Cessation & Treatment Issues:

Making the Case for

Treating Tobacco Dependence & Non-Tobacco Substance Abuse Concurrently

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Goals & Objectives

- Relationship between tobacco & substance abuse/mental health issue
- Theoretical rationale for concurrent treatment
- What the literature shows

Smoking and Substances of Abuse

- Smokers are more likely to report use of a sedative, stimulant, or opiate in last 12 months than non-smokers

- Alcohol/heroin/cocaine/marijuana users
  - Smoking prevalence 75-98%

- Alcohol
  - Heavy alcohol use correlates with heavy smoking
  - 80-95% of patients in alcohol treatment smoke
  - Risk of alcoholism among heavy smokers 10 x that of non-smokers
  - Smoking alcoholics make up 25.9% of all smokers

Sullivan et al, *Curr Psychiatry Rep*, 2002

Degenhardt et al, *Nico Tob Res*, 2001

Smoking & Alcohol Abuse

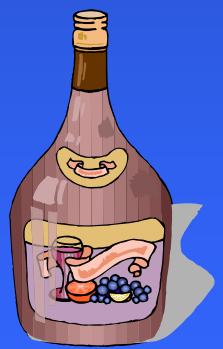
- More tobacco dependent
- Smoke more cigarettes
- Experience more withdrawal symptoms when they quit

Hurt et al, *Addiction,* 1995

Marks et al, *J Subst Abuse Treat,* 1997

Mortality After Alcoholism Treatment

- Observed mortality 2.5 times expected
- Tobacco-related disease caused 51% of deaths
- Alcohol-related disease caused 34% of deaths
- Leading causes: CAD,cirrhosis,COPD



Hurt et al, *JAMA*, 1996

Rationale of Treating Alcohol and Tobacco Dependence Concurrently

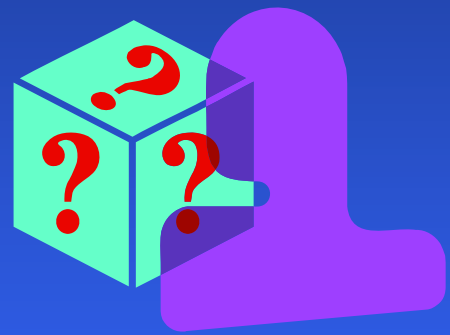
- Tobacco: serious cause of morbidity/mortality
- Closely-related behaviors
- Eliminates a cue to relapse
  - Cross-addiction neuroadaptation
- Common message
- Apply same treatment philosophy
- Protected milieu (inpatient programs) to initiate an attempt

Barriers to Treating Alcohol and Tobacco Dependence Concurrently

- Too Hard
- Tobacco not a “real” drug
- Consequences not immediate
- Not as disruptive to patient’s life if don’t treat
  - Adds unnecessary stress to treatment
- Jeopardize recovery

Simultaneous Treatment of Tobacco Use & Other Addictions

Help or Hinder?



What does the evidence show?

Interest in Tobacco Dependence Treatment

- Patients reporting for substance abuse treatment (n = 272)
- Interest in quitting tobacco at some time
  - 72% of cocaine users
  - 70.5% of heroin users
- Interest in tobacco treatment at time of treatment for other drugs
  - 52% cocaine users
  - 50% of alcohol users
  - 42% of heroin users

Sees et al, *J Subst Abuse Treat*, 1993

Tobacco Dependence & Other Addictions: Inpatient Treatment

- Prospective study
- 101 patients (50 control & 51 intervention) in inpatient treatment for other non tobacco drugs

- Intervention: tobacco dependence treatment
  - Consultation
  - 10 intervention sessions
  - Relapse prevention program

- Control: usual care

Hurt et al, *Alcohol Clin Exp Res,* 1994

Tobacco Dependence & Other Addictions: Inpatient Treatment

- Outcomes:
  - Smoking cessation
    - 11.8% intervention
    - 0% control
  - Alcohol/other drugs relapse rate
    - 31.4% intervention
    - 34.0% controls

- Conclusion:
  - Tobacco dependence treatment enhanced smoking cessation
  - No adverse effect on abstinence from the non-tobacco drug of dependence

Hurt et al, *Alcohol Clin Exp Res,* 1994

Relapse to Drug Use & Smoking

- Drug Abuse Treatment Outcome Study
- 2316 smokers

- Smoking was associated with greater abstinence from drug use after completion of drug abuse treatment (P = .04).

Lemon et al, *Addictive Behaviors,* 2003

Relapse to Drug Use & Smoking

- Meta-analysis of 19 RCTs
- Smoking cessation was associated with a 25% increased likelihood of long term abstinence from alcohol and illicit drugs

Prochaska, J Consult Clin Psychol, 2004

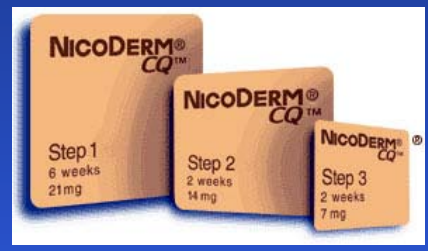
Recommendations

- Tobacco use treatment should be a component of drug abuse and mental health treatment

- Tobacco abstinence should not be used as a surrogate for success of drug abuse/mental health treatment

Alcohol Abuse and Tobacco Dependence: Treatment Recommendations

- Treatment success with behavioral intervention has been observed
- Pharmacotherapy
  - Higher doses of nicotine patch
  - Longer duration of therapy
  - Combination therapy
  - Bupropion is effective



Patten, *J Stud Alcohol*, 1998

Hurt et, *Addiction*, 1995

Martin et al, 1997

Dale et al, 1995

Hayford et al, *Br J Psychiatry*, 1999

Concomitant Use of Antidepressants & Bupropion SR

- Contraindications for Bupropion SR use
  - History of seizures
  - Previous head/CNS trauma
  - Eating disorders
    - Bulimia
    - Anorexia nervosa
  - MAOI's (14 days before initiation)

Concomitant Use of Other Antidepressants & Bupropion SR

- SSRIs (Selective Serotonin Reuptake Inhibitors)
  - Citalopram [Celexa®]
  - Fluoxetine [Prozac®; Sarafem®; Symbyaz®]
  - Paroxetine [Paxil®; Paxeva®]
  - Fluvoxamine [Luvox®]
  - Lexapro® [escitalopram]
  - Zoloft [sertraline]
  - Celexa [citralopram]

- Venlafaxine (blocks reuptake of both 5-HT and NE)

Concomitant Use of Antidepressants & Bupropion SR

- May use simultaneously
- Monitor for antidepressant side effects
  - Increased blood levels
- May considering decreasing dose of antidepressant before starting

Concomitant Use of Antidepressants & Bupropion SR

- May use simultaneously
- Limited CYP-450 interactions
  - Unlikely drug interactions w/ SSRI & venlafaxine
- SSRI + bupropion SR is preferred augmentation strategy among community psychiatrists
  - Depression non-responders
- Bupropion – noradrenergic complements serotonergic mechanism of SSRIs

Concomitant Use of Antidepressants & Bupropion SR

- Subjects on SSRI or venlafaxine
  - Received bupropion SR 150 mg po qd
- Significant increase in venlafaxine blood levels
  - *P* = .001
- No significant changes in plasma levels of SSRIs

Kennedy et al, *J Clin Psychiatry*, 2002

Concomitant Use of Antidepressants & Bupropion SR

- 42 patients with SSRI-induced sexual dysfunction
- Randomized to bupropion SR 150 mg twice/day for 4 weeks
- Conclusions: Bupropion SR is an effective antidote to SSRI-induced sexual dysfunction

Clayton et al, *J Clin Psychiatry*, 2004

Concomitant Use of Antidepressants & Bupropion SR

- 28 patients
- On SSRI who failed to have clinical response
- Bupropion SR 150-300 mg/day added
- Side effects: headache, insomnia, dry mouth

- <u>Conclusions</u>: Supports the use of bupropion SR in the augmentation of SSRIs

DeBattista et al, *J Clin Psychopharmacol*, 2003

Concomitant Use of Antidepressants & Bupropion SR: **Monitoring**

- May increase blood concentrations of other antidepressants

- Monitor patients for
  - Worsening of depression or suicidality
  - Unusual changes in behavior
  - Especially at the initiation of therapy or when the dose increases or decreases

Goals & Objectives

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Smoking & Depression

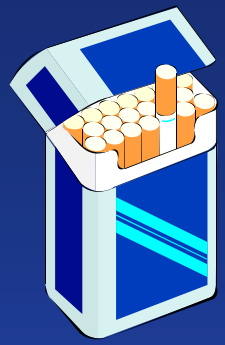
- Smokers have:
  - Higher lifetime prevalence of depression
  - Higher prevalence of anxiety disorder
  - Increased withdrawal symptoms
  - Increased depression w/ abstinence
    - Negative moods trigger relapse

Smoking and Depression

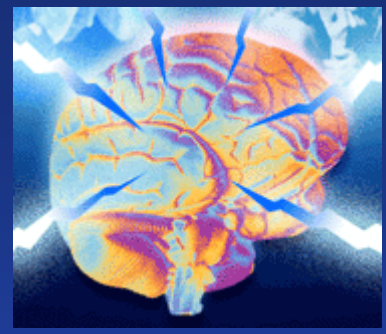
- Smokers report more depressive symptoms than nonsmokers
- Of smokers enrolled in clinical trials, 34-48% have been classified as depressed
- Depressed smokers less likely to quit: 9.9% vs. 17% at 9 years
- Presence of depressive symptoms predicts poorer outcome following cessation

Schizophrenia

- Patients with chronic schizophrenia smoke
  - 70 - 90% prevalence
- Postulated that negative symptoms result from deficiency of dopamine in prefrontal areas
- Postulated that positive symptoms result from excess of dopamine in mesolimbic system



Anxiety



- Smoking twice as high among patients with anxiety (who do not have depression)
  - Patient with Panic Disorder, 40%
  - Controls, 25%

Pohl, *Psych Res*, 1992

Bulimia

- 42 Inpatients,
  - 52% regular smokers
  - 2/3 of these reported smoking decreased their appetite

Bulik, *Int J Eating Disorders,* 1992