Management of HIV/TB Co-Infection in Adults

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Objectives

- Explain why TB is such a serious disease for HIV-positive patients.
- Understand the human rights approach to comprehensive TB/HIV care in practice.
- Learn to manage suspected TB in ambulatory HIV-positive patients who do not have danger signs.
- Learn to manage suspected TB in seriously ill HIV-positive patients.

HIV/TB Co-infection

- People with HIV more likely to get TB. Their disease will be more severe and the diagnosis more difficult to achieve because their TB presentation is often extrapulmonary or atypical.

- TB can often worsen HIV/AIDS, leading to more rapid decline in health and death.

Test all HIV patients and anyone with a cough lasting more than 3 weeks!

Screening for TB

- Symptoms:
  - Cough > 3 weeks
  - Fever, night sweats, weight loss
  - Close contact with TB patient

- Danger signs:
  - Temp > 39 C
  - HR >120
  - RR > 30
  - Needs assistance walking

Integrated Treatment

- Anti-TB medication
- ART
- Cotrimoxazole
- Adherence support (DOT)
- Nutritional and social support
- Active case-finding
- Patient education

Introducing Meds in New Co-Infection

- Day 0: Start *anti-TB* treatment
- Day 7: Start *cotrimoxazole* prophylaxis
- Day 14: Start *ART*

Staging the introduction of the different medications helps avoid confusion from overlapping side effects.

Anti-TB Treatment Regimens

Figure removed due to copyright, showing treatment regimens for different patient categories: new case, previously treated case, not responding to treatment.

Multi-Drug Resistant(MDR) TB

- MDR TB: resistant to isoniazid (H) and rifampicin (R)
  - XDR TB: resistant to H, R, and two 2nd line drugs

- More difficult and expensive to treat
- Always fatal if not treated
- Mainly caused by lack of adherence to treatment (ineffective TB programs)

ART regimens chart for treatment-naïve adults		
Recommendation	***ART Regimen***	***Dosage***
Preferred regimen	**TDF / 3TC or FTC / NVP** Tenofovir / Lamivudine or Emtricitabine / Nevirapine	*Initial phase (first 15 days)*: ▪ (TDF 300mg + 3TC 300mg) 1 tab 1x/day and NVP 200mg 1tab 1x/day OR ▪ TDF 300mg 1 tab 1x/day and FTC 300mg 1 tab 1x/day and NVP 200mg 1tab 1x/day *Maintenance phase (after 15 days)*: ▪ (TDF 300mg + 3TC 300mg) 1 tab 1x/day and NVP 200mg 1tab 2x/day OR ▪ TDF 300mg 1 tab 1x/day and FTC 300mg 1 tab 1x/day and NVP 200mg 1tab 2x/day
Alternatives: If NVP contra-indicated (ex: concomitant anti-TB treatment or allergy)	**TDF / 3TC or FTC / EFV** Tenofovir / Lamivudine or Emtricitabine / Efavirenz	▪ (TDF 300mg + 3TC 300mg) 1 tab 1x/day and EFV 600mg 1tab 1x/day OR ▪ TDF 300mg 1 tab 1x/day and FTC 300mg 1 tab 1x/day and EFV 200mg 1tab 1x/day
If TDF contra-indicated (ex: renal insufficiency)	**ABC / 3TC / NVP** Abacavir / Lamivudine / Nevirapine	*Initial phase (first 15 days)*: ▪ ABC 600mg and 3TC 300mg 1 tab 1x/day and NVP 200mg 1tab 1x/day *Maintenance phase (after 15 days)*: ▪ ABC 600mg and 3TC 300mg 1 tab 1x/day and NVP 200mg 1tab 2x/day
	ABC / 3TC / EFV Abacavir / Lamivudine / Efavirenz	▪ ABC 600mg + 3TC 300mg 1 tab 1x/day and EFV 600mg 1tab 1x/day

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Cotrimoxazole Prophylaxis

- Criteria for starting cotrimoxazole prophylaxis
  - CD4 cell count below 350 cells/mm^3
  - WHO Clinical Stage 3 or 4
    - Stage 3 = symptomatic HIV infection
    - Stage 4 = progression from HIV to AIDS
- Dosage prescribed
  - 960mg orally once a day
- Discontinuation
  - Only if CD4 count is above 350 cells/mm^3 > 6 months after starting ART

Accompaniment and Support

- Directly Observed Therapy (DOT) is the process of distributing therapy and watching patients take their medications
  - Improves adherence
  - Prevents drug resistance
  - Increases chances of being cured
- CHWs can also monitor the status of patients: other health issues, nutrition, economic problems, etc.
- Active case-finding is an important part of maintaining the health of the community and surveillance.

Patient Education:
5 Key Messages

- Adherence
  - Take meds EVERYDAY and complete the FULL course
- Monitor symptoms
  - Tell CHW about any serious side effects
- Case-finding
  - Bring family and close contacts to clinic for testing
- Get/obtain nutritional and social support
- Family planning

Infection Control

- Teach TB patient etiquette
  - Patients should cover mouth when coughing or sneezing
- Isolate TB patients
- Wear N95 mask
- Good treatment
  - Assure adherence and provide nutritional and social support

Extrapulmonary TB

- TB outside of the actual lungs
- Smear-negative
- Generally non-contagious
- More common in immunocompromised patients
- Suspect extrapulmonary TB if
  - Clinical suspicion of TB
  - Negative sputum smears and CXR
  - No response to oral antibiotics
  - Second negative set of sputum smears

Image removed due to copyright, showing various sites of extrapulmonary TB infection