CARING FOR PATIENTS WITH SUSPECTED OR CONFIRMED PULMONARY TUBERCULOSIS POLICY

The policy applies to all staff providing care to all patients under the care of the Trust, whether in a direct or indirect patient care role.
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1. INTRODUCTION

This policy is based on the National Institute of Health and Care Excellence (NICE) Guidelines CG117(2011) ‘Clinical diagnosis and management of tuberculosis, and measures for its prevention and control’ This policy should be read and implemented in conjunction with other Trust policies and procedures particularly:

- Standard Infection Prevention and Control Precautions
- Cleaning (environment)
- Hand Hygiene
- Decontamination (equipment)
- Isolation
- Medical Devices Management
- Risk Management
- Waste Management
- Collection, Handling and Transportation of Pathology Specimens

2. PURPOSE

The purpose of this policy is to encourage an effective treatment and control programme to reduce the transmission of tuberculosis (TB) in hospital and community including the spread of multiple drug resistant tuberculosis (MDR-TB) and extensively drug resistant TB (XDR-TB).

3. SCOPE

Rotherham Doncaster and South Humber NHS Foundation Trust (RDaSH) and also for whom it has legal responsibility. For those staff covered by a letter of authority/honorary contract or work experience this policy is also applicable whilst undertaking duties on behalf of RDaSH or working on RDaSH premises and forms part of their arrangements with RDaSH. As part of good employment practice, agency workers are also required to abide by RDaSH policies and procedures, as appropriate, to ensure their health, safety and welfare whilst undertaking work for RDaSH.

The Trust Infection Prevention and Control (IPC) arrangements around microbiology require collaboration via service level agreements with specific acute hospital and community Trusts those being:

- Doncaster and Bassetlaw Hospitals NHS Foundation Trust
- The Rotherham NHS Foundation Trust
- NHS North Lincolnshire

4. RESPONSIBILITIES, ACCOUNTABILITIES AND DUTIES

4.1 Board of Directors

The Board of Directors are responsible for the Trust having policies and
procedures in place to promote best practice and fulfil any requirements in order to be compliant with national or local standards, including Health and Safety requirements.

To achieve this the NHS Employment Check Standards (Health and Social Care Act 2008) state that Trust’s should:

- Have formal risk assessment processes in place
- Provide risk management training to it’s employees
- Have risk management central to their Governance Framework

4.2 **Chief Executive and Deputy Chief Executive/Director of Nursing and Partnerships**

The Chief Executive is responsible for establishing and maintaining Infection Prevention and Control arrangements across the organisation but delegates the responsibilities to the Trust Board and the Director of Infection Prevention and Control. The Director with the lead responsibility is the Deputy Chief Executive and Lead Nurse.

4.3 **Director of Infection Prevention and Control (DIPC)**

The DIPC reports directly to the Chief Executive and the Board of Directors with their main duties being:

- Corporate responsibility for infection, prevention and control throughout the Trust as delegated by the Chief Executive.
- To review this policy in light of any legislative changes, or national policies/guidance with is issued.
- Provide assurance to the Board that this policy is fit for purpose.

4.4 **Infection Prevention and Control Committee**

The main duties of the Infection Prevention and Control Committee in relation to this policy is:

- To review, at their meetings, any reported exposures which fall within the remit of this policy.
- The outcome of their review and any recommended actions will be disseminated to service managers/matrons and included in the committee’s annual report to Board of Directors.
- To identify any training needs which arise from the review of any incidents.

4.5 **Service Managers/Matrons**

The duties and responsibilities of the Service Managers/Matrons in relation to this policy are to:

- Make any staff they are responsible for aware of this policy and its contents during local induction.
• Carry out workplace risk assessments.
• Make available relevant personal protective equipment for use by staff.
• Investigate exposure incidents and take action to prevent a reoccurrence, informing Infection Prevention and Control Committee of any incidents.
• To report any exposure incidents to the Health and Safety Executive under RIDDOR.

4.6 All Staff

• Have a duty to take reasonable care for their own health and safety and that of others who may be affected by their actions or omissions at work
• Adhere to The Trust’s Infection Prevention and Control policies at all times
• Must be familiar with and adhere to the contents of this policy
• Participate in the production of risk assessments
• Implement the policy and agreed measures to manage risks
• Demonstrate and encourage respect for diversity and recognise the need for privacy and dignity
• Attend any training which is provided in relation to this policy
• Report all incidents
• Seek advice and support as required in a timely manner
• Attend for any health screening appointments required

5 PROCEDURE AND IMPLEMENTATION

Tuberculosis is a notifiable disease under the Public Health (Infectious Diseases) Regulations (2010). Notification is the statutory responsibility of the clinician making the diagnosis.

5.1 Diagnosis And Surveillance Of TB

Identification of Cases

Early identification and effective treatment is the most important way of controlling tuberculosis. Detection of TB will be improved by increasing awareness of TB amongst healthcare professionals, those working with high risk groups and the public.

Diagnosis

Diagnosis should be confirmed microbiologically by smear and culture wherever possible. All isolates are immediately referred by the microbiology department to the reference laboratory for identification and sensitivity tests.

TB cases should be reported if appropriate to:

• The clinician (Chest Physician/Infectious Diseases Physician)
• The Consultant of Communicable Disease Control (CCDC)
• TB Specialist Nurse
• The Infection prevention and control Team
• Occupational Health
All suspected cases of Multi-Drug Resistant TB (MDR-TB) or Extensively-Drug Resistant TB (XDR-TB) must be discussed with a Consultant Chest Physician and/or Consultant Microbiologist as a matter of urgency:

**Multi-Drug Resistant TB (MDR TB)**

MDR TB is defined as high level resistance to both Rifampicin and Isoniazid with or without additional drug resistances. Primary resistance can occur in people who have contracted TB from someone who is already infected with a drug resistant strain, without ever having a prior treatment history.

Resistance can also develop due to inadequate drug treatment being prescribed and as a result of non compliance with treatment including patient drug errors.

**Extensively Resistant TB**

Extensively drug-resistant (XDR) TB strains that are virtually untreatable due to resistance to the second line of anti TB drugs have emerged worldwide, including the UK. Only a very small proportion of cases fulfil the case definition of XDR in the UK.

HIV testing should be offered with appropriate counselling to any TB patient considered to belong to a high-risk group for HIV infection. However it is considered good practice to offer HIV testing to **all** patients with TB.

### 5.2 Contact Tracing

Contact tracing and follow up is an integral part of the routine management of patients with tuberculosis, and should follow NICE Guidance (CG 117. 2011). Contract tracing and follow up is the responsibility of the TB Specialist Nurse.

**Hospital Contacts**

The TB Nurse Specialist works closely with the CCDC, Clinician and Infection Prevention and Control Nurse Specialists to identify close contacts.

If an individual on an open ward is diagnosed as having infectious tuberculosis, the risk of other patients being infected is likely to be small.

In general, patients in the same bay (rather than the whole ward) should be regarded as at risk, but only if the index case was coughing and was present in the bay for more than 8 hours before isolation.

### 5.3 In-Patient Areas

**Isolation**

Any patient admitted to hospital with suspected/confirmed smear positive pulmonary TB which has been treated for less than 2 weeks, or where compliance with treatment may have been poor, **MUST** be nursed in a single room with the door closed. The room must have an en-suite or a commode must
be designated to the room.

Any patient with confirmed smear positive pulmonary TB should be isolated until they have completed 2 weeks of treatment or they are discharged from hospital.

Infectious patients should not leave isolation to visit communal facilities.

The vast majority of patients can be nursed on the main ward after two weeks of effective drug therapy, but in some cases three negative sputum smear examinations will be required on successive days.

Aerosol generating procedures such as bronchoscopy, sputum induction or nebuliser treatment should be carried out in an appropriately engineered and ventilated room/area.

Patients with non pulmonary TB or smear negative pulmonary disease can be nursed in a general ward, although a single room is desirable if available.

Aerosol generating procedures such as abscess or wound irrigation would necessitate patient isolation in a single room.

Patients with suspected or confirmed respiratory TB, whatever the sputum status, must not be admitted to an open ward or bay containing severely immune compromised patients, such as HIV, transplant or oncology patients, unless cleared as non-infectious by the physician in charge in consultation with the TB Specialist Nurse and the Infection Prevention and Control Team.

Patients must not be moved from an isolation room without the agreement of the TB Physician, TB Specialist Nurse or the Infection Prevention and Control Team.

Standard Precautions

Standard precautions must be followed in all cases. Refer to Trust Policy.

Personal Protective Equipment all staff performing direct care to patients must use personal protective equipment including gloves and disposable aprons (and eye protection if there is a risk of body fluid splashes).

The use of face masks

NICE guidance recommends that infectious patients who have not received 2 weeks of drug therapy, who are being transported to other parts of the hospital e.g. for x-ray should wear a good quality surgical face mask in order to reduce spread of infectious aerosol materials (it is unnecessary for patients to wear FFP3 face masks).

Other departments should be informed in advance and the visit arranged for the end of a session whenever possible. The patient should be transferred when the department is ready to see them to minimise time spent in the department.
A mask must also be worn during aerosol generating procedures e.g. physiotherapy, bronchoscopy.

Mask should be:

1) Close fitting
2) Capable of filtering down to 1-5 microns (the size of the droplet nuclei)

Any staff member attending a patient in a routine manner is not at special risk, however if spending a prolonged period of time with the patient then a surgical face mask is advocated – see table below

<table>
<thead>
<tr>
<th>Prolonged Contact</th>
<th>Non-prolonged Contact</th>
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<tbody>
<tr>
<td>Bed bathing a patient</td>
<td>Taking a meal tray</td>
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<tr>
<td>Carrying out complicated dressings</td>
<td>Carrying out simple dressing</td>
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<tr>
<td></td>
<td>Taking patient's observations</td>
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<tr>
<td></td>
<td>IV cannulation of a patient</td>
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<td></td>
<td>Patient examination on ward round</td>
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<td></td>
<td>Transferring patients between departments</td>
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<td></td>
<td>Phlebotomy</td>
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<td>IM/SC injections</td>
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</table>

In cases of suspected or confirmed MDR-TB or XDR-TB FFP 3 face masks must be worn by every individual entering the room, and by the patient if leaving the room. **Everyone using these masks should have received training in the correct use.**

It is essential that a thorough risk assessment is undertaken by the physician to determine level of infectivity and to exclude multi-drug resistant strains.

**Factors to consider for increased risk of MDR-TB or XDR-TB**

- Previous drug treatment for TB
- Contact with case of known MDR-TB or XDR-TB
- Failure of clinical response on treatment
- Birth in a foreign country, particularly high-incidence countries as defined by Public Health England
- HIV infected
- Residence in London
- Age profile, with highest rates between 25 and 44.
- Prolonged sputum smear or culture positive while on treatment (smear positive at 4 months or culture positive at 5 months)

**Transfer to facilities with negative pressure isolation rooms:**

If the patient is thought to possibly have MDR-TB or XDR-TB then the decision to transfer to a negative pressure facility should be made on a case by case basis by the Physician and the TB Nurse Specialist.

Ward staff must inform the receiving ward, ambulance service and any other
organisations involved with the transfer.

An inter-healthcare infection prevention and control transfer form must be completed and a copy sent with the patient to the receiving ward.

**The Immediate Environment/Domestic Cleaning**

The room must be decontaminated on a daily basis as per Trust Cleaning and Decontamination Policies.

A mop and bucket must be designated for sole use in the isolation room.

On the patients discharge or when the patient is no longer deemed as infectious the room must be terminally cleaned.

**Laundry**

No special precautions are required for used linen. Soiled linen should be treated as contaminated/infected linen.

**Waste**

Any waste generated within the isolation room must be treated as infectious waste and disposed of in accordance with current waste legislation (Orange Bag).

**Last Offices**

Deceased patients with tuberculosis represent a risk to mortuary staff and should therefore be placed in a body bag. The same precautions should be followed during last offices as were followed when the patient was alive. Refer to the Trust’s Last Offices Policy

**Equipment Decontamination**

Refer to Trust Disinfection/Sterilisation Policy or contact the Infection Prevention and Control Team for specific advice.

**Prevention of Spread**

Cough inducing procedures must not take place in an open ward/ bay or unventilated area. Sputum induction must be avoided when a patient is suspected to have MDR-TB or XDR-TB. In order to reduce the amount of infected respiratory droplet matter the patient should be instructed to always cough into a tissue or cover their mouth fully if a tissue is not available.

**Visitors**

It is advisable that these are kept to a minimum but those who have already been in close contact with the patient may visit without restriction; this includes children.
Immuno-compromised patients should be advised against visiting whilst the patient is infectious.

5.4 Management Of Outbreaks

Outbreaks

An outbreak is defined as two or more associated cases. Most linked cases of tuberculosis are those which occur in close contacts and family members. These cases are dealt with by the normal contact tracing process, and are not normally considered as “outbreaks”

Two or more cases which are associated with a grouping other than the family circle may be considered an outbreak. Examples would be two or more cases occurring in a school, an elderly persons home, or hospital. In these cases, screening of the wider community would need to be considered.

The investigation of a suspected outbreak of tuberculosis requires the input of a multidisciplinary team. The outbreak team would normally be convened and chaired by the HPA, and would include all relevant staff including clinicians, microbiologists, Health Protection Nurse Specialist, TB Specialist Nurses and Infection Prevention and Control Team.

5.5 Community Settings

Standard Precautions

Standard precautions must be followed in all cases. Refer to Trust Policy.

Personal Protective Equipment all staff performing direct care to patients must use personal protective equipment including gloves and disposable aprons (and eye protection if there is a risk of body fluid splashes).

The use of face masks

If the patient remains infectious the TB Specialist Nurse will advise if, when and which type of face masks are required

Waste

If the patient has had 2 weeks of treatment, is compliant with taking medication and not MDR-TB or XMR-TB then waste should be treated as non-infectious.

If the patient has not had 2 weeks of treatment, is non compliant with taking medication, has MDR-TB/XDR-TB or thought to be sputum positive then waste needs to be treated as infectious and a hazardous waste collection will be required. Refer to the Trust’s waste policy.

Equipment Decontamination
All reusable equipment used on the patient must be decontaminated after use and before being used on another patient. Refer to Trust Disinfection/Sterilisation Policy or contact the Infection Prevention and Control Team for specific advice.

6. TRAINING IMPLICATIONS

There are no specific training needs in relation to this policy, but all staff will need to be aware of its contents. Staff will be made aware through:

- Line manager
- Team Brief
- Team meetings
- One to one meetings/supervision
- Trust Policy web site

7. MONITORING ARRANGEMENTS

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<tr>
<th>Area for monitoring</th>
<th>How</th>
<th>Who by</th>
<th>Reported to</th>
<th>Frequency</th>
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<td>Implementation and compliance with policy.</td>
<td>Breaches to be reported to Infection Control and Prevention Committee</td>
<td>Service Managers /TB Nurse Specialist</td>
<td>Infection Control and Prevention Committee</td>
<td>Bi – monthly meetings as incidents occur</td>
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8. EQUALITY IMPACT ASSESSMENT SCREENING

See attachment.

8.1 Privacy, Dignity and Respect

The NHS Constitution states that all patients should feel that their privacy and dignity are respected while they are in hospital. High Quality Care for All (2008), Lord Darzi’s review of the NHS, identifies the need to organise care around the individual, ‘not just clinically but in terms of dignity and respect’.

As a consequence the Trust is required to articulate its intent to deliver care with privacy and dignity that treats all service users with respect. Therefore, all procedural documents will be considered, if relevant, to reflect the requirement to treat everyone with privacy, dignity and respect, (when appropriate this should also include how same sex

Indicate how this will be met

No issues have been identified in relation to this policy.
8.2 Mental Capacity Act

Central to any aspect of care delivered to adults and young people aged 16 years or over will be the consideration of the individuals capacity to participate in the decision making process. Consequently, no intervention should be carried out without either the individuals informed consent, or the powers included in a legal framework, or by order of the Court.

Therefore, the Trust is required to make sure that all staff working with individuals who use our service are familiar with the provisions within the Mental Capacity Act. For this reason all procedural documents will be considered, if relevant to reflect the provisions of the Mental Capacity Act 2005 to ensure that the interests of an individual whose capacity is in question can continue to make as many decisions for themselves as possible.

9. LINKS TO OTHER PROCEDURAL DOCUMENTS

Standard Precautions
Hand Hygiene Policy
Personal Protective Equipment (PPE) Policy
Policy For The Correct Use Of Gloves
Disinfection Policy
Collection and Handling of Pathology Specimens
Spillages of Blood and Other Body Fluids Policy

10. REFERENCES


APPENDICES

Appendix 1 - Contact Details of TB Nurses Specialists.
Appendix 1

Contact Details of TB Nurses Specialists

Doncaster  Tel: 01302 379564
N. Lincolnshire  Tel: 01472 874111.
Rotherham  Tel: 07818061525.