

## Provincial tuberculosis screening for incident dialysis patients in BC

In June 2012 the province's health authorities, the BCCDC, and the Ministry of Health, through the Communicable Disease Policy Committee, released the BC Strategic Plan for Tuberculosis Prevention, Treatment and Control. This document describes an operational strategy developed collaboratively by partners across the health system to reduce the burden of TB in British Columbia. The strategic plan focuses on five goals over a 10-year period with the aim of accelerating the decline in TB. To reach the goals of the strategic plan, new screening strategies will be needed for high-risk groups. One such group is persons with chronic kidney disease, including dialysis patients.

### Chronic kidney disease and TB

Five years ago the challenges of diagnosing latent tuberculosis infection in patients with chronic kidney disease were reviewed, and early targeted screening and treatment strategies in those with risk factors for TB were described as a possible option.<sup>1</sup> Researchers have continued to explore the relationship between chronic kidney disease and TB, asking, what is the active TB risk in patients with chronic kidney disease? And, what are the best screening tests? A recent systematic review and meta-analysis showed a tenfold increase in the TB rate for dialysis patients and an elevenfold increase in the TB rate for renal transplant patients compared with the general population.<sup>2</sup> Further research is needed to better understand the risk of TB based on chronic kidney disease stage and the impact of comor-

bidities, including country of birth. In a group of BC dialysis patients, interferon gamma release assays have shown strong correlation with a history of TB, TB contact, and birth in an endemic country, compared with tuberculin skin testing.<sup>3</sup> Based on these results and others confirming the improved sensitivity and comparable specificity of interferon gamma release assays versus tuberculin skin testing in chronic kidney disease patients, interferon gamma release assays testing has been suggested as part of a comprehensive TB screening program in this patient population.

### Collaborative response

Until recently there had been no provincial-level screening program for chronic kidney disease patients in BC. Routine screening was not performed uniformly across all health authorities, and the addition of interferon gamma release assays to routine TB screening was limited to a few large dialysis centres in Vancouver. Experts from the BC Provincial Renal Agency, the BC Public Health Microbiology and Reference Laboratory, and the BC Centre for Disease Control gathered in 2014 to address these concerns, to identify the target population and components of a standardized TB screening program, and to develop a business case that would ensure support for the program. The goal of this screening program is to reduce the incidence of active TB through universal latent tuberculosis infection screening, diagnosis, and treatment. The target population is all incident adult dialysis patients (n ~600/year) in BC. The program will include a TB screening questionnaire, chest radiograph, and an interferon gamma release assays test (specifically the QuantiFERON-Gold

[QFT]) within 1 week of their commencing dialysis therapy (hemodialysis or peritoneal dialysis). All three components of the screening process will be reviewed through TB services with recommendations on latent tuberculosis infection diagnosis and treatment as appropriate.

In December 2014 the Provincial Health Services Authority approved the implementation of this TB screening program for chronic kidney disease patients in BC. An evaluation of the implementation of this provincial-level program is planned and will help to inform other provincial-level screening activities in high-risk groups in BC such as transplant. To our knowledge no other province in Canada has a provincial strategy for screening in this high-risk group of patients.

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*This article is the opinion of the BC Centre for Disease Control and has not been peer reviewed by the BCMJ Editorial Board.*