Tuberculosis (TB) Diagnosis and Management Policy for the Isle of Wight

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<th>Document Author</th>
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NB This policy relates to the Isle of Wight NHS Trust hereafter referred to as the Trust
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1 Executive Summary

This policy describes the processes of referral, diagnosis, management and follow-up of patients with tuberculosis (TB) on the Isle of Wight, procedures for contact-tracing, and the key personnel involved. It acts as a policy document and a clinical guideline. It is based largely on the National Institute for Health and Clinical Excellence Guideline “Tuberculosis: Clinical diagnosis and management of tuberculosis, and measure for its prevention and control” (NICE 2011, updated 2016)

2 Introduction

TB is uncommon on the Isle of Wight, with an annual incidence of 4-6 cases, matching the national incidence in UK born people (4.1 per 100,000). Most clinical staff will therefore see patients with TB infrequently and may be unfamiliar with its management. Because of its major public health impact, it is essential that clinical staff have access to clear guidelines for referral, diagnosis, management and infection control procedures.

3 Definitions

<table>
<thead>
<tr>
<th>Term</th>
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<tr>
<td>AFB</td>
<td>Acid fast bacilli (the appearance of TB organisms using ZN stain)</td>
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<tr>
<td>BCG</td>
<td>Bacillus Calmette–Guérin – attenuated live vaccine used to give protection against invasive TB infection</td>
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<td>DOT</td>
<td>Directly observed therapy: treatment for TB where patient is observed taking medication in order to ensure adherence.</td>
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<td>HIV</td>
<td>Human immunodeficiency virus</td>
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<td>IPCT</td>
<td>Infection Prevention &amp; Control Team</td>
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<td>MDT</td>
<td>Multi-disciplinary Team</td>
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<td>NICE</td>
<td>National Institute for Health &amp; Care Excellence</td>
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<tr>
<td>PCR</td>
<td>Polymerase chain reaction – DNA testing to detect specific organisms’ DNA e.g. TB bacteria.</td>
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<td>PPE</td>
<td>Personal Protective Equipment</td>
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<tr>
<td>TB</td>
<td>Tuberculosis</td>
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<tr>
<td>ZN stain</td>
<td>Ziehl–Neelsen stain (special microscopy staining technique for detecting TB organisms)</td>
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<tr>
<td>Active TB</td>
<td>TB causing symptoms and signs of disease</td>
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<tr>
<td>Contact</td>
<td>Person who has been in close contact with active TB</td>
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<tr>
<td>IGRA tests</td>
<td>Interferon gamma release tests – blood test to detect prior exposure to TB by detecting reactive lymphocytes within the circulating blood of an individual</td>
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<tr>
<td>Latent TB</td>
<td>Inactive TB infection which may be dormant within an individual for years but can reactivate at a later time</td>
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<tr>
<td>Mantoux testing</td>
<td>Test of sensitivity to TB by injecting TB proteins into skin, assessed by size of swelling in skin</td>
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<tr>
<td>MDR-TB</td>
<td>Multi-drug resistant TB – TB which is resistant to at least 2 of the first line TB antibiotics</td>
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<tr>
<td>Non-pulmonary TB</td>
<td>TB infection affecting parts of the body outside the lungs</td>
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<tr>
<td>Pulmonary TB</td>
<td>TB infection within the lungs</td>
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Smear positive TB  pulmonary TB infection where TB organisms are visible in sputum microscopy using special stains

4 Scope

This policy applies to all patients with suspected or proven TB on the Isle of Wight. It provides contact information for personnel involved in TB management, and guidance on diagnosis, bed management and infection prevention and control measures. It broadly describes treatment of TB and contract tracing, but the detail of these is outside the scope of the document, and these areas will be the responsibility of the TB team, and will be carried out in accordance with the NICE guidelines.

5 Purpose

This document acts as a reference for healthcare staff dealing with patients with suspected or proven TB, and as a policy document for the provision of TB care on the Isle of Wight.

6 Roles and Responsibilities

6.1 Isle of Wight TB Team

The TB Team will be comprised of:
Consultant Respiratory Physician, TB Lead
Consultant Respiratory Physician
TB Support Worker, supported by Consultant Nurse for Sexual and Reproductive Healthcare

The team will have formal links with:
Antibiotic Pharmacist, SMH.
Consultant Microbiologist, SMH
Consultant in Public Health England
Consultant in Infection Prevention & Control

The TB lead consultant and the TB Support Worker will meet on a monthly basis to discuss cases undergoing treatment and any new cases needing treatment, HIV testing or contact tracing.

All prescriptions for TB medication will be reviewed by pharmacy, under the supervision of the antibiotic pharmacist. New prescriptions for anti-tuberculous drugs will only normally be accepted from or after discussion with Consultant Respiratory Physician.

6.2 Regional Network:
Members of the TB team will meet quarterly with the regional TB network and will participate in the regional Cohort Review process.

Complex patients with TB (e.g. drug-resistance, poor compliance, intolerant of standard drugs) will be discussed with or formally referred to the University Hospitals Southampton TB Team. These patients will also be discussed at the regional multi-disciplinary TB meeting.

Patients requiring complex in-patient care (as outlined below) will be referred to the University Hospitals Southampton TB Team in addition to the appropriate specialist in cases of non-respiratory TB (e.g. Neurology, Neurosurgery).

6.3 TB Support Worker (sometimes referred to as “TB Nurse”)

Responsibilities of the TB Support Worker will include:

- Carry out home visits for monitoring of out-patients on treatment for TB (see section 6.6)
- Perform contact tracing (see section 6.10)
- Attend monthly TB Team meetings
- Attend quarterly TB Network meetings and regional TB MDT and cohort review meetings
- Act as contact for GPs, prison doctors and other professionals needing advice about TB or needing to refer patients to the TB Team
- Advise GPs on risk assessment for new registrations (see section 6.11.2)
- Liaise with respiratory consultants regarding active patients
- Liaise with pharmacy regarding TB prescriptions to help ensure continuity of treatment

The TB Support Worker will be supported by the Respiratory Nurse Specialist, who will provide cover in his/her absence during periods of leave or sickness.

The TB Support Worker will have contact with the Southampton Nurse-led TB Service for additional advice.

The TB Support Worker will attend regular TB clinics in Southampton to increase exposure in order to maintain competency.

7 Policy detail/Course of Action

7.1 Transmission and infectivity of TB

TB is usually spread by the airborne route. Respiratory disease is caught from another person who has respiratory TB affecting their lungs. The organism may get into the air (droplets) when a person with active respiratory TB coughs or sneezes.

7.1.1 Smear-positive respiratory disease:
These patients have sufficient numbers of TB organisms to be seen in sputum on microscopy and are **infectious**. Only those with viable mycobacteria in sputum - called 'sputum smear positive' (or "open") respiratory TB are infectious to others. You need close and prolonged contact with an infected case to be at risk of being infected. However, immunocompromised people are at much higher risk of infection. Sputum smear positive cases stop being infectious after about 2 weeks of appropriate anti-TB treatment.

7.1.2 **Smear-negative respiratory disease**

Patients with 3 smear negative sputum samples are potentially still infectious but much less so than smear positive patients and this will depend on risk assessment. Acid fast bacilli (AFBs) may be seen on samples taken at bronchoscopy or sputum samples may be culture positive.

7.1.3 **Non-pulmonary TB**

Patients with non-pulmonary TB are usually considered non-infectious. If Mycobacteria (tubercle bacilli) have been isolated from urine or other secretions - follow standard precautions. (Seek advice from Infection Prevention and Control).

7.2 **Diagnosing active TB**

7.2.1 **Pulmonary TB**

If there is clinical suspicion of pulmonary TB, arrange a chest X-ray and refer to the TB Team. Send sputum for TB culture and microscopy (AFB stain) and isolate the patient.

Send at least 3 sputum samples (including one early morning sample) - request microscopy and culture for Mycobacteria.

Sputum samples should be produced spontaneously wherever possible. If the patient cannot expectorate, refer to the TB Team for consideration of induction of sputum or bronchoscopy. (In children, consider induction of sputum if it can be done safely or gastric washings if not). Take samples before starting treatment if possible (or within 7 days of starting). Sputum microscopy (smear) for acid-fast bacilli (AFB) (also known as ZN stain): results normally take 24-48hrs to be available. If a result is required more urgently, discuss with the duty microbiologist:

Urgent sputum microscopy (AFB stain) – in normal working hours (9.00hrs – 17.30 hrs) every day including weekends and bank holidays:

- If a patient has radiological and/or clinical features strongly suggestive of pulmonary TB *AND* is coughing sputum, an urgent sputum TB microscopy must be requested. (Results will normally be available within approx. 60 mins of the sample being received in the laboratory).
- Take samples as above
- Telephone the Microbiology laboratory, requesting urgent ZN or auramine stain.
Out of hours (17.30 – 09.00 hrs).

- Request an urgent sputum microscopy (“smear test”) for AFB
- Please contact the Medical microbiologist

If the patient has signs and symptoms of TB and where sputum smear positive (AFBs seen), discuss as soon as possible with the TB Team to start treatment, without waiting for culture results (see 6.5.2)

7.2.2 Extra-pulmonary TB

Where active extra-pulmonary TB is clinically suspected the diagnosis should be made by culture and histology of tissue (biopsy) or aspirate. Tissue samples must be placed in saline and sent for Mycobacterial culture. Also request histological examination and send part of the sample for histology in the normal way. Pus/aspirate samples should be placed in a sterile universal container. Put relevant clinical information on request form and request additional special stains for acid-fast bacilli (AFBs). Histology results will normally be available before culture results.

If the histology and clinical picture are consistent with TB, discuss as soon as possible with the TB Team to start treatment, without waiting for culture results (see NICE guidelines).

7.3 IGRA Tests

Interferon-gamma release assays (IGRAs) (T-SPOT and Quantiferon Gold) are blood tests used in the diagnosis of latent TB. They are not recommended for the diagnosis of active TB (IGRA tests should be agreed with a Consultant Respiratory Physician/ with a Consultant Microbiologist prior to arranging the test.)

7.4 Notification

TB is a statutory notifiable disease. All forms of tuberculosis must be notified to Public Health England, who must be informed by the doctor making or suspecting the diagnosis. Notification should be made as soon as the diagnosis is clinically strongly suspected.

All newly diagnosed or suspected case of active TB must be reported to a Consultant Respiratory Physician who can notify Public Health England and Consultant Microbiologist

7.5 In-patient management:

7.5.1 General points:

- Unless there is a clear clinical or socioeconomic need, such as homelessness, people with TB at any site of disease should not be admitted to hospital for diagnostic tests or for care (NICE 2011)
• If a patient with TB or a strong clinical suspicion of TB is admitted to hospital, or if a diagnosis of TB becomes apparent during an in-patient episode, the admitting doctor should notify the Infection Prevention & Control Team (IPCT) immediately (or on-call consultant microbiologist out-of-hours) and respiratory isolation precautions need to be implemented.

• In-patients with suspected TB should be assessed for their risk of multi-drug resistant TB (see section 6.7)

• In-patients with suspected TB should be referred to the respiratory team immediately during working hours, or discussed with the on-call microbiologist out-of-hours and will normally be seen by a Consultant Respiratory Physician within 24-48 hours.

• In-patients being treated for TB will be reviewed by the TB Support Practitioner to provide education and advice about treatment, and to help plan out-patient treatment.

• Patients with suspected or proven TB needing in-patient treatment must be admitted to a side room, ideally on the respiratory ward and will normally be under the care of the Consultant Respiratory Physicians. If there is strong suspicions of MDR-TB see 6.5.4.

• Patients should not be admitted to a ward where there are immunocompromised patients, including HIV patients. [NICE 2011]

• Visitors should be restricted to close household contacts only who have already been exposed.

• The number of staff involved in the patient's care should be kept to the minimum required.

• A record should be maintained of all staff who have provided care for the patient. Occupational Health should be informed as they will have a role in providing information and support to staff.

7.5.2 Drug treatment:

Drug treatment should be in accordance with NICE guidelines.

All patients commencing treatment for TB should be assessed for risk of non-compliance and the need for directly observed therapy (DOTS).

7.5.3 Infection Prevention & Control:

Patients with suspected or proven respiratory TB without risk factors for MDR TB should be cared for in a side room with isolation precautions in place until:

• they are proven not to be sputum smear positive for TB, or
• they have complete 2 weeks of standard therapy and are continuing treatment and are clinically improving and did not have high sputum TB count, extensive pulmonary TB or laryngeal TB, or
• they are discharged from hospital [NICE 2016]

Aerosol-generating procedures such as bronchoscopy, sputum induction should be carried out in an appropriately engineered and ventilated area for all patients in whom TB is considered a possible diagnosis, in any setting.

Patients should not be managed on the same ward as patients who are immunocompromised or on anti-TNF or other biologics. [NICE 2016]

**Personal Protective Equipment (PPE) Use**

Healthcare workers caring for people with TB should not use masks or gown for providing routine tasks or barrier nursing techniques unless:

• MDR-TB is suspected (see section 6.5.4)
• Aerosol-generating procedures are being performed. (NICE 2011)

When carrying out aerosol-generating procedures an FFP3 Respirator mask must be worn. Staff who may be required to wear FFP3 masks during the course of their work must have undertaken the appropriate training. (See PPE policy).

Inpatients with smear-positive respiratory TB should be asked (with explanation) to wear a surgical mask whenever they leave their room until they have had 2 weeks’ drug treatment. [NICE 2011]

Where infection prevention & control measures are taken, the reasons for these must be explained to the patient with TB.

**MDR-TB (see section 6.7)**

Patients with suspected or known infectious MDR TB who need to be admitted to hospital must be transferred to Southampton General Hospital to be admitted to a negative-pressure room.

If this is not immediately possible:

• They should be admitted to an isolation room (ideally negative pressure room) whilst awaiting transfer.
• Inform IPCT / Consultant Microbiologist

Contacts should be limited to essential visitors and staff only. FFP3 respirator mask must be worn for all contact with a patient with suspected or known MDR TB while the patient is considered infectious. Staff who may be required to wear FFP3 masks during the course of their work must have undertaken the appropriate training. (See PPE policy).
Incidents concerning delay in transfer of MDR-TB patient or TB risks in hospital e.g. failure to isolate an infectious case should be notified to the Infection Prevention and Control team and a Datix incident must be completed by the ward.

7.5.4 Complex patients

Patients with non-respiratory TB will normally be managed by a Respiratory Consultant Physician, jointly if appropriate with other specialists (e.g. Cardiology, Orthopaedics or ENT)

Patients with meningeal TB will normally be transferred to Wessex Neurology, under joint care with the Southampton TB Team

Patients with spinal TB will normally be transferred to Wessex Neurosurgical Unit under joint care with the Southampton TB Team.

HIV positive patients will be managed jointly with the Consultant in Infectious Diseases and may require transfer to Southampton General Hospital

Patients under the age of 18 will be managed jointly with a Consultant Paediatrician and may require transfer to Southampton General Hospital

The hospital IPCT will support the investigation of any incidents concerning TB risks in hospital e.g. failure to isolate an infectious case. These cases should be notified to the IPCT and a Datix incident form completed by the clinical team.

7.6 Community management of TB:

Adult patients suspected of having TB should be referred urgently to the Respiratory Consultants for assessment, using the TB proforma.

Out-patients with suspected or confirmed infectious or pulmonary TB should have as little as possible contact with other patients (e.g. waiting in clinics should be kept to a minimum), and clinic visits while infectious should be kept to a minimum.

Children suspected of having TB should be referred urgently to a Paediatrician, with a copy sent urgently to the TB Lead Clinician.

Referral details should include the presence or absence of risk factors for MDR-TB (see section 6.7)

Patients will normally be seen within 2 weeks; or sooner if their clinical conditions indicate (as judged by the referring clinician).

Confirmed cases will be discussed by Consultant Respiratory Physician with the TB nurse, and the patient’s GP will be informed.

All confirmed cases of TB will be offered an HIV test.
Patients starting treatment with ethambutol will be referred by the TB Consultant or Support Worker to the Eye Clinic for visual acuity testing.

The TB consultant or Support Worker will notify Public Health England of all cases of TB started on treatment by entering cases directly onto the national Enhanced Tuberculosis Surveillance database.

In undergoing treatment for TB will be reviewed by the TB Support Worker on a fortnightly basis for the first 2 months of treatment, in order to:

- monitor treatment progress
- monitor medication side effects
- prescribe repeat medications (prescriptions will be signed by Consultant Respiratory Physician)
- provide education, support and encouragement
- risk assess for the need for Directly Observed Therapy

Frequency of reviews will normally be reduced to monthly after the first 2 months of treatment, if tolerance and response to treatment are satisfactory.

Patients will normally be reviewed in the consultant clinic within 1 month to check for drug toxicity, after 2 months with a chest X-ray to assess response, and again after 6 months with a further chest X-ray. Complex patients may need more frequent review.

Blood tests for drug toxicity will be reviewed by the TB Nurse, but it will remain the responsibility of the Respiratory Consultant to ensure these are checked.

Any problems with treatment and patients unable to tolerate standard treatment will be reviewed by the Consultant Respiratory Physician.

In urgent situations when a Consultant Respiratory Physician is unavailable, the TB Nurse will contact the Southampton TB team to discuss cases.

Patients who require Directly Observed Therapy (DOT) will be managed after discussion between the TB Nurse, Respiratory Consultant, the patient and their GP to identify the person best-placed to directly observe treatment.

Patients under the age of 18 will be managed jointly by a Paediatric Consultant and the TB Lead Clinician, and will be discussed with Consultant in Paediatrics Infectious Diseases, at University Hospitals Southampton (tel. 07824 417993).

HIV positive patients with TB will be managed jointly by the TB Lead Clinician and the Consultant in Infectious Diseases.

**7.7 MDR-TB**

Multi-drug resistant (MDR) TB describes strains of TB that are resistant to at least isoniazid and rifampicin, two of the first-line drugs used in the treatment of TB.
A very small proportion of MDR-TB strains are extensively drug-resistant (XDR-TB), i.e. also resistant to any of the fluoroquinolones and at least one of three injectable second-line anti-TB drugs (capreomycin, kanamycin or amikacin).

Any patient with proven or suspected TB should be assessed for the risk of MDR-TB.

**Risk factors for MDR-TB:**

- history of prior TB treatment; prior TB treatment failure
- contact with a known case of drug-resistant TB
- birth in a foreign country, particularly a high incidence country
- HIV infection
- residence in London
- age 25-44
- male

#### 7.8 Treatment adherence and DOT

Treatment adherence is crucial for successful treatment. All patients commencing treatment for TB will be assessed for risk of non-adherence.

Patient will be offered directly observed treatment (DOT) if they have risk factors for non-adherence.

**Risk factors for non-adherence:**

- have been non-adherent to TB treatment in the past
- have been treated previously for TB
- have a history of homelessness, or drug or alcohol mis-use
- are currently or have previously been in prison
- have a major psychiatric, memory or cognitive disorder
- have multi-drug resistant TB
- are too ill to administer the treatment themselves.

#### 7.9 Management of prisoners with TB or suspected TB:

Prison staff will be trained annually in the identification of possible TB and will be informed of how to access the TB service.
Prisoners suspected of having TB will be referred urgently to the respiratory consultant by phone and a completed referral proforma will be faxed to the respiratory team. Public Health England will be notified immediately by the prison and by the Consultant Respiratory Physician.

Prisoners suspected of having MDR-TB will be treated initially as in-patients at Southampton General Hospital using the negative pressure facilities.

Those suspected of having non-MDR TB will normally be treated in isolation in the prison for the first 2 weeks of treatment.

7.10  Contact tracing:

Contact tracing will be carried out by the TB Nurse after discussion with Consultant Respiratory Physician, and assessments will be performed according to the NICE Guidelines 2011. The local TB service will identify and screen household and close social contacts of patients with pulmonary or laryngeal TB and undertake limited screening in a workplace if indicated. Any screening on a wider scale will be discussed with Public Health England.

IGRA testing will be performed by the TB nurse or via the Occupational Health Department as necessary, for contacts without symptoms.

The TB Nurse will request chest X-rays where appropriate for contact screening. Requests will be signed by the Consultant Respiratory Physician and the consultant will be responsible for interpreting the results and informing the TB nurse of any cases needing action.

Contact tracing in the case of a prisoner with TB will be carried out in partnership with the prison medical team and Public Health England.

Any contacts identified who live outside the region will be referred to Public Health England for tracing.

Any contact tracing required as a result of exposure within the hospital will be led by the IPCT with support from Occupational Health, Consultant Respiratory Physician & Public Health England where necessary.

7.10.1 Screening of contacts [NICE 2016]

- Contacts will be screened for symptoms suggestive of active TB
- Asymptomatic adult contacts under 65 yrs. and children over 5 yrs. will normally have IGRA tests to diagnose latent TB.
- Adult contacts over 65 yrs. will be screened for active TB with CXRs.
- Children under 5 years will be referred to the Paediatric team for Mantoux testing.
- Contacts who are negative on screening and have not had previous BCG, will be advised to consult their GP to consider BCG vaccination.
7.11 Screening

7.11.1 Neonatal screening:

Neonates at risk of TB, as defined in the NICE Guidelines, who require BCG will be identified by their midwives and will be referred to Neonatal Nurse Practitioner. Babies should ideally be identified prenatally.

7.11.2 New entrant screening:

The TB Nurse will review immigration notifications and those at high risk will be discussed with Consultant Respiratory Physician and offered screening.

The TB Nurse will devise a risk assessment proforma to share with GPs for new registrations. It will include information on how to make a referral to Consultant Respiratory Physician for those who are considered high risk.

7.11.3 Adults who immunocompromised

Adults who are anticipated to be or are currently immunocompromised should be considered for latent TB testing using T-Spot, depending on their level of risk, and treatment if positive. These include patients with active HIV, or with solid organ or stem cell transplant [NICE 2016].

7.11.4 Healthcare workers

Healthcare workers who have been exposed to TB or who have not had BCG should be considered for latent TB testing and treating [NICE 2016].

7.12 Microbiological testing

7.12.1 Diagnostic tests:

Routine samples for culture are sent to Portsmouth for liquid media culture.

Where indicated, urgent TB microscopy (smear staining) can be carried out at St Mary’s after discussion with the duty microbiologist.

Rapid diagnostic testing (PCR) can be requested on positive isolates where there is a significant risk of MDR-TB, if the person has HIV, or where a large contact-tracing initiative may be needed, after discussion with the duty microbiologist at St Mary’s.

Positive microscopy or culture results will be passed to the requesting clinician by the microbiology department by telephone or email within 24 hours or by telephone to the on-call consultant physician at weekends for in-patients.

7.12.2 Mantoux testing:

Mantoux testing will not normally be performed for adults.
Children requiring Mantoux testing will be referred to the Paediatric team for testing.

7.12.3 **IGRA (Interferon-gamma release) testing:**

Where appropriate for contact screening or diagnosis of latent TB, T-Spot testing will be performed via the Microbiology Department at the request of a Consultant Respiratory Physician or Consultant Microbiologist

7.13 **BCG vaccination**

BCG vaccination will be offered to certain at-risk groups according to the NICE Guidelines.

Adults requiring BCG vaccination will be referred to the Occupational Health Department at St Mary’s Hospital.

Children and neonates requiring BCG will be referred to Neonatal Nurse Practitioner

8 **Consultation**

Revised version reviewed by members of the TB Team and the Infection Prevention and Control Team.

9 **Training**

This policy for TB Diagnosis and Management Policy does not have a mandatory training requirement or any other training needs other than for specific individuals within the TB team as outlined above.

10 **Monitoring Compliance and Effectiveness**

All TB cases will be discussed at the regional TB Cohort Review, which will highlight issues of non-compliance.

11 **Links to other Organisational Documents**

Infection prevention and control isolation policy

Infection prevention and control standard precautions: use of personal protective equipment (PPE)

Infection prevention and control standard precautions: hand hygiene policy
12 References

Tuberculosis: clinical diagnosis and management of tuberculosis, and measures for its prevention and control. NICE Clinical guideline [CG117] Published date: March 2011 http://guidance.nice.org.uk/CG117/NICEGuidance/pdf/English

Tuberculosis NICE guideline [NG33] Published date: January 2016 https://www.nice.org.uk/guidance/ng33

13 Appendices

APPENDIX A  FLOW CHART FOR INITIAL MANAGEMENT/REFERRAL OF SUSPECTED TB

APPENDIX B  Financial and Resourcing Impact Assessment on Policy Implementation

APPENDIX C  Equality Impact Assessment (EIA) Screening Tool
Appendix A

FLOW CHART FOR INITIAL MANAGEMENT/REFERRAL OF SUSPECTED TB

**Community**

Patient seen with possible or definite TB

If not already done:
Request 3 sputum samples including at least 1 early morning sample (requesting microscopy and culture for Mycobacteria)

Request chest X-ray

Refer to TB service at SMH, using TB referral proforma if available, or fast-track respiratory clinic referral

Advise patient to avoid close social contacts until assessed

**Hospital**

Patient seen with possible or definite TB

If not already done:
Request 3 sputum samples including at least 1 early morning sample (requesting microscopy and culture for Mycobacteria)

Request chest X-ray

Isolate patient in side room and Inform IPC Team

Refer patient urgently to Respiratory Consultant

Asses risk factors for MDR-TB (see below)

Suspected or known MDR-TB:
Contact Infectious Disease Team at Southampton General Hospital to arrange transfer to a negative-pressure room

**Risk factors for MDR-TB**
- history of prior TB treatment; prior TB treatment failure
- contact with a known case of drug-resistant TB
- birth in a foreign country, particularly a high incidence country
- HIV infection
- residence in London
- age 25-44, male
Appendix B

Financial and Resourcing Impact Assessment on Policy Implementation

NB this form must be completed where the introduction of this policy will have either a positive or negative impact on resources. Therefore this form should not be completed where the resources are already deployed and the introduction of this policy will have no further resourcing impact.

<table>
<thead>
<tr>
<th>Document title</th>
<th>Tuberculosis (TB) Diagnosis and Management Policy for the Isle of Wight</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Totals</th>
<th>WTE</th>
<th>Recurring £</th>
<th>Non-Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manpower Costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment &amp; Provision of resources</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of Impact:

Risk Management Issues:

Benefits / Savings to the organisation:

Equality Impact Assessment

- Has this been appropriately carried out? YES
- Are there any reported equality issues? NO

If “YES” please specify:

Use additional sheets if necessary.

Please include all associated costs where an impact on implementing this policy has been considered. A checklist is included for guidance but is not comprehensive so please ensure you have thought through the impact on staffing, training and equipment carefully and that ALL aspects are covered.

<table>
<thead>
<tr>
<th>Manpower</th>
<th>WTE</th>
<th>Recurring £</th>
<th>Non-Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational running costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staff Training Impact</th>
<th>Recurring £</th>
<th>Non-Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Equipment and Provision of Resources

<table>
<thead>
<tr>
<th></th>
<th>Recurring £ *</th>
<th>Non-Recurring £ *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation / facilities needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building alterations (extensions/new)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Hardware / software / licences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stationery / publicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities e.g. telephones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rolling replacement of equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing – booklets/posters/handouts, etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Totals:**

- Capital implications £5,000 with life expectancy of more than one year.

<table>
<thead>
<tr>
<th>Funding /costs checked &amp; agreed by finance:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature &amp; date of financial accountant:</td>
<td></td>
</tr>
<tr>
<td>Funding / costs have been agreed and are in place:</td>
<td></td>
</tr>
<tr>
<td>Signature of appropriate Executive or Associate Director:</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

Isle of Wight NHS Trust

Equality Impact Assessment (EIA) Screening Tool

<table>
<thead>
<tr>
<th>Document Title:</th>
<th>Tuberculosis (TB) Diagnosis and Management Policy for the Isle of Wight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose of document</td>
<td>This document acts as a reference for healthcare staff dealing with patients with suspected or proven TB, and as a policy document for the provision of TB care on the Isle of Wight</td>
</tr>
<tr>
<td>Target Audience</td>
<td>Healthcare staff coming into contact with patients with possible or definite TB</td>
</tr>
<tr>
<td>Person or Committee undertaken the Equality Impact Assessment</td>
<td>Consultant Respiratory Physician</td>
</tr>
</tbody>
</table>

1. To be completed and attached to all procedural/policy documents created within individual services.

2. Does the document have, or have the potential to deliver differential outcomes or affect in an adverse way any of the groups listed below?

   If no confirm underneath in relevant section the data and/or research which provides evidence e.g. JSNA, Workforce Profile, Quality Improvement Framework, Commissioning Intentions, etc.

   If yes please detail underneath in relevant section and provide priority rating and determine if full EIA is required.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Positive Impact</th>
<th>Negative Impact</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>Positive Impact</th>
<th>Negative Impact</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian or Asian British People</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black or Black British People</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinese people</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>People of Mixed Race</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White people (including Irish people)</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>People with Physical Disabilities,</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Learning Disabilities or Mental Health Issues

Sexual Orientation
- Transgender: Neutral
- Lesbian, Gay men and bisexual: Neutral

Age
- Children: Neutral
- Older People (60+): Neutral
- Younger People (17 to 25 yrs.): Neutral

Faith Group: Neutral

Pregnancy & Maternity: Neutral

Equal Opportunities and/or improved relations: Neutral

Notes:
Faith groups cover a wide range of groupings, the most common of which are Buddhist, Christian, Hindus, Jews, Muslims and Sikhs. Consider faith categories individually and collectively when considering positive and negative impacts.

The categories used in the race section refer to those used in the 2001 Census. Consideration should be given to the specific communities within the broad categories such as Bangladeshi people and the needs of other communities that do not appear as separate categories in the Census, for example, Polish.

3. Level of Impact

If you have indicated that there is a negative impact, is that impact:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal (it is not discriminatory under anti-discriminatory law)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intended</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the negative impact is possibly discriminatory and not intended and/or of high impact then please complete a thorough assessment after completing the rest of this form.

3.1 Could you minimise or remove any negative impact that is of low significance? Explain how below:

3.2 Could you improve the strategy, function or policy positive impact? Explain how below:

3.3 If there is no evidence that this strategy, function or policy promotes equality of opportunity or improves relations – could it be adapted so it does? How? If not why not?
<table>
<thead>
<tr>
<th>Scheduled for Full Impact Assessment</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of persons/group completing the full assessment.</td>
<td></td>
</tr>
<tr>
<td>Date Initial Screening completed</td>
<td></td>
</tr>
</tbody>
</table>