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TB or not TB

Jenny Walker
TB Specialist Nurse
Liverpool Community Health

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TB Overview

- TB is a bacterial disease caused by mycobacterium tuberculosis
- Pulmonary TB most common, 50% of all TB cases internationally affect the pulmonary system
- Other areas can be affected these include but not exhaustive - (lymph nodes / brain / bone / skin / GI & GU systems)
- Only infectious when active form of disease & when present in the respiratory system or the larynx
- Curable with course of specific antibiotics

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Transmission

- Bacteria in droplets produced by coughing can be breathed in by people with close contact
- Not transmitted through bodily fluids like HIV so can be quite confusing for patients with dual diagnosis
- Close contact = same household / over 8 **accumulated** hours in enclosed space –

  e.g. a bay on a ward
- TB does not live on surfaces, clothes or hands etc.

NICE (2011)

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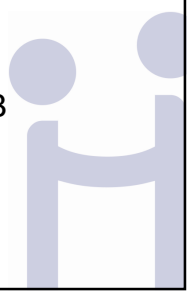
Symptoms

- Persistent cough which does not improve with routine antibiotics
- Haemoptysis
- Unexplained weight loss/poor appetite
- Fevers &/or night sweats
- General fatigue
- Swollen lymph nodes
- Symptoms vary depending on the site of the TB



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TB and HIV – The Facts

- Patients with HIV are 29 x more likely to develop TB than people without HIV
- TB is leading cause of death among people with HIV
- 1:4 TB deaths internationally were associated with HIV in 2013
- With global implementations of programmes including the WHO TB/HIV package it is thought that 1.3 million lives have been saved between 2005-2011

WHO (2015)

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TB and HIV Holistic Care

- TB and HIV co-infection can lead to increased complexity in care from a medical / pharmacological / social / psychological / financial and emotional aspect
- Consider the implications of the next two case scenarios regarding dual diagnosis and what we as HIV and TB nurses can do to reduce the burden on the patient / family / community

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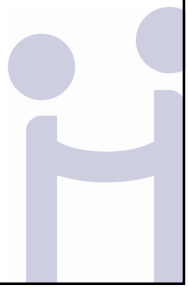
Case Study 1 – Demographics

- AT - 46 years old, White British,
- No previous HIV / TB / Sexual health screen done,
- Works as an industrial cleaner for large private firm contracted by Liverpool City Council,
- Lives alone but has a partner who has been promiscuous in the past



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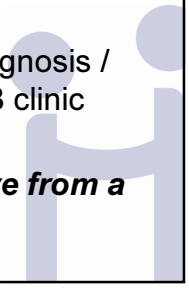
Case Study 1 – Clinical Background

- Self presented to A&E with a productive cough and weight loss, abnormal CXR reported so was referred to the TB service for screening
- Seen at the rapid access TB clinic and sputum samples taken which confirmed TB 3 days after the samples were taken
- HIV testing recommended as part of the TB diagnosis / work up – AT was tested at the rapid access TB clinic and came back **positive.**
- ***Consider the needs that this patient will have from a HIV and TB aspect?***



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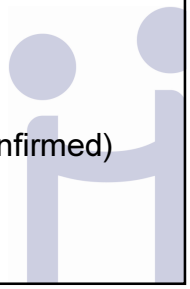
Case Study 2 – Demographics

- CMK – 32 year old female from Nigeria, arrived in the UK 3-4 years ago moved around UK including London / Manchester / Liverpool / Southport (30 miles away from Liverpool)
- Unstable housing – patient sleeps on a mattress in the front room of a shared house
- Immigration status not known
- History of being a sex worker
- Potentially still working as a sex worker (not confirmed)



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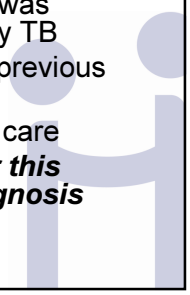
Case Study 2 – Clinical Background

- Known HIV positive, diagnosed in London 3-4 years previously
- No known TB treatment ? If TB screening was done on diagnosis of HIV
- Under the care of the GUM clinic in Liverpool
- Presented with a swollen neck node – FNA was smear negative and culture positive so quadruple therapy was started. CXR showed some shadowing ? Pulmonary TB
- HIV medical care is given by the Royal Liverpool – previous history of non-concordance to ARV's
- Southport have not commissioned any HIV nursing care
- ***Consider the clinical and social implications for this patient with regards to both the HIV and TB diagnosis***



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Drug Interactions

- TB medications have their side effects and interactions so add in ARV's and it gets even more complicated for the patient.
- TB patients without HIV start on approx. 7 tablets but can be up to 14 daily.
- If they need a supervised treatment this can be up to 25 tablets three times a week.
- *Consider this on top of the ARV tablet burden!*

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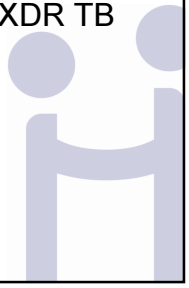
MDR / XDR TB and the Impact on HIV Positive Patients

- TB rates increased from 1990-2005 since then the incidences have stabilised, but the UK is still high compared to most other Western European Countries.
- Drug resistant cases have slightly increased up until 2012 and stabilised since then. Patients from Eastern Europe have a particularly high rates of MDR / XDR TB
- MDR TB account for 1.4% of all cases



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Key Take Home Messages

- TB complicates an already complex condition
- Consider the medication burden of TB treatment and ARV's
- HIV and TB both have their own social dimensions that other conditions don't have and these can complicate each other
- Improving the quality of life in patients with a dual diagnosis can be even more difficult!

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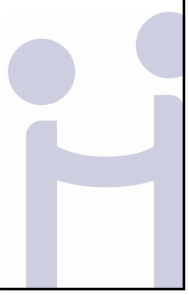
References

- WHO (2015) *A guide to monitoring and evaluation for collaborative TB/HIV activities.* WHO: Geneva
- NICE (2011) *Tuberculosis: clinical diagnosis and management of tuberculosis, and measures for its prevention and control* NICE: London



National HIV Nurses Association

17th Annual Conference

of the

National HIV Nurses Association (NHIVNA)

17–19 June 2015

Royal Armouries International