Immigration medicals: What's the point?

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Canada is a favored destination for immigrants from many parts of the world. In 2006 the World Health Organization reported that 83% of all tuberculosis cases occurred in three geographical regions—Africa, Southeast Asia, and the Western Pacific—sources of significant immigration to the major urban centres of Canada. TB in Canada had been steadily decreasing since the 1950s, but immigration halted the decline.

Epidemiologists as early as the 1970s documented the importance of foreign-born TB in Canada. All prospective immigrants require an immigration medication examination (IME), and approximately 450 000 are completed annually: 350 000 overseas and 95 000 in Canada. Of these, 250 000 eventually arrive, of whom 6000 applicants are referred to health authorities across the country for postlanding medical surveillance, the majority because of tuberculosis and a minority related to positive syphilis or HIV serology.

The IME is a comprehensive examination and one of its purposes is to identify active tuberculosis. Citizenship and Immigration Canada (CIC) requires full treatment of active disease prior to coming to Canada. The other purpose is to exclude those deemed to represent excessive demand on the health care system upon arrival. It is not designed to identify those with latent TB, thus no tuberculin skin testing is required.

In recent years HIV testing has been added, with most positives found among refugees and refugee claimants. The majority are deemed admissible to Canada, despite theoretical considerations of cost, as "excessive demand" is waived for family-class reunification and refugee claimants. It has been well documented that immigrants and refugees with latent tuberculosis are at highest risk of developing active disease within the first 5 years of arrival, although the risk persists for many years.

On arrival at the port of entry in Canada, those identified as requiring surveillance are given an IMM 535 form and a copy is also sent to public health authorities, which in BC is the BCCDC. This form indicates a requirement to report for postlanding medical surveillance usually because of evidence of inactive disease on chest X-ray or a history of previous tuberculosis. Immigrants are required to report within 30 days of entry to the designated agency. The purpose is to assess the future risk of developing tuberculosis and to document the adequacy of previous treatment.

Several studies have shown that this medical surveillance process does indeed select people at increased risk of developing active disease. In BC, approximately 1800 people are referred for postlanding surveillance annually. CIC considers contact with the public health authority as constituting compliance with their condition of landing. To date, however, there are no specific consequences should an immigrant choose not to comply. Those determined to have latent TB infection are offered preventive treatment and those who decline are followed up for 3 to 5 years. The IME and previous X-rays are routinely requested to assess adequacy of treatment and radiological stability should there be abnormalities on the X-ray.

In addition to excluding active TB, postlanding surveillance is designed to detect and treat latent infection, which is shown to be a highly effective intervention despite the drawbacks of requiring isoniazid therapy for 9 months.

Is this system working? The immigration medical is effective for the most part in excluding people with active infectious disease coming to Canada, but it clearly by design cannot totally exclude the possibility. Limitations include the fact that the immigration medical is valid for some 11 months. Further, many foreign-born travelers to Canada require no immigration medical of any kind should their stay be less than 6 months, and visitors to Canada outnumber immigrants by a wide margin. No practical system can exclude the eventuality of active disease occurring in Canada. Although transmission from foreign-born to the locally born population has been documented, this is a relatively rare event.

The immigration medical, while not perfect, does result both in providing a significant opportunity to prevent future cases occurring and in limiting people with active disease from coming to Canada untreated. Further, despite large numbers of newcomers from high prevalence countries, the rates of TB in Canada continue to decline, a point often forgotten and largely unexplained.

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