

Student Tuberculosis Risk Reduction Guideline – Operational Summary

(Full version available at www.sun.ac.za/FMHSolicies)

Minimising risk of Tuberculosis (TB) transmission in the workplace and clinical learning environment – implementation of the guideline

Due to the burden of TB in South Africa, students working in a healthcare environment will be unable to totally avoid contact with patients suffering from TB. The following measures will be implemented to reduce the risk of TB infection:

1. Education and Administrative risk reduction

1.1 All medical and health sciences students will be specifically educated regarding the risks of TB acquisition and as to the preventive measures that should be adhered to, to minimize such risks.

It is essential that students suspecting that they may have contracted tuberculosis should report to Campus Health Services (CHS) at the FMHS. Inability to pay for health services at CHS should not prevent students from reporting for investigation of possible TB symptoms. The FMHS will (where necessary) assist students to access the necessary investigations.

1.2 A Multilateral Agreement between the Department of Health and the FMHS that addresses the avoidance of risk to students when working in the training / academic hospitals and clinics is in place.

1.3 Students should (wherever possible) avoid contact with patients known to have multi-drug resistant (MDR) or extensively-drug resistant (XDR) pulmonary TB.

1.4 Known TB patients have to be identified and isolated in the hospital environment. Airborne precaution notices must be used to communicate risk to health care workers and students.

1.5 Students will not receive bedside teaching from medical staff using patients known to have MDR or XDR pulmonary TB. MDR and XDR patients will not be included in clinical examinations such as OSCE, short on long cases.

1.6 Routine screening for health science students should be undertaken in the form of a 6-monthly exposure and symptom questionnaire. Chest radiology and GeneXpert sputum tests should be considered if the questionnaire alerts one to the possibility of TB.

1.7 Students who are immune compromised for whatever reason are encouraged to discuss their health with SU Campus Health Service or any other health facility of their choice.

1.8 Where students are uncomfortable in examining patients who are thought to have TB but the diagnosis is still unclear, due to possible risk, they need to discuss this with their clinical supervisor who needs to guide the students on the correct approach.

2. Environmental risk reduction

2.1 In general and undifferentiated areas (such as waiting areas, passages and consultation rooms) students should, where possible, open windows and doors to improve ventilation in poorly ventilated areas.

2.2 The doors in TB patients' isolation rooms should however remain closed.

2.3 The Faculty of Medicine and Health Sciences will continue to engage with the health services on an on-going basis to ensure that ideal environmental control measures in the working and clinical learning environments are progressively realized.

3. Risk reduction through the use of personal protective equipment – N95 respirators

3.1 Fit-testing

All students will have a N95 respirator fit-test before commencing their clinical rotations to determine the correct type and size of respirator for their facial features, thereby ensuring a proper fit. The outcome of each student's fit-test will be recorded for future reference. Each student after the fit test will be supplied with a card documenting the last date of fit testing and the appropriate best-fit respirator for the student. Students should be encouraged to present for repeat fit-testing every 2 years or sooner if they suspect they are not obtaining a proper seal with the chosen N95 respirator. Additional sessions will be made available by CHS for repeat fit-testing of students (usually in the same week as the students preparing to enter the clinical rotations).

The fit-testing process, will instruct students on correct use of the N95 respirator. The following should be noted:

- 3.1.1 Facial hair (notably beards) disrupt N95 respirator efficiency and facial hair removal is advisable;
- 3.1.2 The integrity of the respirator must be checked every time it is used;
- 3.1.3 How to put the respirator on and take it off;
- 3.1.4 Hands should be disinfected before putting the respirator on and after taking it off;
- 3.1.5 Care must be taken not to fold or crumple the respirator;
- 3.1.6 Under normal working conditions a N95 respirator can remain effective for at least 8 hours of continuous use. Respirator efficacy is reduced if it becomes torn or moist. If the N95 mask is used only intermittently then it can be effective for 1 week, depending on the frequency of use. Respirators should be stored in an envelope, not a plastic bag as moisture destroys the filter;
- 3.1.7 Used respirators must be disposed of by being discarded in a medical waste box;
- 3.1.8 The Campus Health will coordinate and administer the FMHS's fit-testing programme and provision of respirators before students enter the clinical areas.

3.2 Type of respirators to be worn

Surgical masks are ineffective as a means to prevent the inhalation of aerosolised TB bacilli. Students must, therefore, wear an N95 graded particulate filter respirator. Students should collect their box of 50 N95 respirators at the beginning of each year. This should be sufficient for a whole year if worn and handled correctly. The costs of the respirators will be paid for through student fees. Further respirators will be available for sale if the initial 50 respirators are not sufficient to last a whole year. During the consultation all patients that are suspected of having smear-positive TB (therefore coughing) should wear a surgical mask, as this could reduce aerosolization of TB bacilli and therefore transmission to uninfected individuals.

3.3 The following will be considered high-risk environments:

- 3.3.1 Admissions (undifferentiated patients), emergency rooms, clinic waiting areas,
- 3.3.2 Internal medicine, trauma and paediatric medicine wards, where indicated.

- 3.3.3 When entering or working in an induced sputum cubicle, cough booth/room; or
- 3.3.4 With formally identified pulmonary TB patients presenting for the first time; or
- 3.3.5 Confirmed drug-sensitive TB patients who have not been on confirmed anti-TB treatment for ≥ 2 weeks; (of specific relevance to physiotherapy students); or
- 3.3.6 All confirmed drug-resistant (DR-TB) patients at all times until documented cure has been achieved.

4. Students with TB

- 4.1 Students with symptoms suggestive of TB should seek medical attention at Campus Health as soon as possible.
- 4.2 Any student diagnosed with TB is urged in the strongest possible terms to ensure that they know their HIV status in order to ensure optimal treatment.
- 4.3 A student diagnosed with TB is also strongly encouraged to confidentially advise SU Campus Health Services of their TB status in order to enable the Faculty to help ensure that s/he receives whatever support, treatment and follow-up is required (please see attached flow chart of who should be notified).
- 4.4 In the case of confirmed drug-sensitive pulmonary TB, a student should stay out of class and out of the work environment for two weeks after diagnosis and commencement of treatment. The relevant sick certificate must be obtained and submitted through the usual procedures. With any form of pulmonary drug-resistant TB, the final decision on when the student may return to class will be in the hands of the attending doctor. The above are minimum recommended return times only.
- 4.5 SU Campus Health Services will maintain a confidential record of all students who have reported their diagnosis of TB in order to track changes in TB incidence among students help ensure that such students are appropriately managed throughout their illness.
- 4.6 Occupational Health Physician: SU Campus Health Services will monitor infections on the basis of confidential student TB statistics. In the case of changes in incidence, the appropriate action needs to be taken by Campus Health Services, in consultation with FMHS management as needed.
- 4.7 Stigma and discrimination are factors that negatively impact disclosure, access to care and future career options in health care workers and students affected by tuberculosis. The FMHS commits to taking immediate remedial action, with the understanding that their findings will not impose any limitations on the options for legal recourse by the affected student or students.

5. Contact details

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TB Proof

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Tuberculosis – Suggested Actions following Exposure or Diagnosis (US Campus Health Service)

(to be applied in conjunction with the **Stellenbosch University TB Guideline** document, 2015-01)

- ◇ Educate about the symptoms and signs of TB!
- ◇ Know your HIV status!
- ◇ Inform staff and students about the availability of CHS!

