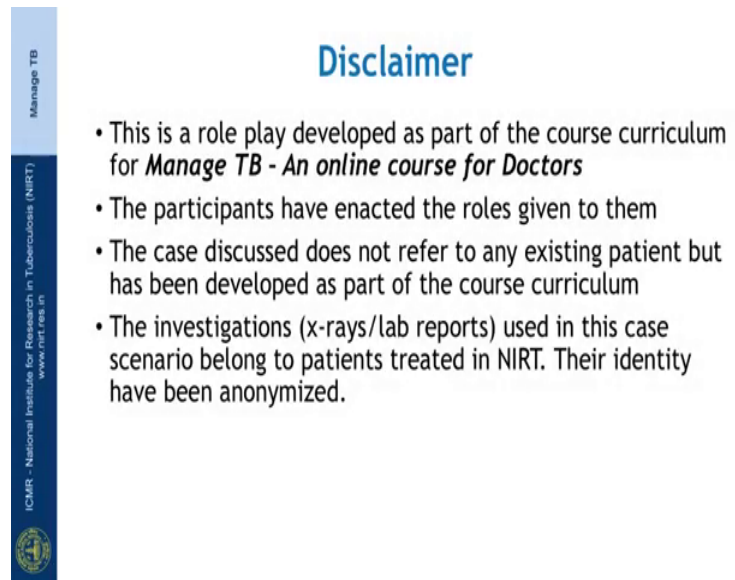


**Manage TB**  
**National Institute for Research in Tuberculosis, Chennai**

**Lecture – 22**  
**Approach to diagnosis of Pulmonary Tuberculosis**  
**Case Discussion**

(Refer Slide Time: 00:11)



**Disclaimer**

- This is a role play developed as part of the course curriculum for *Manage TB - An online course for Doctors*
- The participants have enacted the roles given to them
- The case discussed does not refer to any existing patient but has been developed as part of the course curriculum
- The investigations (x-rays/lab reports) used in this case scenario belong to patients treated in NIRT. Their identity have been anonymized.

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## Approach to diagnosis of Pulmonary Tuberculosis

### Case discussion

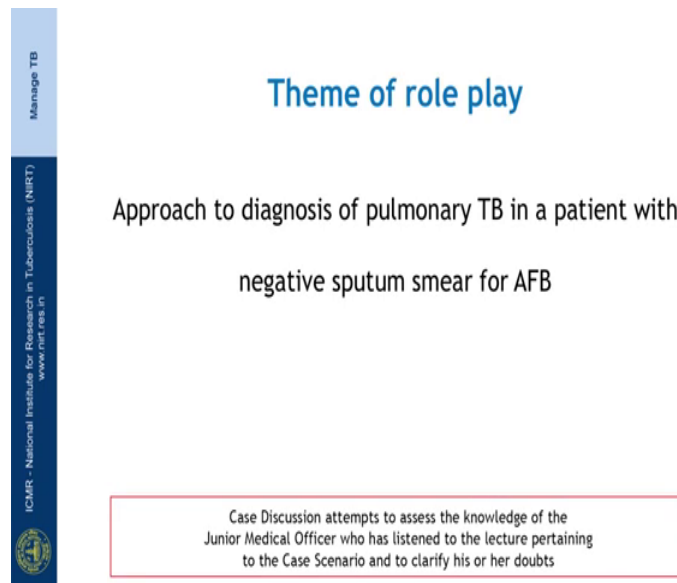
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### Participants in the role play

- Chief Doctor
- Junior Medical Officer

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## Theme of role play

Approach to diagnosis of pulmonary TB in a patient with negative sputum smear for AFB

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Case Discussion attempts to assess the knowledge of the Junior Medical Officer who has listened to the lecture pertaining to the Case Scenario and to clarify his or her doubts

Good morning chief.

Good morning.

I have a case to discuss with you.

Yeah, please go ahead.

(Refer Slide Time: 00:57)



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## Case description

- 40-year-old female
- Home-maker, mother of 2
- Fever - 1 month, intermittent
- Occasional cough
- Loss of appetite - 2 months
- Diabetic for past 5 years, on oral anti-diabetic drugs

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There is a 40 year old women, who is a home maker children of 2.

Ok.

Was entered to a my clinic with a history of fever for past 1 month, the (Refer Time: 01:12) cough and loss of appetite for past 2 months, she said non diabetic and on oral hypo glyceemic drugs you are past 5 year.

What are the additional information, you have gathered from her did you did systemic examination it is it.

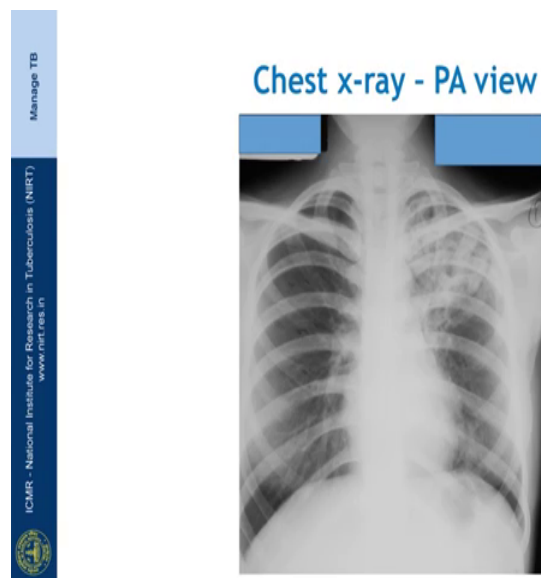
Yeah, chief along with the examination and also (Refer Time: 01:36) history about the patient, on the history path I have asked about the fever nature of cough and, about loss of appetite and loss of weight and, she dines any history of having anti tubercular treatment in the past.

She also dinette history of having contact with the any TB patient, in his locality or in his work place and, she said non diabetic as say said earlier and, now she is an oral hypo glyceemic drugs. I also done the gentle under system examination thoroughly.

So, did you have any investigation reports with you?

Yeah, yes I have done sputum's near for a b and also other bacterial investigations, but all the investigation of safety been negative, along with that I also done investigate for dengue, malaria and typhoid, those results are also said to be negative.

(Refer Slide Time: 02:49)



And I have on chest x-ray to show to you on the normal case

Normal case.

And this to be want.

This chest x-ray shows upper zone of opacity, would you be starting on treatment for pulmonary tuberculosis based on this chest x-ray.

Not definitely chief because, chest x-rays only complimented diagnostic to it is not a confirmatory dynamic tool. So, this no need to started treatment for this patient.

Good, I am glad.

So, shall we order for any CT scan for this patient chief, what you suggest?

In this patient already you have the chest x-ray abnormal; chest x-ray abnormality that mean you may not be any city scan in this patient.

Chief, so, how can we proceed with the patient doctor?

If you have not done experts MTB RIF in sputum for this patient earlier, please proceed with doing the test and how about the sputum production in this patient, what constitutes good sputum, quality sputum collection.

Yeah, 2 ml of muco purulent sputum is a enough to be said as good sputum mans sample, with that we can do gene expert MTB add Rifampicin test. And for assemble sir if the patient does not gives the sample for sputum smear.

Or testing.

Yeah, yeah testing so.

Yeah, it is very vital that you collect very good qualities sputum, as well as a good volume of sputum and on top of it if the patient does not produce enough sputum, you may assist him giving and inhalation which would produce good amount of sputum, and top of it you need to ensured that the patient does not give you saliva of a testing, because reports depends on good quality and volume of sputum.

Thank you chief. So, in this patient what are the further what are the further test should be done.

Could be could be do mantoux in this patient.

Mantoux I have doubt in it doctor, could you please explain about the Mantoux.

So, mantoux mostly it is done to see the TB infection not the disease, mantoux test are act as an complimentary tool, in diagnosis of child would tuberculoses, as we know that bacteriological confirmation is very difficult in children to get, in adults normally you should never do mantoux for diagnosing activity tuberculoses.

Oh this is uh. So, in this patient so, what is diagnosis and how can we proceed with the management of the patient?

This patient this is a case of clinically diagnose tuberculoses, we go with following things like the patient had symptom presumptive of tuberculosis one two he had an abnormal chest x-ray. And most importantly three is we did not had any alternate diagnosis to coin it. It is so, we go for clinically diagnose pulmonary tuberculosis and treat this patient, could you just summaries what are the main points, we have discussed about this case.

(Refer Slide Time: 06:51)

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### Key messages - Diagnosis of PTB

- It is important to ensure at least 2 ml of mucopurulent sputum is given for investigations
- CT-scan is not required if chest x-ray shows abnormality
- Positive mantoux indicates TB infection but not TB disease
- Mantoux is useful in children as a complimentary diagnostic tool
- Diagnosis of clinically diagnosed TB can be made based on the symptoms of presumptive TB, Chest x-ray abnormality and absence of evidence of alternate diagnosis

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Yes, definitely chief. It is important to ensure at least 2 ml mucopurulent sputum is given for investigations, CT scan is not required, if chest X ray shows abnormality, positive mantoux indicates TB infection, but not TB disease.

Mantoux is useful in children as a complimentary diagnostic tool diagnosis of clinically. Diagnosed TB can be made based on the symptoms of presumptive TB, chest x-ray abnormality and absence of evidence of alternate diagnosis.