TREATING TOBACCO ADDICTION IN THE PATIENT WITH CHEMICAL DEPENDENCE

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CREATE THE PERFECT DRUG

- WHAT ROUTE OF ADMINISTRATION?
- HOW OBTAINED?
- FREQUENCY OF ADMINISTRATION?
- PRICE?
- AVAILABILITY?
- OTHER?
CHARACTERISTICS

- 2 CENTS PER HIT
- EASILY ABSORBED
- REACHES THE BRAIN IN 8 - 10 SEC.
- LEGAL
- EASILY OBTAINED
- FASHIONABLE ?
CIGARETTE SMOKING IN THE U.S.

- 70 MILLION ADULTS STILL SMOKE
- DECREASE FROM 28% OF THE POPULATION IN 1990 TO ABOUT 22% OF THE POPULATION PRESENTLY
  - #1 UTAH 12%
  - #2 CALIFORNIA 17%
  - HIGHEST RATE – KENTUCKY 31%
25% OF THE US POPULATION USES TOBACCO PRODUCTS

- APPROX 71% OF ALL ILLICIT DRUG USERS SMOKE
- 74 – 100% OF PATIENTS IN DRUG TREATMENT SMOKE
- 85 – 98% OF PATIENTS IN METHADONE MAINTENANCE TREATMENT SMOKE
TOBACCO ADDICTION IS A “3-PRONGED” DEPENDENCE

Nicotine Dependence
- Physiologic
- Psychologic
- Behavioral
TOBACCO DEPENDENCE

- As an addictive substance, nicotine, on a milligram for milligram basis, is 10 times more potent than heroin.
- 92% of people who smoke 100 cigarettes in their lifetime become addicted!
WITHDRAWAL SYMPTOMS

- Anxiety
- Irritability
- Poor conc.
- Restless
- Craving
- GI prob.
- GI prob.
- Headache
- Drowsy
FAGERSTROM TEST FOR TOBACCO DEPENDENCE

1. How soon after you wake up do you smoke your first cigarette?
   Within 5 min (3)   5 - 30 min (2)   31 - 60 min (1)   after 60 min (0)

2. Do you find it hard not to smoke in places that you shouldn’t smoke, such as in church, in school, in a movie, on the bus, or in a hospital?
   Yes (1)   No (0)

3. Which cigarette would you hate most to have to give up?
   The first one in the morning (1)   Any other one (0)

4. How many cigarettes do you smoke each day?
   10 -fewer (0)   11-20 (1)   21-30 (2)   31 or more (3)

5. Do you smoke more in the first few hours after waking up than you do during the rest of the day?
   Yes (1)   No (0)

6. Do you still smoke, even if you are so sick that you are in bed most of the day or if you have a severe cough?
   Yes (1)   No (0)
TOBACCO AND ALCOHOL : THE MEDICAL CONNECTION
CIGARETTE SMOKING EXACERBATES ALCOHOL INDUCED BRAIN DAMAGE

- CHRONIC ALCOHOL USE DAMAGES THE BRAINS OF ALCOHOLICS, PARTICULARLY THE FRONTAL LOBES WHICH ARE CRITICAL FOR HIGH-ORDER COGNITIVE FUNCTIONING (PROBLEM SOLVING, REASONING, ABstraction, PLANNING, FORESIGHT)

- CHRONIC CIGARETTE USE INCREASES THE SEVERITY OF THIS BRAIN DAMAGE
  - MEASUREMENTS MADE ON SMOKERS, LIGHT SMOKERS, ABSTINENT ALCOHOLICS AND LIGHT DRINKERS USING FUNCTIONAL MRI’S (DURAZZO ET AL, ALCOHOLISM: CLINICAL AND EXPERIMENTAL RESEARCH DEC 2004)
ALCOHOLIC SMOKERS LOSE MORE BRAIN MASS (9/30/2005)

- All alcoholics are known to lose some brain mass, but those who also smoke lose more than nonsmokers.
- The study raises the question of whether alcoholism treatment programs should also address smoking, especially since it may cause cognitive impairment as clients get older.

The research was published in the August 2005 issue of the journal Alcoholism: Clinical and Experimental Research.
NUTRITIONAL OPTIC NEUROPATHY

TOBACCO-ALCOHOL AMBLYOPIA

DECREASED VISUAL ACTIVITY
TOBACCO SMOKING AND SMOKELESS TOBACCO - MAJOR RISK

- HEAD AND NECK DISEASE – ESPECIALLY IF USE ALCOHOL
Want to Quit?
1798. SCIENCE: FAMED PHYSICIAN BENJAMIN RUSH WRITES ON THE MEDICAL DANGERS OF TOBACCO AND CLAIMS THAT SMOKING OR CHEWING TOBACCO LEADS TO DRUNKENNESS.
HURT ET AL. ALC CLIN EXP RES 1994 VOL 18; 4 PP867-872 “NICOTINE DEPENDENCE TREATMENT DURING INPATIENT TREATMENT FOR OTHER ADDICTIONS”

- 50 CONTROLS AND 51 INTERVENTION FOLLOWED FOR 1 YEAR
- 1 YEAR CONFIRMED CESSATION RATE IN THE INTERVENTION GROUP WAS 11.8% AND 0% IN THE CONTROL GROUP
- 1 YEAR RELAPSE RATE (ALC AND DRUG) WAS 31.4% IN THE INTERVENTION GROUP AND 34% IN THE CONTROL GROUP
Significantly better recovery rates at 12 months in non-tobacco users than tobacco users, especially if the drug of choice was alcohol or narcotics.
INPATIENT TREATMENT SUPERIOR OR TO OUTPATIENT THERAPY

- *MAYO CLIN PROC* 2001; 76: 124-133
- 8 DAY RESIDENTIAL TREATMENT PROGRAM IS MORE EFFECTIVE THAN OUTPATIENT FOR MODERATE OR SEVERE NICOTINE DEPENDENCE WHEN COMPARING 146 INPATIENTS VS. 292 OUTPATIENTS BETWEEN 1992 AND 1996.

- 6 MONTH ABSTINENCE RATES WERE 45% FOR RESIDENTIAL GROUP AND 26% FOR OUTPATIENT WITH SIMILAR RESULTS AT 12 MONTHS.
NICOTINE CRAVING AND HEAVY SMOKING MAY CONTRIBUTE TO INCREASED USE OF COCAINE AND HEROIN

2 NIDA STUDIES

- DR. S. HEISHMAN USED CUE INDUCED CRAVING
  - CUES THAT INCREASED TOBACCO CRAVING ALSO INCREASED CRAVING FOR THE SUBJECTS DRUG OF CHOICE

- D. FROSCH AT SAN DIEGO STATE LOOKED AT METHADONE CLINIC PATIENTS
  - THE AMOUNT OF SMOKING CORRELATED WITH USE OF COCAINE AND HEROIN
SULLIVAN AND COVEY IN *CURR PSYCH REP* 2002

- TOBACCO ABSTINENCE DOES NOT INCREASE ALCOHOL RELAPSE
- CONTINUED SMOKING ADVERSELY AFFECTS MJ DEPENDENCE
- COCAINE AND NICOTINE USE ARE INTERRELATED
SHOPTAW ET AL  *Addiction* 2002

In methadone maintenance patients

- More opiate and cocaine free urines during time of smoking abstinence than during weeks when they smoked cigarettes

DOES SMOKING CESSATION AFTER ENTERING DRUG ABUSE TREATMENT INFLUENCE DRUG USE 12 MONTHS AFTER TREATMENT?

- 2316 Cigarette Smokers in the Drug Abuse Treatment Outcome Study (DATOS)
- Smoking Cessation Did Not Impact Negatively on Drug Abstinence and Was Associated with Greater Abstinence from Drug Use (Alcohol, Sed., Opiates, MJ, Stim, Halluc.) After Completion of Treatment

- Meta analysis of 19 randomized control trials with individuals in current addiction treatment or recovery.
  - Smoking cessation interventions provided during addictions treatment were associated with a 25% increased likelihood of long-term abstinence from alcohol and illicit drugs.
This is the first study to use serum cotinine concentration in smokers with sustained remission from alcohol dependence (greater than 12 months with no relapse for drug or alcohol abuse) to determine the nicotine patch dosages.

At the end of patch therapy the tobacco abstinence rate was 51 percent. This was comparable to non-alcoholic quit rates but considerably higher than anticipated, since previous studies of recovering alcoholics showed end-of-treatment abstinence levels at about half that.
MD SUPPORTED TREATMENT

- AVERSIVE CONDITIONING
- NICOTINE ANTAGONIST
  - MECAMYLAMINE
DUKE UNIVERSITY RESEARCH

- FOUND SMALL AMOUNTS OF ALCOHOL CAN ENHANCE THE PLEASURABLE EFFECTS OF NICOTINE

ADD MECAMYLINE TO PATCH

- ANTIHYPERTENSIVE, NICOTINE ANTAGONIST, IF USED WITH NICOTINE PATCH – 37.5% 12 MONTH ABSTINENCE RATES (ROSE ET AL 1994)

- CAN IMPACT ON ALCOHOL CONSUMPTION AND SMOKING
NON FDA APPROVED MEDICATIONS

- **USE OF ORAL TOPRAMATE TO PROMOTE SMOKING ABSTINENCE AMONG ALCOHOL-DEPENDENT SMOKERS A RANDOMIZED CONTROLLED TRIAL**
  
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  *ARCH INTERN MED.* 2005;165:1600-1605.

- **CONCLUSION**

  IN THIS TRIAL, TOPRAMATE (UP TO 300 MG/D) SHOWED POTENTIAL AS A SAFE AND PROMISING MEDICATION FOR THE TREATMENT OF CIGARETTE SMOKING IN ALCOHOL-DEPENDENT INDIVIDUALS.
**NON FDA APPROVED MEDICATIONS**

- **NALTREXONE EFFECTIVE FOR SMOKING CESSATION IN WOMEN**
  - RANDOMIZED, DOUBLE-BLIND PLACEBO CONTROLLED TRIAL USING PATCHES AND PSYCHOSOCIAL THERAPY IN ALL; 50 MG NALTREXONE PER DAY AND FOLLOWED FOR 12 WEEKS
    - 44 WOMEN TOTAL
    - 55% OF SUBJECTS COMPLETED
    - 92% OF NALTREXONE TREATED SUBJECTS WERE SUCCESSFUL VS 50% IN THE PLACEBO GROUP
NON FDA APPROVED MEDICATIONS

- RI MONABANT (ACCOMPLIA®)
  - BREAKTHROUGH NEW CLASS OF DRUGS
  - SELECTIVE CANNABINOID 1 (CB-1) RECEPTOR ANTAGONIST
  - FOOD INTAKE AND ENERGY EXPENDITURE MAY BE ALTERED IN SMOKERS
  - TESTED AS A TREATMENT FOR POST-CESSATION WEIGHT GAIN
THE SMOKE FREE ADDICTION TREATMENT UNIT

1. Acknowledge the profound challenges tobacco creates for the addictions treatment community.
2. Establish a leadership group or committee and secure the commitment of administration.
3. Develop tobacco-free policy.
4. Establish a policy implementation timeline.
5. Conduct staff training.
6. Provide recovery assistance for nicotine dependent staff.
7. Assess and diagnose tobacco dependence in patients and use this in treatment planning.
8. Incorporate tobacco education into patient education curriculum.
9. Establish ongoing communication with AA/NA and referral agents about these changes.
10. Require staff to be tobacco free.
11. Establish tobacco free facility and grounds.
12. Implement tobacco dependence treatment throughout the program.
SMOKING KILLS. IF YOU’RE KILLED, YOU’VE LOST A VERY IMPORTANT PART OF YOUR LIFE.

BROOKE SHIELDS, ATTEMPTING TO DEMONSTRATE WHY SHE SHOULD BECOME SPOKESPERSON FOR A FEDERAL ANTI SMOKING CAMPAIGN.