

Web Appendix 2: Information for Patients

What is NTM and why have I got this infection?

Non-tuberculous mycobacteria (NTM) are found in the environment such as in water and soil, and are part of the same broad family of bacteria as *Mycobacterium tuberculosis* (which causes tuberculosis (TB)). NTM can cause health problems in people with no pre-existing health condition. However, people with an underlying lung problem (such as COPD, bronchiectasis, cystic fibrosis, interstitial lung disease) or a weak immune system are more at risk of NTM infection.

Can I pass it on to my friends and family?

NTM infections are not thought to be transmissible between individuals, except in very specific circumstances (for example, *M. abscessus* infection can pass between people with cystic fibrosis). However, it is sensible to adopt good hygiene precautions, such as coughing into a tissue and disposing of it in a covered bin.

Symptoms

Symptoms of NTM infection can be similar to other lung infections and can develop slowly. The symptoms (including cough, sputum production, fatigue, fever, night sweats, weight loss) can also be difficult to distinguish from those caused by a pre-existing lung condition.

How are NTM infections diagnosed?

NTM infections are usually diagnosed using a combination of microbiological and radiological tests, in addition to carefully assessing symptoms. In people who produce sputum, at least two samples will be sent for NTM culture. In those who find it difficult to produce sputum, other methods of obtaining samples for culture may be discussed with you (such as sputum induction through nebulising saline or bronchoscopy, which involves inserting a flexible telescope through the nose or mouth in to the lungs). A CT scan is also likely to be recommended to look for changes consistent with NTM infection.

How are NTM infections treated?

Not all NTM infections require antibiotic treatment as some resolve spontaneously and / or are not associated with ill health. However, some NTM infections do require treatment in an attempt to improve symptoms, reduce the likelihood of lung damage and clear the infection (although this may not be possible with some NTM species).

NTM antibiotic treatments differ according to the species being treated, but usually involve combinations of strong oral antibiotics for 12-24 months. In the case of particularly resistant NTM infections, such as *M. abscessus*, a combination of intravenous, inhaled and oral antibiotics may be required.

Why do I have to take treatment for so long?

NTM infections require prolonged treatment because they are more resistant to antibiotic therapy than conventional chest infections. It is very important that you follow your doctor's instructions for taking NTM medications to reduce the likelihood of the bacteria becoming resistant to the antibiotics you are taking.

Monitoring for side effects.

All antibiotic treatments can be associated with side effects and your NTM specialist will have warned you about the most common and most concerning side effects of your specific antibiotic regimen.

If you develop worrying side effects from your NTM antibiotic treatment it is essential that you seek advice promptly from your NTM specialist or GP.

BTS Guideline for the management of non-tuberculous mycobacterial pulmonary disease (NTM-PD), 2017

This information is available for clinicians and other health care professionals to use in their local practice. The information provided may be adapted for local use – please acknowledge the BTS Guideline for the management of NTM-PD as the source.