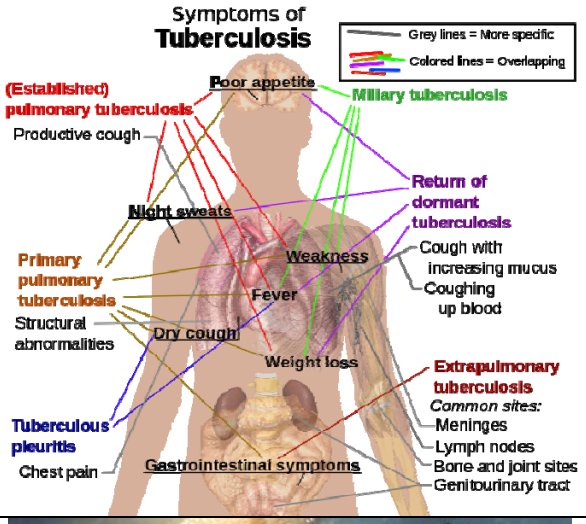
TB Unit 3: Diagnosis
Activity Sheet: Identifying Latent and Active TB Infections

1. For each of the following images indicate
a) the test it represents
b) whether the test is for latent or active TB and
c) briefly describe how the test works.

<table>
<tr>
<td> 
</td>
<td>a) Patient History / Symptoms

b) Active

c) The doctor discusses with the patient how they have been feeling, recent trips or contact with other sick people, and family history in order to decide whether tuberculosis is a likely fit for the patient’s signs and symptoms.</td>
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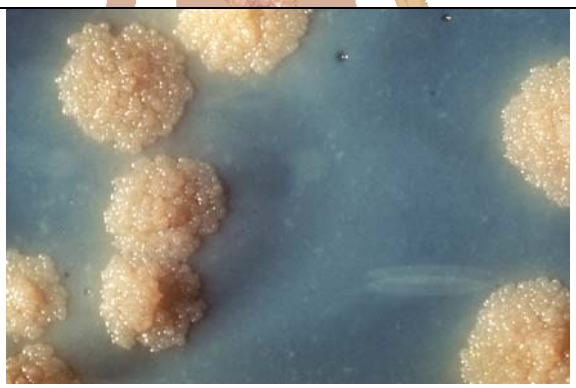
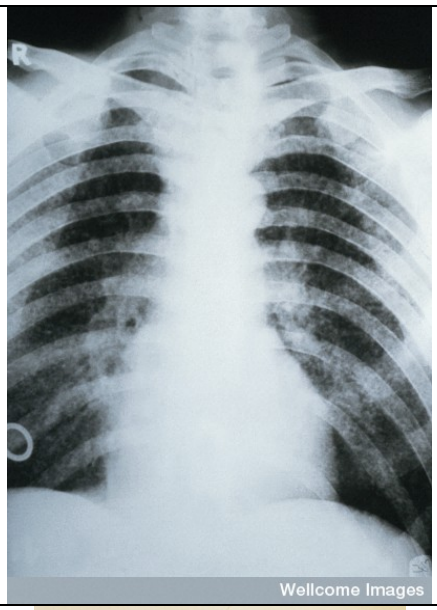
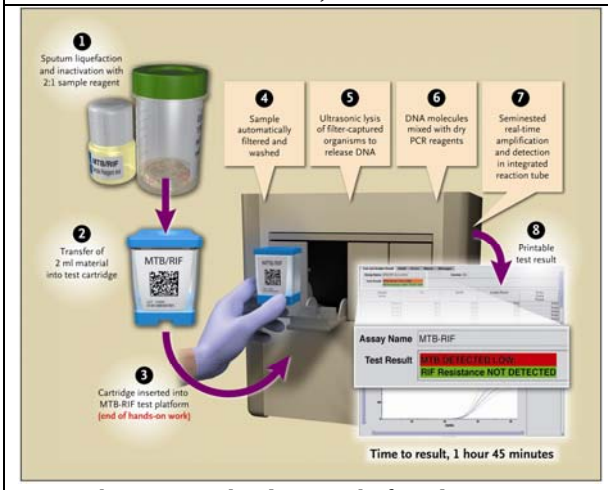
<td> 
CDC PHIL #4428, CDC/Dr. George Kubica</td>
<td>a)

b)

c)</td>
</tr>
<tr>
<td> 
CDC PHIL #6806, CDC/Gabrielle Benenson</td>
<td>a)

b)

c)</td>
</tr>
</table>

	a) b) c)
 © Ocean/Corbis, 42-15559904	a) b) c)
 From *The New England Journal of Medicine*, C. C. Boehme, P. Nabeta, D. Hillemann et al., "Rapid Molecular Detection of Tuberculosis and Rifampin Resistance," 363 n.11 Copyright © 2010 Massachusetts Medical Society. Reprinted with permission from Massachusetts Medical Society.	a) b) c)

2. You're the Doctor! Below you will find a number of test results. Consider these results carefully to decide whether your patient has active TB, latent TB, or no TB infection, and/or whether you would like to conduct another test to verify your diagnosis.

a) Patient A is complaining of night sweats, weakness, and of coughing up blood. She is a 34 year old immigrant from South Africa whose husband was recently diagnosed with active TB.

b) Patient B had a positive skin test, so you collected a sputum sample and sent it to the lab. The lab technicians report seeing acid-fast bacilli under the microscope.

c) Patient C has applied to immigrate to Canada. As required, they have provided an x-ray of their lungs for examination. The x-ray shows some scarring and calcifications in the upper lungs.

d) Patient D presented with the classic signs and symptoms of tuberculosis, so you drew a blood sample and sent it to the lab for testing. Results show that a significant amount of interferon-gamma was released upon testing.

e) Patient E presented with a persistent fever and cough after travelling in South America for three months. You gave a skin test that had a negative result. The cough and fever went away after a 2 week course of antibiotics and have not returned in the past six months.

f) Patient F was treated with antibiotics for TB two years ago. Recently they have complained of persistent cough and a pain in their chest. You collect a sputum sample and send it to the lab for culture. Results show the presence of Mycobacterium tuberculosis.