Joint Effort for Elimination of Tuberculosis

# CBNAAT (GeneXpert)

## All Notified TB patients

## Non-responder to Treatment

DS TB

H mono/poly

## Presumptive TB

- PLHIV • EPTB
- Smear negative or not available with x-ray suggestive of TB including pediatric
- Vulnerable population
- Contact of DR TB patient
- Samples from private sector

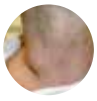
## Samples processed by CBNAAT

### Pulmonary TB

Sample for PTB - 5 ml mucopurulent sputum without saliva or blood

Blood and faeces are not samples for TB diagnosis

### Extrapulmonary TB[1]



**TB lymphadenitis**
Lymph node aspirate or biopsy

**Ascites (Abdominal TB)**
Ascites fluid and peritoneal biopsy

**TB meningitis**
Cerebrospinal fluid (CSF)

**Bone and joint TB**
Bone/synovial tissue via biopsy

**Urinary tract and kidneys TB**
Urine and tissue via biopsy

**Genitourinary tract TB**
Tissue via biopsy (Endometrial tissue in women)

**Pleural effusion (TB pleuritis)**
Pleural fluid and pleural biopsy

**CBNAAT test will be conducted at the nearest public sector lab**

**Need help? Contact:**

**Name:** _____ **Contact no.:** _____

Flip this for more information about CBNAAT

## CBNAAT (Cartridge-based nucleic acid amplification test) is a fast, automated and qualitative real-time PCR test that analyzes the sputum specimens for identification of[2,3]:

- Mycobacterium Tuberculosis Complex (MTB) DNA
- Resistance to rifampicin (RIF)
- Recommended by WHO for detection of pulmonary and extrapulmonary TB in adults as well as children
- Testing time only 2 hours


**CBNAAT (GeneXpert)**

## Sensitivity & specificity of CBNAAT

| Sample | Sensitivity# | Specificity# |
|---|---|---|
| Lymph nodes | 83% | 94% |
| CSF | 81% | 98% |
| Pleural fluid | 46% | 99% |
| Sputum | 94% | 99% |

#Compared to culture as the reference standard

**Source:**
1. Diagnosis of Tuberculosis: Importance of appropriate specimen collection. GP clinics, Let's talk TB (supplement) First edition 2014.
2. Who.int, (2014). WHO. Global Tuberculosis Report 2013. [online] Available at: http://apps.who.int/iris/bitstream/10665/91355/1/9789241564656_eng.pdf [Accessed 1 Aug. 2014].
3. Boehme, C., Nicol, M., Nabeta, P., Michael, J., Gotuzzo, E., Tahirli, R et al (2011). Feasibility, diagnostic accuracy, and eectiveness of decentralised use of the Xpert MTB/RIF test for diagnosis of tuberculosis and multidrug resistance: a multicentre implementation study.
The Lancet, 377(9776), pp.1495-1505 PCR: Polymerase Chain Reaction.

8.3" (Inch)

5.8" (Inch)