

may be too low [9, 10], assaying the *ex vivo* reactivity of bronchoalveolar lavage T-cells towards *Mycobacterium tuberculosis*-specific antigens by flow cytometry may further improve the diagnostic accuracy of on-site immune based assays for the diagnosis of smear-negative tuberculosis.

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STATEMENT OF INTEREST

A statement of interest for C. Lange can be found at www.erj.ersjournals.com/misc/statements.shtml

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A green humidifier chamber

To the Editors:

A patient presented with a continuous positive airway pressure (CPAP) humidifier chamber that was coated in a green residue (fig. 1). This has never been seen before in our clinic, which has managed >6,500 patients on CPAP. He had been washing the chamber in soapy water, then rinsing it in tap water. Analysis of the patient's water supply found $0.7 \text{ mg}\cdot\text{L}^{-1}$ of copper, which is considered to be below acceptable limits set by the 2004 Australian Drinking Water Guidelines for health and aesthetic considerations. Chemical testing of the residue using scanning electron microscopy with energy dispersive X-ray analysis and Fourier transform infrared spectroscopic analysis found that it was predominantly calcium stearate, with trace amounts of copper, calcium, aluminium, silicon and oxygen. Calcium stearate is an insoluble calcium salt of stearic and palmitic acids. It is formed when soap is mixed with "hard" water containing calcium ions. Over time, a build up of calcium stearate had caused the green residue within the chamber.

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FIGURE 1. A continuous positive airway pressure humidifier chamber coated with a green residue due to a build up of calcium stearate.