

TB Infection Control Strategies: Patient management, triage and screening



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Administrative Infection Control Policies

- Have the greatest impact on preventing TB transmission within health care facilities
- First line of defense
- Two goals:
 - Prevent TB exposure to staff and patients
 - Reduce spread of infection by ensuring rapid diagnosis and treatment of patients and staff suspected or known to have TB



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5 Steps for Client Management to Prevent Transmission of TB in HIV Care Settings

Action	Description
1. Screen	Early recognition of clients with suspected or confirmed TB disease
2. Educate	Instructing persons identified through screening in cough etiquette and respiratory hygiene
3. Separate	Clients identified as TB suspects or cases should be separated from other patients to wait in a separate well-ventilated waiting area
4. Provide HIV services	Place symptomatic clients at the front of the queue for the services they are seeking. Provide integrated TB/HIV services.
5. Investigate/ treat for TB or refer	Promptly investigate for TB and start correct anti-TB therapy or refer once diagnosis made

Triage and screening

Why?

Triage

To identify potentially infectious PTB patients

To reduce transmission of TB in the clinic to other patients and staff

Screening

To diagnose patients with any type of TB

To treat TB to prevent morbidity and mortality

To prevent Immune Reconstitution Inflammatory Syndrome (IRIS) in HIV+ patients starting ART

Both procedures are part of an administrative infection control plan



Triage: What do I do?

1. Ask questions (screen)

- “Have you had a cough for more than two weeks?”
- “Are you being treated or investigated for TB?”

2. Educate

- Cough etiquette

3. Separate

- Well-ventilated or outdoor waiting areas for possibly infectious persons

4. Facilitate

- Move patients to front of queue
- Initiate TB investigations



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Triage: Who does it and when?

- Performed by **registration personnel**
 - Usually non-professional staff
- Performed upon client **entry** into a health facility
- Performed as **observation of clients**
- Performed at each and **every visit**
- Performed on **all clients** entering facility



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Triage:

1. Ask questions (screen)

- When a client enters health facility he/she is directed to registration area
- Staff at registration asks client
 - “**Have you had a cough for more than 2 weeks?**”
 - “**Are you being treated or investigated for TB?**”
- Can be done verbally or using paper form
- If “**YES**” to any question, then client may have infectious TB (“TB suspect”)
- Staff member(s) should continue with other steps of triage procedures



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TB INFECTION CONTROL PATIENT TRIAGE FORM

Date (dd/mm/yy):

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Queue number:

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1. Health Service that patient requires today (Tick all that apply by indicating with a v):

Medical Clinic	<input type="checkbox"/>
HIV Care and Treatment	<input type="checkbox"/>
Pharmacy/Medication Refill only	<input type="checkbox"/>
TB Clinic	<input type="checkbox"/>
Family Planning/Contraception	<input type="checkbox"/>
Antenatal Care Clinic	<input type="checkbox"/>
Other: Specify	<input type="checkbox"/>

2. Ask the patient the following questions, indicating the patient's response with a v

	YES	NO
1. Have you had a cough for more than 2 weeks?	<input type="checkbox"/>	<input type="checkbox"/>
2. Are you currently under investigation for TB?	<input type="checkbox"/>	<input type="checkbox"/>
3. Are you currently receiving treatment for TB?	<input type="checkbox"/>	<input type="checkbox"/>

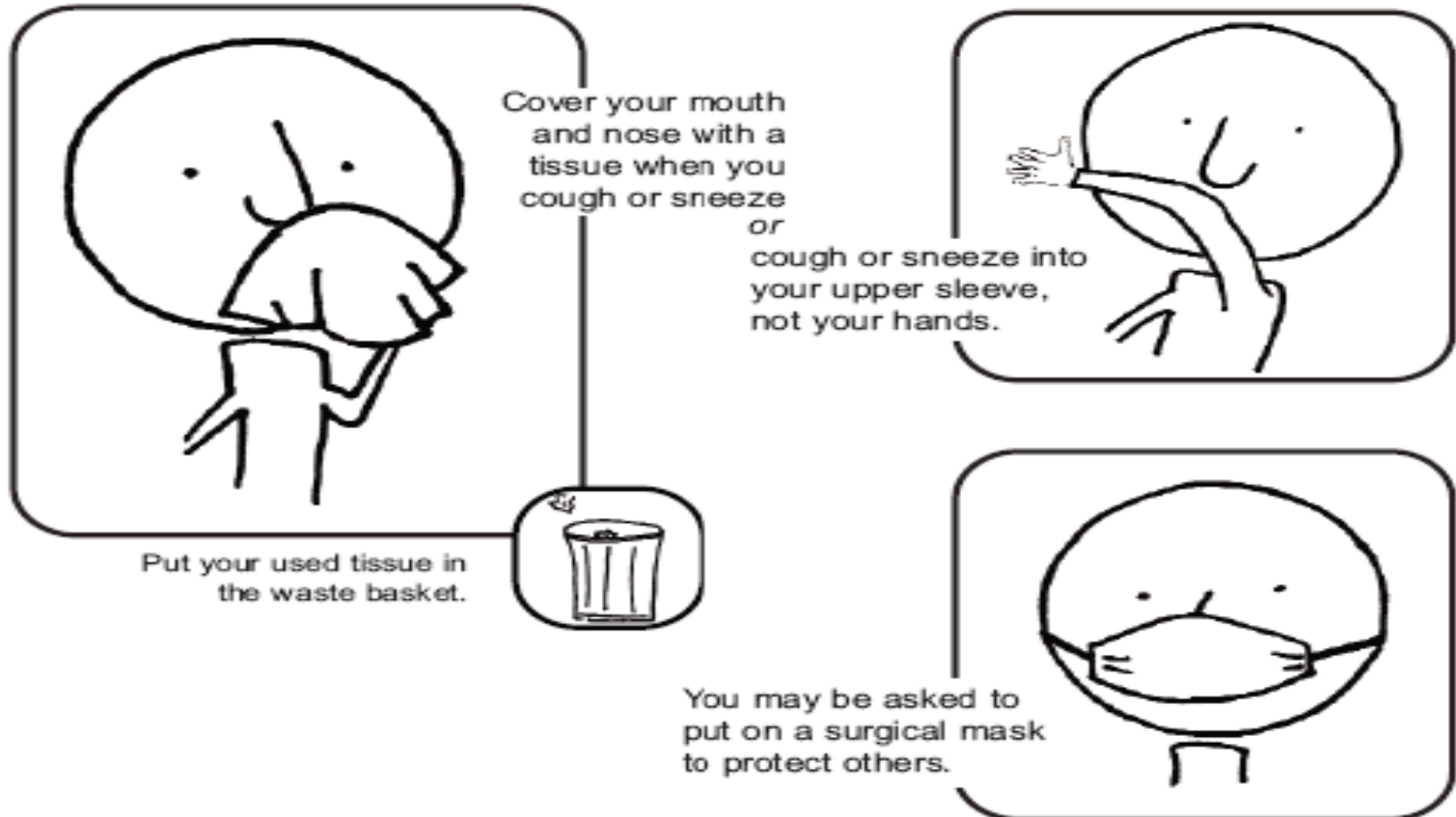
If the patient answers "Yes" to ANY question:

- Give patient a tissue
- Instruct on Cough Etiquette
- Direct patient to separate waiting area (if available)
- Direct patient to front of the queue

	Time	Signature
Patient arrival (Triage staff)	<input style="width: 60px; height: 25px;" type="text"/>	<input style="width: 100%; height: 25px;" type="text"/>
Patient consultation (Doctor/Sister)	<input style="width: 60px; height: 25px;" type="text"/>	<input style="width: 100%; height: 25px;" type="text"/>
Patient departure (Pharmacist)	<input style="width: 60px; height: 25px;" type="text"/>	<input style="width: 100%; height: 25px;" type="text"/>

TB triage:

2. Educate about cough etiquette



- Instruct coughing clients to “cover your cough”
- Provide tissues or surgical masks for this purpose



Ukugquma Ukhohlokhohlo Kunga Khusela Ukusasazeka Kwe TB

Cover Your Cough to Stop the Spread of TB



Lahla Iphepha Olisebenzisileyo
Emgqomeni

Put Your Used Tissue in the Waste Bin

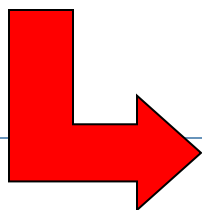


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Triage: 3. Separate



Triage:

4. Facilitate

- Goal: Shorten length of time a possibly infectious TB client spends in health facility
- Move to front of queue
- Initiate/direct client towards necessary TB investigations
 - AFB sputum collection
 - Alert provider for clinical evaluation



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TB screening: What do I do?

- **Case identification**
 - Symptom screening (6 questions)
- **TB suspect investigation**
 - AFB sputum collection and processing
 - Proper specimen handling and registration
 - Result retrieval and reporting
 - Other diagnostic tests (to diagnose extra-pulmonary TB)
- **TB care initiation or referral**



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TB screening: Who performs it and when?

- Performed by **clinical staff**
 - Usually nurse or doctor
 - During a clinical encounter in exam room
- Performed during each consultation
- If symptomatic screen is positive then investigation is begun (if not already)
- Process continues until diagnosis of “TB” or “No TB” is made



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TB screening: Case identification

- Symptom screen is an integrated part of the ECDOH Adult Clinical Record
- Consists of 6 questions
 1. Have you experienced any unexpected weight loss?
 2. Have you had a cough for more than 2 weeks?
 3. Have you experienced night sweats for more than 2 weeks?
 4. Have you had a fever for more than 2 weeks?
 5. Do you have any swollen lymph nodes (glands)?
 6. Have you experienced chest pains for more than 2 weeks?
- “Yes” to one or more questions means patient is a TB suspect



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TB screening: Case investigation

- Sputum investigations (AFB x2, TB culture if HIV+)
 - Sputum can be expectorated or induced
- Other clinical investigations are ordered as indicated
 - CXR
 - Blood tests including HIV test (if status unknown)
 - Lymph node aspirates
 - Ultrasound
 - Other
- Proper handling, registration and reporting of investigations is critical



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TB screening: Treatment initiation and referral

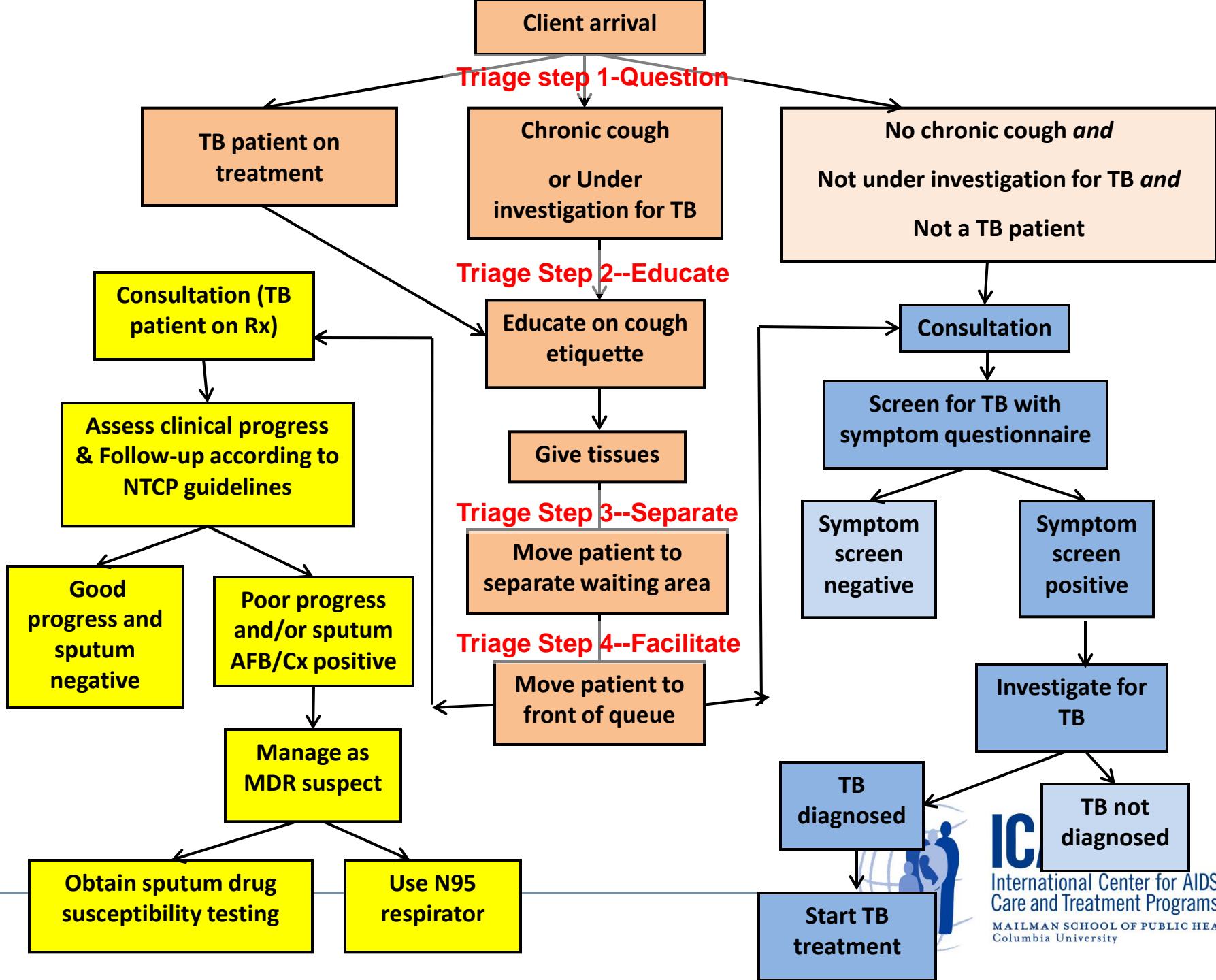
- Investigation ends when client diagnosed as “TB” or “No TB”
- If TB → initiate anti-tuberculosis therapy as indicated
- If unable to offer treatment on-site, client should be referred to another facility
- Ensure access to HIV testing and counseling if needed



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Important issues

- Keep windows and doors open
- Make use of fans to direct airflow away from other patients and HCWs
- Wear an N95 respirator if involved in sputum induction or client is MDR suspect
- Educate patients on TB, cough etiquette and infection control



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Interactive exercise: Case 1

- 35 year old man walks into health center to try and get a refill on his medications which have run out
- He goes to the registration desk and is directed to the pharmacy where he sits on the queue
- A staff member in the pharmacy notices the man is coughing while he is waiting

Question #1: What is the most appropriate action to be taken by the staff member?

- A. Nothing as the patient is only there to refill his medications
- B. Direct patient to consultation room for evaluation
- C. Inform staff member in charge of infection control
- D. Educate patient on cough etiquette



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Case 1, continued

- Later that week, the patient returns to the clinic complaining of cough, chest pain, and bloody sputum
- Investigations for TB were begun
- Sputum was found to be AFB 3+
- 6 months later, 2 staff members develop tuberculosis



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Question #2: How could possible TB transmission at the health center by this client have been avoided?

- A. Client could have been asked about cough by registration staff during his first visit a week ago
- B. Nothing. There was no way to know beforehand that the client may have had TB
- C. Pharmacist should have screened client for TB before dispensing medications



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Interactive exercise: Case 2

- 40 year old woman presents to HIV clinic for her monthly evaluation. She is on ART and is doing well
- At the registration desk, she denies cough or currently being on anti-TB medication
- She is directed to the ART consultation area



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Question #1: The most appropriate action for the clinician to take when evaluating this client is:

- A. Prescribe ART and discharge
- B. Ask client about chronic cough
- C. Send client for screening CXR or sputum AFB if not done before
- D. Ask client TB screening questions from the adult clinical record



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Case 2, continued

- Client reports good compliance with ART regimen since last visit
- Notes unanticipated weight loss and some swollen glands
- Physical exam is normal except for mild cervical lymph node enlargement



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Question #2: What is the most appropriate action for the health care provider to take?

- A. Instruct client to continue ART and increase meal frequency
- B. Begin investigations for tuberculosis (i.e. sputum collection for AFB, FNAB)
- C. Refer to district hospital for CXR
- D. Add an antibiotic such as amoxicillin onto her regimen



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Thank you!



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