

### Paediatric TB Team

Dr. Katy Fidler, Paediatric Consultant – Lead  
Dr. Paul Seddon, Paediatric Consultant  
Dr. Sarath Ranganathan, Paediatric Consultant  
**Clinical Nurse Specialist**- Cheryl Giles  
**Adult TB lead** - Dr. Sarah Doffman, Consultant

### Clinics

**TB Clinical Nurse Specialist Clinic**  
RACH Monday and Wednesday 0900 to 1130 AM  
**TB/ID Clinic (Paediatric cons.)** Dr. K. Fidler, Wednesdays AM  
**TB Multi Disciplinary Team Meeting**-  
Monday 1130 to 1230 hours. Includes-  
Paediatric TB team, Adult TB Team, Microbiology Team

**Introduction-** Tuberculosis (TB) is a disease caused by an Acid Fast Bacilli (AFB)- *Mycobacterium Tuberculosis*. It is spread by aerosol from the infected person. TB initial affects the Lungs. However it can spread to virtually all organs of body. If the TB bacilli are inhaled, normally host immunity contains the infection. However this primary infection might resurface later in life if immunity is compromised. The TB infection with clinical signs/radiology features/sputum +ve is called active TB. TB infection without these features is called Latent TB. The incidence of TB has been rising steadily in UK. **TB is a Notifiable disease in UK**

### Clinical presentation –

General symptom, Cough, Weight loss, Failure to thrive, Fever, Lymphadenopathy  
Systemic - Depends on site of infection.

### General approach

Identify in high risk groups\*  
A detailed history for contacts and travel  
A thorough clinical examination including lymph node examination  
A senior clinician should be involved when in doubt/suspicion  
A Mantoux should be performed at the CNS TB clinic or at the ward

### \*High Risk groups

Children exposed to high risk (Smear+ve) individuals  
Foreign born from high prevalence countries (ref above)  
Children of homeless people/ living in hostels/drug abusers  
Immunocompromised

## Diagnosis

Refer a Child to TB CNS for  
1. Suspicion of TB  
2. Contact Screening  
3. GP referral for TB  
4. New Immigrant Screen  
5. Ward referral  
The TB CNS will do the Mantoux test

Mantoux Test

Mantoux Positive

Mantoux Negative

### Tools for diagnosis of TB

1. Tuberculin Skin test (Mantoux Test)
2. Interferon gamma test / Quantiferon test/ T spot TB
3. Chest X Ray
4. Sputum microscopy (AFB staining) and culture
5. Microscopy and culture depending on site\*

### Interpretation of Mantoux test

BCG Status	Mantoux size	Interpretation
No	> / = 5 mm	Infected
Yes	> / = 15 mm	Infected

### Site Specific Investigations for Diagnosis of TB

Site	Imaging	Biopsy	Culture
Lymph node		Node	Node aspirate
Bone/joint	X-ray, CT, MRI	Site of disease	Biopsy/Site fluid
GI	USS, CT	Omentum/ Bowel	Biopsy, Ascites
CNS	CT, MRI	Tuberculoma	CSF
Disseminated	CT Thorax, USSabdo	Lung, Liver, Marrow	Biospy, Blood, Bronchial Wash
Genitourinary	IV Urography, USS	Site of disease	Urine, Biopsy, Endometrial currettings
Pericardium	Echo	Pericardium	Pericardial fluid
Abcess	USS	Site of disease	Site of disease

< 5 years  
> 5 years  
Quantiferon Test

Evaluate for Active TB/  
Latent TB

Quantiferon +ve

Active TB if  
Clinical or Xray  
Signs

Latent TB if  
NO Clinical or  
Xray Signs

Quantiferon-ve

No action  
unless Risk of  
active TB

A through clinical evaluation with appropriate lab work under consultant supervision forms the mainstay of TB management at RACH

Site of TB Infection	Treatment
Respratory TB	SRR*
Meningial TB	4 drugs for two Month + 10 Months of Isoniazid and Rifampicin
TB Lymphadenitis	SRR
Bone TB	SRR + Surgical team involvement
Disseminated/ Miliary TB	SRR
Pericardial TB	SRR + Involve cardiologist
Other sites	SRR

**All patients of TB need HIV tests.**

**Mantoux false +vein.False +ve in**

For definition, terms and comprehensive guidelines refer NICE at [www.nice.org.uk](http://www.nice.org.uk)

## Management

**Active TB - Antituberculous drugs**

**Latent TB - Isoniazid 10mg/kg for 6 months**

\*Standard Recommended Regimen (SRR) –  
6 months of Isoniazid + Rifampicin add  
Pyrazinamide + Ethambutol In first 2 months

**Prevention- BCG vaccine –**  
Route- Intradermal Dose- <12months=0.05ml,  
Rest=0.1ml

Identify children at risk of TB and offer BCG if Mantoux –ve. Mantoux-ve new entrants from high-incidence countries should be offered. Offer if stay of >1 month in high incidence

CI- HIV.Immunocompromised