Medication Assisted Therapy (MAT): Yes or No?

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Chair, Michigan Health Professional Recovery Program
Past President, Michigan Society of Addiction Medicine
Disclaimers

- Consultant, DEA/FBI/DOJ
- Consultant, BCBS
- Chairman, HPRP
- Methadone provider, WSU
- Speaker, Orexo
- Medical Director, Dawn Farm
Topics for today

• Does addiction need to be treated?
• What is addiction?
• Medication Assisted Therapy (MAT)
• AA: Does it work?
• The Gold Standard: Physicians Health Programs
• Treatment, not cure
Do We Need to Be Here?
Is addiction a myth?
http://www.peele.net/

• 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.
Which patient has cancer?

A 45 year old with an ovarian tumor.

A 45 year old with an ovarian tumor.
Which patient has cancer?

No family history

Family history of breast/ovarian cancer
Which patient has cancer?

No genetic predisposition

Has the BRCA cancer gene
The majority of soldiers using heroin in Vietnam were able to stop.
What is Addiction?

- Physiologic Dependence?
- Lack of willpower?
- An “amoral” condition?
- A brain disease?
Physiologic Dependence: Tolerance and Withdrawal

- Tolerance: requiring increasing amounts of drug to get the same effect
- Withdrawal: the opposite effect of the drug when it is removed
- NEITHER of these imply chemical dependency (addiction)
Physiologic Dependence: Tolerance and Withdrawal

• 100 people are treated with morphine for two weeks after an accident.

• Their insurance runs out, the morphine is suddenly stopped.

• 95 of them will have “the flu” (physical withdrawal) and will go on with their lives.

• 5 of them will start robbing party stores to get more morphine!!!!
  • = ADDICTION
Drug WITHDRAWAL:
Gardner 2006
Lack of Willpower?
An “amoral” condition?
Brain disease?
The Nucleus Accumbens: The Pleasure Center
VTA: the “gas tank”: supplies Dopamine to the Nucleus Accumbens
Frontal Cortex: Inhibits the Pleasure Center

[Diagram of brain pathways involving neurotransmitters and addiction-related substances]
Dopamine D2 Receptors are Lower in Addiction

Cocaine

Alcohol

Heroin

control

addicted

DA D2 Receptor Availability

Reward Circuits

Non-Drug Abuser

Drug Abuser
Dopamine D2 Receptors are Lower in Addiction

Cocaine

Alcohol

Heroin

control

addicted

DA D2 Receptor Availability

Reward Circuits
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Drug Abuser

Physiology of Addiction
Dopamine D2 Receptors are Lower in Addiction

Cocaine  
Alcohol  
Heroin  
control  
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DA D2 Receptor Availability

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Drug Abuser
Dopamine D2 Receptors are Lower in Addiction

Cocaine

Alcohol

Heroin

control

addicted

DA D2 Receptor Availability

Reward Circuits

Non-Drug Abuser

Drug Abuser

Physiology of Addiction

24
“This isn’t addiction. This is brain damage”

- Do some people develop addiction because they have “reward deficiency syndrome” (decreased dopamine)
  OR:

- Do people with addiction have low dopamine because they have “burned out” their pleasure centers?
Volunteers were injected with IV methylphenidate (Ritalin): most did not enjoy it.
Those who ENJOYED it had lower levels of Dopamine!!

Subjects with low receptors report MP as pleasant and those with high receptors as unpleasant.

* = p < 0.004
Predisposed to addiction?

- Those who “enjoyed” methylphenidate (amphetamine) had LOWER levels of dopamine.
- Those who found it “unpleasant” had NORMAL levels of dopamine.
- Conclusion?
  - addiction is an abnormal response to reward
Predisposed to addiction?

- Women who have an abnormal receptor (brain protein) for dopamine had brain scans
- Those who had the abnormal receptor enjoyed a milkshake LESS
- **Were more likely to gain weight!**
- Conclusion?
  - Addiction is an **DECREASED** response to **NORMAL** reward
  - If you don’t like something as much, you need to compensate!
“I feel like I don’t belong in my own skin....” anonymous alcoholic

- Decreased Dopamine receptors = decreased Dopamine =

- **Decreased Hedonic Tone**

- Salsitz 2006
Can you find the (alleged) future alcoholic?
Decreased “hedonic tone”
RELAPSE: THE problem with addiction

Philip Seymour Hoffman dead at 46: Why is drug relapse so easy, even after decades of sobriety?

Philip Seymour Hoffman maintained sobriety for years before slipping — which sadly cost him his life. Addiction experts say there's no clear way to tell who will relapse and who won't.

BY TRACY MILLER  /  NEW YORK DAILY NEWS  /  Updated: Monday, February 3, 2014, 3:23 PM

Actor Philip Seymour Hoffman was found dead in his Manhattan apartment on Feb. 2 in what a New York police source described as an apparent drug overdose.

PHOTO: ARNO WIEGMANN/REUTERS
Why Can’t They Stop??????

- Alcoholics/addicts who finish treatment will often relapse when they re-enter society.
- They will almost ALWAYS relapse if they undergo quick detox and re-enter society.
- But: their withdrawal is gone.
- SO: why do they relapse??????
Stimulants & Blood Flow

Healthy Control

Cocaine-dependent

Gottschalk, 2001, Am J Psychiatry
Blood Flow Recovery

Non users

Cocaine users, 10 days sober

Cocaine Users, 100 days sober
Blood Flow Recovery

Non users

Cocaine users, 10 days sober

Cocaine Users, 100 days sober
Blood Flow Recovery

Non users

Cocaine users, 10 days sober

Cocaine Users, 100 days sober

High blood flow

Low blood flow
14 months + to recover from methamphetamine

14 months +
to recover from methamphetamine

14 months +
to recover
from
methamphetamine

Doctor, am I an addict?
How to Recognize Addiction: DSM IV

Definition

- Tolerance
- Withdrawal
- Take more/take longer than intended
- Can’t cut down or control use

Physiology of Addiction

- Great deal of time spent in obtaining/using/recovering
- Important activities given up 2º to use
- Use despite physical/psych problem
How to recognize addiction: working definition

- A chronic progressive disease characterized by the following physical and psychological symptoms (the four (five) C’s):

  - Craving
  - Compulsion
  - Loss of Control
  - Continued use despite consequences, and
  - Chronic use
Chemical Dependence
Chemical Dependence?
Behavioral Dependence
“Hi...I’m Joe. I’m cross addicted”
Addiction Transfer

- People who recover from alcoholism may:
  - Gain weight
  - Increase their smoking
  - Start gambling
  - Become involved in sexual addiction, internet addiction
Addiction Transfer

- People who undergo **gastric bypass surgery** may:
  - Become alcoholics
  - Develop chronic pain-opiate dependence
  - Gain weight!
Addiction Transfer is a Myth?

New Study Disproves So-Called 'Cross-Addiction' Myth

By Victoria Kim 09/24/14

People who overcome one addiction are less prone to developing another.

It is often believed that people who have had a substance use disorder are at increased risk for developing another, but recently this so-called "cross-addiction" myth has been debunked.

A new report has found that people who are able to overcome one addiction are less prone to developing another. Those who achieve remission have less than half the risk of developing a new substance use disorder compared with those who do not remit.
Abuse vs. dependence

- You are worried about your best friend.
- She has a 20 year history of heavy drinking and has just been diagnosed with hypertension and hyperlipidemia (high cholesterol).
- You advise her to quit.
Abuse vs. dependence

- You went to a lecture on addiction, paid a lot of $$$ to listen to an “expert” and you have learned it is a “disease”. YOU KNOW SHE CAN’T STOP.

- To your surprise, she stops cold, without any treatment.

- You vow never to waste your time (and money) going to any more lectures.

- *How did she do it??????*
Is it abuse…or is it dependence?

- Failure to fulfill work/school/social obligations
- Continued use is risky situations (ie, drunk driving)
- Recurrent legal problems (DUI)*
- Continued use despite social or interpersonal problems (MOR)
- Never fit the criteria for dependence
Abuse vs. dependence

- The majority of patients you see with drug/alcohol problems do NOT have addiction.
- Most people with drug/alcohol problems will be able to stop on their own. (William White)
- The 4Cs helps you to determine which ones have addiction!

• THE DSM V DOES NOT RECOGNIZE THIS DIFFERENCE!!
How Do You Treat Addiction?

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

Medication Assisted Therapy: opiates

- **Agonists**
  - Methadone
  - Buprenorphine +/- Naloxone

- **Antagonists**
  - Naltrexone
    - Riva (tablets)
    - Vivitrol (injections)
Twenty-two male patients, addicted to heroin 9.5 years (median), were stabilized using oral methadone hydrochloride and then observed for approximately 1 to 15 months (median, 3 months). The medication had 2 main effects: (1) relief of narcotic hunger (craving); and (2) induction of sufficient tolerance to block the average illegal dose of heroin.

A combination of the methadone treatment and a comprehensive program of rehabilitation was associated with marked improvement in patient problems such as jobs, returning to school, and family reconciliation. No adverse effect other than constipation was found.

The authors note that “careful medical supervision and many social services” were necessary and stressed that “both the medication and supporting program were essential.” The small size of the group studied and short duration of the follow-up would best describe this as a promising and exciting but preliminary report.
Benefits of MMT
Salsitz, ASAM, 2012

- Reduction in death rates (Grondblah, 1990)
- Reduction in IVDU (Ball & Ross, 1991)
- Reduction in # of crime days (Ball & Ross)
- Reduced HIV seroconversion / HCV conversion
- Reduction to relapse to IVDU (Ball & Ross)
CAREFUL!

Addiction and Pregnancy
Figure: Effect of Methadone Maintenance Treatment on IV Use for 388 Male Methadone Patients in Six Programs

Ball 1988: reduction in IVDU
Ball 1988: 70% reduction in IVDU!

FIGURE 1. Effect of Methadone Maintenance Treatment on IV Use for 388 Male Methadone Patients in Six Programs

<table>
<thead>
<tr>
<th>Mean Time in Treatment</th>
<th>45 Months</th>
</tr>
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<tbody>
<tr>
<td>Percent IV Users</td>
<td></td>
</tr>
<tr>
<td>Pre-Admission Period</td>
<td></td>
</tr>
<tr>
<td>1st Year</td>
<td></td>
</tr>
<tr>
<td>2nd Year</td>
<td></td>
</tr>
<tr>
<td>3rd Year</td>
<td></td>
</tr>
<tr>
<td>4th Year</td>
<td></td>
</tr>
<tr>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>PERCENT IV USERS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>81.4%</td>
</tr>
<tr>
<td></td>
<td>63.3%</td>
</tr>
<tr>
<td></td>
<td>41.7%</td>
</tr>
<tr>
<td></td>
<td>28.9%</td>
</tr>
</tbody>
</table>
Ball 1988: what happened when they left the clinic?

FIGURE 2. Relapse to IV Use After Methadone Maintenance Treatment for 105 Male Addicts Who Dropped Out of Treatment

28.9% in treatment rate

45.5% in 1-3 months

57.6% in 4-6 months

72.7% in 7-9 months

82.1% in 10-12 months

M: Months since dropping out

P: Percent IV users
Ball 1988: 80% resumption of IVDU!

FIGURE 2. Relapse to IV Use After Methadone Maintenance Treatment of 105 Male Addicts Who Dropped Out of Treatment

- 28.9% in treatment rate
- 45.5% within 1-3 months
- 57.6% within 4-6 months
- 72.7% within 7-9 months
- 82.1% within 10-12 months

MONTHS SINCE DROPPING OUT

PERCENT IV USERS
CDC, July 2012
Methadone: 3% of prescriptions
30% of Deaths!


- Cocaine
- Other opioids
- Methadone
- Other synthetic narcotics
- Heroin

Year:
1999  2000  2001  2002  2003  2004  2005  2006
Buprenorphine

- A partial opiate agonist
  - Less analgesic effect
  - Less respiratory depression
  - <100 documented deaths in the U.S.; 4000+ PER YEAR WITH METHADONE
  - Treats both pain and opiate dependency
- Different formulations are approved
Receptors cause Pain relief, relief from withdrawal and OVERDOSE

METHADONE
BUPRENORPHINE
NALTREXONE
<table>
<thead>
<tr>
<th>Approved for DEPENDENCY</th>
<th>Approved for PAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subutex®</strong>: sublingual buprenorphine;</td>
<td><strong>Burpenex®</strong>: injectable</td>
</tr>
<tr>
<td><strong>Suboxone®</strong>: sublingual buprenorphine + naloxone (Narcan®): prevents IV use.</td>
<td><strong>Butrans</strong>: transdermal, low dose patch.</td>
</tr>
<tr>
<td>Bunavail®</td>
<td><strong>Belbuca®</strong>: mucosal film</td>
</tr>
<tr>
<td>Zubsolv®</td>
<td></td>
</tr>
<tr>
<td>buprenorphine</td>
<td></td>
</tr>
</tbody>
</table>

**Buprenorphine**
Buprenorphine long-term follow up: Fiellin, 2008

FIGURE 1. Two-year retention and duration of treatment among patients receiving buprenorphine/naloxone maintenance in primary care.
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%”
What about pregnancy?
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.
Neonatal Abstinence Syndrome after Methadone or Buprenorphine Exposure

Hendrée E. Jones, Ph.D., Karol Kaltenbach, Ph.D., Sarah H. Heil, Ph.D., Susan M. Stine, M.D., Ph.D., Mara G. Coyle, M.D., Amelia M. Arria, Ph.D., Nancy F. O’Grady, Ph.D., Peter Selby, M.B., B.S., Peter R. Martin, M.D., and Gabriele 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</td>
<td>18%</td>
<td>33</td>
</tr>
</tbody>
</table>
Naltrexone and Naloxone
### Naltrexone vs. Naloxone

<table>
<thead>
<tr>
<th>Naltrexone</th>
<th>Naloxone</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Oral (Rivea®) or IM (Vivitrol®)</td>
<td>• IV, IM, SC or IN (Narcan®, Evzio®)</td>
</tr>
<tr>
<td>• Slow onset</td>
<td>• Rapid Onset</td>
</tr>
<tr>
<td>• Long acting (hours to weeks)</td>
<td>• Short acting (minutes)</td>
</tr>
<tr>
<td>• Tightest binding to brain</td>
<td>• Less tightly bound</td>
</tr>
<tr>
<td>• Used for PREVENTION of overdose (FDA)</td>
<td>• Used for TREATMENT of overdose (FDA)</td>
</tr>
</tbody>
</table>
What Does Naloxone (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:
Who is at Greatest Risk?

- Abstinence > 2 weeks: treatment; jail; relapse.
- Discontinuing MAT: methadone; buprenorphine; Vivitrol® (naltrexone).
- Mixing opioids with sedatives: alcohol, benzodiazepines, muscle relaxers
- FENTANYL (heroin)
Vivitrol® (naltrexone) for opioid dependence
Vivitrol

- Monthly injection, covered by Medicaid
- Must be ABSTINENT for at least one week: may be difficult!
- NOT a narcotic, not a controlled drug
- RARE but serious side effects
Vivitrol: abstinence

![Graph showing abstinence rates for Vivitrol and Placebo over time.](image-url)
Vivitrol: craving

Mean change in craving score over treatment weeks for VIVITROL and Placebo.
Vivitrol: treatment retention

![Graph showing treatment retention comparison between Vivitrol and placebo.](image)

**VIVITROL**

**Placebo**

**Log-rank p < 0.0042 (adjusted)**

<table>
<thead>
<tr>
<th>Number at risk</th>
<th>Treatment days</th>
</tr>
</thead>
<tbody>
<tr>
<td>XR-NTX (n=126)</td>
<td>110 99 91 84 75 23</td>
</tr>
<tr>
<td>Placebo (n=124)</td>
<td>82 75 64 58 53 20</td>
</tr>
</tbody>
</table>
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
Detoxing During Pregnancy?
Luty 2003

- 101 women underwent detox during pregnancy
- 40 successfully detoxed.
- No adverse fetal effects documented
- But: only 1/101 patients documented to be abstinent at time of delivery!

- Luty et al, J Sub Abuse Treat 24 (2003); 363 - 367
Detoxing off heroin using buprenorphine

- 40 heroin addicts were started on buprenorphine.
- 20 stayed in counseling and stayed on buprenorphine.
- 20 detoxed off buprenorphine.
- A year later...
Medical Withdrawal vs Maintenance

- N=20
- Both groups received counseling
- High mortality rate in detox group (20%, n=4)

Kakko et al., Lancet; 361:662-668, Feb 22 2003
Medical Withdrawal vs Maintenance

- N=20
- Both groups received counseling
- High mortality rate in detox group (20%, n=4)

Kakko et al., Lancet; 361:662-668, Feb 22 2003
How long do you have to take the medication for?

**Online First**

Adjunctive Counseling During Brief and Extended Buprenorphine-Naloxone Treatment for Prescription Opioid Dependence

A 2-Phase Randomized Controlled Trial

Roger D. Weiss, MD; Jennifer Sharpe Potter, PhD; David A. Fiellin, MD; Marilyn Byrne, MSW; Hilary S. Connerly, MD, PhD; William Dickinson, DO; John Gardin, PhD; Margaret L. Griffin, PhD; Marc N. Gourevitch, MD, MPH; Deborah L. Hailer, PhD; Albert L. Hasson, MSW; Zhen Huang, MS; Petra Jacobs, MD; Andrzej S. Kosinski, PhD; Robert Lindblad, MD; Elinore F. McCance-Katz, MD; Scott E. Provost, MSW; Jeffrey Selzer, MD; Eugene C. Somoza, MD, PhD; Susan C. Sonne, PharmD; Walter Ling, MD
Phase 1

- 654 pts
- 2 weeks BUP
- Taper 3 to 4 weeks
  f/u 5 to 12 weeks
Outcome Phase 1

• Only 43 of 653 patients remained abstinent (93% relapsed)

• Next step: Phase 2
Phase 2

360 pts → 12 weeks BUP → Taper 1 to 2 weeks f/u 5 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.
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
Conclusions

• “MAT” is effective.

• 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. It is non narcotic.
Alcoholics Anonymous

- The first 12-step program, Alcoholics Anonymous, created in 1935 by two men
Does AA work?

www.addictionmyth.com

- “…Something about it seems creepy and manipulative…..

- In fact, AA is a haven for liars, criminals and sociopaths…AA is a school for scoundrels.”
Does AA work? Project MATCH

- Patients in outpatient treatment or aftercare treatment were randomized by patient matching criteria to one of 3 groups:
  - Twelve Step Facilitation (TSF)
  - Motivational Interviewing (MI)
  - Cognitive Behavioral Therapy (CBT)

- Patients were followed for up to 3 years and assessed for multiple criteria (abstinence, days drinking, functioning)
Abstinence by treatment group: Project MATCH

Figure 4b. Specificity: Randomizing to TSF

- 1-yr follow-up: TSF vs. MET vs. CBT
  - p = .0024

- 3-yr follow-up: TSF vs. MET vs. CBT
  - p < .007
AA involvement in Veterans
1987, 1988

Alcohol abstinence & AA/12-step group exposure

% abstinent

AA 12-step no AA

at 1 yr.
at 18 mos.
“Dose Response Curve: 90 in 90”

Alcohol and drug abstinence & number of 12-step meeting
Physicians Health Programs (PHP): the Gold Standard

HPRP: the Michigan Health Recovery Program
Do PHPs Work?

- 647/802 physicians completed monitoring (81% success)
- Of those, 81% never had a positive UDS.
- Of those with a positive UDS, only 26% had more than one.
Do PHPs Work?

- At 5 years, 79% were licensed and working.
- Abstinence based high level (3) treatment was the standard of care.
- Gehrke: 10 year follow up confirms above numbers.
PHPs: More Harm than Good?

http://disruptedphysician.com/

Disrupted Physician
The Physician Wellness Movement and Illegitimate Authority: The Need for Revolt and Reconstruction
HPRP Class Action Lawsuit
Why do PHPs work?

- “they work because doctors have more to lose”.
- “doctors are smarter”
- “they work because doctors can afford treatment”.
- “they work because doctors get special treatment”
- “this program wouldn’t work for anyone else”
Hawaii’s HOPE program
10 Things You Need To Know About Washington's Innovative Parole Program
WHY BOTHER TO TREAT ADDICTION?
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
Addiction: a chronic illness

• If you were to stop taking your insulin, and you wound up in a coma in the ICU, your doctor would say:

  • “you need to go back on insulin! You could have died!”

• If you were to stop your Suboxone/methadone/12 step treatment, and wind up in the ICU, your doctor would say:

  • “You’re an addict. You’re hopeless!!!!!”
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(A2):
  - 734 368 9871