COUNSELLING FOR

3HP
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About the tool

- It provides trainers with an attractive and interactive way of engaging with and supporting patients
- It attempts to graphically represent and simplify clinical content for a lay person
- It delivers correct and consistent messaging to ensure that patients are provided with accurate information
- It allows the facilitator to progress through the material at a pace and level comfortable for the client
- A facilitator can start and stop on any page, given the need of the client

How the tool is designed

- Colour-coded, mirrored messages allows for ease of training; the facilitator sees what the patient sees to allow for a smooth conversation
- The facilitator is provided with notes to assist with messaging and accuracy of information
Overview of TB transmission

STAGE 1: Exposure
A healthy person inhales TB germs from droplets that are coughed up by someone who is ill with TB.

STAGE 2: TB germs are recognised as invaders and are contained by the healthy immune system (white blood cells - including CD4 CELLS). This is known as LATENT TB INFECTION (sleeping TB).

STAGE 3: Immune system unable to contain the TB germs which escapes into the rest of the lungs - and possibly other parts of the body causing disease.

Churchyard et al., 2017
Overview of TB transmission

- TB in the lungs is the most common, however, TB germs can spread from the lungs to different parts of the body
- TB is a disease caused by the tuberculosis germ. It is spread from person to person through the air and settles in the lungs

**STAGE 1:**
**Exposure** - A healthy person inhales TB germs from droplets that are coughed up by **SOMEONE WHO IS ILL WITH TB**

**STAGE 2:**
TB Germs are recognised as invaders and are contained by the healthy immune system (white blood cells - including **CD4 CELLS**)
This is known as **LATENT TB INFECTION** (sleeping TB)

**STAGE 3:**
Immune system unable to contain the TB Germs which escapes into the rest of the lungs - and possibly other parts of the body causing disease. This is known as **ACTIVE TB**
What is the difference between TB disease and latent TB infection?

**STAGE ONE**
- Exposure

**STAGE TWO**
- Latent TB infection (Sleeping TB)

**STAGE THREE**
- TB disease or active TB
What is the difference between TB disease and TB infection?

- People who become infected with TB germs, but do not feel sick have latent TB infection (sleeping TB)
- Because the germs are inactive (sleeping), you may not feel sick
- A person with latent TB infection cannot spread TB to others
How does TB spread?

Droplets from a cough or sneeze by a person with active TB germ

Indicate True or False the ways TB can be spread

- Touching
- Food & Water
- Kissing
- Clothing
- Sharing cutlery
- Insect bites
- Toilet seats
How does TB spread?

- When a person who is sick with TB of the lungs, coughs, sneezes or spits, the invisible TB germs are spread into the air. The germs are able to stay in the air for many hours and anyone who breathes them in, can become infected.

- TB is NOT spread by handling objects that someone infected with TB has simply been touching e.g. dishes, drinking water, sheets or clothing.

- All the pictures are FALSE; you can NOT get TB from:
  - Touching
  - Food & Water
  - Kissing
  - Clothing
  - Sharing Cutlery
  - Insect Bites
  - Toilet Seats
When should I test for TB?

Adults

- Unintentional weight loss
- Fever
- Cough
- Night sweats that requires you to change your bed linen or clothes

Children

- Poor weight gain
- Fever
- Cough
- Reduced playfulness, neck mass, lethargy and wheeze
If someone has any one of the shown symptoms, they must be referred to the clinic for investigation

- Unintentional weight loss
- Fever (any duration if you are HIV positive, 2 weeks if HIV negative)
- Night sweats that requires you to change your bed linen or clothes
- Cough for more than 2 weeks (or any duration if you are HIV positive)

**When should a child be tested for TB?**

- Cough of more than 2 weeks that is not responding to treatment
- Weight loss or not growing/developing well/poor appetite
- Fever (any duration if you are HIV positive, 2 weeks if HIV negative)
- Fatigued (Less playful/always tired)
- When they have been in close contact with an adult who has TB or who were born from a mother with TB
Why should we know about the symptoms of TB?

EARLY Diagnosis + EARLY Treatment = SPEEDY Recovery
Why should we know about the symptoms of TB?

- So that we can identify people who might have TB disease
- One of the key steps to controlling TB is to identify patients early so that they can be started on treatment early
- Starting treatment sooner will help minimise the spread to others

**EARLY Diagnosis + EARLY Treatment = SPEEDY Recovery**

We should always try to identify people who display symptoms of TB – this is called ‘intensified case finding’.

REMEMBER THE BIG 4

1. Cough
2. Fever for > 2 weeks
3. Night sweats
4. Unexplained weight loss (>1,5kg in a month) / poor weight gain in children
How would I know if I have TB?

Image: Graeme Williams/Unitaid

GAME CHANGER: CEPHEID GENEXPERT SYSTEM
With its compact design, the GeneXpert® System allows for portability in the field and can run tests just about anywhere.

GAME CHANGER: SIZE
Processing Unit
A four-site GeneXpert System can be configured with 1, 2, 3 or 4 modules. A 16-site system can be configured with 4, 8, 12, or 16 modules. For the highest throughput applications, a GeneXpert Infinity System can scale to 80 modules. All systems can be easily upgraded with additional modules.

In fact, due to the recent World Health Organization (WHO) endorsement of our systems, we now have molecular diagnostic "centers of excellence" in some of the most remote places on earth.

The decreased system footprint and consolidated testing design creates space-saving efficiency, reducing the need for multiple testing platforms. These new systems are also designed to be stackable, for those labs where space is a particular issue.

And we've now introduced a new configuration, the two-module GeneXpert System, to provide even more options for smaller institutions.

TB Detection Going Mobile
Photographs courtesy of Michael Hoelscher, University Munich/Mbeya Medical Research Programme

GeneXpert®
How would I know if I have TB?

- A person with symptoms of TB will be asked to do a sputum test (cough up sputum – not saliva – into a small bottle)

- The sputum needs to be tested to see if TB germs are present

- The test results may be available on the same day as your visit. If not, the Health Care Worker will give you a date, usually 2 days later, to come back to the clinic

- For children, swallowed sputum from a gastric aspirate, is often tested in instead of sputum
Can TB be cured?

4 for 2 + 2 for 4

PHASES OF TB TREATMENT:

IN TENSIVE PHASE
4(drugs) for 2 (months)

CONTINUATION PHASE
2(drugs) for 4 (months)

KEY
R - Rifampicin
H - Isoniazid
Z - Pyrazinamide
E - Ethambutol
Can I be cured of TB?

- At the beginning of treatment, there are numerous TB germs in the body. For this reason, 4 drugs are given for the first 2 months.

- Although most TB germs are killed within the first 2 months of treatment (intensive phase), there will still be active germs in the body.

- Treatment with at least 2 drugs must continue for several more months to kill the remaining germs (continuation phase).

- If treatment is not continued for a long enough time, the remaining germs may continue to grow, causing TB disease to re-occur.

- In certain instances, TB can be treated for longer than 6 months.
Who is at greatest risk of progressing to TB Disease?
Who is at greatest risk of progressing to TB disease?

- Peoples whose immune systems are weak, such as: Those living with HIV, diabetics, malnourished people, elderly people over the age of 60 years or those with cancer or taking medicines that decrease the immune system

- Children under 5 years

- Adolescents

- (20x overall within 1 year), and then also the particular risk for the youngest children (including TBM)
PREVENTING TB

TB-HIV co-infection
TB-HIV co-infection

- There is a very strong relationship between TB and HIV. A strong immune system (white blood cells) prevents the development of TB disease following infection with TB germs.

- HIV reduces the protection provided by the immune system and enables TB germs to multiply, facilitating rapid progression to active TB disease. TB disease causes rapid multiplication of the HIV virus, leading to AIDS.

- A person can have HIV only, or TB only or both HIV and TB therefore it is important for all TB patients to test for HIV and for all HIV positive to get screened for TB.
Can you prevent yourself from getting TB?

- Healthy Diet
- Good Ventilation
- BCG Injection
- Coughing into your sleeve or elbow
- Wash your hands after sneezing, coughing
- TPT 3HP 6H
Can you prevent yourself from getting TB?

Yes!
- Ventilation
- Cough protection
- Washing hands
- Maintaining healthy lifestyle

Can progression to TB disease be prevented?

Yes!
- BCG injection (usually given at birth) can prevent TB from developing, and can reduce the severity of disease
- TPT: Choices of TPT are isoniazid alone (6H) or isoniazid combined with rifapentine (3HP)

Infection Prevention and Control in homes and facilities
- This is done through correct hygiene, ensuring opening windows and healthy lifestyle
Contact investigation
Contact Investigation
What should be done

• Once a diagnosis of pulmonary TB is made all contacts are supposed to be screened for active TB
• Ensure all contacts including children are brought to a health care facility for TB screening
• All child contacts < 15yrs, who screened negative for active TB, should receive TPT
• Adolescents ≥15 years or adults living with HIV who screened negative for TB should receive TPT
• HIV negative adolescents ≥15 years and adults who screened negative for TB, should be checked again after 6 months for TB symptoms
• Contacts that are on TPT require monthly review to rule out active TB, monitor for side effects and support to finish the treatment
What is TB Preventive Treatment?

No Intervention

**EXPOSURE**

**STAGE ONE**

**TPT**

**STAGE TWO**

LATENT TB INFECTION (SLEEPING TB)

**KEY**

- H - Isoniazid
- P - Rifapentine

**STAGE TWO**

LATENT TB INFECTION (SLEEPING TB)

**TPT Treatment**

ONCE A WEEK 3 MONTHS

DAILY 6 MONTHS

TREATED CURED

**NO INTERVENTION**

TB DISEASE OR ACTIVE TB
**TB Preventive Treatment (TPT)**

- Medication is given to people with TB infection (sleeping TB) to prevent the progression to Active TB.

- Most people can be treated with 3HP but depending on the age and other diseases or medication, some can be treated with 6H.

- On the top, you can see the progression from infection to TB disease. On the bottom, you can see that TP preventive treatment stops development of disease.
What is 3HP?

Once a week

P rifapentine \(\{\) P + H \(\}\) isoniazid H

3 months

2 drugs, isoniazid (H) and rifapentine (P) which are taken together once a week for 3 months (12 weeks) to get rid of latent TB infection
What is 3HP?

- 3HP is a combination of 2 drugs, isoniazid (H) and rifapentine (P) which are taken together each week for 3 months (12 weeks) to get rid of latent TB infection

- It’s helpful to spell out with the H and P refer to in 3HP

Benefits of taking 3HP correctly:

- Reduces chances of progressing to active TB disease by 90%
- It is taken for a short period
- It is easy to take
- Has few side-effects
- Less toxic to the liver
3HP Great News

12 doses of 3HP over three months vs 180 doses (six months) of 6H.
Fewer doses, shorter duration, easier to finish treatment"
3HP Great News

- Take the medication once a week for 12 weeks vs every day for 6 months
- The 12 doses course should be completed within 12 weeks
- The medication will still be effective if all doses are completed within 16 weeks, but this is not ideal
Taking my pills
Taking My Pills

- Emphasise the reduced pill burden: 3HP 10 tablets once a week vs isoniazid daily dose for 6 months
- Stress the importance of a weekly routine
- If your stomach is upset after taking your medicine, try eating beforehand
- Drinking alcohol daily or taking traditional medicines can increase your risk of liver damage when taking isoniazid. You should discuss your alcohol use with your doctor before starting isoniazid and rifapentine
- Visit the clinic immediately if you have any side effects or have any symptoms of TB - nights sweats, weight loss, cough and high temperature
How caregivers should administer tablets for kids

- **CRUSH TABLETS**
- **USE FOOD**
- **NOT FRUIT**
- **ASSIST**
- **REWARD**
Consider the following counseling for caregivers:

- RPT and INH tablets can be crushed for small children who cannot swallow the whole tablet.
- The crushed tablets can be added to any small amount of food the child likes to mask the bitter taste of the tablet. Any food can be used except fruit.
- Caregivers should assist children in taking their medication weekly.
- Consider providing a post-dose reward to increase acceptance of the medication in otherwise healthy children.
- Communicate the need to take these medications with all caregivers (mom, granny, auntie, father) so that doses are not missed.
- Sometimes medicines cause children to vomit shortly after taking the medication. This is normal and should not cause concern.
- If your child vomits less than 30 minutes after taking the dose, give them the same dose again.
- If children develop nausea, vomiting, abdominal pain, and/or yellow discolouration in their skin or eyes, then they need to be brought back to the clinic as soon as possible. Caregivers should not wait for their next visit.
Why should I take my medication on the same day every week?

- **MISSING DOSES**
  - Not effective, TB disease can still happen

- **REGULAR WEEKLY DOSES**
  - Effective prevention of TB

- **DOSES TOO CLOSE TOGETHER**
  - Side effects from too many doses
Why should I take my medication on the same day every week?

NOT ENOUGH – Missing doses
- Shows what happens when you do not take your medication on a weekly basis
- For an example. If you were meant to take your medication on Sunday and you only remembered on Thursday, then the level of medication in your blood is low
- Too low to prevent TB disease

JUST RIGHT – Regular weekly doses
- Shows what happens when you take medication as expected, once a week every week on the same day for 12 weeks
- Example, every Sunday
- Your body is able to maintain the needed amount of medication to prevent TB infection progressing to TB disease
- It also remains at a level in your body where getting side effects is less likely – the medicine is very safe at this level

TOO MUCH – Doses too close together
- Shows what happens when you take doses too close together
- Overdosing does not make the treatment better
- Too many doses raises the risk of having side effects like liver problems or other reactions
What do I do if I miss a dose?

**Within 3 days**

Try to stick to the same day of the week i.e. Sunday. If you miss Sunday, take the medication within 3 days and go back to your normal Sunday routine.

**After 3 days**

Take your next dose on your usual day: this means you have skipped a week and you will need to continue the medication for an additional week.

**OR**

Start your new weekly schedule on the day you remembered you forgot your medication i.e. if you were on a Sunday and only remembered Thursday, you can take it on Thursday and make Thursday your new day to take 3HP for the rest of the treatment.

If you are unsure about when to take your medication, please ask your healthcare worker immediately.
What do I do if I miss a dose?

- Try to stick to the same day of the week i.e. Sunday
- If you miss Sunday, take medication within 3 days and go back to your normal Sunday routine

If you miss for more than 3 days:

- Take your next dose on your usual day, this means you have skipped a week and you will need to continue the medication for an additional week

OR

- Start your new schedule on the day you remembered you forgot your medication i.e. if you were on a Sunday and only remembered Thursday, you can take it on Thursday and make Thursday your new schedule for the rest of the treatment
WHO SHOULD NOT TAKE TPT?

- Heavy Drinkers
- Pregnant women
- Some medications
Who should not take 3HP

- Further evidence is required before 3HP can be recommended during pregnancy. Ongoing clinical trials will provide information on the safety of 3HP in pregnancy.

- Due to a lack of evidence of the safety of rifapentine in children, 3HP cannot be recommended in children less than 2 years of age.

- 3HP can lower medications such as some ARVs (LPV and NVP) and hormone-based contraception when they are taken at the same time.

- Most adults and children who cannot take 3HP can receive 6H, except for pregnant women.
What do I need to know about side effects?

Rifapentine may cause your urine (pee), saliva, tears, or sweat to appear an orange-red colour.

**normal**

Persistent fatigue, nausea and fever.

**abnormal**

If you are unsure about taking your medicine, please ask your healthcare worker for advice.
What do I need to know about side-effects?

• Isoniazid may cause tingling or numbness in hands and feet. Your doctor may give you Vitamin (B6) to prevent this.

Most people can take their 3HP or 6H without any problems. But any medicine you take may cause problems. Please contact a health care provider if you have the following symptoms:

• Dizzy or lightheaded when sitting, standing, or lying down
• Less appetite, or no appetite for food
• Stomach upset, nausea, or vomiting
• Flu-like symptoms with or without fever (3HP)
• Severe tiredness or weakness
• Fevers or chills (3HP)
• Severe diarrhoea or light coloured stools (poop)
• Skin or whites of your eyes appear yellow
• Skin rash or itching
• Bruises, or red and purple spots on your skin that you cannot explain
• Pain or tingling in your hands, arms, or legs
- CAUTION -

Hormone based birth control

Use barrier forms of birth control

Pregnancy
Caution

- 3HP but not 6H may affect hormone based birth control (including birth control pills, rings, and injections)

- During treatment, barrier forms of birth control (condoms or diaphragms) should be used to avoid pregnancy

- If you become pregnant or think you might be pregnant, tell the doctor or nurse right away