Management of patients with Tuberculosis Policy V2.0

Document reference code: To be added by policy coordinator.

This is a joint policy between Cornwall Partnership NHS Foundation Trust and Royal Cornwall Hospitals NHS Trust.

Purpose: The purpose of the document is to provide clinical staff with guidelines for management of TB and to identify strategies for the prevention and of infection to other patients, staff, and visitors.

Target audience: Trust staff, contractors, visitors, volunteers.

Document author and role: Lauren Duncanson, Senior Infection Prevention and Control (IPAC) Specialist Practitioner.

Document author contact details: 01872 254969.

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Supporting committee and chairperson: Infection Prevention and Control Committee, Louise Dickinson.

Executive director responsible for the policy: Chief Nursing Officer.

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Audience:

☒ Cornwall Partnership NHS Foundation Trust.

☒ Royal Cornwall Hospitals NHS Trust.

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Approval process

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Executive approval: Louise Dickinson, Director of Infection Prevention and Control (DIPC).

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RCHT General manager confirming approval processes: Joanne Taylor.

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Version control

Version	Date	Author and/or reviewer	Section	Changes (key points)
V1.0	01/07/2021	Joanne Taylor, Deputy DIPC.	Whole policy review.	Merged RCHT and CFT policies.

Version	Date	Author and/or reviewer	Section	Changes (key points)
V2.0	21/10/2024	Lauren Duncanson, Senior IPAC Specialist Practitioner. Alison Blake, Lead Nurse, Community TB Service. Beth Howard, Occupational Health Lead Nurse.	Full review of policy.	Updated to current joint policy template. Summary - standard infection control precautions changed to airborne transmission-based precautions per National IPAC manual. Documented that IPAC team should be informed if patient suspected of TB. 1.2. Reworded to match updated NICE guidance. 4.4. Updated to reflect current Occupational Health practice. 5.1. Sentence regarding young children removed due to lack of evidence base. 5.3.4. Amended to coincide with NHS TB information. 5.4.1, 5.5.1, 5.7. 5.13.1 and 5.14.1. Revised to match updated NICE and UKHSA guidance. 5.13.2. Name of relevant trust policy changed. 5.13.3 Recommended PPE amended to match National IPAC manual for England. 5.13.8 Reference made to another Trust policy.

Version	Date	Author and/or reviewer	Section	Changes (key points)
				5.13.9 Reworded to match current practice. 5.15.3. Advice regarding checking for interactions changed from Rifampicin to all TB medications. 6. Updated legislation and guidance. 8. Removal of dissemination of policy through daily bulletin as no longer relevant. Appendix 2 and 3 updated to reflect Community TB team resources.

This document replaces: Management of patients with Tuberculosis Policy V1.0.

Summary

Management of an in-patient with suspected or confirmed Tuberculosis

When there is a suspicion of TB the clinical team need to ensure the Infection Prevention and Control team are made aware and the patient is referred to the Respiratory team.

Admit to Wheal Prosper (if agreed with Respiratory Consultants) or Polkerris. When this is not possible the patient **must** be nursed in a single room.

If on an acute care services or mental health ward discuss with the Respiratory, IPAC and Community TB team regarding patient placement.

Submit specimens as requested by clinicians.

When multi-drug-resistant TB (MDR TB) is suspected/ confirmed the patient **must** be nursed on Wheal Prosper until transfer to a specialist centre with negative pressure isolation facilities.

The patient must be given respiratory hygiene advice. Staff must ensure the patient has tissues, waste disposal and hand hygiene facilities available.

Request the patient wears a surgical mask if able when they leave the isolation room.

Ensure the patient is aware isolation will continue until at least 2 weeks of treatment has been completed and there has been a clinical improvement.

Or

The patient has three consecutive sputum smear negative samples and is asymptomatic.

PPE for staff:

- Non-sterile gloves.
- Gown.
- FFP3 mask.

Contents

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- Cornwall Partnership NHS Foundation Trust: Email cpn-tr.infogov@nhs.net
- Royal Cornwall Hospitals NHS Trust: Email rch-tr.infogov@nhs.net

1. Introduction

1.1. Tuberculosis (TB) is an infectious disease caused by the organism Mycobacterium Tuberculosis, incidence in the UK remains high compared with other Western European countries (NICE 2016). It usually presents as a respiratory disease affecting the lungs, larynx, pleura, or mediastinal lymph nodes. It can also affect bones and joints, the gastrointestinal and renal tracts, the central nervous system or be disseminated through the blood stream. TB can present a health risk to staff if they become infected from patients; staff can also infect patients.

1.2. People at an increased risk of developing active TB:

- HIV-positive.
- Smokers.
- Younger than 5 years.
- Excessive alcohol intake.
- Injecting drug users.
- Have hepatitis B or C.
- Have chronic liver disease.
- Have had solid organ transplantation.
- Have a haematological malignancy.
- Are having chemotherapy.
- Had a jejunoileal bypass.
- Diabetic.
- Have chronic kidney disease or receive haemodialysis.
- Had a gastrectomy.
- Having treatment with anti-tumour necrosis factor-alpha or other biologic agents.
- Have silicosis.
- History of homelessness.
- Have been imprisoned.
- Previously lived or had visitors from high-incident countries.

1.3. Resistance to TB drug treatment can develop, and in some cases multi-drug resistance (MDR TB) develops if patients are not compliant with medication. All patients with TB should be tested for HIV, hepatitis B and C and have risk assessments for drug adherence and resistance (NICE, 2016).

1.4. Patients with TB in non-pulmonary sites who are non-compliant with treatment could develop pulmonary TB.

1.5. Tuberculosis is a notifiable disease. The medical staff attending the patient have a legal responsibility to notify a case of TB as soon as the diagnosis is made and a decision to commence full treatment is taken. The treating Consultant has the responsibility for notification and informing the Infection Prevention and Control (IPAC) team. Notification is made on the national TB surveillance system (NTBS).

1.6. This version supersedes any previous versions of this document.

2. Scope

The policy applies to all staff working within the Royal Cornwall Hospitals NHS Trust and Cornwall Partnership NHS Foundation Trust.

3. Definitions and glossary

Definitions are contained within the text.

4. Ownership and responsibilities

4.1. Role of the Managers

Associate Directors/ Area Directors and clinical leads must ensure that resources are available for health care workers to undertake effective standard and isolation precautions pertinent to TB and that they are FFP3 FIT tested.

4.2. Health care personnel

Health care personnel have a clinical and ethical responsibility to carry out effective infection prevention and control procedures applicable to the control of TB and to act in a way which minimises risk to the patient.

4.3. The Infection Prevention and Control Team

The IPAC team are responsible for:

- Providing expert advice in accordance with this policy, for supporting staff in its implementation, and assisting with risk assessment where complex decisions are required.

- Ensuring this policy remains consistent with the evidence-base for safe practice, and for reviewing the policy on a regular basis.

- Contact tracing patients in the event of a case being identified in the hospital and liaising with:

    - The Ward Sister/ Charge Nurse.
    - Occupational Health Department.
    - The Community TB team.
    - UK Health Security Agency (UKHSA).

4.4. The Occupational Health department

The Occupational Health department are responsible for:

- Ensuring that all new healthcare workers have a vaccination review once started in their role (which includes checking for a Bacillus Calmette-Guerin (BCG) scar or a QuantiFERON test if internationally employed).

- The BCG vaccination of staff to protect against TB (following completion of a Mantoux test if no scar is found).

- Liaising with the clinical area to complete staff contact tracing and the follow up of any member of staff who have been identified as a contact.

4.5. Consultant Medical Staff

Consultant medical staff are responsible for ensuring their junior staff read and understand this policy and adhere to the principles contained in it at all times.

4.6. Role of the Infection Prevention and Control Committee

The Infection Prevention and Control Committee are responsible for approving and monitoring this policy.

5. Standards and practice

5.1. **How is TB Infection spread?**

People who have active pulmonary TB expel small respiratory droplets when coughing and sneezing. These droplets carried by air currents can be inhaled by other people and cause infection.

5.2. **Latent TB**

The presence of dormant live bacilli, which can live in the lungs or other parts of the body without causing active disease, is referred to as latent TB. Latent TB cases are not infectious to others. People who have been exposed to TB and who have

strongly positive Mantoux skin tests (disproportionate to their BCG status) and/ or positive interferon gamma blood tests and who have no clinical signs or symptoms of disease, and a normal chest x-ray, may be regarded as having latent TB. Those under 65 years of age may be offered treatment for latent TB.

5.3. Infectious pulmonary and laryngeal TB

5.3.1. Primary TB occurs following exposure to another individual with active pulmonary or laryngeal TB. Clinical disease occurs within a few months of exposure.

5.3.2. Latent TB may reactivate and cause active TB disease this is called post–primary TB. It can occur many years after initial exposure and is more likely to occur if the patient becomes immunosuppressed. If reactivation occurs in the lungs, it may cause infectious pulmonary TB.

5.3.3. Pulmonary or laryngeal TB may be sputum smear positive or negative for Acid and Alcohol Fast Bacilli (AAFB). The highest risk of transmission occurs when patients are smear positive.

5.3.4. Symptoms of TB usually come on gradually. Common symptoms include:

- An ongoing cough (which may produce phlegm or mucus with blood in it).
- A high temperature or night sweats.
- Weight loss.
- Feeling generally unwell.
- Swollen lymph glands.
- Chest tightness or pain.
- Children may also have difficulty gaining weight or growing.

Chest x-ray may show upper lobe infiltrates, cavitating lesions or pleural effusion.

5.4. Identification of Patients

5.4.1. Clinicians need to ask three questions:

1) **Does the patient have tuberculosis?**

   Suspected: Known risk factors, previous exposure and clinical signs/ symptoms or radiological changes suggestive of Tuberculosis.

   Confirmed: Clinical signs and symptoms suggestive of TB, AAFB smear positive and/ or culture positive.

2) **If so, is the patient likely to be infectious?**

   High risk of transmission: Sputum smear positive.

   Low risk of transmission: Sputum smear negative, culture positive or cultures awaited.

   Minimal risk of transmission: Extra-pulmonary disease (where pulmonary or laryngeal disease has been excluded).

3) **Is the patient likely to have drug resistant disease?**

   Suspected:

   - History of previous TB drug treatment, particularly if there was known to be poor adherence to that treatment.
   - Contact with a known case of MDR TB.
   - Residence in a country in which the World Health Organization reports that a high proportion (5% or more) of new MDR TB.

Confirmed: Laboratory confirmation of drug resistance.

5.4.2. Where a child is admitted to hospital with suspected active TB any visitors to the child should be assessed for symptoms of infectious TB and kept separate from other people until they have been excluded as a source of infection.

5.5. Non-Infectious TB

5.5.1. Isolation and the risk of infectivity can be considered after 2 weeks of treatment, taking into account the risks and benefits if:

- The person is showing tolerance to the prescribed treatment.
- There is agreement to adhere to treatment.
- There is resolution of cough.
- There is definite clinical improvement on treatment; for example, remaining afebrile for a week.
- They are not going to be having close contact with immunocompromised people, such as transplant recipients, people with HIV and those on anti-tumour necrosis factor alpha or other biologics.
- The person's initial smear grade was not high; for example, two or less.
- There is not extensive pulmonary involvement, including cavitation.
- There is no laryngeal TB.

5.6. Multi-Drug Resistant TB (MDR TB)

5.6.1. MDR TB is defined as 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.

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

5.6.3. Treatment failure is defined when cultures are positive after 4 months of treatment. These cases have a high chance of developing drug resistance. Resistance can develop to a single drug e.g. isoniazid.

5.7. Risk Factors for Developing MDR TB

- History of previous TB disease and drug treatment, particularly if there was known to be poor adherence to that treatment.
- Contact with a known case of MDR TB.
- Residence in a country in which the World Health Organization reports that a high proportion (5% or more) of new MDR TB.

Although drug resistance can prolong the period of infectiousness to others as well as compromising the effectiveness of treatment, MDR TB is not more infectious than drug sensitive TB (Pratt et al 2007). Resistance to antibiotics used to treat TB remained stable in the UK, with 1.6% of individuals having rifampicin resistant or MDR TB and 5.9% mono-resistant to isoniazid (UK HSA, 2024).

5.8. Extensively Resistant TB

Extensively drug-resistant (XDR) TB is defined as resistance to at least; rifampicin, isoniazid, quinolones, and aminoglycosides. Successful treatment depends on the sensitivities for the remaining second- and third-line agents. XDR TB is very rare in the UK.

5.9. Extra-Pulmonary TB

5.9.1. TB can affect nearly every organ. Common forms of extra-pulmonary TB are lymph node TB, gastro-intestinal TB, spinal TB, and joint TB.

5.9.2. All patients with extra-pulmonary TB should be referred for site specific investigation and have a chest x-ray and if possible, a sputum specimen to exclude or confirm the presence of concomitant pulmonary TB.

5.9.3. Most non-respiratory forms of TB have a lower risk of transmission than respiratory disease and current guidelines do not require completion of contact tracing. Transmission can however occur following direct contact with infected body fluid e.g. open leg ulcer or from wound ooze from an excised neck gland. Isolation is not usually required unless aerosols are generated during wound irrigation.

5.10. Pulmonary TB Investigations

5.10.1. If TB is suspected patients should also have the following investigations performed:

- Posterior-anterior chest X-ray. A thorax CT scan should be considered if Pulmonary TB is suspected.
- At least three sputum samples (one early morning for 3 days) for AAFB microscopy and mycobacterial culture.
- Adults who are unable to provide sputum sample should have bronchoscopy with BAL sent for AAFB smear and culture.
- For children who are unable to provide sputum sample three gastric lavages or three samples of induced sputum for AAFB microscopy and mycobacterial culture, preferably one morning sample.
- Rapid diagnostic nucleic acid amplification tests (NAAT) should be requested in certain circumstances – please refer the NICE guidelines.
- Treatment may be started while waiting for test results on clinical grounds and prior to obtaining a specimen provided that a specimen is sent within one week of starting treatment.

5.10.2. Rapid diagnostic tests can be carried out if there is a risk of MDR TB. The laboratory can perform sputum smear tests every day. Sputum/ tissue culture is continued for 12 weeks.

5.10.3. Weight loss and a persistent cough may be the only signs of active disease. Any patient with these symptoms that is not responding to antibiotics should be investigated for TB. Advice should be sought from Microbiology, Infectious disease, or Respiratory Physicians.

5.11. Patient Isolation

5.11.1. The number of visits and duration of visits a person with TB makes to an outpatient department while they are still infectious should be minimised. The person should be seen at times or places away from other people. Surgical masks should be made available to non-inpatients.

5.11.2. Isolation precautions will commence on identification of any hospitalised patients with suspected or confirmed TB. A decision will be made about appropriate ward placement/ transfer to Wheal Prosper, based on a risk assessment by the Respiratory Consultant.

5.11.3. Patients with suspected/ confirmed pulmonary or laryngeal Tuberculosis (caused by M.TB complex), or extra-pulmonary TB when MDR TB is suspected (or pulmonary or laryngeal involvement has not yet been excluded) need to be assessed for transmission risk by a Respiratory Consultant/ Paediatrician and IPAC Team to determine appropriate placement (including consideration of transfer to an infectious disease unit) and respiratory protective equipment.

5.11.4. Waiting time for isolation must be kept to a minimum. This may involve prioritising their care above other patients.

5.11.5. It is recommended people with suspected or confirmed pulmonary/ laryngeal TB should not be admitted to a ward containing people who are immunocompromised.

5.11.6. High risk patients, and patients admitted non-electively with suspected pulmonary TB who have not yet been assessed by a respiratory physician, should be managed on Wheal Prosper Ward/ in a cubicle on Polkerris Ward. The Respiratory Team/ Paediatric Respiratory Team must be informed within 24 hours of admission.

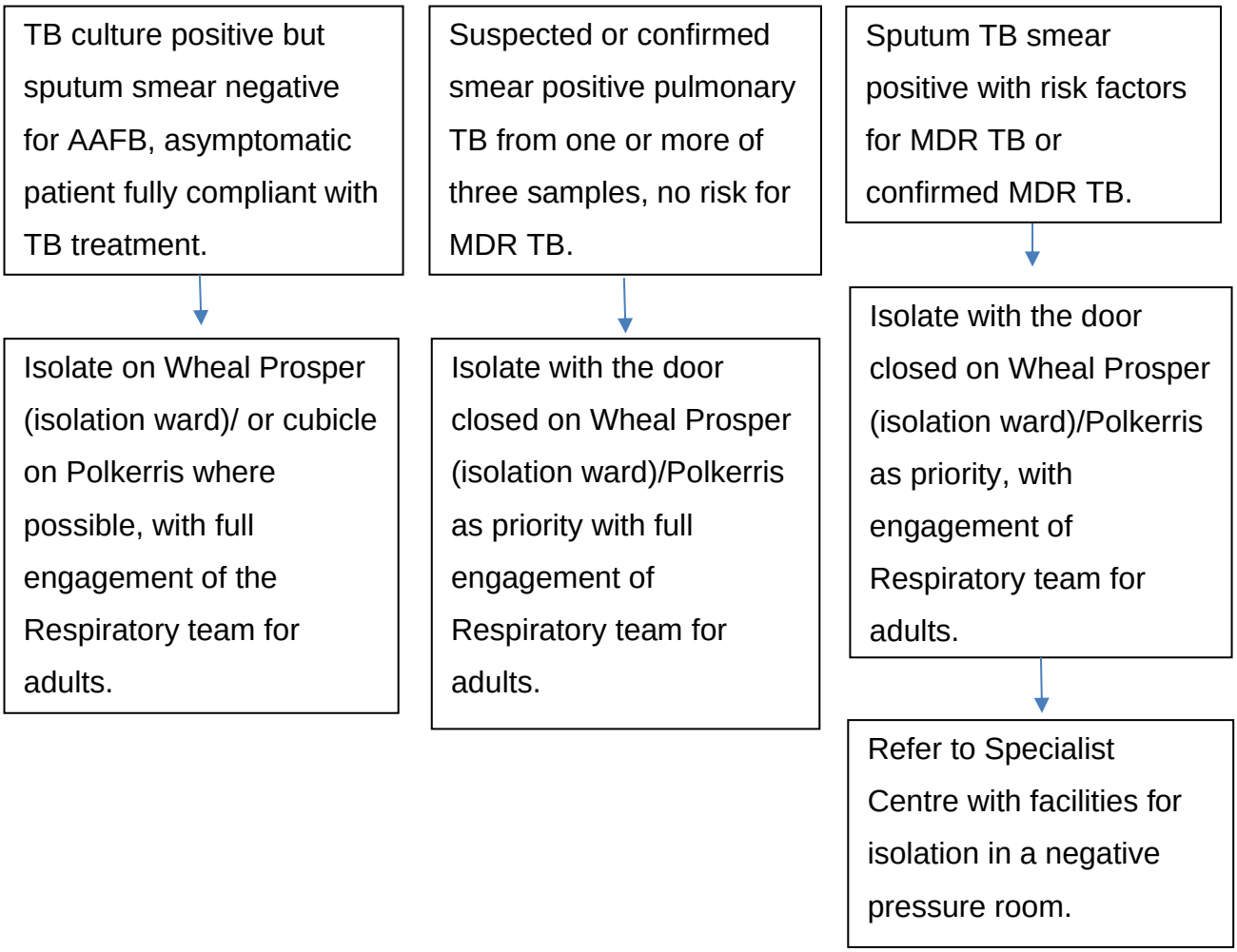
5.11.7. Whilst the highest risk of transmission occurs with smear positive patients, smear negative patients with pulmonary or laryngeal TB may present a risk to other patient groups.

5.11.8. Except for MDR TB, patients should be considered infectious until two weeks of appropriate drug therapy have been completed and be showing clinical improvement (please see full consideration in section 5.5.).

5.11.9. If the patient has three consecutive sputum (induced sputum or gastric lavage) smear negative samples and is asymptomatic as outlined above he/she will not need to be isolated.

5.11.10. A patient who has suspected or confirmed MDR TB must be isolated immediately in a single room (on Wheal Prosper) with the door closed, until transfer to a specialist centre with facilities for isolation in a negative pressure room can be arranged. This should be arranged without delay.

5.12. **Inpatient Isolation Flowchart**



5.13. **Practice Recommendations**

5.13.1. **Isolation**

- Confirmed non-pulmonary cases do not generally require isolation, however if undertaking a procedure(s) on a lesion while the patient is considered infectious a risk assessment should be completed to determine appropriate patient placement and use of respiratory protective equipment.
- Isolation precautions will commence on identification of any hospitalised patients with suspected or confirmed pulmonary or laryngeal TB.

- Teach patients to cover the mouth and turn away from others when coughing.
- Provide a clinical waste bag for patient to dispose of tissues safely.
- Place an isolation card on the door of the room, maintaining confidentiality.
- Restrict visitors who have not been previously in close contact except family members who have already had exposure.
- Do not allow other patients to visit.
- Ensure effective communications between clinical teams, IPAC and domestic staff.
- Pregnant staff should avoid contact with confirmed/ suspected TB cases.
- If the person is not admitted to hospital they should be advised to avoid congregate settings for the first two weeks of their treatment.
- Provide the patient with a copy of the home isolation guidance (Appendix 4).

5.13.2. **Sputum Specimen collection**

- Collect sputum specimens, induced sputum or gastric lavage for acid and alcohol fast bacilli (AAFB) in a universal container. A 5ml sample of sputum (not saliva) should be obtained, avoiding external contamination of the container. Secure the lid safely.
- Ensure that the correct details are entered on the request form.
- Staff should not be present in the room while the patient is producing a sputum specimen.
- Ensure that the specimen is placed in the appropriate plastic bag, with the request form in the separate compartment. Specimens should be transported in a rigid container to the laboratory promptly. Leaking specimens will be rejected.
- Do not send AAFB sputum samples by post.
- Deal with spills in line with the Trust cleaning policy.

5.13.3. **Personal protective equipment**

- Gloves, gown, eye/ face protection and an FFP3 mask are required when looking after patients with confirmed or suspected Tuberculosis (or extrapulmonary disease where pulmonary or laryngeal disease has not been excluded).
- Required PPE should be put on before entering the patient room/ care area. Unless there is a dedicated isolation room with anteroom, gowns, aprons, gloves should be removed and disposed of before leaving the patient room/ care area. Eye/ face protection and FFP3 must be removed and disposed of after leaving the patient room/ care area.
- Visitors are also required to wear gloves, gown, eye/ face protection and a surgical mask.
- Ensure that masks are well fitted. Remove masks carefully avoiding contamination of the hands and wash the hands using soap and water.
- Do not re-use masks. Dispose of them as clinical waste.
- Inpatients with suspected infectious or confirmed pulmonary or laryngeal TB must wear a surgical mask when leaving the isolation room (unless the risk of harm outweighs the mitigation). They must remain in isolation until they have completed two weeks of treatment and are unlikely to be rifampicin resistant or have a negative rifampicin resistance on NAAT or culture.

5.13.4. **Hand hygiene**

- Hand hygiene must be performed before putting on and after removal of PPE.
- It is essential that all staff wash their hands in accordance with the five movements (WHO, 2021) when required using the correct hand washing technique to help reduce the risk of transmission.
    - Provide hand hygiene advice to the patient and family.

5.13.5. **Patient transport**

- Patients should not be transferred to other units or hospitals unnecessarily. If transfer is necessary e.g. for chest x-ray the receiving department must be informed of the infectious state of the patient in advance, to prevent exposure to susceptible patients in waiting areas.
- Inform ambulance staff prior to patient transfer.
- Infectious patients should not share vehicles with other patients.

5.13.6. **Care of patient equipment**

- The patient should have dedicated equipment for their use, this includes spirometers and nebulisers.
- Decontaminate equipment as per guidance in the Trusts decontamination policy.
- If the equipment is single use, then dispose of it as clinical waste.
- Re-usable equipment must be decontaminated prior to re-use on other patients.

5.13.7. **Environment**

- Daily enhanced cleaning of the isolation area should be performed by the domestic staff using dedicated colour coded equipment.
- A red/ high risk clean of the room and equipment will be required at the end of the isolation period and prior to occupation by another patient as per Trust cleaning and decontamination policy.

5.13.8. **Linen**

- Appropriate PPE must be worn when handling used linen, which must be disposed of as infected linen in an alginate (dissolvable) bag inside the room. The bag should be placed in a white plastic bag outside the room and sent to the laundry.

- Personal clothing must not be hand sluiced by health care workers.
- Provide infection control advice to family members taking home soiled clothing for washing.

5.14. Contact Tracing and TB Risk Assessment

5.14.1. Patient Contacts

If a patient on an open ward is diagnosed as having confirmed or suspected TB, a risk assessment will need to be carried out to establish the infection risks to other patients, staff, family and carers by the multidisciplinary team which should include a Respiratory Consultant, Infection Prevention and Control representative, a Microbiologist, and where possible representative from the community TB service and UKHSA. It is the responsibility of the Ward/ Department Manager to ensure that the IPAC team are notified of all hospital inpatient cases.

The IPAC Specialist Practitioner will collect the infected patient's details, details of admission, and a list of all patient hospital contacts i.e. those who have been discharged and those who remain as inpatients. Details of the contact list will be shared with the Community TB team. The risk assessment should take into consideration factors such as:

- The infectiousness of the index case.
- Vulnerability of contacts to TB infection.
- Length of contact with or exposure to an infectious case.
- Proximity of the contacts.
- The built environment (i.e., ventilation and size of rooms).

The TB Consultant should notify the IPAC team via email (rch-tr.infectionprevention@nhs.net if an incident meeting to discuss a case is required. If so, this should be convened with representatives from the

UKHSA, community TB Service, IPAC team at RCHT, Microbiology, Occupational Health, Respiratory Consultant and any other relevant persons or agency.

Patients who have been in contact with an infectious TB case will need to be informed and an entry made in their notes by the doctor and the patients' GP informed.

Assessment of patients who are in RCHT will be the responsibility of the clinical team looking after the patient.

Where patients who have been in contact with a confirmed pulmonary or laryngeal infectious TB case have been discharged from RCHT or CFT the following process will be used:

1) The patients' GP will be informed by letter signed by a Consultant Microbiologist and sent via the IPAC office.

2) The patients' Consultant will be informed by letter signed by a Consultant Microbiologist and sent via the IPAC office.

3) An email confirming the GP letters have been posted will be sent to the Community TB team and UKHSA.

4) The patient will be informed by letter signed by a Consultant Microbiologist one week later sent via the IPAC office.

5) An email confirming the patient letters have been posted will be sent to the Community TB team and UKHSA.

6) Patients who have been identified as a 'contact' will be contacted by the Community TB service who will arrange screening.

Where patients who have been in contact with a confirmed Pulmonary or Laryngeal infectious TB case remain in RCHT or a community hospital the assessment and screening will be the responsibility of the clinical team looking after the patient. A letter will be sent to the patient's named Consultant.

Patients should be assessed for symptoms and risk factors and investigations arranged immediately.

The assessment and investigations should be repeated again at 6 weeks post last known contact. If the patient has been discharged before the second screening, the IPAC team will inform the Community TB Nurses who will complete the second assessment and screening.

A member of the IPAC team will liaise with the appropriate clinical team and request the following actions are taken:

- Inform the patient they have been in contact with a patient who has been confirmed with TB and consent for precautionary investigations is requested.
- Inform the patient a letter will be sent to their GP regarding the exposure to TB. This will be sent by the IPAC team.
- Complete documentation of this conversation in the patient medical records.
- Those over 65 years of age should be screened for active pulmonary TB and therefore offered a chest x-ray.
- If they have respiratory symptoms with a productive cough, also obtain three sputum specimens should be submitted for AFB and culture.
- Those under sixty-five should be screened for both active and latent TB and therefore offered a Quantiferon blood test. If they have respiratory symptoms, a CXR and three sputum for AFB and culture is also recommended.

It is the responsibility of the Clinical teams to inform the IPAC team of these results.

A follow up meeting to discuss the case and identify learning should be convened at a date agreed at the initial meeting with representatives from UKHSA, Community TB Nurses, IPAC team at RCHT, Microbiologists, Occupational Health, Respiratory Physician and any other relevant persons or agency.

5.14.2. Staff Contacts

It is the responsibility of the ward/ departmental manager to maintain an accurate record of staff (including locum and agency staff, students, and external support workers) who have had significant exposure to any suspected or confirmed case of pulmonary or laryngeal TB. This list will be required in the event of contact tracing and should be forwarded to the Occupational Health Department on the advice of the Infection Prevention and Control Team.

The significance and degree of infectious risks to staff should be discussed at the incident meeting which should be attended by an Occupational Health Representative.

If a member of staff reports suspicious symptoms, the individual must be referred to the Occupational Health Department as soon as possible. The Occupational health Practitioner, after taking a full clinical history, will take appropriate action including any necessary investigations.

The decision on the staff member's fitness for work, or advice on restricted duties, will be a clinical one based on the clinical findings and the areas where he/she works. Should the clinical findings and/or

investigation indicate or confirm TB infection then referral to the Lead Clinician for TB will be arranged for follow up and management.

A decision on when the individual is fit to return to work with patients will be made in conjunction with the Lead Clinician for TB.

The member of staff's General Practitioner will be kept informed of the outcome.

If a member of staff is confirmed to have contracted TB an incident meeting should be convened to determine further actions required as it may be reportable under RIDDOR.

5.15. **Treatment for infectious TB patient cases**

5.15.1. Tuberculosis control is based on early identification of infection and by ensuring that patients comply with treatment. Treatment should be in discussion with the TB/Respiratory Physician and Consultant Microbiologist.

5.15.2. Non-adherence should be reported immediately to the clinician in charge of the patient, as drug omissions can quickly lead to the patient becoming infectious or to the development of resistance with potential high risks of transmission of MDR TB to staff, other patients, and visitors. Patients should be aware that non adherence may result in an extension of treatment course. For those patients considered to be at risk of non-adherence with treatment on discharge from hospital, the use of directly observed therapy (DOTS) should be discussed with the clinician and Community TB Service at the earliest opportunity. Patients who are at risk of non-adherence with treatment should not be discharged from hospital until DOT can be organised in the community.

5.15.3. Some TB treatments can lead to reduced bioavailability and enhanced clearance of some co-administered medications; therefore, it is important to check for interactions.

5.15.4. The discharging clinician should be confident the patient fully understands the planned treatment regime and how to take the medication. For patients who do not have English as a first language, this may involve arranging for the information to be translated.

5.16. **Management of non-compliant patients**

Sometimes patients just feel frightened and feel no one is listening to their fears or cares about them. This is a particular risk when they are in isolation on a busy ward and for those with social risk factors. Making time to explain about TB, treatment and support that will be given can have a very positive effect on the patients' state of mind and behaviour on the ward. However, if this is not the case then patients who are non-compliant with treatment for infectious TB are likely to fall into one of the following three categories:

- Patients who have capacity to consent to treatment (as defined by the Mental health Capacity Act section 3) but who refuse to comply with treatment for whatever reason may need to have compulsory admission and detention to hospital to ensure that they are closely monitored under sections 37 and 38 of the Public Health Act. Compulsory medical examination can also be required under section 35 of that Act. Compulsory treatment is not allowed under the Public Health Act. Where treating clinicians are concerned about case and possibility of case leaving whilst infectious to others' UKHSA should be contacted.

- Patients who do not have capacity to consent to treatment as defined by the Mental Capacity Act, Section 3, can usually be treated, if necessary by admission to hospital under the common law doctrine of necessity e.g. that they lack capacity to consent and that it is in their best interests that treatment should be given. Any such treatment must be in conformity with the principles

of the Mental Health Capacity Act and take account of the safeguards provided by that Act, such as the need to refer to an independent Mental Capacity Advocate in certain circumstances, or to consult with a Lasting Power of Attorney with health and welfare powers if one has been appointed.

- Patients who refuse treatment for infectious TB due to mental disorder may in some cases be detained under the Mental Health Act 1983 though any such detention must be because the patient meets the criteria for detention under that Act and is being detained either for assessment under Section 3. The Mental Health Act does not provide a power for compulsory treatment of a physical condition. If the patient is incapable of consent to treatment for TB due to their mental disorder treatment can be provided according to above.

- Patients who are thought not to be adhering to treatment may need to have compulsory admission to hospital after discussion with social services with a view to enforcing child protection measures.

5.17. **Transfer/ Discharge Home**

5.17.1. If patients need to be transferred to other healthcare facilities the Community TB Nurse/ IPAC specialist practitioner must be informed in advance. The receiving unit must be informed of the infectious state of the patient to ensure that suitable isolation facilities are available.

5.17.2. Patients who are due to be discharged home should have their discharge planned with the Community TB Service and Consultant Respiratory Physician/ Consultant Respiratory Paediatrician to ensure that appropriate arrangements for monitoring are in place. An assessment of the risk of infection to others will need to be made e.g. if a family member is immunocompromised. In this case the patient should not be discharged until:

- He/ she has had 2 weeks of treatment.

- Showing clinical improvement (please see section 5.5.).
- Sputum is AAFB smear negative from three consecutive specimens over a 14- day period.
- Have adequate supply of TB medication.
- Follow up appointments have been made with the Community TB and Respiratory teams.

6. Related legislation, national and local guidance

British Association for Paediatric Tuberculosis. (2023) Clinical Guidance Care of children and young people exposed to or infected with tuberculosis. https://www.bapt.uk/wp-content/uploads/go-x/u/b894be95-2afb-4929-948c7054e4c87732/BAPTguidance19thDec2023.pdf

Royal College of Nursing: A Case Management Tool for TB Prevention, Care and Control in the UK Publication. (2023) https://www.rcn.org.uk/Professional-Development/publications/case-management-tool-tb-uk-pub-010-230

National Institute of Health and Clinical Excellence: Tuberculosis: NICE guidelines. (2024) https://www.nice.org.uk/guidance/ng33/resources/tuberculosis-pdf-1837390683589

UK Health Security Agency. (2024) The Green Book. https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book

UK Health Security Agency. (2024) TB diagnosis and microbiology, England 2022. https://www.gov.uk/government/publications/tuberculosis-in-england-2023-report-data-up-to-end-of-2022/tb-diagnosis-and-microbiology-england-2022

Pratt RJ. Grange JM, Williams VG (2005) Tuberculosis: a foundation for nursing and healthcare practice. Hodder (Arnold) London.

Pratt RJ. (2007): Extensively drug resistant (XDR) Tuberculosis: a new threat to global health. The British Journal of Infection Control. Vol 8 (2) 20-22

Story A, Murad S, Verheyen M, Roberts W, Hayward AC (2007): Tuberculosis in London – the importance of homelessness, problem drug use and prison. Thorax, BMJ 16th March 2007.

Department of Health (2007): Clearance for tuberculosis, hepatitis B, hepatitis C and HIV, New healthcare workers. https://www.gov.uk/government/publications/new-healthcare-workers-clearance-for-hepatitis-b-and-c-tb-hiv

World Health Organization (2021). WHO TB guidelines: recent updates. https://www.who.int/publications/digital/global-tuberculosis-report-2021/featured-topics/tb-guidelines

Cornwall Partnership Foundation Trust. (2025) Tuberculosis resources. https://www.cornwallft.nhs.uk/tuberculosis-service

7. Training requirements

There are no training requirements.

8. Implementation

This policy will be implemented via the following routes:

- The policy will be included in the Trust's document library.
- Details of this policy will be circulated to all Infection Prevention and Control Link Practitioners.

9. Document Monitoring arrangements

Information category	Detail of process and methodology for monitoring compliance
Element to be monitored	Management of patients with TB in hospital and hospital contacts.
Lead	Infection Prevention and Control Department.
Tool	Incident meeting – recorded on an Excel or Word template.
Frequency	This will be convened as each case occurs.
Reporting arrangements	Information to be provided to the incident.
Acting on recommendations and lead(s)	The incident meeting group will make recommendations as required.
Change in practice and lessons to be shared	Required changes to practice will be identified and actioned. A lead member of the group will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders.

10. Updating and review

This document will be reviewed by the Infection Prevention and Control team every three years or earlier should a change in circumstance dictate.

11. Equality and diversity

This document complies with the Cornwall Partnership NHS Foundation Trust and Royal Cornwall Hospitals NHS Trust equality and diversity statements. The statements can be found in the RCHT Equality Diversity And Inclusion Policy and CFT Equality, Diversity and Inclusion Statement.

The initial equality impact assessment screening form is at appendix 1.

12. Appendix 1: Equality Impact assessment Form

Title of policy or document for assessment: Management of Patients with Tuberculosis Policy V2.0.

Document library section: Clinical / Infection Prevention and Control.

Is this a new or existing document? Existing.

Date of assessment: 21 October 2024.

Person responsible for the assessment: Lauren Duncanson.

What is the main purpose of the document?
To reduce the risk of transmission of mycobacterium tuberculosis to patients, staff, and others. To provide clinical staff with guidelines for management of TB infected cases and to identify strategies for the prevention and control of cross infection to other patients, staff, and visitors. To reduce mycobacterium tuberculosis transmission and infection.

Who is affected by the document?

☒ Staff ☒ Patients ☒ Visitors ☒ Carers ☐ Other ☐ All

The document aims to improve access, experience and outcomes for all groups protected by the Equality Act 2010.

Concerns

Are there concerns that the procedural document could have a differential impact on the following areas?

If a negative impact has been identified, please complete a full EIA by contacting the Equality, Diversity, and Inclusion Team. For RCHT please contact rcht.inclusion@nhs.net and for CFT please contact cft.inclusion@nhs.net

Concern area	Response	If yes, what existing evidence (either presumed or otherwise) do you have for this?
Age	☐ Yes ☒ No	
Disability	☐ Yes ☒ No	
Sex	☐ Yes ☒ No	
Gender reassignment	☐ Yes ☒ No	
Pregnancy and maternity	☐ Yes ☒ No	
Race	☐ Yes ☒ No	
Religion and belief	☐ Yes ☒ No	
Sexual orientation	☐ Yes ☒ No	
Marriage and civil partnership	☐ Yes ☒ No	
Groups at risk of stigma or social exclusion such as offenders or homeless people	☐ Yes ☒ No	
Human rights	☐ Yes ☒ No	

Are there any associated objectives of the document? If yes, what existing evidence (either presumed or otherwise) do you have for this?

To provide clear guidance on the necessary infection prevention and control measures.

Signature of person completing the equality impact assessment:

Name: Lauren Duncanson.

Date: 21 October 2024.