

Treating Medically Ill Smokers in the Hospital

by Michael B. Steinberg, MD MPH

Smokers with medical illnesses have higher incidence of further complications and progression of disease ⁽¹⁾ than those who quit, so it is critical that these smokers quit whenever possible. Quitting smoking reduces the risk of recurrent myocardial infarction, restenosis of coronary interventions, and cardiac sudden death. However, only 50% of smokers quit after suffering a myocardial infarction. Despite the general perception of physicians, knowledge about specific health effects of tobacco use is not universally understood. While over 75% of smokers are aware of the link between lung cancer and smoking, only one-third link it to heart disease ⁽²⁾. Continuing smokers are at the highest risk of cardiac death and thus require maximal efforts to assist them in quitting. However, due to their medical conditions, they often do not receive adequate treatment for tobacco dependence ⁽³⁾, especially pharmacotherapy, as prescribers are cautious with certain conditions, such as cardiac disease. These concerns still exist primarily from a few case reports of cardiac complications in those using nicotine medications in the early 1980's, despite numerous subsequent studies demonstrating the contrary.

Recent Public Health Service Clinical Guidelines and reviews have demonstrated the efficacy of medications to help smokers quit ^(4,6). There is also evidence that smokers with significant nicotine dependence may benefit from higher intensity treatment regimens, including combinations and extended durations of medications. There are data that combinations of medications ^(5, 7-9) and extended duration of treatments ⁽¹⁰⁾ may be beneficial, and may not be associated with increased adverse events ⁽¹¹⁾. Smokers with medical illness, including cardiac disease, who continue to smoke are by definition significantly dependent and therefore may require more intensive interventions to assist them.

With many medical conditions, we take a step-wise approach to intensity of therapy, gradually increasing intensity as interventions fail. However, some medical situations are critical enough that they require intensive interventions from the outset to maximize the chance for effect. For example, following myocardial infarction, patients are placed on a combination of secondary prevention medications including lipid lowering medications, beta-blockers, and aspirin. In regards to tobacco dependence treatment, especially among the most high-risk smokers with chronic medical illnesses who are already hospitalized, we need to take a similar intensive, front-loaded approach. Data indicates that the early days of a quit attempt are critical, so early success is important. In addition, the early weeks following an acute coronary event are a critical period for recurrent events, thus, a critical period for smoking cessation.

Particularly evident are the tobacco effects seen within the hospital. Smoking leads to many diagnoses that result in hospitalization and there are numerous surgical complications associated with continued tobacco use. It is within this setting that the patient's chronic medical conditions have progressed to the point of requiring acute medical care. It is also an environment that has been shown to be conducive to tobacco interventions. Patients are feeling especially vulnerable during hospitalization, thus creating

Night-Smoking: A New Tool for Measuring Tobacco Dependence

by Michelle T. Bover, MPH

A recent study here at the UMDNJ-School of Public Health's Tobacco Dependence Program found that more than half of smokers who have tried to quit using our Tobacco Dependence Clinic reported sometimes waking at night to smoke (night-smoking). We also found that individuals identified as night-smokers were significantly more likely to resume smoking within six months, indicating that this behavior is a strong predictor of relapse and an important indicator that the more intensive and sustained treatment may be required.

We were surprised to see how many patients report waking at night to smoke. In fact, of the over 2,300 subjects included in our analysis, 51 percent were identified as night-smokers during their assessment interview. Clinicians typically estimate how addicted a smoker is based on how many cigarettes they smoke per day or how soon they smoke after waking in the morning. However, we found that night-smoking was not only a significant predictor, but a stronger predictor of relapse-to-smoking within six months than these traditional markers of tobacco dependence. Additionally, among all patients who relapsed, night-smokers had a shorter average time to relapse than patients that were not night-smokers.

So what can we learn from this study? For one, clinicians should assesses night-smoking behavior whenever treating tobacco dependence. We believe that the wording of our night-smoking assessment item ("Do you sometimes awaken at night to smoke or use tobacco?") is ideal because it is both simple and distinguishes between waking at night to smoke due to cravings as opposed to smoking at night while awake for some other reason. Once night-smokers are identified, we may need to modify the traditional approaches used to help these individuals to quit smoking. For example, this group of smokers may benefit from counseling and tailored pharmacotherapy, such as avoiding cessation medications that can cause sleep disturbances and using a 24-hour nicotine patch.

The study, which is the first of its kind to identify the characteristics and outcomes of night-smokers in a real-world patient population, appeared in the February issue of the International Journal of Clinical Practice and is currently available at www.tobaccoprogram.org/staffarticles.htm.



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a "teachable moment", they are placed in a setting of forced abstinence, and they can be monitored closely during intense interventions, if needed. Therefore, the hospital setting is an important setting for intervention.

Previous studies looking at the effect of hospital interventions for smokers have shown some effect. A previous review reported that those interventions that are effective require at least a moderate amount of intensity and follow-up⁽¹²⁾. These studies have used both behavioral interventions, delivered by varying personnel, and some have utilized various forms of nicotine replacement therapies. However, pharmacological results in this population have been mixed, and there are no published data utilizing combination medications within the hospital setting. What remains unclear is the optimal treatment modality and intensity (counseling, medications, or both), the optimal follow-up (telephone, face-to-face) and who is best to deliver these interventions (physicians, nurses, psychologists, counselors, etc.). Some of the limitations to previous studies in this population include a lack of utilization of combination pharmacotherapy, and a limited physician role in most interventions, often delivering only brief advice. In addition, the advantage of initiating medication treatment during hospitalization is not well understood. In theory, treating tobacco withdrawal during hospitalization could influence physiologic responses that might worsen outcomes, such as catecholamine related hyperglycemia. Also, the relief of physical withdrawal symptoms themselves is a benefit to the patient, improving quality of comfort, and the confidence and familiarity of using these medications in the hospital may increase utilization following discharge.

System-based interventions have been recommended by the Public Health Service Guidelines (4) as effective ways to improve tobacco dependence treatment. Since they can result in universal identification, facilitate hospital-based treatment, and link to outpatient follow-up, they seem ideally suited for this setting. Unfortunately, current policies by the Joint Commission for Accreditation of Healthcare Organizations (JCAHO) only require hospitals to have a smoke-free indoor policy, and offer some type of cessation help. Many hospitals choose to just do the minimum (usually a discharge pamphlet) in order to achieve compliance.

What is needed in order to bolster our knowledge of treating hospitalized smokers are more data regarding 1) effectiveness of high-intensity interventions during hospitalization; 2) impact of these interventions on clinical outcomes; and 3) the benefit of system-wide implementation of comprehensive tobacco control measures within the hospital, from smoke-free campuses to on-site treatment and follow up for all patients and employees. This is an important and interesting field of research for the coming years.



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**Proyecto Vida:
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has developed language and culturally sensitive services to help members of the Hispanic community quit smoking.

The program kicked off in January of 2006 and the response from the Hispanic community has been overwhelming.

For more information, visit www.proyectovidanofume.org

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