

smaller than cigarettes and typically contain only about a quarter as much tobacco (they are wrapped in the leaf of another plant). In a comparison between smokers and nonsmokers, the relative risk of death from any medical cause did not depend on educational level, but it did depend on whether bidis or cigarettes were smoked and the amount smoked (Fig. 1). The risk ratio for a given number of bidis or cigarettes smoked was greater for cigarettes than for bidis. However, we found a dose–response relationship between smoking and mortality among men who smoked only bidis and among men who smoked only cigarettes ( $P < 0.001$  for both trends), with particularly elevated risk ratios for cigarette smoking.

In response to Pandey and Pandey, the additional adjustment for tobacco chewing did not materially alter the relative risk of death from any medical cause or the relative risk of death from cancer in a comparison of smokers and nonsmokers.

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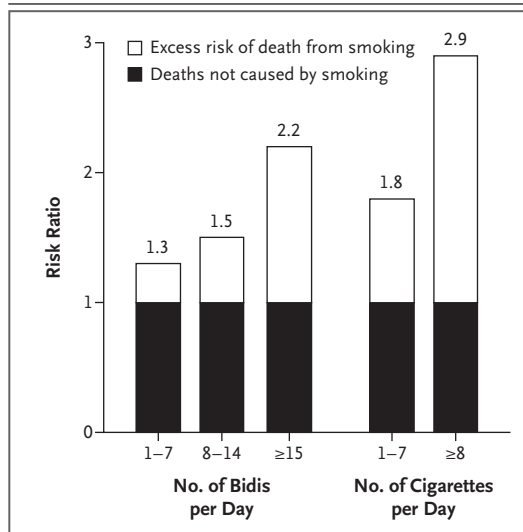
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**Figure 1. Risk of Death in Men between the Ages of 30 and 69 Years, According to the Type and Amount of Tobacco Smoked.**

Risk ratios are for smokers as compared with nonsmokers. The mean numbers of bidis smoked per day were divided into three categories: 4.4 (1 to 7 bidis), 10.2 (8 to 14 bidis), and 23.9 ( $\geq 15$  bidis). The mean numbers of cigarettes smoked per day were divided into two categories: 4.0 (1 to 7 cigarettes) and 13.7 ( $\geq 8$  cigarettes). More results are available on the Web site of the Centre for Global Health Research at [www.cghr.org/tobacco](http://www.cghr.org/tobacco).

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## Acinetobacter Infection

**TO THE EDITOR:** In their review article, Munoz-Price and Weinstein (March 20 issue)<sup>1</sup> state that “Acinetobacter is a gram-negative coccobacillus” and that it is “nonreactive in many biochemical tests commonly used to differentiate among gram-negative bacilli.” However, acinetobacter can be gram-variable and even gram-positive on initial Gram’s staining.<sup>2,3</sup> The appearance of the bacte-

ria is highly dependent on its life-cycle phase: it is rod-shaped during the growth phase and coccobacillary during the stationary phase.<sup>4,5</sup> The oxidase-negative characteristic allows one to differentiate acinetobacter from other important gram-negative bacteria such as pseudomonas and neisseria.<sup>4,5</sup> This information can be useful with respect to diagnosis and time to treatment when

a clinician has a high clinical suspicion of acinetobacter infection but the Gram's stain does not show a gram-negative coccobacillus.

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**TO THE EDITOR:** Munoz-Price and Weinstein did not comment on abscesses as one of the clinical manifestations of acinetobacter infection. In our intensive care unit (ICU), we identified two patients with multidrug-resistant *Acinetobacter baumannii* abscesses. The first patient was a 77-year-old woman who underwent splenectomy after multiple trauma and in whom a lung abscess developed after 60 days in the ICU. This patient recovered. In the literature there is a case report of a lung abscess<sup>1</sup> and three cases of pneumatoceles due to *A. baumannii*.<sup>2</sup> The second patient was a 68-year-old man who also underwent splenectomy after multiple trauma, and in whom an intraabdominal abscess developed at the site of splenectomy 10 days after admission to the ICU. This patient died. To our knowledge, only four cases of *A. baumannii* intraabdominal abscesses have been reported in the literature.<sup>3,4</sup>

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**TO THE EDITOR:** As pointed out by Munoz-Price and Weinstein, *A. baumannii* is an important contaminant of wounds, and it is an important causative agent of infectious complications of open fractures, as reported in studies involving combat casualties.<sup>1-3</sup> In our reference service in Brazil for severe skeletal trauma, over the past 5 years *A. baumannii* was the second most frequent agent related to infection in open Gustilo type II and III fractures. It was isolated in 25 patients (18% of the total number of patients), and the majority of isolates were multidrug-resistant.

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**THE AUTHORS REPLY:** Kapoor is correct. As noted in our review article, on Gram's staining of cultures of acinetobacter, bacilli or coccobacilli may predominate, depending on the culture medium. Young acinetobacter cultures (most frequently in liquid mediums) can stain as gram-positive<sup>1</sup> and have coccal morphology for approximately 24 hours; the latter effect is seen in up to 25% of liquid cultures growing acinetobacter (Schreckenberger P: personal communication). This behavior is shared by other gram-negative bacilli such as neisseria and moraxella. Regarding the oxidase-negative characteristic, it is true that it will differentiate acinetobacter from oxidase-positive organisms such as pseudomonas and neisseria; however, it will not differentiate acinetobacter from oxidase-negative nonfermenting bacteria such as *Stenotrophomonas maltophilia* or oxidase-negative fermenting bacteria such as members of the Enterobacteriaceae family.

As mentioned by Myrianthefts et al. and Lima et al., acinetobacter can manifest as wound infections. As we noted, in one series of patients affected by a natural disaster, 20% of wounds were infected with acinetobacter; acinetobacter was also a common cause of infected wounds in the battlefield and burn injuries. Our experience in the greater Chicago area is that acinetobacter detected in wounds more frequently tends to be a contaminant than an actual pathogen. Nevertheless, in the majority of settings, the most common

presentations are respiratory, urinary, and blood infections.

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## Does Preventive Care Save Money?

**TO THE EDITOR:** In the Perspective article by Cohen et al. (Feb. 14 issue),<sup>1</sup> a narrow construction of what constitutes prevention leads to erroneous conclusions about its potential impact and cost-effectiveness. The authors do not address preventive interventions that occur outside the doctor's office. These include basic public health services and many other policies that bear directly on health (e.g., seat-belt laws and smoke-free policies). Health gains achieved through population-based approaches often exceed those that can be accomplished clinically, and these approaches are often cost-saving or highly cost-effective.<sup>2</sup>

Even if one considers only prevention in clinical settings, many high-value services are substantially underutilized. For example, less than 50% of the target population receives smoking-cessation services, counseling about aspirin use, colorectal-cancer screening, and influenza vaccines. Increasing use of these four services to 90% would save more than 100,000 lives annually.<sup>3</sup>

Policymakers should support investment in prevention for the right reasons — namely, to improve health at an acceptable cost, even if the services will not reduce overall spending. If reduced spending is the goal, then policymakers should discourage use of low-value services, both therapeutic and preventive.

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**THE AUTHORS REPLY:** Fielding and colleagues correctly highlight community-based interventions as important preventive strategies to evaluate, but they fail to note that our analysis of 1500 comparisons described in 599 articles drawn from the Tufts Medical Center Cost-Effectiveness Analysis Registry ([www.cearegistry.org](http://www.cearegistry.org)) did in fact include a number of community-based interventions. Like clinical preventive services, nonclinical interventions are sometimes expensive (e.g., a ban on cell-phone use while people are driving, which costs \$380,000 per quality-adjusted life-year, or QALY<sup>1</sup>) and sometimes cost-saving (e.g., folic acid fortification of grains<sup>2</sup> and condom distribution<sup>3</sup>). Other interventions cost the health care system more money than they save but generally deliver good value,<sup>4</sup> meaning that they cost less than commonly recognized benchmarks for cost per QALY.<sup>5</sup>