

**DEPARTMENT OF HEALTH CONSULTATION ON LABORATORY  
GUIDELINES FOR THE DIAGNOSIS OF *MYCOBACTERIUM  
TUBERCULOSIS* INFECTION**

EVIDENCE SUBMITTED BY THE SOCIETY FOR GENERAL MICROBIOLOGY (SGM)

**Introduction**

The Society for General Microbiology, founded in 1945, is an independent professional scientific body dedicated to promoting the 'art and science' of microbiology. It has now established itself as one of the two major societies in the world in its field, with some 5,500 members in the UK and abroad.

**Comments**

These guidelines reflect several simple steps forward in the provision of microbiological services for the diagnosis of tuberculosis. They provide more detail, particularly in the target timing of specimen transfer and processing compared to the recently issued NICE guidance. The use of liquid culture systems and, where possible, the concerting of services at sites where the case load is sufficient to maintain expertise again reflect addition of detail to the NICE guidance. If receiving and reference laboratories are able to adhere to these guidelines then this will represent a significant enhancement in service.

In addition to these straightforward points it is proposed that both initial investigation and culture should be offered on "At least a six-day service". This will pose a problem for many labs and more detail should be given here. The rationale for this in the case of microscopy is clear but, providing samples are appropriately stored, there is little to be lost by providing culture on a five day basis.

The proposed six day service for microscopy seems somewhat at variance with the view that out-of-hours smear testing "is not recommended". Many labs will find it difficult to provide expert smear review for the sixth day. On the other hand it seems that, where sufficient sample is available, a direct smear read by a worker with basic competency, should detect moderate to strongly positive samples. Providing it is pointed out that this procedure is less sensitive than smears performed on concentrated specimens and read by experts, the possibility that infectious patients will be detected at the earliest time point seems to outweigh the lower sensitivity. This reviewer would also like to see same day (seven-day) smear review for all inpatient samples, whether or not they were identified as urgent.

**Sources**

This evidence has been prepared on behalf of SGM by Professor Michael Barer, University of Leicester.

### **About the SGM**

Society membership is largely from universities, research institutions, health and veterinary services, government bodies and industry. The Society has a strong international following, with 25% of membership coming from outside the UK from some 60 countries.

The Society is a 'broad church'; its members are active in a wide range of aspects of microbiology, including medical and veterinary fields, environmental, agricultural and plant microbiology, food, water and industrial microbiology. Many members have specialized expertise in fields allied to microbiology, including biochemistry, molecular biology and genetics. The Society's membership includes distinguished, internationally-recognised experts in almost all fields of microbiology.

Among its activities the Society publishes four high quality, widely-read research journals (*Microbiology*, *Journal of Medical Microbiology*, *Journal of General Virology* and *International Journal of Systematic and Evolutionary Microbiology*). It also publishes a highly respected quarterly magazine, *Microbiology Today*, of considerable general educational value. Each year the Society holds two major scientific meetings attended by up to 1500 microbiologists and covering a wide range of aspects of microbiology and virology research.

The governing Council of the SGM has a strong commitment to improving awareness of the critically important role of microbiology in many aspects of human health, wealth and welfare. It has in this connection recently initiated a 'Microbiology Awareness Campaign' aimed at providing information to the government, decision makers, education authorities, media and the public of the major contribution of microbiology to society.

An issue of major concern to the Society is the national shortage of experienced microbiologists, particularly in the field of clinical microbiology and in industry. To attempt to improve this situation long-term, the Society runs an active educational programme focused on encouraging the teaching of microbiology in university and college courses and in the school curriculum, including primary schools. Some 400 schools are corporate members of SGM.

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