Dear

I am responding to your letter on behalf of the Chief Medical Officer, Dr Oade.

Please see the following guidance from Public Health England to provide advice for GPs on *Mycobacterium chimaera* infections associated with cardiopulmonary bypass:

It is now recognised that patients who have been on cardiopulmonary bypass for surgery or ECMO may have been exposed to the organism *Mycobacterium chimaera*, a non-tuberculous environmental mycobacterium which has been found to contaminate heater cooler units used for cardiopulmonary bypass. This organism has caused endocarditis, vascular graft infections, disseminated infections, or chronic sternal wound infections in patients in the UK and internationally.

The risk remains very low. Almost all cases in the UK have been associated with valve replacement or repair; in this group the risk is estimated at 1 in 5000. For other procedures, the risk is likely to be much lower. Although such infections are rare, there have been some associated deaths. The presentation can be very non-specific. The incubation period of these infections has been up to five years in the UK, but the upper limit is unknown.

A notification letter has been issued to the patients at maximum risk (those who had prosthetic valve repair or replacement), and patients undergoing cardiothoracic surgery involving bypass are now informed as part of the routine consent procedure. Some other patient groups may be informed as part of their routine follow up, such as heart/lung transplant patients and some congenital heart disease patients.

Please use the following screening questions if you are assessing a patient in whom you think this infection is a possibility:

1. Has the patient undergone cardiothoracic surgery on cardiopulmonary bypass or been placed on extracorporeal membrane oxygenation (ECMO)?
Examples of surgery conducted on bypass or in which bypass may have been used are heart valve repair/replacement, aortic graft procedures, coronary artery bypass graft, heart/lung transplant and some congenital heart disease repairs. The interval between surgery and symptoms can be several years (up to five years so far in the UK, but the upper limit is unknown).

2. Does the patient have any of:

- symptoms of a chronic systemic illness eg fever, malaise, weight loss, joint pain, cough or shortness of breath, without a known or clinically apparent explanation?
- symptoms and/or signs of endocarditis?
- a persistently infected surgical wound following cardiothoracic surgery?
- another symptom or sign for which no cause has been found despite usual investigation?
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If the answer is yes to both questions, the patient should be discussed with the local cardiology or infectious diseases services urgently, as they may require further clinical assessment and investigation for *Mycobacterium chimaera* (as well as other causes of their presentation).

Patients who may have been exposed but are currently well:
Media reports and/or notification letters may mean that some patients present who have been exposed to heater cooler units but are not unwell. If the answer is yes to question 1,

but the patient is currently well, reassure the patient and note in their record that they have been exposed to heater cooler units.
Provide them with the NHS Choices information available at www.nhs.uk/Conditions/mycobacterium-chimaera-infection/Pages/Introduction.aspx and advise them to return if they develop symptoms.

Further information

NHS Choices:
www.nhs.uk/Conditions/mycobacterium-chimaera-infection/Pages/Introduction.aspx

PHE:
www.gov.uk/government/collections/mycobacterial-infections-associated-with-heater-cooler-units

If you desire further local information, please contact Dr Tim Collyns, Consultant Microbiologist / Lead Infection Control Doctor, LTHT (timothy.collyns@nhs.net).

Yours sincerely

Gina McGawley
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