

TOBACCO – CHEMICAL DEPENDENCE CONNECTION

ADDICTION MEDICINE EDUCATIONAL SERIES WORKBOOK



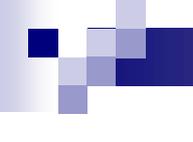
OASAS
Improving Lives.

NEW YORK STATE
OFFICE OF ALCOHOLISM & SUBSTANCE ABUSE SERVICES
Addiction Services for Prevention, Treatment, Recovery



STEVEN KIPNIS, MD, FACP, FASAM
MEDICAL DIRECTOR

ROBERT KILLAR, CASAC
DIRECTOR
COUNSELOR ASSISTANCE PROGRAM



25% OF THE U.S. ADULT POPULATION USES TOBACCO PRODUCTS BUT

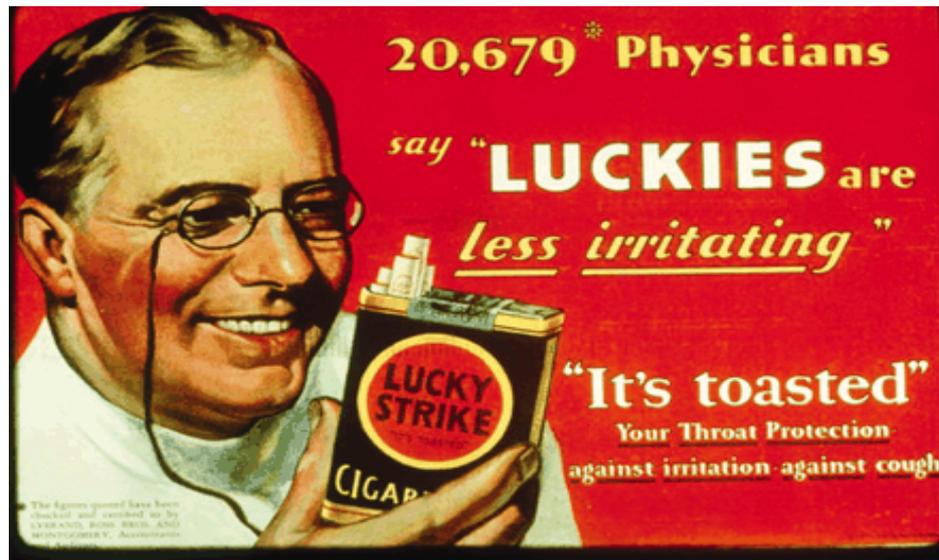
- Approx 71% of all illicit drug users smoke.
- 74 – 100% of patients in drug treatment smoke.
- 85 – 98% of patients in methadone maintenance treatment smoke.
- 70 % of HIV + patients smoke.



DEATH FROM AN ADDICTION TO THE PERFECT DRUG

- 2 cents per hit.
 - Smoking a pack per day – 20 cigarettes at ten puffs per cigarette.
- Easily absorbed.
- Reaches the brain in 8 - 10 sec.
 - Faster than intravenous.
- Legal.
- Easily obtained.
- Fashionable.
 - In the past, though times have changed.

MAGAZINE OF WALL STREET 07/26/30 – PHYSICIANS WERE POWERFUL AD AGENTS



GOOD HOUSEKEEPING 07/46

"I'm going to grow a hundred years old!"

...and possibly the way—for the amazing strides of medical science have added years to life expectancy

It's a fact—a warm and wonderful fact—that the 80-year-old child, or even very child, has a life expectancy almost a whole decade longer than was his mother's, and a good 15 to 20 years longer than that of his grandmother. Not only the expectancy of a longer life, but of a life for his healthier. Thank medical science for that. Thank your doctor and thousands like him... today, naturally, often with little or no public recognition... that you and yours may enjoy a longer, better life.



According to a recent Nationwide survey:

More Doctors smoke Camels

than any other cigarette!

NOT ONE has these outstanding independent research organizations concluded this survey. And they asked not just a few thousand, but 100,000, doctors from coast to coast to name the cigarette they themselves preferred to smoke.

The statistics came in by the thousands... from general physicians, dispensing, emergency, and even self-therapy specialists too. The most named brand was Camel.

If you are not now smoking Camels, try them. Compare them carefully. See how the half-inch filter of Camel's smooth tobacco taste your taste. See how the cool richness of a Camel suits your throat. See your "I Don't" roll you just right.



CAMELS *Coastal
Tobacco*

OHIO STATE JOURNAL OF MEDICINE 07/49 – FASHIONABLE SO THAT ADVERTISING IN A MEDICAL JOURNAL WAS ACCEPTIBLE

How mild can a cigarette be?

DOCTORS REPORT
In a recent test of hundreds of people who smoked only Camels for 30 days, noted throat specialists, making weekly examinations, reported:

"NOT ONE SINGLE CASE OF THROAT IRRITATION DUE TO SMOKING CAMELS!"

SMOKERS REPORT
"I MADE MY OWN PERSONAL 30-DAY TEST! NOW I KNOW...CAMELS ARE THE MILDEST, BEST-TASTING CIGARETTE I EVER SMOKED!"
Sylvia MacNeill SECRETARY

According to a Nationwide survey:
More Doctors smoke Camels than any other cigarette

Doctors smoke for pleasure, too! And when three leading independent research organizations have asked 113,970 doctors what cigarette they smoked, the brand named most was Camel.

TOBACCO AND HEALTH HISTORY

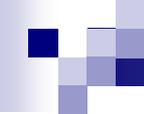
- 1950 - first medical article to address smoking and cancer of the lung was by Doll and Hill in the British Medical Journal.
- 1964 - report of the advisory committee to the surgeon general is published.
 - Smoking is a cause of lung cancer in men and maybe women.

TOBACCO AND HEALTH HISTORY

- 1984 – Surgeon General announces goal of a smoke free society by 2000.
- 1986 – surgeon general special report documents the health consequences of using smokeless tobacco.

2004 US SURGEON GENERAL'S REPORT - DISEASES AND OTHER ADVERSE HEALTH EFFECTS FOR WHICH SMOKING IS IDENTIFIED AS A CAUSE

- Bladder cancer.
- Cervical cancer.
- Esophageal cancer.
- Kidney cancer.
- Laryngeal cancer.
- Leukemia.
- Lung cancer.
- Oral cancer.
- Pancreatic cancer.
- Stomach cancer.
- Abdominal aortic aneurysm.
- Atherosclerosis.
- Cerebrovascular disease.
- Coronary heart disease.
- Copd.
- Pneumonia.
- Reduced lung function among infants.
- Respiratory disease in childhood and adolescence.
- Fetal death and stillbirth.
- Reduced fertility.
- Low birth weight.
- Pregnancy complications.
- Cataracts.
- Hip fractures.
- Low bone density.
- Peptic ulcer disease.



CIGARETTES AND TOBACCO PRODUCTS ARE THE ONLY CONSUMER PRODUCTS THAT ARE HAZARDOUS TO THE HEALTH WHEN USED AS INTENDED

- It is a well known fact that tobacco is the single greatest cause of disease and death in the United States. **Over 430,000 deaths per year are attributed to the use of tobacco products.**

PASSIVE SMOKING DEATHS – IS SMOKING A COMMUNICABLE DISEASE?

- 53,000 Per Year.
- “ Secondhand smoke is not a problem. If children don’t like to be in a smoky room, they’ll leave. As for infants,..... At some point, they’ll crawl”.

Charles Harper, Chairman
RJR Tobacco Company



SOME THINK THAT THE SOLUTION IS TO SMOKE CIGARS – BUT THE RISKS ARE STILL SIGNIFICANT

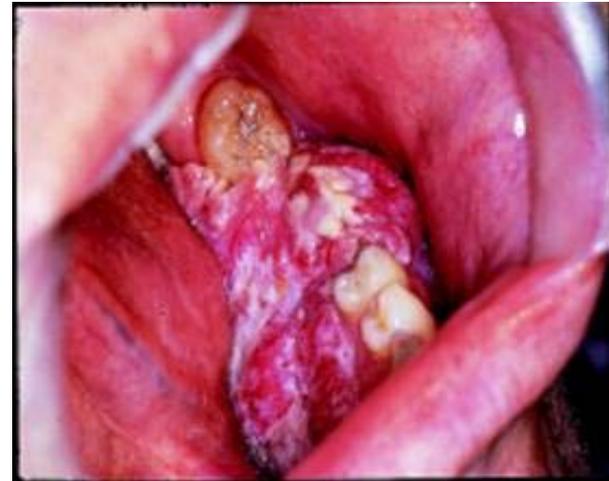
- ACS Studies 2004
 - 3 cigars smoked per day.
 - 500 % increase in lung cancer for inhalers.
 - 300 % increase in lung cancer for non-inhalers.
 - 1000 % increase in cancer of the larynx.
 - 400 % increase in cancer of the oral cavity/pharynx.
 - 270 % increase in pancreatic cancer (inhalers).
 - 360 % increase in bladder cancer (inhalers).



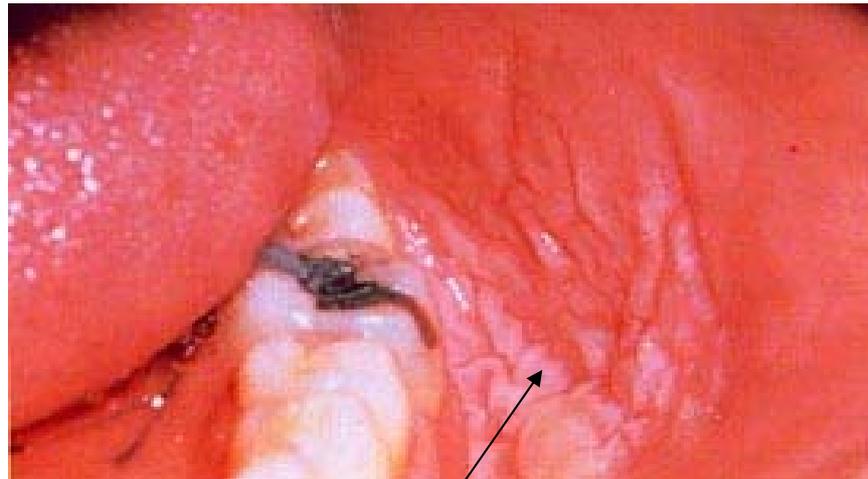
THOUGH, STILL SIGNIFICANT MEDICAL
RISKS, FROM THE BENIGN
DISCOLORATION OF THE TEETH TO:



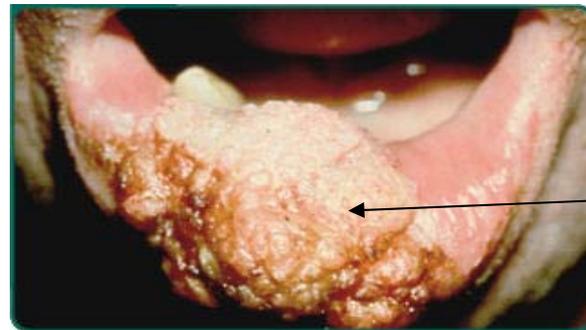
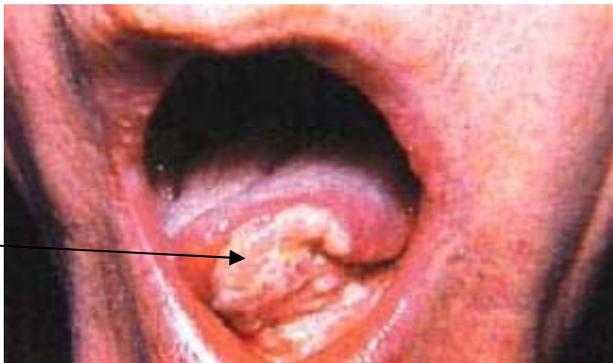
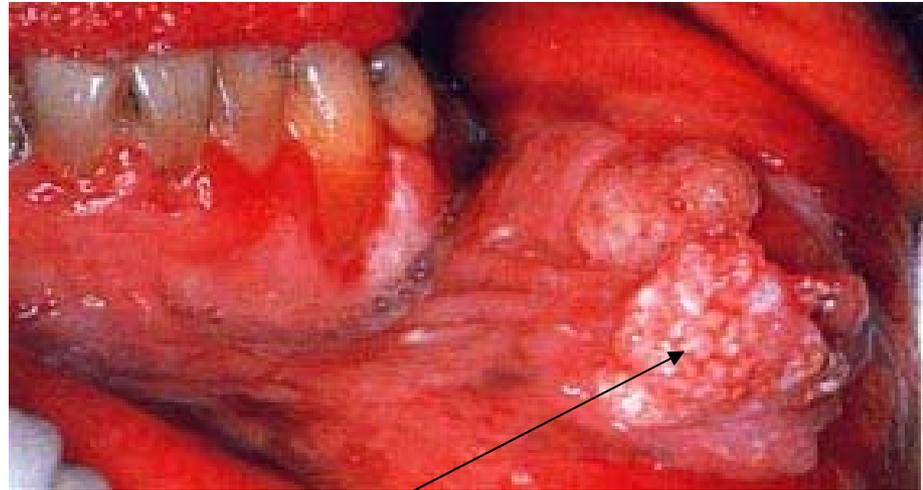
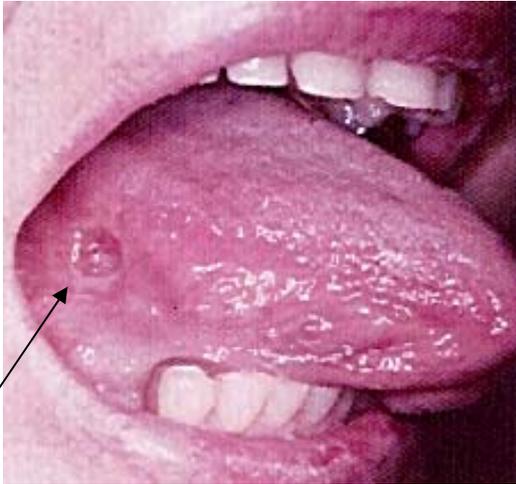
**PERIODONTAL DISEASE
3 – 5% OF DISEASED GINGIVAL AND
PERIODONTAL
TISSUE BECOMES ORAL CANCER**



TO A PRECANCEROUS PHASE : SNUFF
DIPPER'S PATCH – WRINKLED
HYPERKERATOSIS (EXCESSIVE
THICKENING OF THE OUTER LAYER OF
THE MUCOSA

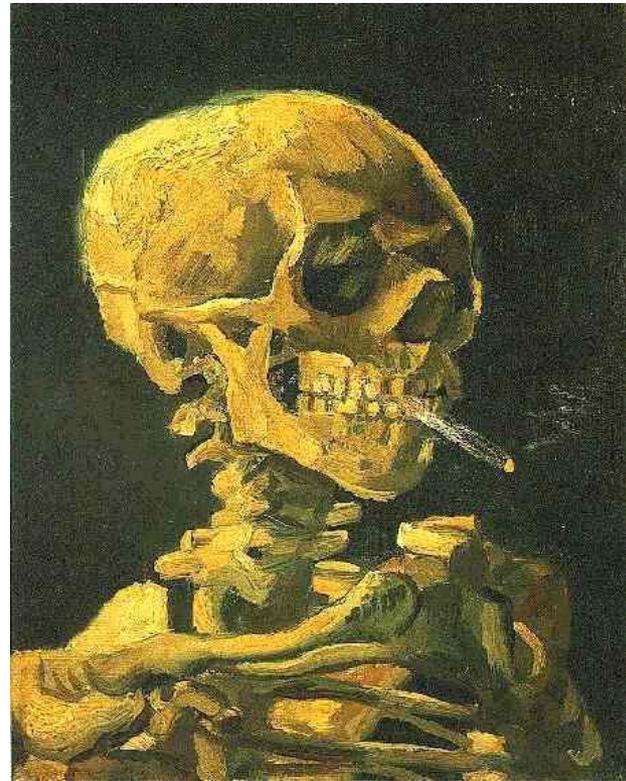


TO CANCEROUS CONDITIONS:



DEATH FROM AN ADDICTION TO THE PERFECT DRUG

- 484,000 have died from AID'S (1981-2001).
- 10,000,000 Americans have died from tobacco related diseases in the same time period.
- Every 3 days more Americans die from tobacco related diseases than the number killed on September 11, 2001.



Skull with Burning Cigarette
Van Gogh - Oil on canvas 1885

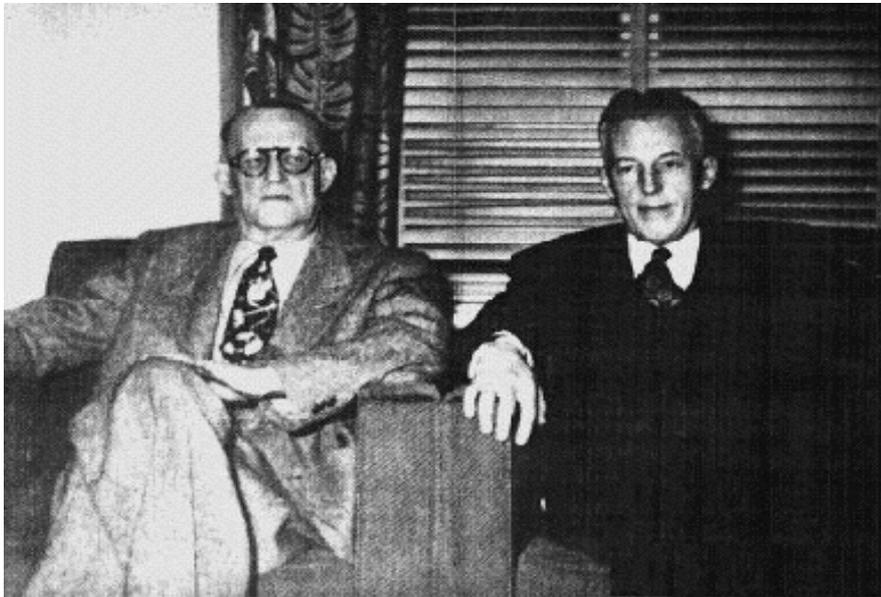


TOBACCO AND ALCOHOL : THE MEDICAL CONNECTION

Written by a Swiss medical student on his visit to London –
1599;

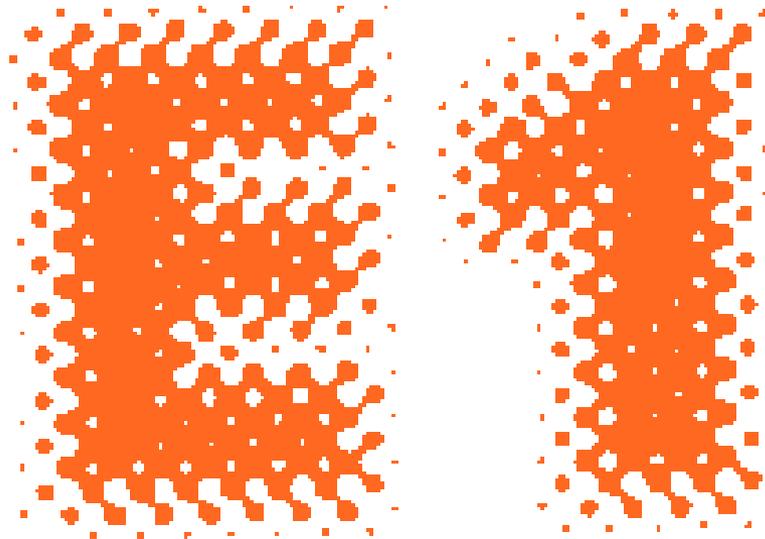
- “In the alehouses tobacco or a species of wound-wort (possibly henbane) are also obtainable... the powder is lit in a small pipe. The smoke is sucked into the mouth, and the saliva is allowed to run freely, after which a good draught of Spanish wine follows. This they regard as a curious (exceptional) medicine of defluations, and as a pleasure, and the habit is so common with them, that they always carry the instrument (presumably the pipe) on them and light up on all occasions, at the play, in the taverns or elsewhere, drinking as well as smoking together...and it makes them riotous and merry, and rather drowsy, just as if they were drunk, though the effect soon passes – and they use it so abundantly because of the pleasure it gives, that their preachers cry out on them for their self – destruction and I am told the inside of one man’s veins after death was found to be covered in soot just like a chimney...”
- In 1599, the association was noted.

ONE *D*AY AT A TIME...



The founding fathers of the AA movement; Bill W. smoked and had significant emphysema.

Tobacco – Alcohol Amblyopia or Nutritional Optic Neuropathy results when a person is alcohol and tobacco dependent. It is a rare disease that causes decreased visual acuity – so that the “E” and the “1” look like orange boxes.



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

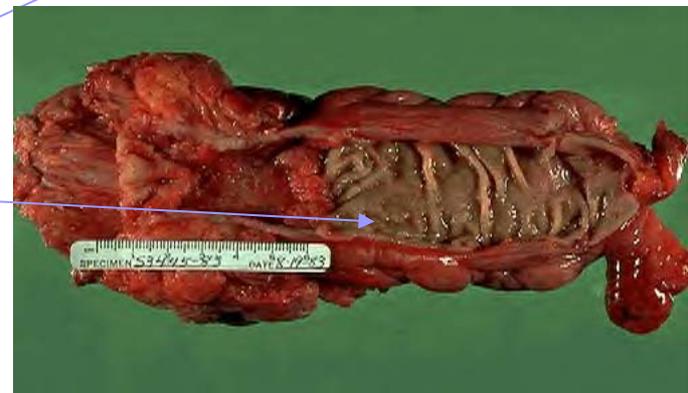
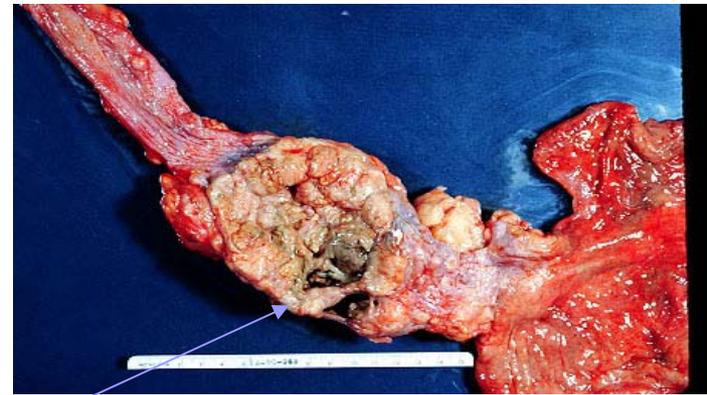
- **This study raised the question of whether alcoholism treatment programs should also address smoking, especially since it may cause cognitive impairment as clients get older.**



Normal stomach on the top and a gastric ulcer on the bottom which developed cancer; seen in smokers who also drink alcohol.

TOBACCO USE/ALCOHOL USE AND CANCER

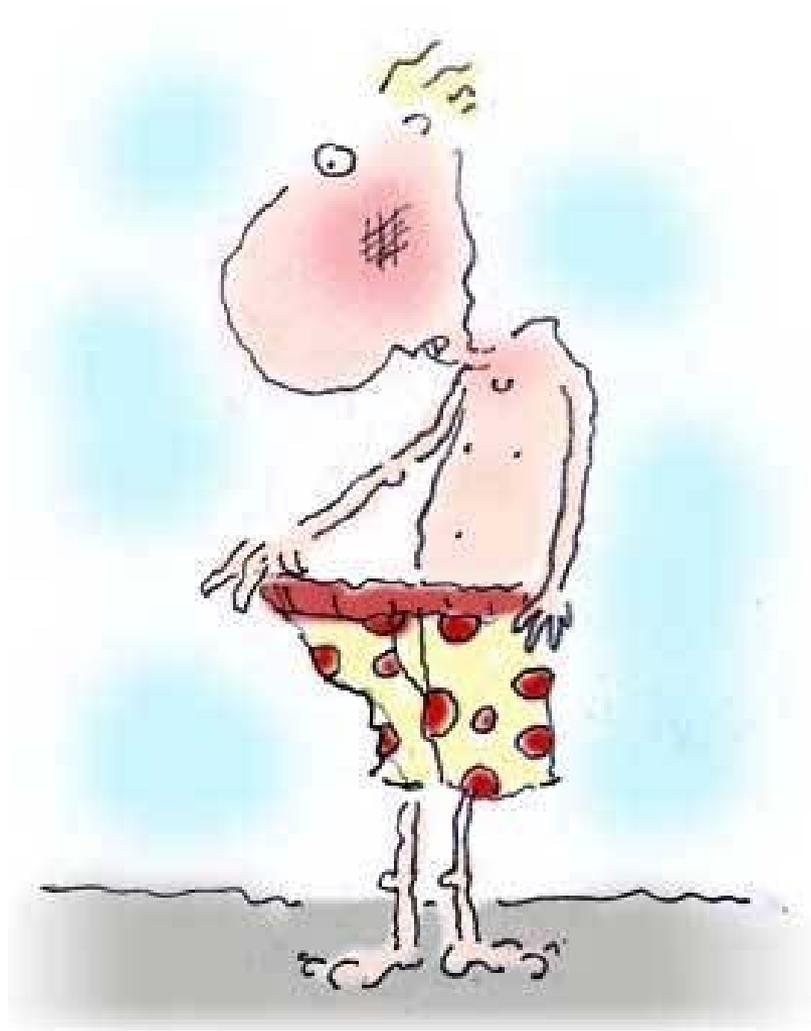
- Increased incidence of cancer if both are used.
 - Head and neck.
 - Esophageal.
 - Colorectal.





Pictured is someone with extensive psoriasis, which is associated with tobacco use and worsened by alcohol use.





Men who smoke more than a pack of cigarettes a day were 40 percent more likely to be impotent than nonsmokers.

Among those who smoked less than 20 cigarettes a day, the risk of impotence was 24 percent higher than among nonsmokers.

Alcohol can also lead to impotence.

SMOKING CESSATION

- 90% would like to quit.
- 60% have tried to quit.
- 66% have health concerns.

- Of the 17 million American adults who attempt to quit each year, only 1.3 million are successful.
 - High motivation but limited success.

- 
- OASAS held forums across the state in 2003
 - Barriers to going tobacco free.
 - Benefits to going tobacco free.
 - Strategies to make program successful.

WHAT ARE THE BENEFITS TO IMPLEMENTING TOBACCO –FREE ADDICTION PROGRAMMING?

- Clients/patients
 - Recovering person will be able to have “complete” recovery.
 - **Improved treatment outcomes.**
 - Increased client self-esteem.
- Program administration
 - Fewer smoke breaks – more program time.
 - Improved work productivity.
 - Less cigarette litter.
 - Less indoor air pollution.
 - Less risk of fire.
 - Less secondhand smoke.
 - Lower maintenance costs (Carpets, furniture, walls, painting, etc.).
 - Reduce cigarette bartering.
 - Improve staff health and attendance.
 - Lower insurance costs.
 - Integrate substance abuse and medical staff.



WHAT ARE SOME POSSIBLE STRATEGIES TO ADDRESS THE IDENTIFIED BARRIERS TO IMPLEMENTING TOBACCO –FREE ADDICTION PROGRAMMING?

- Overwhelming requests for two areas
- Education
 - Everyone at program (staff and patients) needs training.
 - Family education.
- Help paying for nicotine replacement therapy.

WHAT ARE SOME POSSIBLE STRATEGIES TO ADDRESS THE IDENTIFIED BARRIERS TO IMPLEMENTING TOBACCO –FREE ADDICTION PROGRAMMING?

- OASAS Strategies
 - Gradually phase in new policies – make incremental changes in policy and integrate training.
 - **Financial incentives (free nicotine patches).**
 - Need involvement of more state agencies (Corrections, OCFS, OMH) and referral sources.
 - Prevention providers need to work with schools and parents.
 - Share information on locally-available resources.

SMOKING CESSATION METHODS

- Unassisted
 - Cold turkey – just stop.
 - Warm chicken
 - Cut down on daily use slowly.
 - Brand changing to lower tar and nicotine.
 - Found that this does not work – smoker inhales more and holds the smoke longer so as to keep a steady nicotine blood level.
 - Nonprescription Aids
 - Silver nitrate – makes the smoke taste bad.



- The nicotine blood level is where the action is!
- The smoker tries to keep a steady state of nicotine. Stress will lower the level of nicotine and the smoker is conditioned to smoke to bring it back up to their baseline.
- Support and medications have proven effective treatments.

Copyright 2004 by Randy Glasbergen.
www.glasbergen.com



**“If smoking relaxes you, then don’t quit.
Being dead is very relaxing.”**



FINDINGS AND RECOMMENDATIONS OF US PUBLIC HEALTH SERVICE CLINICAL PRACTICE GUIDELINES (JUNE 2000)

There is a strong dose-response relationship between the intensity of tobacco dependence counseling and its effectiveness. **Treatments involving person-to-person contact (via individual, group, or proactive telephone counseling) are consistently effective, and their effectiveness increases with treatment intensity (e.g., minutes of contact).**

EFFICACY OF VARIOUS INTENSITY LEVELS OF PERSON-TO-PERSON CONTACT (*N* = 43 STUDIES)

| Level of Contact | Estimated Abstinence Rate |
|---|--------------------------------------|
| No contact (reference group) | 10.9% |
| Minimal counseling (<i><</i> 3 minutes) | 13.4% |
| Low intensity counseling (3-10 minutes) | 16.0% |
| Higher intensity counseling (<i>></i> 10 minutes) | 22.1% |

MD SUPPORTED TREATMENT – make the tobacco use history part of the vital signs on every patient

| | | | |
|--------------------|--------------|---------|-------|
| VITAL SIGNS | | | |
| Blood Pressure: | _____ | | |
| Pulse: | _____ | Weight: | _____ |
| Temperature: | _____ | | |
| Respiratory Rate: | _____ | | |
| Tobacco Use: | Current | Former | Never |
| | (circle one) | | |

MD SUPPORTED TREATMENT – use the 5A's and 5 R's when talking to patients who smoke

The 5 A's For Patients Willing To Quit

- **ASK** about tobacco use.
- **ADVISE** to quit.
- **ASSESS** willingness to make a quit attempt.
- **ASSIST** in quit attempt.
- **ARRANGE** for follow-up.

"5 R's"

Treating patients who are not ready to make a quit attempt

- **RELEVANCE:** Tailor advice and discussion to each patient.
- **RISKS:** Outline risks of continued smoking.
- **REWARDS:** Outline the benefits of quitting.
- **ROADBLOCKS:** Identify barriers to quitting.
- **REPETITION:** Reinforce the motivational message at every visit.

*NATIONAL CANCER INSTITUTE



SMOKING CESSATION METHODS

- Assisted
 - Support groups
 - Commercial programs
 - Acupuncture
 - MD assisted cessation



NICOTINE REPLACEMENT THERAPIES (NRT)

- Developed in Sweden during the 1970”s as a means to assist submariners
- Cornerstone of tobacco dependence treatment
 - Safe
 - Effective

NICOTINE REPLACEMENT THERAPIES (NRT)

- Nicotine gum (nicotine polacrilex, Nicorette®)
- Nicotine transdermal patches (Habitrol®, Nicoderm CQ® , Nicotrol®)
- Nicotine inhaler (Nicotrol inhaler®)
- Nicotine spray (Nicotrol NS®)
- Nicotine lozenge (Commit®)

EFFICACY OF NICOTINE GUM (*N* = 13 STUDIES)

| Pharmacotherapy | Estimated Abstinence Rate |
|------------------------------|------------------------------|
| Placebo (reference group) | 17.1% |
| Nicotine Gum | 23.7% |

EFFICACY OF NICOTINE INHALER (*N* = 4 STUDIES)

| Pharmacotherapy | Estimated Abstinence Rate |
|------------------------------|------------------------------|
| Placebo (reference group) | 10.5% |
| Nicotine Inhaler | 22.8% |

EFFICACY OF NICOTINE NASAL SPRAY (*N* = 3 STUDIES)

| Pharmacotherapy | Estimated Abstinence Rate |
|------------------------------|------------------------------|
| Placebo (reference group) | 13.9% |
| Nicotine Nasal Spray | 30.5% |

EFFICACY OF NICOTINE PATCH (*N* = 27 STUDIES)

| Pharmacotherapy | Estimated Abstinence Rate |
|------------------------------|------------------------------|
| Placebo (reference group) | 10% |
| Nicotine Patch | 17.7% |

EFFICACY OF COMBINATION NRT (*N* = 3 STUDIES)

| Pharmacotherapy | Estimated Abstinence Rate |
|------------------------------|------------------------------|
| One NRT (reference group) | 17.4% |
| Two NRT's | 28.6% |

PERCENTAGE “REPLACEMENT” MAYO CLINIC MODEL
– divide the cotinine level obtained from the patient while they are getting the NRT (multiplied by 100) by the cotinine level they had prior to treatment – the result should be as close to 100 as possible.

$$\frac{\text{venous cotinine on NRT}}{\text{venous cotinine while smoking}} \times 100$$

Goal = 100%

*Cotinine is a metabolic breakdown product of nicotine and levels can be drawn at any time throughout the day.

FINDINGS FROM DOSE RANGING STUDY:

Dose associated with cessation @ 8 weeks
(P = .007)

| | <u>8 weeks</u> | <u>6 months</u> | <u>1 year</u> |
|-------|----------------|-----------------|---------------|
| 11 mg | 59% | 59% | 41% |
| 22 mg | 62% | 54% | 35% |
| 44 mg | 100% | 78% | 67% |

Dale, et al. *JAMA*, 1995.

IS HIGHER DOSE PATCH THERAPY SAFE?

- Hughes et al, 1999
 - 1039 smokers
 - 0, 21, 35, and 42 mg/d
 - 6 weeks/10 week taper
 - *No difference in adverse events*
- Fredrickson et al., 1995
 - 40 smokers
 - ≥ 20 cigarettes per day
 - NRT: 22 mg/d & 44 mg/d for 4 weeks
 - *Safe, tolerable, no adverse effects*

HIGHER DOSE NICOTINE PATCH

- There is a dose-response effect
- Long-term abstinence improved
- Treatment-related adverse events are uncommon
- Withdrawal symptoms less with higher dose NRT

*Cochrane Database of Systematic Reviews 2005

CARDIOVASCULAR TOXICITY

- Mechanisms-cigarettes
 - Induction of a hypercoagulable (clot forming) state.
 - Increased myocardial (heart muscle) work.
 - Carbon monoxide-mediated reduced oxygen carrying capacity of the blood (CO takes the place of oxygen on the red blood cells and is not easily moved – end point is less oxygen is being carried to the cells.
 - Catecholamine (epinephrine) release which is a stimulant

CARDIOVASCULAR TOXICITY

- The dose to cardiovascular response relation for nicotine is flat.
- Implication: the effects of cigarette smoking in conjunction with NRT are similar to those of cigarette smoking alone.

Benowitz NL, Gourlay SG J Am Coll Cardiol 1997;29:1422-31

WHAT IF THEY ARE ON NRT & SMOKE?

Joseph AM. NEJM 335:1792-8, 1996

- Concern about this is not supported by data.
- Joseph took a cardiovascular high risk group and put them on patch or placebo.
 - 49% of subjects had active angina.
 - 40% of subjects had a history of a heart attack.
 - 35% of subjects had a history of coronary bypass surgery.
 - No increase in cardiac events for the group getting the patch.
 - 21% of the patients were not smoking at the end vs. 9% of the placebo group.

NRT USED WITH A CARDIOVASCULAR DIAGNOSIS

- 5 week placebo controlled trial: 14-21mg/day.
- 156 patients with coronary artery disease.
- Cardiac symptoms monitored, 24 hour electrocardiogram.
- Concomitant smoking with patch.
- Ecg monitoring: no differences noted in irregular heart rate or ECG abnormalities in groups wearing a patch or placebo.

Working Group for the Study of Transdermal Nicotine in Patients with Coronary Artery Disease Arch Int Med 154 (1994), pp. 989-995

NRT WITH CARDIOVASCULAR DX

- Veterans Affairs Cooperative Study.
- 584 smokers with cardiovascular diagnosis.
 - Nicotine patch (21mg/day tapered to 7mg/day).
 - Concurrent smoking.
 - 49% with history of active angina.
 - 40% with history of heart attack.
 - 35% with history of coronary bypass surgery.
- Primary end points.
 - Death, heart attack, cardiac arrest, admission to hospital for angina, arrhythmias (irregular heart rate), congestive heart failure.
- Results: 5.4% in nicotine patch group vs. 7.9% in placebo patch group.
 - Joseph AM. NEJM 335:1792-8 1996.

WHAT IF THEY ARE ON NRT & SMOKE?

- Concern about this is not supported by data.
- Jiminez-Ruiz took severe emphysema patients and placed them on nicotine gum.
 - Most patients continued to smoke, though less.
 - No adverse events attributed to nicotine.
 - Emphysema improved overall.

Jiminez-Ruiz. Respiration 69:452-6, 2002

OTHER TREATMENTS: ZYBAN®

- Generic form= bupropion hydrochloride.
- Marketed first as an antidepressant.
 - Wellbutrin® & Wellbutrin SR ®.
- **First non-nicotine medication approved for smoking cessation.**



OTHER TREATMENTS: VARENICLINE

- Varenicline is a drug which stimulates nicotine receptors in the brain without itself being addictive.
- Developed by Pfizer pharmaceuticals, varenicline is a nicotine partial receptor agonist which comes in pill form to prevent withdrawal symptoms in people attempting to quit smoking.



CESSATION RESEARCH AND THE CHEMICALLY DEPENDENT PATIENT

- 
- 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 patients followed for 1 year.
 - Intervention group received nicotine treatment, 10 intervention sessions and a structured relapse prevention program.
 - 1 year confirmed cessation rate in the intervention group was 11.8% and 0% in the control group.
 - 1 year relapse rate (alcohol and drug) was 31.4% in the intervention group and 34% in the control group.

Recovery Rates After Treatment for Alcohol/Drug Dependence

Tobacco Users vs. Non-Tobacco Users

Elizabeth B. Stuyt, M.D.

Because it has been seen repeatedly that using another addictive drug frequently leads to relapse to using the initial drug of choice, most chemical-dependence treatment specialists recognize the necessity of addressing all drugs of abuse in the same treatment setting. This treatment philosophy, however, does not appear to apply to the drug nicotine. Although a significant number of persons with alcohol/drug dependence use tobacco on a regular basis, there do not appear to have been any studies conducted on the effect of nicotine use on outcome after treatment for alcohol/drug dependence. In a prospective study, the authors compared 12-month recovery rates after inpatient treatment for alcohol/drug dependence in tobacco users and non-tobacco users. Significantly better recovery rates were discovered for non-tobacco users than tobacco users, especially if the drug of choice was a sedative, such as alcohol or narcotics. Data presented here support the theory that continued nicotine use may be a relapse factor for resuming alcohol use. (Am J Addict 1997; 6:159-167)

Significantly better recovery rates at 12 month in non-tobacco users than tobacco users, especially if the drug of choice was alcohol or narcotics

(American Journal of Addiction 1996).

It is well documented in the smoking-cessation literature that alcohol use is a relapse factor for resuming tobacco use.¹⁻³ Although there are indications that the reverse may also be true,^{4,5} the question of whether tobacco use is a relapse factor for resuming alcohol use has never been systematically studied, in spite of the evidence⁶ that 80%-95% of alcohol abusers

use tobacco products. A review of several outcome studies for treatment of alcohol and drug dependence indicates that only 13%-36% of patients maintain continuous abstinence to their drug of choice for 6 months to 2 years after treatment.⁷⁻¹² This finding leads to a logical question: What is the percentage of tobacco users in those remaining abstinent vs. those who relapse?

Received May 21, 1996; revised September 13, 1996; accepted October 3, 1996. From the Department of Psychiatry, Texas Tech University Health Sciences Center, Lubbock, TX 79430. Address correspondence to Dr. Stuyt at the above address; e-mail: psyeb@ttuhsc.edu

Copyright © 1997 The American Academy of Addiction Psychiatry.

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 (minimum 4 months at the clinic).
 - The amount of smoking correlated with use of cocaine and heroin.
 - Looked at 3 categories – heavy smokers (20-40/d), chippers (<5/d) and non smokers.

- 
- Sullivan and Covey in *Curr Psych Rep* 2002
 - Tobacco abstinence does not increase alcohol relapse.
 - Continued smoking adversely affects marijuana 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.

- 
- Lemon et al *Addictive Behaviors* 28 (2003) 1323 – 1331
 - 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, sedatives, opiates, marijuana, stimulants, hallucinogens) after completion of treatment.

- Prochaska et al *Journal of Consulting and Clinical Psychology* (2004)
 - 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.**
 - Smoking cessation worked well initially but was difficult to sustain in the groups.
 - In the later studies which used NRT's, success was increased.

SMOKING MAY INCREASE ALCOHOL USE

- Drinking and smoking commonly co-occur.
- Researchers assessed the desire for alcohol in 15 male occasional smokers* who smoked 4 nicotine-containing cigarettes over 2 hours on 1 day and 4 cigarettes without nicotine (placebo) over 2 hours on another day.
 - During the smoking sessions, subjects could earn drinks of water and alcoholic beverages of their choice by successfully completing a computerized task.
 - Subjects were more likely to choose alcohol than water, regardless of the type of cigarette smoked.
 - **They drank significantly more alcohol when they smoked the nicotine-containing cigarettes than when they smoked the placebo cigarettes.**
 - Water consumption did not significantly differ during the 2 smoking sessions.

*Smoked cigarettes an average of 2.7 days per week and drank alcohol on 2.3 days per week; all had smoked at least 4 cigarettes during a drinking session at least once in the past year.

Barrett SP, Tichauer M, Leyton M, et al. Nicotine increases alcohol self-administration in non-dependent male smokers. *Drug Alcohol Depend.* 2006;81(2):197–204.

SMOKING COMPLICATES RECOVERY

- Smoking may make the task of recovering from alcohol addiction more difficult.
 - Smoking appears to slow down improvements in brain function and health in recovering alcoholics.
 - Researchers used MRIs to scan the brains of 25 alcoholics, including 14 smokers. They found that brain function and health improved substantially after a month of abstinence, but less so among smokers.

The research appears in the journal *Alcoholism: Clinical and Experimental Research* March 2006.

CHANGES IN CIGARETTE CONSUMPTION AND DRINKING OUTCOMES: FINDINGS FROM PROJECT MATCH

- Friend and Pagano
 - Looked at Project MATCH participants over 15 month duration.
 - Groups divided into decrease cigarette use, increased cigarette use and no change.
 - Patients with decreased use were significantly less likely to relapse to alcohol use.

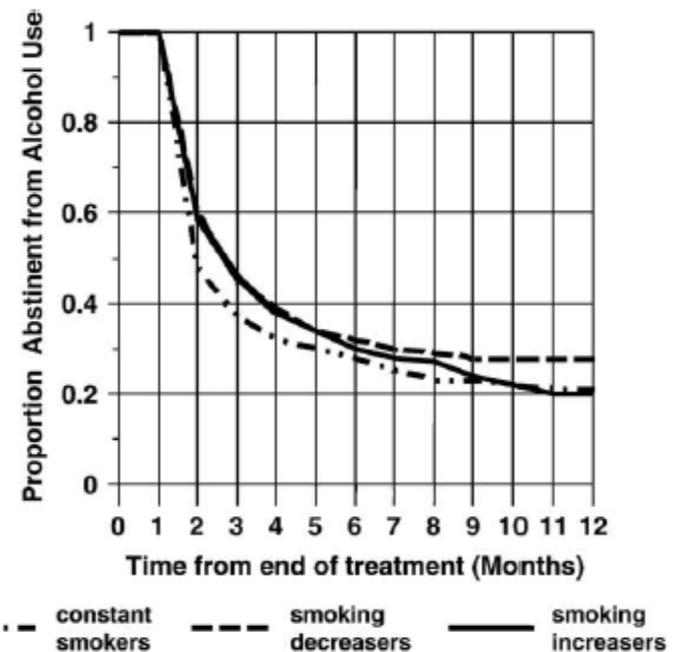


Fig. 2. Survival curves of time to first drink by change in smoking classification group.

Recovering Alcoholic Smokers Can Quit Second Addiction - Mayo Clinic 2005

- Alcoholics are statistically heavier smokers and traditionally have had much more trouble stopping smoking using standard-dose nicotine patch therapy.
- 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.
- Investigators hoped to show that maintaining a more consistent level of serum cotinine through customized nicotine replacement therapy would enable more smokers to quit for good, and results from this initial study are positive in this group of smokers.
 - Investigators individualized the nicotine patch dose based on patients' serum cotinine levels taken while the patients smoked their usual number of cigarettes.
 - These levels were measured again in mid-study to assist in customization of patch dosage as well as comparison between levels of serum cotinine and ability to abstain from smoking.
 - The study also examined other predictors of treatment response including history of depression, marital status and presence or absence of other smokers in the household.
 - **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.**

THE SMOKE FREE ADDICTION TREATMENT UNIT MODEL

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 on-going 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.

1 - 2 YEAR PLAN

- @1 - 2 years prior to initiation of the plan
 - Obtain cooperation, agreement and support of administration and medical leadership.
 - Inform staff.

1 - 2 YEAR PLAN

- @1 - 2 years through 6 months prior to initiation of the plan
 - Regular in-services with staff.
 - Encourage smoking staff to quit.
 - Develop policies and procedures.
 - Violations
 - Consequences
 - Nicotine Anonymous meetings
 - Visitor restrictions (dress, smell)
 - Staff restrictions

1 - 2 YEAR PLAN

- @ 6 months prior to initiation of the plan
 - Initiate weekly tobacco education group for patients.
 - Self help materials available for patients and staff.

1 - 2 YEAR PLAN

- @5 months prior to initiation of the plan
 - Increase intensity of staff education.
 - Send staff to conferences.

1 - 2 YEAR PLAN

- @4 months prior to initiation of the plan
 - Discuss upcoming changes with other departments: admissions, housekeeping, security, maintenance, administration, dietary, to obtain their cooperation.

1 - 2 YEAR PLAN

- @3 months prior to initiation of the plan
 - Policies and procedures finalized and accepted.
 - Staff members aware of the changes.
 - Smoking area on the unit reduced in size.
 - Consider purchasing a carbon monoxide (co) monitor.

1 - 2 YEAR PLAN

- @2 months prior to initiation of the plan
 - Unit medical director discusses plans with physicians.
 - Current patients are informed of changes.
 - Process feelings.
 - Begin a second weekly group on smoking cessation – attendance required.

1 - 2 YEAR PLAN

- @1 months prior to initiation of the plan
 - Patients informed that smoking times would be reduced; patients vote on which times.
 - Smoking times reduced to 6 times per day.

1 - 2 YEAR PLAN

- @ 3 weeks prior to initiation of the plan
 - Support departments plans finalized.
 - Dietary: will provide carrot sticks, juices.
 - Housekeeping: planning deep cleaning.
 - Security: agrees to search all visitors.
 - Maintenance: research smoke detectors in the bathrooms.
 - Activity therapy: planning extra morning exercise group.
 - Admissions: will discuss smoke free policy with all new patients and families prior to admission.
 - Pharmacy: will order a supply of NRT's.
 - Medical/nursing staff familiarize themselves with co monitor.

1 - 2 YEAR PLAN

- @ 2 weeks prior to initiation of the plan
 - Begin informing new patients prior to admission.
 - Community meetings for patients to discuss policy.

1 - 2 YEAR PLAN

- @ 1week prior to initiation of the plan
 - Problems start.
 - Patient and staff anger.
 - Staff question wisdom of policy.



1 - 2 YEAR PLAN

- @ 2 days prior to initiation of the plan
 - Community meetings.

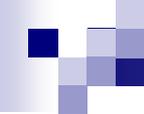


1 - 2 YEAR PLAN

- Start day
 - Collect all cigarettes, lighters.
 - Search rooms.
 - Daily and with patient senior peers.

BILLING

- Cannot bill for tobacco cessation treatment directly.
- Can be part of a relapse prevention group/counseling.
- 305.1 is Nicotine Dependence.
- V65.49 is Tobacco Cessation Counseling.



WILL THERE BE AN IMPACT? ABSOLUTELY

- Certify 1,300 community based treatment programs which serve 115,000 New Yorkers each day.
- State operated ATC's (13).
- 42,000 patients in methadone treatment.
- 300 prevention programs in schools and communities.



***TOBACCO DEPENDENCE IS A
CHRONIC DISEASE WITH REMISSION
AND RELAPSE***

***“NICOTINE DEPENDENCE WARRANTS
MEDICAL TREATMENT AS DOES ANY
DRUG DEPENDENCE DISORDER OR
CHRONIC DISEASE”***

Fiore et al, U.S. Dept of Health and
Human Services, June 2000