Leicestershire Partnership NHS Trust

The management of the infection Prevention and Control risk of patients with TB within LPT

This policy describes the process for managing patients who are suspected to have or diagnosed with tuberculosis. It identifies the specialist support and input required by the TB specialist nursing services and identifies staff responsibilities and provides them with the information they require to enable them to minimise the risk or transmission of infection.

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Contents

1.0 Quick Look Summary

This policy provides organisation-wide guidance for the management of patients with tuberculosis (TB) and describes procedures to be followed to control and minimise the spread of TB in order to reduce the risks of transmission.

The provision of healthcare carriers with it inherent risks to the healthcare worker, the purpose of this policy is to ensure that all staff are aware of their responsibilities for safe practice when caring for patients with TB and take the appropriate precautionary measures to protect themselves, their co-workers and their patients. The policy identifies staff responsibilities and provides them with the information they require to enable them to minimise the risk of transmission of infection.

This policy details outside organisations that will also be involved in the care of a patient with TB.

1.1 Version Control and Summary of Changes

Version number	Date	Comments
Version 1	January 2009	NP0171 Guidelines for the care of patients with Tuberculosis in the community and (Interim policy) Infection Control Guidelines for the management of Patients with Tuberculosis and combined. Reviewed to meet NHSLA requirements
Version 2	May 2010	Document forwarded to clinical Governance committee for approval. Clinical Governance committee requested an insert relating to the role/responsibility of the Tuberculosis Specialist Nurse (s) and information relating to how staff will be informed that a patient may have a diagnosis of TB.
Version 3	June 2010	Reviewed to meet LPT clinical Governance Committee requirements.
Version 4	August 2011	Harmonised in line with LCRCHS, LPT, LC CHS (Historical organisations)
Version 5	March 2013	Inserted paragraph concerning precautions required if caring for patients with suspected pulmonary tuberculosis whilst an inpatient in a community hospital. Document forwarded to LPT Policy Group for agreement in APRIL 2013.
Version 6	May 2015	Review of policy in line with expiry date
Version 7	April 2016	Review of policy in line with expiry date
Version 8	November 2018	Review of policy in line with updated NICE NG33 guidelines (2016)
Version 9	November 2019	Review of policy in line with updated PHE TB data
Version 9.1	September 2022	Review of policy in line with current infection prevention and control guidance issued August 2022.
Version 9.2	October 2023	Occupational health phone number amended
Version 10	January 2024	Review of policy in line with expiry date

1.2 Key individuals involved in developing and consulting on the document.

Name	Designation
Accountable Director	Anne Scott Director of nursing, AHPS & Quality, Emma Wallis Deputy director of Nursing & Quality.
Author(s)	Reviewed by Claire King Infection Prevention & Control Nurse.
Implementation Lead	Amanda Hemsley Head of Infection Prevention & control.
Core policy reviewer group	Infection Prevention & control assurance group
Wider consultation	Infection Prevention & Control assurance group
Trust policy Group	Trust Policy Group Members

1.3 Governance

Level 2 or 3 approving delivery group	Level 1 Committee to ratify policy
Infection Prevention & Control assurance Group	Quality & Safety Committee

1.4 Equality Statement

Leicestershire Partnership NHS Trust (LPT) aims to design and implement policy documents that meet the diverse needs of our service, population, and workforce, ensuring that none are placed at a disadvantage over others. It takes into account the provisions of the Equality Act 2010 and promotes equal opportunities for all. This document has been assessed to ensure that no one receives less favourable treatment on the protected characteristics of their age, disability, sex (gender), gender reassignment, sexual orientation, marriage and civil partnership, race, religion or belief, pregnancy, and maternity.

1.5 Due Regard

LPT will ensure that Due regard for equality is taken and as such will undertake an analysis of equality (assessment of impact) on existing and new policies in line with the Equality Act 2010. This process will help to ensure that:

- Strategies, policies and procedures and services are free from discrimination.
- LPT complies with current equality legislation.
- Due regard is given to equality in decision making and subsequent processes.
- Opportunities for promoting equality are identified.

Please refer to due regard assessment (Appendix 4) of this policy

Consent

- *Clinical staff must ensure that consent has been sought and obtained before any care, intervention or treatment described in this policy is delivered. Consent can be given orally and/ or in writing. Someone could also give non-verbal consent as long as they understand the treatment or care about to take place. Consent must be*

voluntary and informed, and the person consenting must have the capacity to make the decision.

• *In the event that the patient's capacity to consent is in doubt, clinical staff must ensure that a mental capacity assessment is completed and recorded. Someone with an impairment of or a disturbance in the functioning of the mind or brain is thought to lack the mental capacity to give informed consent if they cannot do one of the following:*

- *Understand information about the decision.*
- *Remember that information.*
- *Use the information to make the decision.*
- *Communicate the decision.*

2.0 Duties within the Organisation

Duties regarding this policy can be located in the LPT infection prevention and control assurance policy.

2.1 Definitions that apply to this Policy.

Acid Fast Bacilli (AFBs)	Microscopic appearance of members of the mycobacterium genus and certain other bacteria. The staining method to demonstrate this 'Acid Fast' uses strong acid solutions and either carbol fuchsin (Ziehl-Neelsen) or auramine as a diagnostic tool.
Aerosol generating procedures	A procedure carried out on a patient that can induce the production of aerosols of various sizes, including droplet nuclei. Examples include Non-invasive positive pressure ventilation (BIPAP, CPAP): endotracheal intubation: respiratory/airway suctioning; high-frequency oscillatory ventilation; tracheostomy care; chest physiotherapy; aerosolized or nebulized medication administration: diagnostic sputum induction: bronchoscopy procedure, autopsy of lung tissue.
Bacillus Calmette-Guerin (BCG)	The BCG vaccine provides protection against tuberculosis (TB) The BCG vaccine is not given as part of the routine childhood vaccination schedule unless a baby is thought to have an increased risk of coming into contact with TB.
Closed pulmonary TB	TB infection of the lung where 3 or more sputum samples are taken on separate days and are negative on microscopy for ARBs. This form of pulmonary TB can be confirmed by culture of sputum, it is far less infectious than open TB.
Congregate setting	A place where people congregate or an institutional setting such as a workplace, prison, hostel or childcare or educational setting where social contacts might have had significant exposure to TB.
Extra-pulmonary TB	TB infection of any site within the body outside of the lungs, it includes TB infection of the pleural cavity.
FFP3 Mask	A respiratory protection device (Respirator) which resembles a surgical mask in appearance, but which reduces the wearers exposure to airborne particles due to it's filtration efficiency.
Haemoptysis	The coughing up of blood from the lungs of bronchi, it is bright red and frothy because it is aerated.
Latent TB infection (LTB)	In most people, once the TB bacteria are inhaled the immune system kills the bacteria and they are removed from the body. In a small number of people TB causes no immediate illness but remains dormant in the body which is called LTBI.
Multi-drug resistant TB (MDR-TB)	MDR-TB is caused by strains of mycobacterium tuberculosis which is resistant to both rifampicin and isoniazid with or without resistance to other anti-TB antibiotics (e.g., streptomycin, ethambutol, ethionamide, macrolides and quinolones)
Open pulmonary TB	TB infection of the lung tissue where the causative organisms erode into the airways and AFBs are visible on microscopic examination of the sputum (This does not apply to respiratory samples, obtained by bronco-scopic lavage). Such 'smear positive' individuals are infectious. Open TB is more infectious than closed TB.
Productive cough	A cough which produces expectoration of mucus or foreign body.

3.0. Purpose

This policy provides organisation-wide guidance for the management of patients with tuberculosis (TB) and describes procedures to be followed to control and minimise the spread of TB in order to reduce the risks of transmission.

The provision of healthcare carries with it inherent risks to the healthcare worker. The purpose of this policy is to ensure that all staff are aware of their responsibilities for safe practice when caring for patients with TB and take the appropriate precautionary measures to protect themselves, their co-workers, and their patients. The policy identifies staff's responsibilities and provides them with the information they require to enable them to minimise the risk of transmission of infection.

The policy details outside organisations that will also be involved in the care of a patient with TB.

The purpose of this policy is to provide staff employed by Leicestershire Partnership trust (LPT) with clear and robust infection prevention and control guidance in the management of a patient with a confirmed or suspected diagnosis of infective TB.

This policy applies to all staff including those working on the bank, agency, or honorary contracts either at the community hospitals, mental health inpatient establishments or within the community. All health professionals should ensure they work within the scope of their professional code of conduct.

3.1 Introduction

TB is caused by a bacterium called Mycobacterium tuberculosis infection with TB most commonly affects the lungs (pulmonary TB), although it can affect any part of the body (Non-pulmonary TB). The incidence of TB is influenced by risk factors such as exposure to and susceptibility to TB and levels of deprivation (Poverty, housing, nutrition, and access to healthcare) and differs in different parts of England and Wales (NICE 2016).

In most people, once the bacteria are inhaled the immune system kills the bacteria and they are removed form the body. In a small number of people TB causes no immediate illness but remains dormant in the body. This is called Latent TB (LTBI) and may develop into active disease many years after the original infection, particularly if the body is weakened by other medical problems (British lung foundation, 2004). In some people the initial infection will progress on to cause TB, IF this infection is in the lungs, then these people may be a risk to others. Healthcare workers should be aware that certain. Groups of people with LTBI are at risk to others. Healthcare workers should be aware that certain groups of people with LTBI are at risk of going on to develop active TB, including people who:

- Are HIV positive.
- Have excessive alcohol intake.
- Are injecting drug users
- Have had a solid organ transplantation.
- Have a haematological malignancy.
- Are having chemotherapy.
- Have diabetes.
- Have had a jejunoileal bypass.
- Have chronic renal failure or receive haemodialysis.
- Have had a gastrectomy.
- Are receiving anti-tumour necrosis factor-alpha treatment or other biological agents.
- Have silicosis (New, 2016)

(Nice 2016,)

In 2021, a total 4425 people were notified with TB in England and annual notification rate of 7.8 per 100,000 population. This is an increase of 7.3% in the number of notifications and 6.8% in the rate compared with 2020. England therefore remains a low incidence TB country (Less than or equal to 10 per 100.000) (UKHSA Tuberculosis incidence and epidemiology in England, 2021)

Overall, the patterns of TB epidemiology in England in 2021 have similar geographic distribution, social and demographic factors to previous years.

Although anyone can contract TB, for most people in the UK the risk of contracting the disease is very small. However, some specific groups of the population are at heightened risk (NICE 2016), The groups at particular risk include:

- Close contacts of infection cases
- Those who have lived in, travelled to, or received visitors from places where TB is still very common.
- Those with immune systems weakened by Human Immunodeficiency Virus (HIV) infection or other medical problems.
- The very young and the elderly as their immune systems are less robust, also those with chronic poor health and malnutrition because of lifestyle problems such as homelessness, drug abuse or alcoholism.
- The prison population
- Those living in poor or crowed housing conditions including those living in hostels.
- New entrants to the UK-including immigrants, refugees, asylum seekers, students, and those on who may be on work permits.

This policy provides guidance on the management of the infection prevention and control risk of patients with TB within the organisation. The policy has been produced and reviewed in accordance with published evidence and NICE guidelines. As a duty of care LPT must ensure that staff are given guidance as to the appropriate steps they need to undertake to ensure that they can protect the patients within their care.

LPT needs to ensure that all staff employed by LPT are providing evidence-based care which is in accordance with the health and social care act (2008, revised 2015) and department of health (DH) guidance.

4.0 The management of the infection prevention and control risks of patients with TB within the organisation.

4.1 Symptoms of TB

A persistent cough that can be either dry or productive, lasting three weeks or longer is the most common symptoms (Pulmonary TB). A productive cough can sometimes be accompanied with haemoptysis (The medical term for coughing up blood).

Other symptoms (pulmonary and non-pulmonary) include:

- Loss of appetite and weight for no obvious reason
- General lethargy and a sense of being unwell.
- Night sweats and intermittent fever
- Pain at the site of infection (e.g., joint/spine or chest pains)

4.2 Diagnosis of TB

Where there is a suspicion of TB, advice should be sought from any of the following Health professionals:

- TB specialist nurse service (Based at the Glenfield hospital)
- Department of infectious diseases (Based at the Leicester royal Infirmary)
- United Kingdom health security agency (UKHSA)

Please refer to contacts for further information of contact details (Appendix 1)

Diagnosis of active respiratory TB is by chest X-ray and microscopic evidence of acid-fast-bacilli (AFD) in sputum. Culture of the sputum is necessary to confirm Mycobacterium tuberculosis. Sputum microscopy will detect acid-fast bacilli (smear positive result) within 24-48 hours; however, sputum culture (considered the ‘gold standard’ test for active pulmonary TB) may take up to 6 weeks (NICE Clinical Knowledge Summary: Tuberculosis 2016)

If a diagnosis of pulmonary TB is being considered for any patient, a chest x-ray should be undertaken and if the result is suggestive of pulmonary TB, then further diagnostic investigations in the form of sputum samples should be obtained (NICE, 2016). 3 deep cough sputum samples (preferably with 1 early morning sample) for TB should be sent for TB microscopy and culture as soon as possible (Nice 2016). The specimens should be sent to the laboratory at the Leicester royal infirmary,

university hospitals of Leicester. The samples should not be placed in formalin (or any other fixative agent) when sending for TB culture (Nice 2016).

The sample should be taken before commencing treatment if possible or failing that within 7 days of starting treatment in people with life-threatening disease. However once samples have been sent, if there are any clinical signs and symptoms consistent with a diagnosis of TB consideration should be given to commence treatment without waiting for the culture results.

A rapid diagnostic nucleic acid amplification test should be requested for the M tuberculosis complex (M tuberculosis, M bovis, M africanum) on primary specimens if there is clinical suspicion of TB disease and:

- The person has HIV or
- Rapid information about mycobacterial species would alter the persons care or
- The need for a large contact-tracing initiative is being explored (New, 2016)

If there are clinical signs and symptoms of TB consideration should also be given to complete the standard recommended regimen even if subsequent culture results are negative (NICE, 2016).

People with TB at any stage of the disease should not be admitted to hospital for diagnostic tests or for care unless there is clear clinical or socio-economic need, such as homelessness (Nice 2016). Any necessary test or investigations can be undertaken as an outpatient.

Further advice can be sought from the TB specialist nurse.

4.3 Treatment for patients with TB

TB treatment is complex; guidelines recommend that physicians and nurses who have substantial experience in dealing with such patients undertake the treatment and management of TB patients (NICE, 2016). Hence treatment advice should be sought from the TB specialist teams (Please refer to appendix 1)

Once a diagnosis of active TB is made:

- The clinician responsible for the care should refer the person with TB to a clinician with training in and experience of the specialised care of the people with TB.
- Active TB in children should be managed by a TB specialist and paediatric trained nursing staff, where possible (NICE 2016).

Once a patient has been diagnosed with active TB the diagnosing physician should inform relevant colleagues so that the need for contact tracing can be assessed without delay. Contact tracing should not be delayed until notification (Nice 2016).

Healthcare professionals and staff involved with anyone newly diagnosed with active TB will usually be identified as part of the routine TB contact tracing process. If screening is considered necessary, the TB service or occupational health department will contact people on an individual basis to arrange this. Healthcare workers who care for patients who are already on established treatment are not considered to be at risk of infection. It is the responsibility of the patient to inform other healthcare professionals if their TB treatment impacts on the management of pre-existing co-morbidity e.g., anticoagulation therapy, renal disease, diabetes, epilepsy, or pregnancy. The TB specialist nurse case manager will normally facilitate this and ensure that the patient is aware of their responsibility in this matter.

4.4 Notification

TB whether infectious or not is a notifiable disease, it is a statutory requirement in England, Wales and Northern Ireland for the diagnosing clinician to notify all cases of clinically diagnosed TB, whether or not microbiologically confirmed (NICE, 2016).Notifications must be made by telephone to the consultant in health protection at UKHSA, who acts as the 'Proper Officer' to all of the local authorities within Leicestershire. Please refer to contact for advice (Appendix 1).

4.5 Infectious status

Multi-Drug resistant TB (MDR TD)

MDR-TB is not more virulent or more infectious than any other forms of TB, but the consequences of acquiring the disease are much more serious because of the complexities and duration of the required treatment regimens.

The same precautions need to be applied as for non MDR TB

All patients with TB should have a risk assessment completed by the physician who is suspecting the disease within the patient for drug resistance and HIV based on the risk factors below:

- History of prior TB drug treatment prior TB treatment failure
- Contact with a known case of drug-resistant TB.
- Birth in a foreign country, particularly high-incidence countries
- HIV infection
- Residence in London
- Age, profile with highest rates between 25 and 44
- Male gender

Smear positive pulmonary TB (active TB)

People with TB are considered to be infectious if they have smear positive pulmonary disease. The smear is positive when sufficient tubercle bacilli are present in the sputum so that they can be seen on direct microscopic examination.

Following two weeks of effective treatment and clinical improvement patients are considered to be non-infectious as long as the treatment course continues to be taken. The effectiveness of treatment is decided in consultation with the consultant in health protection, microbiologist, infectious diseases doctor/respiratory physician and specialist TB teams. Consideration needs to be given to whether the patient is likely to be Rifampicin resistant (i.e., do they have risk factors for MDR-TB).

The following needs to be considered when deciding if source isolation can be discontinued:

- Is the patient showing tolerance to the prescribed treatment?
- Is the patient in agreement to adherence to treatment?
- There is no resolution cough.
- There is a definite clinical improvement on treatment; for example, the patient has remained afebrile for a week.
- The other patients on the ward are not immunocompromised (for example transplant recipients, people with HIV, patients with cancer-note this list is not exhaustive).
- The patient initial smear grade was not high (e.g., was 2 or less)
- There is not extensive pulmonary involvement, including cavitation.
- There is no laryngeal TB.

As already mentioned, the decision to discontinue source isolation precautions needs to be made in consultation with the consultant in health protection, Microbiologist, infectious diseases doctor/respiratory physician and specialist TB team even when the above factors are present, but having knowledge of the above can help influence the decision (NICE, 2016).

Smear negative, culture positive pulmonary TB.

People who have sputum samples in which no tubercle bacilli are seen on direct microscopy but in whom tubercle bacilli are eventually cultured from their sputum are still infectious although less infectious than those with smear positive disease. Though this is potentially less infectious source isolation precautions are required to be put into place as discussed above.

Non-pulmonary TB

People with non-pulmonary and Latent TB infection (LTBI) e.g., bone, lymph node are not infectious.

4.6 The management of patients with suspected or confirmed Pulmonary TB whilst an In-patient in a community hospital.

A patient who is currently in a community hospital and is diagnosed during that admission with suspected pulmonary TB will be assigned a specialist TB nurse. The TB nurse will provide the specialist advice regarding their care and will liaise with the ward and TB physicians (Respiratory consultants) at UHL with regards to their need to transfer to UHL and will facilitate their transfer to UHL as required.

Whilst the patient is on the ward within the community hospital, source isolation precautions must be commenced, and the patient placed in a single room. Surgical masks as well as single use nitrile gloves and a single use plastic apron must be worn by staff when undertaking prolonged close care, or if specifically undertaking procedures with the patient that will induce sputum production.

Patients should be cared for in a single room until they have completed 2 weeks of the standard recommended regime, or they are discharged from hospital. If patients have to leave the isolation room they should be requested (With explanation given), to wear a surgical face mask until they have had 2 weeks of effective treatment (NICE 2016).

Patients should be encouraged to adhere to simple respiratory hygiene measures and advice given where necessary (NICE, 2016).

For patients with TB diagnosed or is being considered, aerosol-generating procedures such as bronchoscopy, sputum induction or nebuliser treatment should be carried out in appropriately engineered ventilated area (Ideally a negative pressure room) (2016). Advice should be sought from the TB nurse specialist team and\or the infection prevention and control team.

Consideration should be given to reduce the psychological impact of prolonged isolation for example through providing free access to internet, telephone and television and accompanied walks in the fresh air, with the correct safeguards in place (NICE 2016).

If they have previously been nursed in an area with other patients, then the infection prevention and control team must be informed, and the ward staff must record the names of the other patients in the area. This information must be stored for future reference in the event that future screening of (close) inpatient contacts may be required. The decision to screen will be taken by UKHSA and the TB specialist team. The names of the staff members that have had prolonged close contact, or who have

been involved in activating sputum production with the patient should also be recorded and stored for future reference. Any decision to screen will be taken by UKHSA and the TB specialist team.

If sputum specimens are requested three specimens should be collected of which one should be an early morning specimen. An early morning specimen refers to the first specimen that can be collected during the day. All specimens should be sent to the laboratory in a biohazard bag and using the yellow stickers or marking the request form to indicate that it is a **high-risk specimen.**

Patients should be considered for discharge if they are medically fit and do not have a continuing clinical or public health need for admission with pulmonary TB and do not have risks factors for MDR-TB or who have negative rifampicin resistance on nucleic acid amplification test or culture.

If patients are discharged, they should be advised to avoid congregate settings for the first 2 weeks of their treatment (Nice 2016).

Consideration should be given to the appropriateness of discharge to a care home or other communal setting if they have not completed 2 weeks of treatment.

4.7 The management of patients with suspected or confirmed pulmonary MDR-TB whilst an in-patient in a community hospital.

Patients with suspected or known infectious MDR-TB who are admitted to hospital should be admitted to a negative pressure room.

Currently LPT have no negative pressure rooms, the nearest negative pressure rooms are located within UHL.

Patients with suspected or known infectious MDR-TB will be assigned a specialist TB nurse, the TB nurse will provide the specialist advice regarding their care and will liaise with the ward and the TB physicians (respiratory consultants) at UHL with regards to their need to transfer to UHL and will also facilitate their transfer to UHL as required.

Patients with infectious MDR-TB **should not be** nursed within a community hospital, but if a patient is suspected of infectious MDR-TB whilst an in-patient within a community hospital and prior to their transfer to UHL, staff and visitors should wear FFP3 masks during contact with the patient (NICE 2016). The patient must be nursed in a single room with source isolation precautions commenced.

Whilst awaiting transfer patients should be encouraged to adhere to simple respiratory hygiene measures such as hand washing and using paper handkerchiefs which are immediately disposed of, and advice given where necessary (NICE 2016).

Staff should wear an FFP3 mask for which they have been appropriately fit tested during contact with the patient who has suspected or Known MDR-TB whilst they are considered infectious (NICE 2016). If any visitors require to wear a FFP3 mask they will also need to be appropriately fit tested.

For patients where MDR-TB is diagnosed or is being considered, aerosol generating procedures such as bronchoscopy, sputum induction or nebuliser treatment should be carried out in an appropriate engineered and ventilated area (ideally a negative pressure room) (NICE 2016). If patients are awaiting transfer to UHL and require such procedures it is imperative that discussions are held with the TB nurse specialist team and infection prevention and control team.

Consideration should be given to reduce the psychological impact of prolonged isolation, for example through providing free access to internet, telephone and television and accompanied walks in the open air, with the correct safeguards in place (NICE, 2016).Please contact the Infection prevention and control team for further advice on additional safeguards that may be required.

If patients are otherwise fit for discharge and would comply with and be able to accommodate, home isolation then early discharge could be considered.

If patients have confirmed MDR-TB but do not have a productive cough and have clinically improved, then a decision to for discharge if thought appropriate should be taken in consultation with the TB specialist teams and Health protection team.

Infection prevention and control must be informed of the decision made (Nice 2016).

4.8 The management of patients with suspected or confirmed Pulmonary TB and nursed in their own homes.

Unless there is clear clinical or public health need, such as homelessness, people with suspected or confirmed pulmonary TB should not be admitted to hospital for diagnostic tests or for care (Nice 2016).

However, patients should avoid congregate settings, such as workplace, prison, hostel, childcare or educational settings for the first 2 weeks of their treatment (NICE 2016).

If staff are visiting a patient with active pulmonary TB for a reason other than their TB for example to treat a wound or pressure sore advice should be sort from the TB specialist nurse as to any further precautions that might be required.

Individual advice regarding socialising, working, or receiving visitors should be sought from the TB nursing service. Fumigation of houses is not necessary; disposal of waste can be done through the normal waste streams. Patients should be

encouraged to minimise aerosol production by covering the mouth and nose when coughing with tissues that should be discarded as domestic waste. The patient should then be encouraged to wash their hands.

If the patient is showing any respiratory symptoms, then staff visiting are advised to wear a fluid resistant surgical mask (FRSM).

Linen in a patients own home should be placed directly into the washing machine and washed on the hottest temperature the linen will allow.

Further advice should be sought from the TB specialist nursing service or UKHSA if required.

Staff should ensure that effective hand decontamination practices are adhered to at all times. Please refer to the LPT hand hygiene policy and the 5 moments for hand hygiene at the point of care for further information.

4.9 The management of patients with suspected or confirmed TB who require emergency/outpatient appointments.

Patients who require emergency or outpatient appointments must be cared for in a single room. The receiving department must be informed of the potential or actual infectious status. If it Is not possible to nurse the patient in a single room the patients waiting time must be kept to a minimum. This may involve prioritising their care above that of other patients (Nice 2016).

The number and duration of visits a patient makes to an outpatient department whilst they are still infectious must be minimised as much as it is possible. To minimise the risk of infection, people with infectious TB should be seen at times or in places away from other patients (NICE 2016). The patient should be encouraged/offered a FRSM to wear if showing any respiratory symptoms during their visit to an outpatient department.

4.10 Contact tracing

Once a patient has been diagnosed with pulmonary TB the diagnosing medic must ensure that all relevant colleagues are informed so that contact tracing can be implemented where required. UKHSA and the TB specialist teams can offer support with this process.

Where TB is first diagnosed in a patient within an inpatient setting staff on the ward need to undertake a risk assessment to include the following:

- The degree of infectivity of the index case
- The length of time before the infectious patient was isolated.
- Whether the other patients are unusually susceptible to infection
- The proximity of contact

Contact tracing is only necessary for patients for whom the risk is regraded as significant. If it is found to be necessary, the specialist services will advice of the protocols required.

Patients should be regarded as at risk of infection if they have spent over 8 hours in the same bay as a patient who has smear-positive TB and also has a cough.

Patients who have been exposed to a patient who has smear-positive TB that is of a time period equivalent to close contacts, or an exposed patient is known to be particularly susceptible to infection, the TB risk should be managed in the same way as close contacts.

If an inpatient with smear-positive TB is found to have MDR-TB or if the exposed patients are HIV positive, then further advice should be sought from UKHSA and the TB specialist teams.

5.0 Staff exposure

All staff in contact with patients or clinical specimens must attend occupational health on commencement of employment for TB screening, the purpose of this is:

- To prevent staff with infectious TB form infecting patients
- To identify staff requiring BCG vaccination and educate about symptoms of TB.

Any staff with symptoms suggestive of TB should report to occupational health. Healthcare workers who know they are HIV positive at the time of recruitment or who are found to be HIV positive during employment should inform occupational health. This is to allow a medical and occupational assessment of TB risk to take place (NICE, 2016).

Staff who have a known TB infection should consult the consultant in UKHSA, TB services or the infection prevention and control team if they are planning to undertake aerosol-generating procedures as these can increase the likelihood of droplet nuclei being expelled into the air.

If a member of staff is diagnosed with pulmonary TB and has been symptomatic whilst at work, **an incident meeting must be called.** The persons present at the meeting should include:

- Consultant in public health (UKHSA)
- Consultant in infectious diseases/respiratory diseases
- TB specialist nurse
- Occupational health
- Infection prevention and control nurse

- Line manager or equivalent of the staff member identified.

The purpose of the meeting is to undergo a scoping exercise to establish if any staff members or patients as necessary require screening for TB. Further actions may be required following the results of any screening which will be decided upon the results. Any other actions necessary will be discussed at this meeting.

Confidentiality for the staff member/s concerned is the same as for any patient that would be discussed.

6.0 Monitoring Compliance and Effectiveness

Compliance with this policy is outlined in the LPT infection prevention and control Assurance policy.

7.0 References and Bibliography

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Nice (2016) Tuberculosis (NG33): Clinical diagnosis and management of tuberculosis and measures for its prevention and control (Last updated September 2019).

United Kingdom Health security agency (UKHSA) (2021) Research analysis TB incidence and epidemiology in England.

Appendix 1 Contact information

Contact details		
Name	**Address**	**Telephone Number**
TB Nursing Services	Glenfield hospital site Groby Road Leicester LE3 9QP	01162583767 Rapid access 0116 2502619 Fax 01162563766
Consultant in public health (UKHSA)	Consultant in health protection UKHSA East midlands Seaton House City Link London Road Nottingham NG2 4LA	03442254524
Consultant in infectious diseases	Infectious diseases unit Leicester Royal Infirmary Leicester	01162586816
Occupational Health Department	Glenfield Hospital Site Leicester	01162585307
Infection Prevention and Control Team for LPT	Loughborough Hospital Epinal way Loughborough	01162952320

Appendix 2 Training Requirements

Training Needs Analysis

Training topic:	The management of the infection prevention and control risk of patients with TB within LPT
Type of training: (see study leave policy)	X Mandatory (must be on mandatory training register) X Role specific ☐ Personal development
Directorate to which the training is applicable:	X Mental Health X Community Health Services X Enabling Services X Families Young People Children / Learning Disability Services X Hosted Services
Staff groups who require the training:	All staff
Regularity of Update requirement:	2 yearly
Who is responsible for delivery of this training?	Learning and development team
Have resources been identified?	yes
Has a training plan been agreed?	yes
Where will completion of this training be recorded?	X ULearn ☐ Other (please specify)

Appendix 3 The NHS Constitution

- The NHS will provide a universal service for all based on clinical need, not ability to pay.
- The NHS will provide a comprehensive range of services.

Shape its services around the needs and preferences of individual patients, their families and their carers	x
Respond to different needs of different sectors of the population	x
Work continuously to improve quality services and to minimise errors	x
Support and value its staff	*x*
Work together with others to ensure a seamless service for patients	x
Help keep people healthy and work to reduce health inequalities	x
Respect the confidentiality of individual patients and provide open access to information about services, treatment and performance	x

Appendix 4 Due Regard Screening Template

Section 1	
Name of activity/proposal	The management of the infection prevention and control risk of patients with TB within LPT
Date Screening commenced	05-02-2024
Directorate / Service carrying out the assessment	Enabling Infection prevention and control team
Name and role of person undertaking. this Due Regard (Equality Analysis)	Claire King
Give an overview of the aims, objectives, and purpose of the proposal:	
AIMS: The aim of this policy is to provide staff with the process for manging patients who are suspected to have or diagnosed with tuberculosis.	
OBJECTIVES: The objective of this policy is to identify the specialist support and input required by the TB specialist nursing services to support staff with the management of patients who are suspected or confirmed of having TB infection.	

Section 2	
Protected Characteristic	If the proposal/s have a positive or negative impact, please give brief details
Age	None identified
Disability	None identified
Gender reassignment	None identified
Marriage & Civil Partnership	None identified
Pregnancy & Maternity	None identified
Race	None identified
Religion and Belief	None identified
Sex	None identified
Sexual Orientation	None identified
Other equality groups?	None identified

Section 3	
Does this activity propose major changes in terms of scale or significance for LPT? For example, is there a clear indication that, although the proposal is minor it is likely to have a major affect for people from an equality group/s? Please tick appropriate box below.	
Yes	No x
High risk: Complete a full EIA starting click here to proceed to Part B	Low risk: Go to Section 4.

Section 4			
If this proposal is low risk please give evidence or justification for how you reached this decision:			
Signed by reviewer/assessor	Claire King	Date	05-02-2024
Sign off that this proposal is low risk and does not require a full Equality Analysis			
Head of Service Signed		Date	

Appendix 5 Data Privacy Impact Assessment Screening

Data Privacy impact assessment (DPIAs) are a tool which can help organisations identify the most effective way to comply with their data protection obligations and meet Individual's expectations of privacy.
The following screening questions will help the Trust determine if there are any privacy issues associated with the implementation of the Policy. Answering 'yes' to any of these questions is an indication that a DPIA may be a useful exercise. An explanation for the answers will assist with the determination as to whether a full DPIA is required which will require senior management support, at this stage the Head of Data Privacy must be involved.

Name of Document:	The management of the infection prevention and control risk of patients with TB within LPT	
Completed by:	Claire King	
Job title	Infection prevention and control nurse	Date 05-02-2024

Screening Questions	**Yes / No**	**Explanatory Note**
1. Will the process described in the document involve the collection of new information about individuals? This is information in excess of what is required to carry out the process described within the document.	N	
2. Will the process described in the document compel individuals to provide information about them? This is information in excess of what is required to carry out the process described within the document.	N	
3. Will information about individuals be disclosed to organisations or people who have not previously had routine access to the information as part of the process described in this document?	N	
4. Are you using information about individuals for a purpose it is not currently used for, or in a way it is not currently used?	N	
5. Does the process outlined in this document involve the use of new technology which might be perceived as being privacy intrusive? For example, the use of biometrics.	N	
6. Will the process outlined in this document result in decisions being made or action taken against individuals in ways which can have a significant impact on them?	N	
7. As part of the process outlined in this document, is the information about individuals of a kind particularly likely to raise privacy concerns or expectations? For examples, health records, criminal records or other information that people would consider to be particularly private.	N	
8. Will the process require you to contact individuals in ways which they may find intrusive?	N	

If the answer to any of these questions is 'Yes' please contact the Data Privacy Team via Lpt-dataprivacy@leicspart.secure.nhs.uk
In this case, ratification of a procedural document will not take place until review by the Head of Data Privacy.

Data Privacy approval name:	
Date of approval	

Acknowledgement: This is based on the work of Princess Alexandra Hospital NHS Trust