

## 1. Introduction

### A. Overall Hx of drug addiction & alcoholism

- ☞ For centuries, chemical dependency has been a worldwide problem
- ☞ Drink madness described in ancient Egypt & Greece
- ☞ 1774, colonial America: Anthony Benezet, philanthropist & social reformer, called alcohol a bewitching poison
- ☞ 1784: Dr. Benjamin Rush published *Inquiry into the Effects of Ardent Spirits on the Human Mind and Body*, declaring chronic drunkenness an odious disease
- ☞ 1840s: Dr. Crawford Long et al. held ether-sniffing parties in Philadelphia, PA
- ☞ James Simpson (British discoverer of chloroform) became addicted trying to learn more about his anesthetic discovery, as did others
- ☞ Sigmund Freud used cocaine extensively, also recommended it for the Tx of morphine and ETOH dependence
- ☞ 1800-1900s: many concoctions of home remedies and other meds contained large amounts of ethanol, heroin, & other addicting substances
- ☞ Early 1900s: Coca-Cola® formulated with addicting amounts of cocaine
- ☞ 1914: The Harrison Act brought cocaine & narcotics under federal control
- ☞ 1919: Prohibition, Temperance Movement
- ☞ 1920: England passes the Dangerous Drugs Control Act to register addicts, revealing that 25% registered were doctors, dentists, nurses, veterinary surgeons
- ☞ 1935: Birth of what would become the 12-step recovery program in Akron, Ohio
- ☞ 1956: AMA declares alcoholism a Dz, in 1987 extends to all drugs of misuse
- ☞ 1962: AANA recognizes that addiction is an occupational hazard among CRNAs, was thought to be caused by an underlying emotional disturbance
- ☞ 1970: The Controlled Substances Act: divides substances to be regulated into 5 schedules

## 2. The Disease Concept

- 🌐 “Science has at last convinced the public that depression is not just a lot of sadness; that depressed individuals are in a different brain state and thus require treatment to get their symptoms under control. The same is true for schizophrenic patients. It is time to recognize that this is also the case for addicts.” (Leshner, A., *Addiction is a Brain Disease*)

### A. Four theories:

#### i. Genetic/ Biological model

- \* A physiologic predisposition caused by multiple factors that influence the metabolism of substances (i.e. THIQ- tetrahydro-isoquinolone)
- \* One survey showed that 71% of chemically dependent CRNAs had 1 relative (usually the father) with history of chemical dependency

#### ii. Disease Model

- Neurotransmitter deficiencies (dopamine)

- iii. Psychological Model
  - \* A function of personality disorders/ traits (“-isms”).
  - \* Anesthesia attracts “high risk” people
- iv. Familial
  - \* Social pathology of family dynamics-> strong impact.

B. DSM - IV criteria. Substance dependence is manifested by 3 or more of the following within a 3 month period (APA, 1994):

1. Tolerance (increased amount, or diminished effect with same dose)
2. Withdrawal, or substance use to avoid withdrawal
3. Larger amounts over a longer period than anticipated
4. Unsuccessful effort to cut down use
5. Increased time spent in activities to obtain, use or recover from the substance
6. Social, occupational or recreational activities diminish
7. Use continues despite persistent physical or psychological problems

### 3. Neuropathophysiology

From: ScientificAmerican.com, 2/9/04, *The Addicted Brain*, Nestler & Malenka

#### A. Dopamine, please

- ∩ Rewiring of the brain’s reward circuitry
- ∩ Key component is the mesolimbic dopamine system: a set of nerve cells that originate in the ventral tegmental area (VTA) near the *base* of the brain
- ∩ This system sends dopamine to the *front* of the brain, most notably to a structure deep beneath the frontal cortex called the nucleus accumbens
- ∩ The dopamine pathway from the VTA to the nucleus accumbens is critical for addiction
  - ⦿ “At a purely chemical level, every experience humans find enjoyable- whether listening to music, embracing a lover, or savoring chocolate- amounts to little more than an explosion of dopamine in the nucleus accumbens as exhilarating and ephemeral as a firecracker.” (Nash, J.M., *The Chemistry of Addiction*)

#### B. Frontal regions of the cerebral cortex

- ⦿ Mammals have a complex reward circuitry, with many areas of the brain having various functions (i.e. amygdala, hippocampus).
- ⦿ The frontal regions coordinate & process all of the info, then determine the ultimate behavior of the individual. The hippocampus records memories of an experience.
- ⦿ Various senses involved- touch, smell, taste. “Triggers”- *esp* in early recovery
- ⦿ The VTA-accumbens pathway tells these other brain centers how rewarding an activity is, which correlates with how likely this activity will be repeated
- ⦿ Positron emission tomography (PET) scans show the nucleus accumbens light up in cocaine addicts when shown videos of people snorting lines, also in compulsive gamblers shown images of slot machines

☉ End result: a pickled limbic system

C. *Irreversibility*: once you are a pickle, you can never be a cucumber again

☉ “Over time the addict loses substantial control over his or her initially voluntary behavior, and it becomes compulsive. For many people these behaviors are truly uncontrollable, just like the behavioral expression of any other brain disease. Schizophrenics cannot control their hallucinations and delusions. Parkinson’s patients cannot control their trembling. Clinically depressed patients cannot voluntarily control their moods. Thus, once one is addicted, the characteristics of the illness and the treatment approaches are not that different from most other brain diseases. No matter how one develops an illness, once one has it, one is in the diseased state and needs treatment.” (Leshner, A., *Addiction is a Brain Disease*)

#### 4. Peer Assistance

##### A. Highlights

- \* Approx **one in ten** anesthesia providers will divert controlled substances at some point in their career (Don Bell)
- \* Thus you are more likely to divert than contract HIV or hepatitis B/C on the job
- \* 1980s: National advocacy movement in nursing & medicine (ANA & AMA)
- \* AANA - ad hoc committee on chemical dependency, position statement, 1984: first educational session specific to chemical dependency (CD), & Anesthetists in Recovery (AIR) formed
- \* The PAAC is now under the Council for Public Interest in Anesthesia (CPIA)
- \* Co-founder of AIR Rusty Ratliff
- \* AIR online started by Art Zwerling (PAAC) in 2000
- \* From <http://www.aana.com/peerassist.aspx> :

i. Mission statement

### Mission Statement

The **American Association of Nurse Anesthetists** (AANA) recognizes that anesthesia providers, because of their exposure and the nature of their work, appear to be at a high risk for substance abuse. To address these concerns within the profession, the AANA established the **Peer Assistance Advisors\*** as an Ad Hoc Committee on Chemical Dependency in 1983 to serve as a resource and support for nurse anesthesia practitioners and students.

The functions of the AANA Peer Assistance Advisors include:

- Assessing the nature and impact of the disease of addiction on nurse anesthesia practice.
- Educating nurse anesthetists, students, employers and the public about addiction.

- Investigating the availability and effectiveness of treatment modalities.
- Advocating research into the education, prevention, intervention, treatment and recovery of addiction.
- Assisting individuals or organizations when requested in the formulation of guidelines regarding intervention, treatment, aftercare and re-entry into the workplace of addicted nurse anesthetists.

If you need assistance you may call our hotline available nationwide for CRNA members at  
**800-654-5167**

ii. Position statement on chemical dependency

### **AANA Position Statement 1.7 Chemical Dependency**

The AANA recognizes that substance misuse may lead to chemical dependency and addiction, a disease characterized by a chronic, progressive process that may destroy the professional, the family, and the anesthesia community. Chemical dependency is defined as a substance use disorder characterized by an inability or unwillingness to terminate utilization in spite of serious negative consequences. Although chemical dependency is a primary disease with genetic, psychological, and environmental influences and manifestations, a single use exposure of potent anesthesia opioids has been known to cause addiction.

The AANA is aware of the occupational risks for substance abuse development in anesthesia providers and the professional implications substance abuse may have for the practitioner. To address these concerns, the AANA established the Ad Hoc Peer Assistance Advisors Committee (PAAC) to serve as a resource and support for nurse anesthesia practitioners and students.

As a component of the AANA Wellness Program, the peer assistance advisors continue to provide encouragement and support for CRNA well-being through (a) assessing the nature and impact of substance misuse and dependency on nurse anesthesia practice; b) educating nurse anesthetists, students, employers and the public about addiction; c) investigating the availability and effectiveness of treatment modalities; d) advocating research into the education, prevention, intervention, treatment and recovery of addiction; and, e) assisting individuals or organizations regarding intervention, treatment, aftercare and re-entry into the workplace .

In the interest of patient safety and practitioner well-being, the AANA Wellness Program promotes education and awareness regarding the disease of chemical dependency and strongly endorses peer assistance advocacy efforts for prevention, providing safeguards to patients, and ensuring the individual rights of nurse anesthetists among the communities of interest. As such, the AANA conceptually supports the development of comprehensive drug screening policies consistent with state and federal law and national guidelines. Through the auspices of the Wellness Program, there is commitment to providing primary prevention education strategies, informational resources and peer assistance advocacy efforts that foster CRNA and student well-being and professional self-care.

Adopted by AANA Board of Directors November, 1984

Revised February, 1998

Revised June 2, 2007

## Peer Assistance, cont'd:

B. Recognition in others and in ourselves

- ⌚ How would you know if someone is diverting? What would you be looking for?
- ⌚ If you did know, what exactly would you do about it?
- ⌚ The intervention process starts with objective documentation
- ⌚ Don't deny someone their bottom- it could save them their life
- ⌚ CRNAs ultimately fall under the jurisdiction of the respective state BON
- ⌚ Many co-workers afraid to report since the person will lose his/her license
- ⌚ The CRNA is more of a financial burden to their family if they are dead
- ⌚ Many hospitals would rather sweep it under the rug than risk drawing attention, yet by simply firing the suspected addict you deny them the benefits they need to get well
- ⌚ The addict/ alcoholic needs that crucial element of *unmanageability* in their life to motivate them to change (get sober)
- ⌚ This involves a punitive process that is simultaneously nurturing

**“Do's and Dont's” of conducting an intervention**

- 🕒 Have a trained interventionist, family, spouse, colleagues. Include as many people as you can
- 🕒 Bring all of your evidence
- 🕒 Properly collect a drug screen using SAMHSA guidelines
- 🕒 Do not let person out of your sight! Do not let them drive!!
- 🕒 Have a bed in a treatment facility ready. SAMHSA search engine: <http://dasis3.samhsa.gov/>

C. Signs & symptoms of impairment

- 🕒 Emotionally labile: overexcited/ sleepy/ syncope/ irritable/ argumentative
- 🕒 Gets in early/ stays late (converse with ETOH)
- 🕒 Increased call time; comes in on days off
- 🕒 Increased time at narc cabinet or pyxis; increased bathroom breaks
- 🕒 Inappropriate dosing- increased amnt with decreased pt comfort; or (e.g.) 250 ucg fentanyl for a MAC eyeball
- 🕒 Small *or* large pupils (high doses of opiates will dilate pupils)
- 🕒 Long sleeves
- 🕒 Slurred speech; incoordination
- 🕒 ETOH on breath
- 🕒 Unkempt; apathetic
- 🕒 Sloppy charting/ patient care
- 🕒 Beeper failure/ can't find/ frequent or long breaks
- 🕒 Eager to draw up drugs for others
- 🕒 Cardiac cases- opiate induction
- 🕒 Off-site/ remote locations

From the AANA Journal:

Suspicion of chemical dependency should not be presumed by a single sign or symptom, but rather by increasing changes in behavior. Because the career is so sacred to the healthcare professional, evidence of the disease on the job usually indicates a late stage.

### Increasing Behavior Changes

- Isolates and withdraws from peers
- Increasing or unexplained tardiness or absenteeism
- Unwillingness or inability to communicate feelings
- Increasing mood liability with frequent, unexplained anger, overreacts to criticism
- Frequent illness or physical complaints
- Dishonesty often over trivial or unimportant matters
- Increasing difficulty with peers, supervisors, and authority
- Frequent home crises-family illness and situational problems
- Gradual and subtle deterioration of routine work performance
- Inappropriate dress and hygiene
- Disappears and disappoints patients and peers during work
- Evidence of alcohol or drug use, odor of alcohol on breath, heavy perfume or mouthwash
- Tremors, "Monday morning shakes"
- Waits until alone to open narcotics cabinet
- Wears long sleeves all the time
- Consistently signs out more narcotics than peers
- Forgetful, unpredictable
- Frequent bathroom breaks
- Making preoperative rounds or visits at unusual hours
- Showing up on time off and around departmental drug supply
- Intoxicated at social functions
- Makes inappropriate choice or amount of drug

- Makes use of infrequently used drugs

Source: **The Impaired Anesthesia Provider: The Managers Role**, Management Briefs, *AANA Journal*.  
December 1995;63(6):485-491

D. Signs & symptoms of *opioid withdrawal* (may appear like a bad flu)

- ☒ Irritable, dysphoria, intense craving
- ☒ Nausea, vomiting, diarrhea, anorexia
- ☒ Muscle aches/ back pain
- ☒ Lacrimation, rhinorrhea, diaphoresis, mydriasis
- ☒ Yawning
- ☒ Fever
- ☒ Insomnia
- ☒ Amenorrhea

E. How would you know if *you* were the one with the problem...?

- ☒ Pre-contemplative phase is when you need to reach out...do you know *how* to reach out? Do you know who your State Peer Advisors (SPAs) are & how to contact them?
- ☒ The insidious progression of innocent curiosity
- ☒ ***“The initial drug use is voluntary, and therefore preventable, behavior.”*** (Leshner, A., *Addiction is a Brain Disease*)
- ☒ In my opinion: anesthesia in and of itself is not a risk, however it attracts high risk people, which you might not know until it's too late...then add the seemingly endless supply of narcotics and you're *done*.
- ☒ Ultimately we want to prevent that first usage
- ☒ Otherwise, it is *paramount* to intervene successfully and save their life
- ☒ Back to work: AANA suggests no anesthesia for at least one year
- ☒ The sooner you go back to work, the chances of relapse rise exponentially.

F. Prevention of initial (or subsequent) use/ long- term sobriety

- ☒ Narcotic accountability!!!! An ongoing problem
- ☒ Random assay using a handheld refractometer to test unused portions
- ☒ Random UDS for *all* anesthesia providers, using proper guidelines (i.e. split specimen, chain of custody, witnessed micturation, confirmation of any + result)
- ☒ What is your hospital policy/ procedure for an intervention? Is there one?
- ☒ Does your hospital have an EAP? A Wellness Committee?
- ☒ Back to work contract set forth by the AANA, state BON or both

☛ What is an **alternative to discipline** program? Does your state have one?  
☛ States that currently do not: (side note: all states have programs for MDs except CA)

- |             |   |
|-------------|---|
| 1. Alaska   | 4. Mississippi  |
| 2. Arkansas | 5. Missouri   |
| 3. Georgia  | 6. Maine,   |
|             | 7. Iowa (legislation passed- still working out details) |

Maine and Georgia are "looking into programs," AL, AR have no current or future agenda for getting a program.

G. When you are looking for a job, or if you are already settled, find out:

- ☞ State BON- alternative to discipline program or only disciplinary?
- ☞ Who are your State Peer Advisors with the AANA's Peer Assistance?
- ☞ Hospital policy on: diversion, intervention, re-entry
- ☞ EAP? Wellness Committee?
- ☞ Narcotic accountability? Procedure for miscount or discrepancy?
- ☞ Random urine drug screening (UDS)?
- ☞ Even if it isn't *your* it shows how your colleagues are being taken care of

H. Misc nuggets to make you a conscious anesthetist (*this is a separate lecture!*):

- ☞ 12<sup>th</sup> stepping your patient...you *can* do it if you are a "normie"
- ☞ Considerations re: pain management for the patient in recovery
- ☞ I can email you my "Addicted Patient" handout: [mocrumbo@sbcglobal.net](mailto:mocrumbo@sbcglobal.net)

I. The Wellness Initiative- launched at AANA national convention in Seattle, Aug 2004

- ☞ What can you do to promote CRNA/ SRNA wellness?
- ☞ State meeting: Wellness/ Peer Assistance booth, AIR meeting (equivalent of an open 12 step meeting- *all* are welcome), chemical dependency lecture, Wellness Walk at annual meeting in August
- ☞ SaraStewart-Gomes DVD
- ☞ Additional resources: [www.allanesthesia.com](http://www.allanesthesia.com)

J. CANA Peer Assistance: <http://webapps.aana.com/Peer/directory.asp?State=CA>

## Peer Assistance Resource Directory

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- (D) **Disciplinary Program**  
(State Administration or Recognized)
- (A) **Diversion**  
[Alternative to Disciplinary Program]
- (P) **Peer Assistance Networking Program**  
(Non-State Administered/Recognized)

### California

**State Peer Advisor (1)**

Heather Wilson, CRNA, MS  
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p: 626-308-0449 (H)  
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**State Peer Advisor (2)**

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**State Peer Advisor (3)**

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**Chemical Dependency Program**

Diversion Program (A)  
California Board of Registered Nursing  
400 R Street  
Suite 4030  
Sacramento, CA 95814-6239  
p: 916-322-3724  
f: 916-323-4030  
Web site: <http://www.rn.ca.gov>

**State Board of Nursing**

California Board of Registered Nursing  
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Web site: <http://www.rn.ca.gov>

***The Touch of the Master's Hand***

*It was battered and scarred and the auctioneer  
Thought it scarcely worth his while  
To waste his time with the old violin,  
But he held it up with a smile.  
"What am I bid, good people," he cried,  
"Who starts the bidding for me?  
One dollar? One dollar. Do I hear two?  
Two dollars, who makes it three?*

*"Three dollars once, three dollars twice,  
Going for three" . . . but no!  
From the room, far back, a grey-bearded man  
Came forward and picked up the bow.  
Then wiping the dust from the old violin,  
and tightening up the strings,  
He played a melody, pure and sweet,  
As sweet as the angel sings.*

*The music ceased, and the auctioneer,  
With a voice that was quiet and low  
Said, "What now am I bid for this old violin?"  
And he held it aloft with its bow.  
"One thousand? One thousand, do I hear two?  
Two thousand. Who makes it three?  
Three thousand once, three thousand twice  
Going and gone," said he.*

*The audience cheered, but some of them cried,  
"We just don't understand.  
What changed its worth?" Swift came the reply,  
"The touch of the Master's hand."  
And many a man with life out of tune,  
All battered with bourbon and gin,  
Is auctioned cheap, to a thoughtless crowd,  
Much like the old violin.*

*A mess of pottage, a glass of wine,  
A game and he travels on.  
He is going once, he is going twice -  
He is going, and almost gone.  
But the Master comes and the foolish crowd  
Never can quite understand,  
The worth of a soul, the change that is wrought  
By the Touch of the Master's Hand.*

References:

Addiction Research Unit, Department of Psychology, University at Buffalo (online). Available: <http://www.wings.buffalo.edu/aru>

Bell, D.M, McDonough, J.P., Ellison, J.S. & Fitzhugh, E.C. Controlled drug misuse by certified registered nurse anesthetists. *AANA Journal*, Apr 1999, Vol 67, # 2, pp 133-140

Heroin, morphine and opium online (online). Available: <http://www.opioids.com/resource/index.html>

Leshner, A.I.: Addiction is a brain disease. *Science*, 1997; 278: 45-57

McDonough, J.P. Personality, addiction and anesthesia. *AANA Journal*, June 1990, Vol 58, # 3, pp 193-200

Nash, J.M.: The chemistry of addiction. *TIME*; 5 May 1997, Vol. 149, #18

Nestler, E.J. & Malenka, R.C.: The addicted brain. *ScientificAmerican.com*; 9 Feb 2004 (online). Available: <http://www.sciam.com>

The November Coalition (online). Available: <http://www.november.org/Prohibition/artwork>

Quinlan, D.S. (2002). Peer Assistance (2 chapters), A Professional Study and Resource Guide for the CRNA, Foster, S. & Faut-Callahan, M. AANA Publishing, Inc.

White, W.: Addiction as a disease: birth of a concept. *Counselor*, 2000, 1(1):46-51, 73 (online). Available: <http://www.bhrm.org/papers/addpapers.htm>

The Impaired Anesthesia Provider: The Manager's Role, Management Briefs, *AANA Journal*. December 1995;63(6):485-491

