



theAlfred

GP update: *Mycobacterium chimaera*

We have contacted patients that had cardiac bypass surgery involving prosthetic devices (including cardiac valves) at The Alfred between July 2011 and June 2016. This is to advise them that there is a small risk of infection due to *Mycobacterium chimaera* that has been linked to a world-wide contamination of a particular model of heater-cooler unit.

What is the situation?

There have been reports of surgical site infections with an unusual mycobacterial species, *Mycobacterium chimaera*, in patients that have had cardiac surgery. *M chimaera* is an environmental non-tuberculous mycobacteria (NTM) related to *M avium/intracellulare* (MAC).

Investigations have linked infections with contaminated heater cooler devices used in cardiac bypass surgery. These have involved open cardiac procedures where medical devices have been implanted, such as cardiac valves.

Globally, less than 100 infections have been described. No cases have been reported in Victoria, and three cases have been reported in Australia to-date.

Like many other hospitals, The Alfred used the implicated heater cooler units for several years, beginning 2008; they were decommissioned in June 2016. Water from inside the old machines tested positive for *M chimaera*.

As only a small number of cases have been identified globally, the risk to individual patients of NTM infections is thought to be very low.

What should I look for?

We have advised patients to contact us if they have symptoms suggestive of infection. Infection with non-tuberculous mycobacteria should be considered in patients with surgical site infection or unexplained febrile illnesses who have had cardiac surgery. Infections have presented up to five years after surgery.

In some cases, infection with *Mycobacterium chimaera* has been disseminated. In these cases, presenting syndromes have included fever of unknown origin, splenomegaly, arthritis, osteomyelitis, bone marrow involvement with cytopenia, chorioretinitis, cerebral vasculitis, pneumonitis, myocarditis, hepatitis, and nephritis. Some patients have been misdiagnosed as having sarcoidosis or other granulomatous disease.

What should I do if I suspect a case?

The diagnosis of NTM infections requires specialised microbiological techniques, including mycobacterial blood cultures, imaging of prosthetic material and other regions as indicated clinically and biopsies of potential sites of infection.

Please contact the infectious diseases registrar on-call at The Alfred on 03 9076 2000 if you suspect infection in your patient, or if you have any questions. An information line for patients has been established at The Alfred on 03 9076 2820.

What else is being done?

We have confirmed that no cases of *M chimaera* have been diagnosed in patients at Alfred Health to-date. New heater cooler units were installed in June 2016, and have been tested to ensure they are not contaminated with NTM.