



UNICAMILLUS

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Tuberculosis Case Management Protocol

Introduction

Tuberculosis represents a significant public health problem and at the same time constitutes a specific occupational risk for health professionals and therefore also for UniCamillus students enrolled in the Degree Courses in Medicine, Dentistry and the Health Professions, who during clinical and internship activities may be exposed to contagious tuberculosis. Therefore, the periodic screening of health conditions of health professionals and their peers is particularly important for the identification and implementation of the most effective prevention and control strategies.

On the other hand, the frequency of screening is also established on the basis of the risk of tuberculosis in a given population. UniCamillus' student population is characterised by a strong international presence, with large numbers of students from Asia and Africa contributing, alone, to about 85% of cases of tuberculosis in the world.

Considering these premises, students of the Degree Courses in Medicine, Dentistry and the Health Professions are required to perform a tuberculosis screening test upon entry to the University that must be repeated at least annually in order to assess the possible presence of infections.

Types of Tuberculous Infections

In case of positivity in the Mantoux test, the subject must be considered infected and can fall into one of the following two categories:

- Subject with Latent Tuberculosis
- Subject with Active Tuberculosis

It should be noted that more than 90% of subjects who test positive in Mantoux have latent tuberculosis.

Types of tubercular screening

The intradermal test according to Mantoux represents one of the screening tests for tuberculous infection. To ascertain which of the two categories the subject belongs to,

following the positivity confirmed by the Mantoux test, it is necessary to perform a chest X-ray and any other confirmatory tests in case of positive chest X-ray.

Taking into account the possibility that the Mantoux test may actually be a false positive, a Quantiferon test should be performed at the same time as the chest X-ray request.

However, from a practical point of view, it is not advisable to wait for the result of the Quantiferon test before performing the chest X-ray as the test results require a few days of waiting. This further latency in defining the case could have negative implications both for the health of the infected subject and for the possibility of contagion of other subjects who came into contact with them in the event that at the end of the diagnostic process an active tuberculosis is diagnosed.

However, the Quantiferon test must be performed, as it can provide important information to specialists (e.g. infectious disease experts or pulmonologists), such as when deciding whether to carry out treatment to eradicate the infection.

In some cases, such as those of subjects with previous vaccination, it is appropriate to proceed directly with the Quantiferon test, since the probability that the Mantoux test will give false positive results is particularly high.

SUBJECT WITH LATENT TUBERCULOSIS

1. Definition

A subject with latent tuberculosis is defined as one who, following a positive Mantoux test, has performed a chest X-ray with negative results.

A subject with latent tuberculosis is therefore a subject who has come into contact with the tubercle bacillus who has not developed the disease and who, therefore, cannot transmit the infection.

For these reasons, the subject with latent tuberculosis is eligible to attend the University and the professional internships without any risk for the people with whom they come into contact.

Note:

In about 5% of people with latent tuberculosis, the disease can develop into active tuberculosis. How do you notice the occurrence of this rare eventuality? Unfortunately, screening tests are no longer useful in these subjects, as they will always be positive (unless they have performed the therapy to eradicate the infection, but also in this case for a few years after the execution of the therapy the tests can continue to be positive), so it is essential to recommend to these subjects that in case of development of a cough and/or fever and/or abnormal fatigue and/or shortness of breath that they self-suspend from university or internship attendance and contact the UniCamillus Competent Doctor immediately. If the subject has developed active tuberculosis, they should be referred to a specialist tuberculosis treatment centre and be suspended from attendance.

2. Precautions for the academic community

As a precaution, any subject with a positive Mantoux test is immediately suspended from the attendance of lessons and internships until the end of the diagnostic process aimed at ascertaining whether, having had a positive Mantoux test, they are suffering from latent tuberculosis or active tuberculosis.

On the other hand, students who attend the same classroom can continue to attend lectures in person. It is advisable in these cases to use an FFP2 mask during the lessons, until the case is defined.

Always as a precaution, however, if a concomitant positivity to the Mantoux test is detected in 3 or more students of the same class, it will be advisable to suspend teaching or establish distance learning, at the discretion of the University, until the definition of the cases.

SUBJECT WITH ACTIVE TUBERCULOSIS

1. Definition

A subject with active tuberculosis is defined as one who, following a positive Mantoux test, has carried out a chest X-ray testing positive for tuberculosis and further diagnostic tests confirming positivity. As regards the Quantiferon test, take into account what has been written previously.

A subject with active tuberculosis is therefore a subject who has come into contact with the tubercle bacillus who has developed the disease and who, therefore, can transmit the infection. Contacts should therefore be screened.

2. University Life

The available guidelines do not explicitly take into account the University context, but refer to schools, which to some degree can be assimilated to the situation of the UniCamillus university community.

If a student is diagnosed with active tuberculosis, an extraordinary tubercular screening is performed. All students who have classes in common for educational activities must be tested immediately in the contact tracing activity by Mantoux and/or Quantiferon test, which must be repeated after 2 months, if the subjects remain asymptomatic.

If, on the other hand, they develop symptoms, they must immediately refrain from attending classes and contact the UniCamillus Competent Doctor.

If a teacher is diagnosed with active tuberculosis, students who have attended the classes where the teacher has taught in the three months prior to the diagnosis must be included as a priority in the contact tracing activity by Mantoux and/or Quantiferon test, which must be repeated after 2 months, if the subjects remain asymptomatic.

The need to include students, teachers and auxiliary staff from other classes must be established on the basis of:

- screening results in high priority contacts as defined above;

- degree of contagiousness of the index case;
- period of time spent with the index case;
- susceptibility of contacts to infection;
- proximity of the contact.

In case of positivity to the Mantoux and/or Quantiferon test in one of the contacts, we will proceed according to the diagnostic procedure described to assess whether it is a case of latent or active tuberculosis and then establish the consequent procedure.

In the event of a Mantoux and/or Quantiferon positive case, it is not necessary for course colleagues or students in the same class to do anything, as the Ministry of Health guidelines state that close contact screening should only be done if a final diagnosis of active tuberculosis is reached.

On the other hand, since the infection has a latency of about two months for the evidencing, the test performed immediately after the identification of the positive case would have a good probability of being negative. For these reasons, the guidelines recommend that, in the presence of a case of active tuberculosis, close negative contacts should be tested again after 2 months.

CONCLUSIONS

In summary, in the presence of 1-2 cases of Mantoux and/or Quantiferon positive tests, nothing must be done until the definitive diagnosis and the other students of the course can continue to attend classes in person.

For prudential reasons, the use of the FFP2 type mask is recommended until the definition of the cases.

If there are at least 3 concomitant positive cases in the same class, it is advisable to proceed to suspension of classes and/or establishment of distance learning until the diagnostic definition of the cases themselves.

Furthermore, since this aggregation could indicate the ability of the bacillus to propagate from one subject to another, which could be due to the presence of a case of active tuberculosis in that class, an extraordinary screening of the class itself will have to be carried out for purely precautionary reasons.

UniCamillus
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