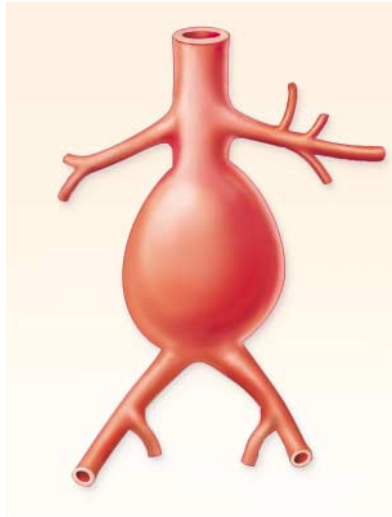




This Week in the Journal

May 9, 2002

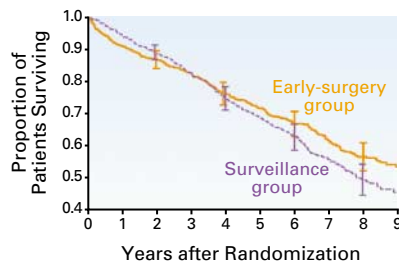


Surgical Repair versus Surveillance by Imaging for Small Abdominal Aortic Aneurysms

Whether clinically stable small abdominal aortic aneurysms should be surgically repaired or monitored with periodic noninvasive imaging is controversial. This study compared the two approaches in patients with aneurysms 4.0 to 5.4 cm in diameter. After a mean follow-up of nearly five years, there was no survival advantage associated with immediate surgical repair.

The findings support a conservative policy of reserving elective surgery for patients with abdominal aortic aneurysms of 5.5 cm in diameter or larger. Patients with small, asymptomatic aneurysms that are rapidly enlarging should also be considered for surgery.

see page 1437 (editorial, page 1484)



Long-Term Outcomes of Surgery Compared with Surveillance of Small Abdominal Aortic Aneurysms

Small abdominal aortic aneurysms (no more than 5.5 cm in diameter) are believed to have a low risk of rupture. This study compared two management strategies: immediate surgery and ultrasonographic surveillance followed by surgery if needed. Because of operative mortality, there was an early survival advantage with surveillance, but after eight years, the early-surgery group had gained a survival advantage.

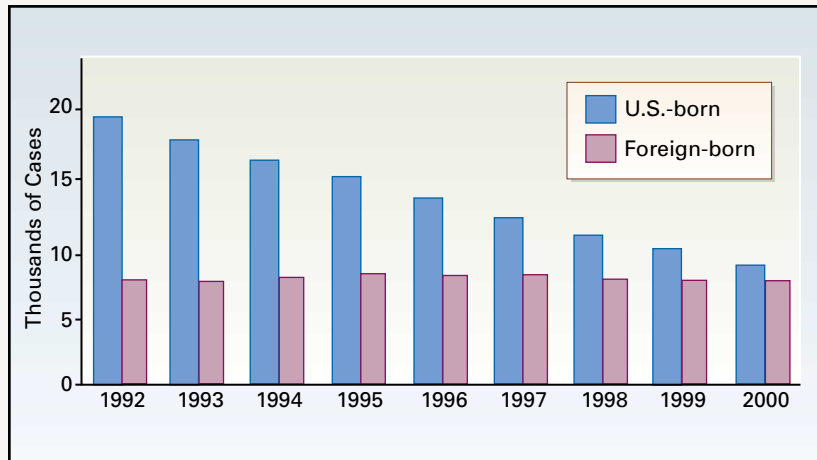
Because mean survival was not different with the two strategies, ultrasonographic surveillance until the aneurysm reaches a diameter of more than 5.5 cm is a reasonable strategy.

see page 1445 (editorial, page 1484)

PERSPECTIVE

Tuberculosis —
The Global View

It is a long-standing and unfortunate American tradition to blame outbreaks of infectious diseases on the foreign-born (see boxed quotation). This tendency remains evident today in the case of tuberculosis. After decades of decline of the disease in this country, there was a dramatic resurgence of tuberculosis in the early 1990s, with its epicenter in New York City. Multiple hypotheses were put forth to explain this increase; one suspicion was that a major source of transmission was immigrants from developing countries. However, when the new technique of DNA fingerprinting of tubercle bacilli was applied to isolates of the organisms, it became possible, on the basis of DNA



Cases of Tuberculosis in the United States between 1992 and 2000 among U.S.-Born and Foreign-Born Persons.

Data are from the Centers for Disease Control and Prevention.

cent were homeless. Infection with recently transmitted tuberculosis was not just a Third World phenomenon. With this recognition came a major public health effort to stem the transmission of the disease by upgrading facilities at hospitals and jails, by providing directly

lowest level ever, from 26,673 cases in 1992 to 16,377 cases in 2000, a drop of 39 percent. The rate of multidrug-resistant tuberculosis is down by 70 percent. However, the Centers for Disease Control and Prevention report that 50 percent of the cases are now found among foreign-born persons, up from 27 percent in 1992, and that the proportion of cases of multidrug-resistant tuberculosis occurring in foreign-born persons has increased from 31 percent to 72 percent. At face value, these increases might be considered alarming, and might even lead to calls for dramatic action to keep foreigners harboring tubercle bacilli from entering and thereby threatening our country. However, the data show clearly that the number of cases of tuberculosis among the foreign-born has remained constant for almost a decade (see Figure). What has changed is the rate of active transmission of infection within this country. We have learned how to treat and block new transmission of tuberculosis, but we do not yet know how to prevent the reactivation of dormant infections.

This new reality suggests two

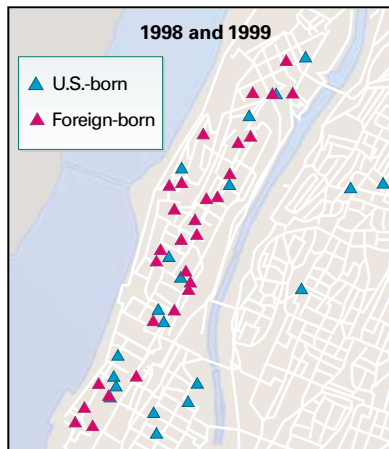
“Appalled and astounded” at the consequences that [immigration to Boston] had already produced, [Lemuel] Shattuck concluded [in 1850] that it was the immigrants — the poor and unwanted from England and Ireland — who were primarily responsible for bringing disease and impoverishment to an otherwise predominantly healthy and productive native stock: “Our own native inhabitants, who mingle with these recipients of their bounty, often themselves become contaminated with diseases, and sicken and die; and the physical and moral power of living is depreciated, and the healthy social and moral character we once enjoyed is liable to be forever lost.”

Barbara Gutmann Rosenkrantz,
Public Health and the State

patterns, to distinguish recently transmitted infections from reactivations of old or dormant infections. Our analysis at that time of patients in New York with recently transmitted strains (Alland D, et al., *N Engl J Med* 1994;330:1710–1716) found that only 8 percent were foreign-born and only 5 per-

observed treatment, and by teaching physicians and the public how to recognize this treatable disease.

A decade has passed, and there is much to be proud of, as Geng et al. report in this issue of the *Journal* (see pages 1453–1458). The prevalence of tuberculosis in the United States has declined to its

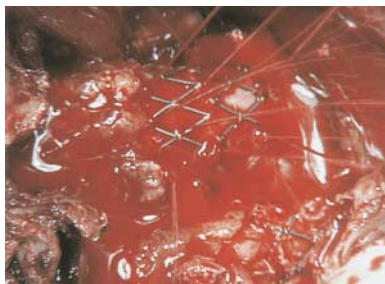


Changes in the Transmission of Tuberculosis in New York

Since 1992, the incidence of tuberculosis in the United States has decreased by nearly 50 percent, but there has been no reduction among foreign-born persons in this country. This analysis of 546 isolates of *Mycobacterium tuberculosis* found that 48 percent belonged to a cluster of new cases and 52 percent did not. Birth outside the United States was the strongest predictor of having a unique isolate, indicating a sporadic case that was not part of a cluster.

These findings in New York City indicate that most tuberculosis among foreign-born persons is now due to the reactivation of latent disease, rather than to recent transmission. Tuberculosis-control strategies may have to shift toward more treatment of immigrants with latent infection.

see page 1453 (Perspective, page 1434)



Images in Clinical Medicine: Abdominal Aortic Aneurysm

A 70-year-old man presented with a 6-cm abdominal aortic aneurysm. It was thought that an open surgical procedure would pose a high risk for the patient, and he was treated with an aortic endograft. Despite the repair, the aneurysm continued to enlarge over the subsequent 36 months, reaching a diameter of 7.2 cm.

see page 1467

important courses of action. As Geng et al. point out, one of them should be a serious research effort to develop effective drugs or vaccines targeting persistent or dormant *Mycobacterium tuberculosis* infection. With such interventions, we might someday be able to prevent reactivation in those who are tuberculin-positive (about a third of the people on the globe). However, 95 percent of cases of tuberculosis occur in poor residents of developing countries, and there are few market incentives to develop such drugs. It is encouraging that new public-private collaborations — such as the Global Alliance for Tuberculosis Drug Development to develop new antituberculosis drugs

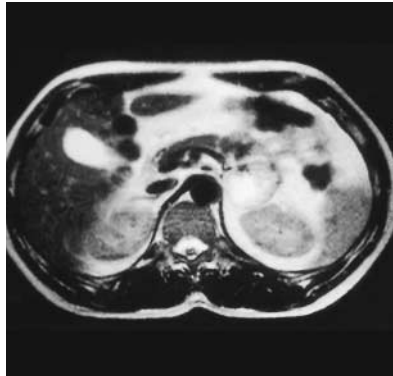
and the Global Drug Fund to purchase and distribute existing drugs — have been created.

Our second overarching priority should not be to target either healthy visitors or healthy immigrants who harbor dormant infection for exclusion from the United States. Instead, we should lead a global effort to control tuberculosis in developing countries — to provide existing drugs and to support directly observed treatment, as well as training. The goal should be to detect at least 70 percent of all cases and cure 85 percent of all patients identified. Such an effort would greatly reduce the transmission of tuberculosis and the emergence of drug resistance globally,

just as we have successfully done in our own country. This program would save about 16 million lives and \$6 billion by 2010. It would be the most effective public health action we could take to protect people in our country from tuberculosis. And it would create models for similar programs of supervised treatment for human immunodeficiency virus and the acquired immunodeficiency syndrome in developing countries.

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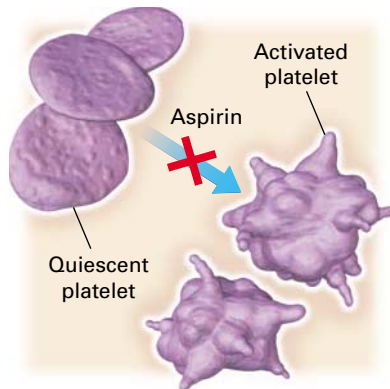


Germ-Line Mutations in Pheochromocytoma

Germ-line mutations are common in familial glomus tumors, which include pheochromocytomas and paragangliomas. This study examined whether unsuspected germ-line mutations in four genes (the proto-oncogene *RET*, the gene associated with von Hippel–Lindau disease [*VHL*], the gene for succinate dehydrogenase subunit D [*SDHD*], and the gene for succinate dehydrogenase subunit B [*SDHB*]) might account for some cases of apparently nonfamilial, nonsyndromic pheochromocytoma. Sixty-six of 271 patients with apparently sporadic pheochromocytoma had mutations in one of these four genes — 30 in *VHL*, 13 in *RET*, 11 in *SDHD*, and 12 in *SDHB*.

Since the identification of pheochromocytoma-associated syndromes is important for patients and relatives alike, patients who present with apparently sporadic pheochromocytomas should undergo genetic screening.

see page 1459 (editorial, page 1486)



Clinical Practice: Aspirin for Primary Prevention of Coronary Events

A 45-year-old man with a strong family history of premature heart disease has no symptoms of coronary disease and a normal electrocardiogram. His fasting level of total cholesterol is 225 mg per deciliter, the low-density lipoprotein cholesterol level is 160 mg per deciliter, and the high-density lipoprotein cholesterol level is 35 mg per deciliter. He has no history of hypertension and does not smoke cigarettes. Should he be advised to take aspirin to reduce his risk of myocardial infarction?

This article reviews the role of aspirin therapy in the primary prevention of coronary disease.

see page 1468

“Physicians may be reluctant to limit life-sustaining interventions, even when it is appropriate to do so.”

Sounding Board: The *Wendland* Case — Withdrawing Life Support from Incompetent Patients Who Are Not Terminally Ill

Many patients do not have formal plans about who should make end-of-life decisions for them if they become unable to make such decisions themselves. This Sounding Board article reviews the case of a man who had informal conversations with his wife and children about end-of-life care, but who had not made a formal statement about either his wishes or who should act in his interest if he were unable to do so. Head trauma received in an automobile accident resulted in substantial but not life-threatening neurologic impairment. In an important decision, the Supreme Court of California sided with the patient’s mother, who wished to keep him alive, rather than with his wife and daughter, who wished not to replace a feeding tube. The authors review the case and its implications for end-of-life decisions.

see page 1489