeeze
- Fingernail Squeeze
- Changing Level of Consciousness (LOC) treat as OD
Call 911

- The most critical step
- The most easily FORGOTTEN step
- Leave phone on speaker
- Lay next to you.

OD Rescue vs. CPR

CPR
- Assess & Call 911
- 30 chest compressions
- Begin Rescue Breathing
- Repeat Chest Compressions
- Repeat Rescue Breaths

Overdose Rescue
- Assess & Call 911
- Start Rescue Breathing
- Give Naloxone
- Repeat Rescue Breathing
- Repeat Naloxone

Start Rescue Breathing

- Flat on Back
- Tilt the head back
- If no mask-pinace nose
- Give 2 breaths, one second each.
- Chest wall should move 1 inch
- Abdomen should NOT move

Rescue Breathing Mask

- Narrow end up
- Fit firmly on face
- Press down when breathing
- One way valve protects you
- One second x 2

Give Naloxone

- IM (intramuscular): Evzio®
- IM: use safety needle
- IN (intranasal): use atomizer
- No Naloxone? Use buprenorphine!!

Evzio®

I.M. with safety needle

Safety Needle: push the flange!

Intranasal (I.N.) with Atomizer

Solid: IM  
Dotted: IN

Which One Is Better?

After EMS arrives.....

- Watch out for needles!
- Clean up all blood!
- You now have a “window of opportunity”.....
Window of Opportunity

Current Barriers in Michigan

• There is no true Good Samaritan law for those over 21.
• A physician’s signature/prescription is still required: Naloxone is not “OTC” in Michigan.
• Prices normally go DOWN when supply goes up….

Naloxone prices are increasing

Abstinence Based Programs: are they worth it?

• The current administration favors MAT; no one is sure what President Trump will do.
• Advocates of abstinence based programs are often “on the ropes” and accused of religiosity and cultism (Glaser)
• Accusations of 1 to 5% success have been made with claims of greater harm than “spontaneous remission”.
• Any exceptions to this?

Physicians Health Programs (PHP): the Gold Standard
PHP

- Physicians, nurses, pharmacists (varies by state)
- Evaluation, treatment (IOP/residential)
- Require mutual help groups: 12 step or SMART
- Monitor -weekly
- 3 to 5 year contracts
- Similar to pilots and lawyers
- MOST do not allow MAT
- Immediate intervention for positive urine drug screens.

SUCCESS!

Drug Testing

- The majority (29%) had no positive tests for alcohol or other drugs during the monitoring period
- 14% had just one positive test
- 7% had more than one positive test
- Similar in all four groups
- This means that regardless of their drug of choice about two thirds of the physicians who had a positive test for alcohol or other drugs never had a second or subsequent positive test.

Comparison to Bupx

<table>
<thead>
<tr>
<th>Suboxone Maintenancea</th>
<th>PHP Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relapse</td>
<td>Anticipated</td>
</tr>
<tr>
<td>Other Substance Use</td>
<td>Common (alcohol, M1 etc)</td>
</tr>
<tr>
<td>% Urines Positive at 6 months</td>
<td>Opiates 59%</td>
</tr>
<tr>
<td></td>
<td>Cocaine 40%</td>
</tr>
<tr>
<td></td>
<td>Benzos 10%</td>
</tr>
</tbody>
</table>

Futala, et al. Office-Based Tx of Opiate Addiction w/ Suboxone. NEJM 2003

Why do PHPs work?

- “They work because doctors have more to lose”.
- “They work because doctors are smarter”.
- “They work because doctors can afford treatment”.
- “They work because doctors get special treatment”.

Hawaii’s HOPE program


Swift and Certain (SAC)

10 Things You Need To Know About Washington’s Innovative Parole Program
**Why does it work?**

- Chronic disease model: 3 to 5 years of monitoring and treatment.
- Mutual help groups (12 step and SMART)
- Caduceus groups: reduce isolation
- Rapid response through drug screens & workplace
- Leverage (including negative reinforcement)

**Kevin McAuley, MD**

**Why Treat Addiction?**

*Drug Dependence, a Chronic Medical Illness: Implications for Treatment, Insurance, and Outcomes Evaluation*

A. Thomas McLellan, David C. Lewis, Charles P. O'Brien; et al.

Drug Dependence, a Chronic Medical Illness: McLellan 2000

• Only about 40% of patients will be abstinent at one year after treatment.
• Failure rates may be due to lack of aftercare, often due to insurance difficulties
• Low economic status, psych comorbidity and lack of family/social supports also predict relapse.
• Relapse is often viewed as “inevitable” and drug dependence as “hopeless”*

Drug Dependence, a Chronic Medical Illness: McLellan 2000

• ONLY 60% OF TYPE I DIABETICS ADHERE TO MEDICATION SCHEDULE
• LESS THAN 40% OF ASTHMATICS ADHERE TO TREATMENT REGIMEN
• LESS THAN 40% OF HYPERTENSIVES ADHERE TO THEIR TREATMENT REGIMEN
• DRUG DEPENDENCE ≈ 40 TO 60% ADHERENCE

Chronic, Treatable but Incurable Diseases

• Obesity
• Hypertension
• Diabetes
• Asthma
• Addiction

Olive: non narcotic therapy dog

Contact info: Carl Christensen

• ccmdphd@mac.com
• Voice mail: 734 448 0226
• Christensen Recovery Services: www.christensenrecovery.com
• (sorry no buprenorphine!)