Mycobacterium chimaera in heater cooler units

What is the issue?

Heater cooler units are used during open heart surgeries to warm or cool a patient as part of their care. It has recently been recognised that there is the potential for a bacterium called Mycobacterium chimaera to grow in a water tank in the heater cooler units. It is important to note that the water in the heater cooler unit never comes into contact with the patient’s blood or body fluids. When the water evaporates, the bacterium may become dispersed into the environment. The bacterium then becomes aerosolised and may infect a patient during certain types of open heart surgery; however the risk of infection is very low.

Am I at risk?

If you did not have heart valve or aortic vascular graft surgery, you are not considered to be at risk and no further action is necessary.

You or your child may be at risk if:

a) You or your child had open heart surgery on a heart valve or aortic vascular graft surgery in a Queensland hospital within the past five years (October 2011 – August 2016).

AND

b) You or your child have or develop any of the symptoms listed below. Please note it can take up to five years to experience symptoms.

What are the symptoms of Mycobacterium chimaera infections?

If since your open cardiac surgery you have had any of the following symptoms for more than two weeks, then Mycobacterium chimaera infection should be considered:

- Unexplained fevers
- Unexplained weight loss
- Increasing shortness of breath
- Waking up with the bed sheets covered in sweat (night sweats)
- Joint or muscle pains
- Nausea, vomiting or abdominal pains
- Abnormal levels of tiredness / fatigue
- Pain, redness, heat or pus around the surgical site
- Failure to gain weight (young children only)

What do I need to do next if I am at risk?

If you have one or more of these signs and symptoms it is recommended that you make an appointment with your general practitioner for review and referral to your cardiologist or contact 13 HEALTH on the phone number 13 432 584. As signs and symptoms are not limited to those listed, speak to your doctor if you are concerned. Continue to look for signs of unexplained infection as symptoms can take up to five years to present, although average time to develop symptoms is 18 months. If this involves your child please contact your cardiac care coordinator.

If you are unclear if your recent surgery was heart valve surgery or aortic vascular graft surgery, please contact 13 HEALTH on phone 13 432 584.

What will happen to me?

Your doctor will conduct initial examinations.

If you are positively tested for Mycobacterium chimaera, treatment consists of 3 to 5 different antibiotics taken daily over 1 to 2 years. As these antibiotics can have significant side effects and interactions, they are only prescribed in patients with confirmed positive results.

What is the Mycobacterium chimaera?

Mycobacterium chimaera is one of a group of bacteria called Non-Tuberculous Mycobacterium (NTM) which is commonly found in the environment, including water. NTM typically is not harmful; however it can in very rare cases cause infections in post-operative surgical patients, especially in people with weakened immune systems.
Heater Cooler Unit Testing

All Queensland hospitals continue to undertake tests of every heater cooler unit currently in use to determine if it has the bacterium.

If a heater cooler unit is found not to have the *Mycobacterium chimaera* bacterium there is no risk for infection for patients who have had an operation that involves heart valve surgery or aortic vascular graft surgery.

If a heater cooler unit is found to have the *Mycobacterium chimaera* bacterium there is an extremely low risk for infection for patients who have had an operation that involves heart valve surgery or aortic vascular graft surgery.

What procedures are not affected?

- Stents
- Pacemakers
- Implantable debrillators
- Ablations
- Coronary Artery Bypass Grafts

What should I do to find out whether I am at risk?

Queensland Health has commenced sending information to every patient who has had open heart surgery on a heart valve, or aortic vascular graft surgery in a public hospital over the past 5 years and will confirm if recent tests undertaken have identified the bacterium in the heater cooler units. Pending test results, patient letters are expected to be received by end of February 2017.

If I’ve been exposed to this bacteria, is there a risk to my family and friends?

No, the *Mycobacterium chimaera* bacterium is not contagious. This means it cannot be spread through contact from person to person.

How many patients have been identified so far as infected with the bacterium?

One patient has been identified in Queensland as being infected with the bacterium. The patient has been notified and has commenced on antibacterial treatment.