

# Addressing Tobacco Use in Anesthesiology Practice

## A Call to Action

CIGARETTE smoking exacts an enormous toll in human suffering and economic costs.<sup>1</sup> In the United States, where 19.8% of adults smoke, it is the leading preventable cause of death.<sup>2,3</sup> Tobacco use is also the leading preventable cause of death worldwide.<sup>4</sup> The good news is that the risk of premature death and disability is dramatically reduced when smokers quit, even if they do not quit until they have already developed a smoking-related disease or have smoked for decades.<sup>5,6</sup> A convincing body of evidence shows that physicians can take simple steps to help smokers to quit.<sup>7</sup> Doing as little as providing brief advice to quit routinely to all smokers is effective.<sup>8</sup> Even more effective is providing a brief office-based intervention. Clinical practice guidelines from the U.S. Public Health Service translate this evidence into practice for physicians in general.<sup>7</sup> A paper in this issue takes it a step further, by tailoring the strategy for anesthesiology practices.<sup>9</sup>

The U.S. clinical practice guidelines, updated in 2008, recommend that every physician address tobacco use at every patient visit and outline a simple strategy for doing so.<sup>7</sup> This includes asking every patient about smoking status, advising all smokers to quit, and offering assistance to smokers by prescribing a smoking cessation medication (nicotine replacement, bupropion, or varenicline) and referring the smoker for further smoking cessation support. Support can be provided in person but is often provided by telephone, which is effective and usually more convenient for smokers.<sup>10</sup> In the United States, any smoker can access smoking cessation counseling for free by calling the national telephone quitline number (1-800-QUIT-NOW). Quitlines in some states also offer free nicotine replacement in the form of patches or gum.

Up to now, primary care physicians have been the focus of health care system efforts to address smoking. Specialists like anesthesiologists have largely been ignored. This is no longer the case. A Task Force of the American Society of Anesthesiology, appointed in 2006, adapted the evidence-based United States clinical prac-

tice guidelines developed for physicians in general into a strategy that is both relevant and efficient for anesthesiologists. The paper by Warner *et al.* describes a pilot study that examines the feasibility of putting these into practice.<sup>9</sup>

Why should anesthesiologists bother to address tobacco use? There are at least two good reasons. First, doing something about a patient's smoking can improve clinical outcomes in the short term. Smoking represents a risk factor for perioperative cardiac, respiratory, and wound healing complications.<sup>11</sup> A growing body of research shows that a smoker who quits during the preoperative period reduces his or her risk of perioperative complications and can even have a shorter hospital stay.<sup>11,12</sup> Studies have found that quitting for as little as 3 weeks before surgery reduces postoperative complications, especially those related to wound healing.<sup>13</sup> Using a nicotine patch to quit does not interfere with these benefits, even though it continues a smoker's exposure to nicotine.<sup>14</sup> An even shorter period of preoperative tobacco abstinence—even a day—probably has some benefits and does not appear to cause any harm.<sup>11</sup>

A second reason why anesthesiologists should address tobacco use is that they encounter smokers at a unique teachable moment for behavior change. Patients facing surgery feel vulnerable and are eager to reduce their perioperative risk. Providing the information that quitting smoking before surgery can reduce one's short-term risk of surgical complications can provide powerful motivation to change behavior. Several studies have demonstrated that providing smokers with brief counseling and a medication to aid quitting (usually the nicotine patch) increases the proportion of smokers who quit before surgery.<sup>12,13,15</sup> This temporary preoperative tobacco abstinence provides a smoker with a start on what can be permanent quitting. This is particularly likely for those smokers who require hospitalization for their postoperative recovery. Virtually no United States hospital permits inpatients to smoke, and the period of enforced tobacco abstinence gives smokers the opportunity to try out nonsmoking away from their usual temptations to smoke. Furthermore, smoking cessation counseling can be provided during a hospital stay to help smokers make a decision to remain smoke-free after discharge. Smoking interventions in the hospital increase the odds that a smoker will quit long-term after hospital discharge as long as there is continued support after discharge.<sup>16</sup>

To take advantage of these opportunities, the American Society of Anesthesiology's Smoking Cessation Initiative Task Force has designed a simple three-step system (Ask-Advise-Refer or AAR) that tailors evidence-

This Editorial View accompanies the following article: Warner DO, The American Society of Anesthesiologists Smoking Cessation Initiative Task Force: Feasibility of tobacco interventions in anesthesiology practice: A pilot study. ANESTHESIOLOGY 2009; 110:1223-8.

Accepted for publication March 17, 2009. Supported by a Midcareer Investigator Award in Patient Oriented Research #K24HL004440 from the National Heart Lung and Blood Institute, Bethesda, Maryland (to Dr. Rigotti). In the past 5 years, Dr. Rigotti has consulted for Pfizer, New York, New York; Sanofi-Aventis, Paris, France; and Free and Clear, Seattle, Washington. She has conducted research on investigational or marketed smoking cessation products for Pfizer, Sanofi-Aventis, and Nabi Biopharmaceuticals, Rockville, Maryland.

based smoking cessation strategies for anesthesiology practice and is designed to be quick and efficient to implement. In this system, the physician's (or other clinician's) task is to ask a patient about smoking status, advise smokers to quit in order to gain the immediate benefit of reduced surgical complications, and refer smokers to the free national telephone quitline that provides further support. A "Be Smokefree for Surgery" Web site offers well-designed patient handouts, including a card with the national quitline number that is designed to look like a credit card and fit in a wallet.\* The Web site also features handouts and videos to explain the benefits of quitting and show smokers what happens if they call a quitline. From the perspective of a smoking cessation expert, the package looks very well done, but data are needed to demonstrate that it will be used and have the desired effects on smokers.

The paper by Warner *et al.* in this issue starts that process. A pilot study tested the feasibility of implementing the system in 14 anesthesiology practices. Practices were trained in various ways and then instructed to implement the strategy as they saw fit. After 3 months, individuals in these practices completed a survey asking about their experiences. The results were encouraging overall. Respondents reported that they used the strategy at least some of the time and that it was acceptable to patients. The conclusions that can be drawn from this modest pilot work are limited for several reasons. The sample was small and not representative of anesthesiology practices. Some Task Force members, who would be early adopters of the innovation, were among the subjects. Therefore, the results may overestimate the acceptability of the system to the broader anesthesiology community. Furthermore, the paper reports only what clinicians say that they are doing, not what they actually do, what patients actually hear, and whether the intervention affects smoking behavior or clinical outcomes. These are real limitations, but the goal of the study was to provide some indication of the program's feasibility and acceptability, and the study certainly accomplishes that.

Despite the study's limitations, its results are unquestionably good enough to support further implementa-

tion and testing. I hope that more definitive evidence that the system actually alters patient behaviors or surgical outcomes will be forthcoming. In the meantime, however, I see no reason why anesthesiologists should wait to put the system into practice. Even if its efficacy is yet to be demonstrated definitively, it is based on sound evidence, it is efficient of time and tailored to the nature of anesthesiology practice, and it has little downside risk. In my view, the likelihood of benefit is strong enough to support practice change now. I urge you to try it.

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\* Available at: [www.asahq.org/stopsmoking](http://www.asahq.org/stopsmoking). Accessed March 15, 2009.