



Tuberculosis

Care of the Patient with smear negative/positive Pulmonary Tuberculosis in Hospital

This procedural document supersedes: PAT/IC 23 v.5 – Care of the Patient with Open Tuberculosis in Hospital



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Author/reviewer: (this version)	Bala Subramanian Consultant Microbiologist
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Amendment Form

Version	Date Issued	Brief Summary of Changes	Author
6	13 June 2017	<p>Please note change of policy Title</p> <p>Updated in line with NICE guidelines released May 2016</p> <p>Appendix 1 phone numbers updated</p> <p>Appendix 4 now Risk Assessment flow chart moved to front of policy for easier reference</p>	Bala Subramanian Consultant Microbiologist
5	22 Sept 2014	<ul style="list-style-type: none"> Policy updated following recent recommendations from local outbreak 	Maurice Madeo Deputy Director of Infection Prevention and Control
4	April 2012	<ul style="list-style-type: none"> Change of policy title Updated NICE Guidance released Section added on "Equality Impact Assessment" Paragraphs re-named and re-numbered in line with (CORP/COMM 1) 	Maurice Madeo Deputy Director of Infection Prevention and Control
3	June 2009	<ul style="list-style-type: none"> Diagnosis MDR/XDR Use of face masks Contact tracing – staff/patients Section added on Monitoring and Audit 	IPCT
2	December 2007	<ul style="list-style-type: none"> Duties, Education and Training added Diagnosis section expanded The Use of Face Masks altered Addition of flowchart – Appendix 3 	Infection Prevention and Control Team

Contents

SECTION	Page Number
Risk Assessment Flow Chart	4
1. Introduction	5
2. Purpose	5
3. Duties and Responsibilities	5
4. Diagnosis of TB	6
5. Notification and Reporting	8
6. Hospital Infection Prevention and Control	8
6.1 <i>Smear Positive Pulmonary Disease or those with strong clinical suspicion of pulmonary TB (including those awaiting sputum microscopy)</i>	9
6.2 <i>Smear Negative Pulmonary Disease</i>	11
6.3 <i>Non-Pulmonary Disease</i>	11
6.4 <i>The use of face masks</i>	12
6.5 <i>Surgical Procedures and visiting departments</i>	12
6.6 <i>Last Offices</i>	13
6.7 <i>Specimens</i>	13
7. Staff Exposure & Immunity	13
8. Patient Discharge from Hospital	13
9. Transfer of patients by Ambulance	14
10. The Management of Outbreaks	14
11. Training and Support	14
12. Monitoring Compliance with Procedural Documents	15
13. Definitions of Terms	16
14. Equality Impact Assessment	16
15. Associated Trust Procedural Documents	17
16. References	17
Appendix 1 - List of Contact Numbers	18
Appendix 2 - Draft letters	19
Appendix 3 - Fitting a Mask	20
Appendix 4 – Risk Assessment	21
Appendix 5 – Health and Wellbeing Memo	22
Appendix 6 - Equality Impact Assessment Form	23

Table 1 summarises the isolation recommendations for patients with suspected or confirmed Pulmonary Tuberculosis.

Table 1

	Inpatient	Outpatient
<ul style="list-style-type: none"> • Suspected TB, • Low risk for MDR-TB or • Confirmed drug sensitive TB 	<ul style="list-style-type: none"> • Single room with door closed for 2 weeks after starting TB treatment • Single rooms should have en suite facilities • If there are immunocompromised patients on the ward, the patient should be transferred to a single room on another ward (discuss with IPC team if advice required) 	<ul style="list-style-type: none"> • Should not be seen in the same outpatient clinic as known immunocompromised patients (including HIV)
<ul style="list-style-type: none"> • High risk or confirmed MDR-TB 	<ul style="list-style-type: none"> • Negative pressure isolation rooms, minimum of 15 air changes/hour. (Not available at DBTFH – need to transfer to an appropriate facility) • Maintain isolation until smear negative from 3 sputum samples on weekly intervals or ideally until patient is culture negative (NICE 2016). 	<ul style="list-style-type: none"> • Should not be seen in same outpatient clinic as known immunocompromised patients (including HIV)
<ul style="list-style-type: none"> • Non-pulmonary TB 	<ul style="list-style-type: none"> • Assess for any evidence of co-existing pulmonary disease. • If not present, then no special precautions needed. 	<ul style="list-style-type: none"> • Assess for any evidence of co-existing pulmonary disease. • If not present, then no special precautions needed.

1. INTRODUCTION

Tuberculosis (TB) is caused by a bacterium called *Mycobacterium tuberculosis (MTB)*. TB is usually acquired by inhaling infected droplets from a person with TB of the lung, particularly when the patient is 'smear positive', i.e. when there is sufficient tubercle bacilli to be seen on direct microscopy of the sputum.

The probability that TB will be transmitted depends on a number of factors:

- Susceptibility of the exposed person
- Infectiousness of the person with TB (i.e. the numbers of TB bacilli that the patient expels into the air)
- Proximity, frequency and duration of exposure (e.g. close contacts)

The risk is greatest in those with **prolonged** close household exposure to a person with infectious TB. Therefore health care workers giving transient care are generally not exposed to significant risk.

2. PURPOSE

It is the aim of this policy to encourage an effective treatment and control programme to reduce the transmission of tuberculosis (TB) in hospital, including the spread of multidrug-resistant tuberculosis (MDR-TB) and extensively drug resistant tuberculosis (XDR-TB). This policy is based on the NICE Guidelines (2011 and 2016).

3. DUTIES AND RESPONSIBILITIES

This policy covers infection prevention and control management issues for Trust staff this includes:-

- Employees
- Volunteers
- Agency/Locum/Bank Staff
- Contractors whilst working on the Trust premises

Each individual member of staff, volunteer or contracted worker within the Trust is responsible for complying with the standards set out in the Policy. They need to be aware of their personal responsibilities in preventing the spread of infection. It is the responsibility of Directors and Managers to ensure compliance with this standard.

All staff working on Trust premises, outreach clinics and community settings, including Trust employed staff, contractors, agency and locum staff are responsible for adhering to this policy, and for reporting breaches of this policy to the person in charge and to their line manager.

Trust Board

The Board, via the Chief Executive, is ultimately responsible for ensuring that systems are in place that effectively manage the risks associated with Infection Control. Their role is to support the implementation of a Board to Ward culture to support a Zero Tolerance approach to Health Care Associated Infections.

The Director of Infection Prevention and Control will provide assurance to the board that effective systems are in place.

Director of Infection Prevention and Control: Is responsible for developing infection prevention and control strategies throughout the Trust to ensure best practice.

The Infection Prevention and Control Team: is 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.

Matrons: are responsible for ensuring implementation within their area by undertaking regular audits in ward rounds activities. Any deficits identified will be addressed to comply with policy.

Ward and Department Care Group Managers: are responsible for ensuring implementation within their area, and for ensuring all staff who work within the area adhere to the principles at all times.

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.

On-call Managers: are responsible for providing senior and executive leadership to ensure implementation of this policy, and for ensuring infection risks are fully considered and documented when complex decisions need to be made regarding capacity and patient flow.

4. DIAGNOSIS OF TB

A posterior–anterior chest X-ray should be taken; chest X-ray appearances suggestive of TB should lead to further diagnostic investigation.

For suspected respiratory infection, multiple sputum samples (at least three, with one early morning sample) should be sent to microbiology, specifically requesting TB microscopy and culture before starting treatment, if possible. In children where spontaneously produced sputum samples are not possible, 3 x gastric lavages or 3 x induced sputum can be sent (NICE 2016). In adults who are unable to expectorate, consider induced sputum or bronchoalveolar lavage specimens (NICE

2006, amended 2016). For non-respiratory TB, biopsy or aspiration should be considered to obtain material for diagnosis. The samples must be labelled 'danger of infection'.

Positive sputum smears should be reported immediately to the referring clinician, the TB Respiratory Lead for the Trust the TB specialist nurse and Public Health England. (See Appendix 1 for list of contact numbers).

AAFB / TB screening must be specifically requested when sending the samples to the Microbiology lab. In DBTFH, samples are cultured using both a rapid liquid culture system and solid culture methods. All positive isolates are referred to a Mycobacterium Reference Unit for further identification and susceptibility testing.

Preliminary cultures usually take approximately 2 weeks to become positive, although a negative culture result is not reported until the sample has been cultured for 6 weeks. Positive samples which are sent to the Mycobacterium Reference Unit usually take a further 1 – 2 weeks for identification and sensitivity results to become available.

Rapid diagnostic methods, such as PCR for MTB complex, may enable a more rapid diagnosis to be made, but these are only useful for smear positive samples, where the sensitivity and specificity is approximately 90 – 95%. If there is a clear indication for this test, it needs to be discussed with the duty Microbiologist on the same day that the sample is being sent to the lab.

Multi-Drug Multidrug-resistant TB (MDR TB)

MDR TB is defined as high level resistance to both Rifampicin and Isoniazid with or without additional drug resistances. Although the levels remain low in the United Kingdom (< 2%) it should be considered if the following risk factors are present;-

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

- Previous drug treatment for TB, particularly if there was a history of incomplete or poor adherence to treatment
- Contact with case of known MDR-TB or XDR-TB
- Poor clinical response to standard anti-TB treatment
- Birth or residence in a country in which the World Health Organisation reports that a high proportion (5% or more) of new TB cases are multidrug-resistant e.g. ex-Soviet block and certain countries in Eastern Europe, Africa, Asia and Latin America HIV infected
- Prolonged sputum smear or culture positive while on treatment (smear positive at 4 months or culture positive at 5 months)

In any patient with suspected or confirmed TB, an urgent risk assessment should be made as to likelihood of infection with MDR-TB. This should include discussion with a Respiratory Physician, Medical Microbiologist / IPC team (including out of hours) to facilitate:

- Specimens to be sent to the Reference Laboratory for rapid diagnostic tests (TB PCR and rifampicin resistance probe) if found to be smear positive.
- Decision-making regarding the need for nursing in a negative pressure facility (not available at DBTFH), therefore will need urgent transfer to STH upon instruction by the Respiratory Physician responsible for the patient's care.

The CCDC and the TB Nurse Specialist should be informed immediately if a drug resistant organism is suspected or confirmed.

5. NOTIFICATION AND REPORTING

Tuberculosis is a notifiable disease under the Public Health (Infectious Diseases) Regulations (1988). Notification is the statutory responsibility of the clinician making the diagnosis. The clinician should notify the CCDC and TB Specialist Nurse on the day of the decision to treat where possible (by telephone or email). This should be followed by electronic notification to the CCDC available on the IPC site.

Should the diagnosis of tuberculosis be later excluded then the clinician should ensure that the patient is de-notified by informing the CCDC and TB Nurse Specialist either by telephone or letter.

TB cases should be reported if appropriate to:

- The clinician (Chest Physician/ID Physician)
- The Consultant of Communicable Disease Control (CCDC)
- TB Specialist Nurse
- The Hospital Infection Prevention and Control Team
- Health and Wellbeing Department

6. HOSPITAL INFECTION PREVENTION AND CONTROL

- **Patients with suspected or confirmed pulmonary or laryngeal TB should be nursed in a single room with the door closed, and on a separate ward from immunocompromised patients (e.g. transplant recipients, HIV positive patients, patients on anti-TNF alpha drugs or other biologics) (NICE 2016).**
- If a patient has smear positive pulmonary TB while on the open ward, the IPC team must be informed and a contact risk assessment conducted by the clinicians and microbiology consultants.
- Patients who are defined as being at significant risk following exposure are generally those in the same bay as a patient coughing with smear positive pulmonary TB for more than **8 hours** (NICE, 2011). Such patients should have the contact documented in their notes. It is the responsibility of the Consultant to inform the patient and the GP using standard template (appendix 2), there should be a risk assessment in conjunction with PHE regarding any further

action required. **It is advisable to keep records of admissions and which bed was occupied by which patient in open bays for contact tracing purposes.**

6.1 **Smear Positive Pulmonary Disease or those with strong clinical suspicion of pulmonary or laryngeal TB (including those awaiting sputum microscopy)**

Healthcare settings

Hospital admission is not always required, even for patients with sputum smear positive disease, but it may be indicated for medical or social reasons. Patients who are admitted to hospital with TB should be managed according to the isolation & IPC protocols contained in this policy.

For patients who require care in a hospital setting (including emergency, outpatients or inpatient care), ensure they are managed in a single room (NICE 2016).

Whilst a patient is still infectious, minimise the numbers of outpatient clinic visits where possible and do not allow patients to wait in a common waiting room.

After 2 weeks of appropriate treatment, most patients are non-infectious and can be removed from isolation (providing this is the only reason for isolation). This should be discussed with the clinician in charge of the patient. It is preferable if patients moving out of isolation are not placed on a ward with immunocompromised patients. Isolated patients can only be moved out of the single room and into a ward which cares for immunocompromised patients if:

- The patient has had at least two weeks of appropriate multiple drug therapy *and*
- The patient has had **three negative sputum smears** over a 14 day period *and*
- The patient is adhering to and tolerating the anti-tuberculous medication *and*
- The patient's cough has completely resolved or there is definite improvement on treatment.

Visitors

Limit to next-of-kin or those in close-contact prior to diagnosis.

They must not visit other hospital patients especially immunocompromised patients. Children are discouraged from visiting.

Assess any visitors to a child with suspected active TB in hospital for symptoms of infectious TB. Keep them separate from other patients until they have been excluded as a source of infection (NICE 2016).

Inform

CCDC, TB Nursing Service & Infection Prevention and Control.

Type of Isolation

Single room with door closed. Respiratory precautions – use FFP3 mask for prolonged patient contact e.g. >5 minutes. Where able encourage the patient to wear a surgical mask until culture/smear results available if patient coughing and staff in the room for prolonged periods.

Aerosol generating procedures such as bronchoscopy, sputum induction or nebuliser treatment should be carried out in an appropriately ventilated area with **FFP3 mask** adopted until TB excluded.

Duration

If there is an ongoing clinical or social need for hospital admission, then patients with smear positive pulmonary disease should remain in a side room (as a minimum):

- 1) Until 2 weeks of appropriate treatment is completed AND
- 2) Patient is clinically responding to treatment AND
- 3) There are no risk factors for MDR-TB OR negative rifampicin resistance on rapid testing

Protective Clothing

Standard Principles

Staff routinely caring for patients are not at increased risk and routine wearing of masks or gowns is **not** necessary. For known or **suspected MDR TB**, an **FFP3** particulate filter respirator **must be worn** because of the more serious consequences of infection. Staff should also use an FFP3 respirator if performing aerosol generating procedures on a patient with suspected pulmonary tuberculosis. Following a Trust local risk Assessment it has been agreed staff/patients must wear a FFP3 mask for prolonged contact e.g. greater than 5 minutes.

Pathology Specimens

All specimens to be labelled as 'danger of infection'.

Disposal of faeces/urine

En-suite toilet, or macerator.

Cutlery/crockery

No special precautions – machine-wash in central kitchen or ward dishwasher if available

Linen

Treat as infected

Clinical Waste

Dispose using an orange bag.

Room Cleaning

Twice daily clean with approved agent.

Comment

Doors to be kept shut at all times if in isolation

Encourage patient to cough into tissue if expectorating.

If the patient is transported outside of the room they should wear a surgical mask.

6.2 Smear Negative Pulmonary Disease

Visitors

Limit to next-of-kin or those in close-contact prior to diagnosis.

They must not visit other hospital patients' especially immunocompromised patients. Children are discouraged from visiting.

Inform

TB Nursing Service & Infection Prevention and Control.

Type of Isolation

Single room with door closed and respiratory precautions until three separate smear negative sputum samples.

Pathology Specimens

All specimens to be labelled with 'Danger of Infection'.

Protective Clothing

Standard precautions.

6.3 Non-Pulmonary Disease

General

Patients with non-pulmonary TB are generally non-infectious and no special precautions are required. An individual risk assessment may be required in certain circumstances e.g. presence of a draining sinus.

It is also important to consider the possibility that a patient with TB in one part of their body may also have TB at other sites. Therefore, it is prudent to assess for any evidence of respiratory tract involvement prior to deeming a patient to be non-infectious.

Visitors

No restrictions.

Inform

TB Nursing Service & Infection Prevention and Control.

Type of Isolation

Isolation not required unless performing aerosol-producing procedures e.g. wound irrigation.

Protective Clothing

Standard precautions.

6.4 The use of face masks

Health Care Workers (HCW) **do not** need to wear masks for general care if within the room for less than 5 minutes, **however**; FFP3 masks are to be worn for aerosolising procedures e.g. bronchoscopy, sputum induction, nebuliser therapy and chest physiotherapy with suction or during administration of high flow oxygen (>6litres).

On suspicion of MDR-TB if leaving the room the patient must wear (correctly fitted) FFP3 for all care. All staff using these masks should have received training in their correct use and maintain competency by undertaking fit testing. FFP3 masks will be available within specialist units including Respiratory Unit DRI and Ward C1 Bassetlaw Hospital.

Visitors

- Only those persons, including small children who have been in close contact with the patient before the diagnosis should be allowed to visit patients with smear positive pulmonary disease whilst they are in isolation. Close contacts should have been screened first and active tuberculosis excluded.
- When masks are being recommended to visitors to an individual patient, visitors need to be instructed on how to use them and comply with other infection control procedures. A guide to wearing PPE must be displayed in the patients' antechamber or if in a standard single room beside the patients' washbasin (Appendix 3)
- People visiting patients with tuberculosis may themselves be immunocompromised due to their own medical conditions which could make them more susceptible to infection. In conjunction with the physician in charge staff will need to assess the likely risk of transmission from the index case and advise an immunocompromised visitor not to visit. It is therefore essential a thorough risk assessment is undertaken (Appendix 4) by the physician to determine level of infectivity and to exclude multi-drug resistant strain.

6.5 Surgical Procedures and visiting departments

Infectious patients should not leave isolation, including to visit communal washrooms or other hospital areas, except for essential investigations or procedures.

In such situations, patients must wear a surgical mask and the relevant department must be informed in advance .

Ward must notify the receiving area e.g. X Ray department or theatre, of the open Tuberculosis risk.

- Patient must be last on the list where possible.
- Arrange with departments best time for patient to visit e.g. end of day.
- Restriction of staff where possible, only essential staff to deal with the patient.

- Remove extraneous equipment out of the area, send linen to the laundry as infected.
- Immediate cleaning and disinfection of contaminated equipment/environment with approved disinfectant.
- Recover patient in Theatre if possible to avoid recovery room exposure to TB.
- Instruments should be returned to Doncaster Hospital Sterilisation and Disinfection Unit (HSDU) as per usual, special bagging is not required.
- Dispose of ventilator tubing / filter and replace with new after machine thoroughly decontaminated.

6.6 Last Offices

Deceased patients with tuberculosis represent a risk to mortuary staff and should therefore be placed in a body bag. They should be labelled conspicuously on the body identification tag and on the body bag with 'Danger of Infection' labels. The same precautions should be followed during last offices as were followed when the patient was alive.

6.7 Specimens

Sputum and other respiratory specimens, these should be safely packaged and labelled 'DANGER OF INFECTION'.

7. STAFF EXPOSURE AND IMMUNITY

As soon as possible after starting work (NICE, 2011) all staff should have an assessment by Health and Wellbeing department for evidence or prior BCG Vaccination with a pathway to follow if not, i.e. mantoux or quantiferon blood test. Clinical Directors, via delegation to Care Group line managers are responsible for ensuring that all members of staff attend.

BCG immunisation will be given to those with no demonstrable immunity in accordance with current guidelines.

It is uncommon for staff to acquire pulmonary TB from patients. If staff develop symptoms that are suspicious of pulmonary TB i.e. Prolonged cough, weight loss, haemoptysis, night sweats, they should report to Health and Wellbeing immediately (Appendix 5).

The Health and Wellbeing department will send out a memo to the clinical area involved with confirmed pulmonary TB to remind staff of their roles and responsibilities (Appendix 5).

8. PATIENT DISCHARGE FROM HOSPITAL

In cases where the patient has MDR-TB, the decision to discharge must be discussed with:

- Hospital Infection Prevention and Control Team/Microbiologist
- Consultant in Communicable Disease Control (CCDC)
- TB Nurse Specialist.

If the patient lives in a hostel or communal establishment, outpatient management may not be appropriate.

Prior to discharge, arrangements for directly observed therapy should have been made, if required and agreed with the patient and carers.

The TB Nurse Specialist should be informed of the discharge date in order to make arrangements for follow up.

9. TRANSFER OF PATIENTS BY AMBULANCE

Ambulance staff transporting an infectious patient need sufficient information for their own protection while maintaining patient confidentiality.

10. THE 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, in a Care 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 CCDC, and would include all relevant specialist staff including clinicians, microbiologists, Health Protection Nurse Specialists, TB specialists infection prevention staff, Health & Wellbeing and a representative from the Clinical Commissioning Group. Where TB is suspected/confirmed in staff, the investigation will be led by the Trust Health and Wellbeing Department with support from above.

11. TRAINING AND SUPPORT

The training requirements of staff will be identified through a training needs analysis. Role specific education will be delivered by the service lead.”

Staff will receive instructions and direction regarding infection prevention and control practice and information from a number of sources:-

- Trust Induction
- Trust Policies and Procedures available on the intranet
- Ward/departmental/line managers
- As part of the mandatory infection control education sessions that Trust staff attend.
- Infection Prevention and Control Educational displays/ posters
- Trust Infection Prevention and Control Team
- Ward link practitioners

12. MONITORING AND COMPLIANCE WITH POLICY

Monitoring	Who	Frequency	How Reviewed
The policy will be reviewed in the following circumstances:-	APD Process Group IPCT	Every three years routinely, unless: <ul style="list-style-type: none"> • When new national or international guidance are received. • When newly published evidence demonstrates need for change to current practice. • Action required from Root Cause Analysis Serious Incident Investigation Report 	Approved Procedural Document (APD) database Policy will be approved and ratified by the Infection Prevention and Control Committee
Compliance with policy to negate cross-infection	The Infection Prevention and Control Practitioners	Weekly	“Alert organism review” to monitor adherence with the policy.
Audits in ward rounds activities	Matron	Weekly	Deficits identified will be addressed via agreed action plan to comply with policy.
Training needs for infection prevention and control	Ward and Department Managers Training and Education Department	Annually	Staffs Professional Development Appraisal Attendance will be captured by the via OLM system

13. DEFINITION OF TERMS

Infectious tuberculosis: active tuberculosis disease which presents a risk of transmission of infection to others. For most practical purposes, this means sputum smear-positive pulmonary tuberculosis i.e. pulmonary tuberculosis in which acid fast bacilli (AFB) are present on direct microscopy of sputum. Disease of other parts of the respiratory tract or the oral cavity, though rare, must also be considered infectious. Factors which increase infectiousness include the presence of cavities in the lungs, laryngeal tuberculosis and cough.

More stringent criteria need to be applied if the patient is in contact with immunocompromised individuals or has drug-resistant disease, because of the more serious consequences for the recipient if transmission of infection occurs. For infection control purposes, therefore, patients can be divided into:

Infectious:

- All new patients with suspected or confirmed pulmonary or other respiratory tract tuberculosis until the sputum status is established or the diagnosis is excluded. At least three consecutive smears of good quality sputum specimens taken on different days must be examined before concluding a patient with pulmonary disease is **not** infectious.
- Those with confirmed sputum smear-positive pulmonary disease;
- those with active disease of the bronchi or larynx;

Potentially infectious:

Those with sputum smear-negative pulmonary disease in whom one or more cultures are positive, or the culture results are not yet know.

14. EQUALITY IMPACT ASSESSMENT

As part of its development, this policy and its impact on equality, an Equality Impact Assessment (EIA) has been conducted in line with the principles of the Equality Impact Assessment Policy CORP/EMP 27.

The Purpose of EIA is to minimise and if possible remove and disproportionate impact on employees and or patients on the grounds of race, sex, disability, age, sexual orientation or religious belief. No detriment was identified. A copy of the EIA can be seen in appendix 6.

15. ASSOCIATED TRUST PROCEDURAL DOCUMENTS

This policy should be read in conjunction with other Trust Policies and protocols for the prevention and control of HCAI in line with the Health and Social Care Action 2008. In particularly:

- Collection and Handling of Pathology Specimens – PAT/IC 11
- Hand Hygiene Policy – PAT/IC 5
- Hospital major Outbreak Policy – PAT/IC 20
- Privacy and Dignity Policy – PAT/PA 28
- Trust Mental Capacity Act - PAT/PA 19

16. REFERENCES

Guidance on the use of respiratory and facial protection equipment (2013) Available from <http://dx.doi.org/10.1016/j.jhin.2013.06.020>

National Institute for Health and Clinical Excellence (2016) **Tuberculosis** Available from <https://www.nice.org.uk/guidance/ng33/>

National Institute for Health and Clinical Excellence (2011) **Clinical diagnosis and management of tuberculosis, and measures for its prevention and control** Available from <http://www.nice.org.uk/guidance/CG117/Guidance>

APPENDIX 1 – LIST OF CONTACT NUMBERS

List of contact numbers

- 1 Consultant in Communicable Disease Control (Doncaster)**
 Public Health England, South Yorkshire Tel: 0114-3211177

Out of office hours: Tel: 01142 321 1177

Consultant in Communicable Disease Control (Bassetlaw)
 Public Health England East Midlands North Tel: 0844 225 4524
 Fax: 0115 969 3523

Out of office hours via EMAS Tel: 01159 675099
- 2 TB Nurse Specialist**
 Rotherham Doncaster & South Humber NHS Trust Tel: 01302 379564
 Cantley Heath Centre Mobile 07890273229
 Middleham Road
 Cantley, Doncaster
 DN4 6ED
- 3 Consultant Chest Physicians (Secretary)**
 Doncaster Tel: 01302 366666 Ext: 642505
 Montagu Tel: 01709 585171 Ext: 649021
 Bassetlaw Tel: 01909 500990 Ext: 2954
- 4 Paediatrician with an interest in Respiratory Medicine**
 Tel: 01302 366666 Ext: 642288
- 5 Consultant Microbiologists**
 Doncaster Tel: 01302 642831
 Or via the hospital switchboard
- 6 Lead Nurse – Infection Prevention and Control**
 Tel: 01302 366666 Ext: 644489
 Or via switchboard
- 7 Hospital Pharmacy**
 Pharmacist on duty Tel: 01302 366666
 Ext: 644339
- 8 Health and Wellbeing Department**
 Tel: 01302 366666
 Ext: 642582

APPENDIX 2 – DRAFT LETTERS

DRAFT LETTER FOR GENERAL PRACTITIONERS AND CONSULTANTS

Dear Dr X

Your patient Y was an inpatient at Z hospital at the same time as another patient with potentially infectious tuberculosis.

We do not think it likely that your patient is at significant risk of infection, and no specific action need be taken unless you are aware that they are unusually susceptible to infectious disease.

In the very unlikely event of your patient consulting you in the future with persistent symptoms which are consistent with the diagnosis of tuberculosis, then you will wish to keep this possible exposure to the disease in mind. The patient has been advised of the exposure.

Yours sincerely

DRAFT LETTER FOR PATIENTS PRESENT ON THE SAME WARD AS A CASE OF INFECTIOUS TUBERCULOSIS

Dear Sir/Madam,

We have recently identified an individual on ward XXX who has been diagnosed with tuberculosis (TB). According to our hospital records you were a patient on ward XXX during this period of time. I would like to reassure you that any health risk is low. TB does not spread easily and you usually need a period of prolonged close contact with an affected person to be at risk. TB is treatable and can be cured with a course of special antibiotics.

The individual concerned is being treated, is recovering and no longer presents an infection risk to others.

When a case of TB is confirmed it is routine procedure for us to inform individuals like yourself who may have potentially come into contact with the person with tuberculosis, and this information has also been passed on to your consultant and general practitioner. We do not believe that you are at any significant risk and, as a result, **no further action need be taken.**

If you do have any particular concerns or develop weight loss, cough up blood, have a persistent cough or fever or swollen glands in the neck, which lasts for over four weeks or believe yourself to be at particular risk of infectious disease, you should discuss this with your GP and show them this letter.

For further information about TB can be found on the Public Health England website:

<https://www.gov.uk/government/publications/tuberculosis-the-disease-its-treatment-and-prevention-2>

Yours sincerely,

APPENDIX 3 – FITTING A MASK

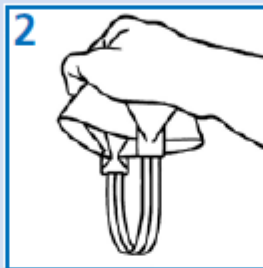
HOW TO FIT AND FIT CHECK AN FFP3 RESPIRATOR

FOLLOW THESE FIVE STEPS TO FIT YOUR RESPIRATOR CORRECTLY

Tip: It may be helpful to look in the mirror when fitting your respirator



1 Hold the respirator in one hand and separate the edges to fully open it with the other hand. Bend the nose wire (where present) at the top of the respirator to form a gentle curve.



2 Turn the respirator upside down to expose the two headbands, and then separate them using your index finger and thumb. Hold the headbands with your index finger and thumb and cup the respirator under your chin.



3 Position the upper headband on the crown of your head, above the ears, not over them. Position the lower strap at the back of your head below your ears.

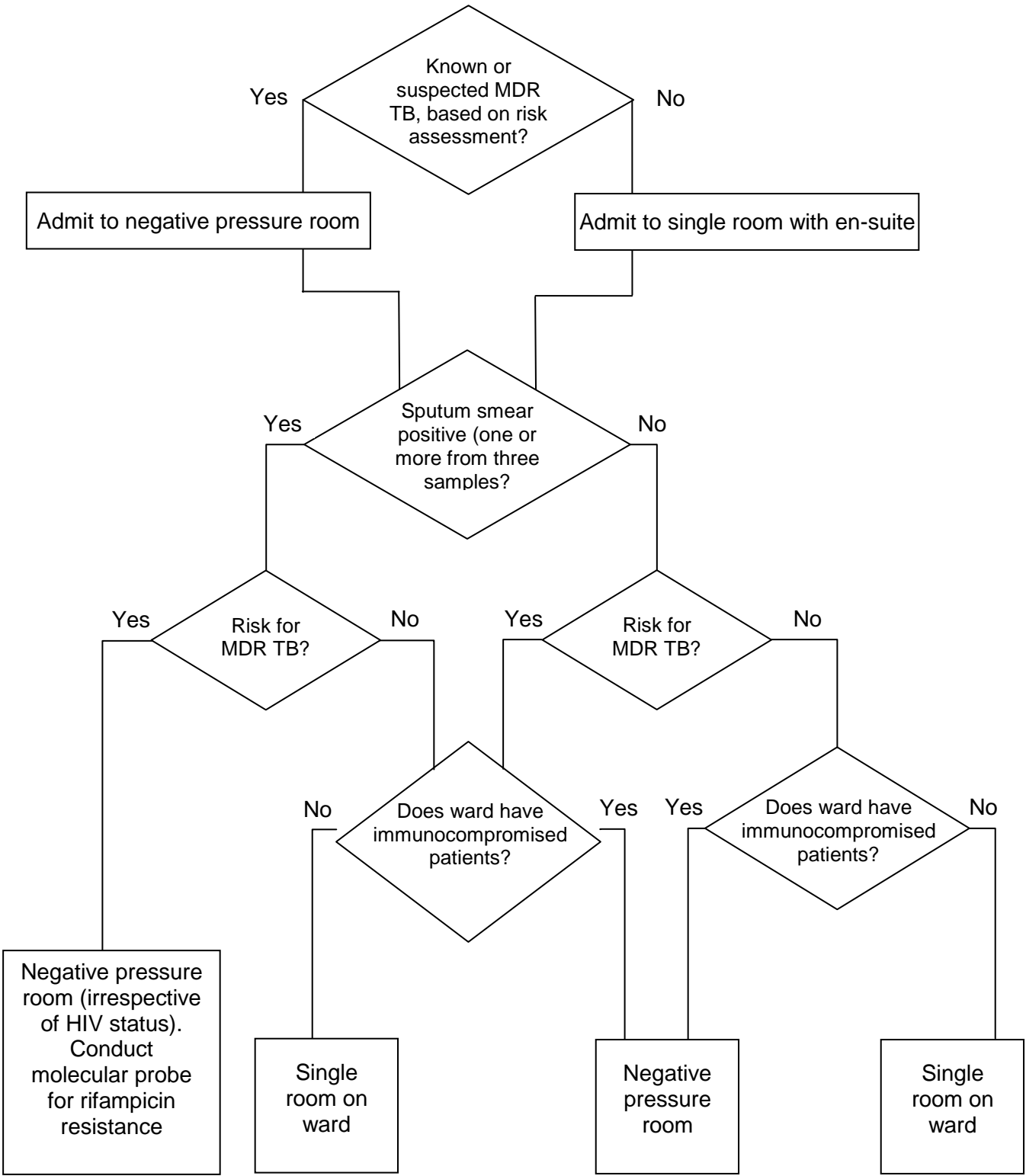


4 Ensure that the respirator is flat against your cheeks.



5 Mould the nosepiece across the bridge of your nose by firmly pressing down with your fingers until you have a good facial fit. If a good fit cannot be achieved, try another size or design of FFP3.

APPENDIX 4 – RISK ASSESSMENT



APPENDIX 5 – HEALTH AND WELLBEING MEMO

DONCASTER AND BASSETLAW TEACHING HOSPITALS NHS FOUNDATION TRUST

MEMORANDUM

From: **Health and Wellbeing Department**

To:

Date:

Subject: **Contact with Pulmonary Tuberculosis**

The Health and Wellbeing Department has been informed that staff in your department may have recently been in contact with a case of Pulmonary Tuberculosis.

No further action is needed at present. Staff should inform Health and Wellbeing if they experience any of the following;

- unexplained weight loss,
- a cough of more than 3 weeks duration,
- night sweats,
- any other long-standing chest symptoms

All staff should have had their TB immunity checked during pre-employment screening. If anyone is unsure of their TB status, or if they are immunocompromised for any reason, e.g. taking high doses of steroids, HIV positive, or undergoing radiotherapy or chemotherapy, please contact Occupational Health on Ext. 6377/3023 for advice.

Health and Wellbeing Lead

APPENDIX 6 - EQUALITY IMPACT ASSESSMENT

Policy	Care Group/Executive Directorate and Department	Assessor (s)	New or Existing Service or Policy?	Date of Assessment
Care of the Patient with Open Tuberculosis - PAT/IC 23 v.6	Corporate Nursing Infection Prevention and Control	Bala Subramanian	Existing Policy	May 2017
1. Who is responsible for this policy? Infection Prevention and Control Team				
2. Describe the purpose of the policy? To encourage an effective treatment and control programme to reduce the transmission of tuberculosis (TB) in hospital				
3. Are there any associated objectives? This policy is based on the NICE Guidelines (2011) with updates from NICE guidelines (2016) and recommendations following a local hospital outbreak				
4. What factors contribute or detract from achieving intended outcomes? None				
5. Does the policy have an impact in terms of age, race, disability, gender, gender reassignment, sexual orientation, marriage/civil partnership, maternity/pregnancy and religion/belief? No				
<ul style="list-style-type: none"> • If yes, please describe current or planned activities to address the impact 				
6. Is there any scope for new measures which would promote equality?				
7. Are any of the following groups adversely affected by the policy?				
a. Protected Characteristics	Affected?	Impact		
b. Age	No			
c. Disability	No			
d. Gender	No			
e. Gender Reassignment	No			
f. Marriage/Civil Partnership	No			
g. Maternity/Pregnancy	No			
h. Race	No			
i. Religion/Belief	No			
j. Sexual Orientation	No			
8. Provide the Equality Rating of the service/ function/policy /project / strategy				
Outcome 1 ✓	Outcome 2	Outcome 3	Outcome 4	
9. Date for next review June 2020				
Checked by: Bala Subramanian		Date: June 2017		