NHS

National TB Clinical Policy

Clinical Policy No. TBA with NHS England	This document is the 2018 update of previous editions and provides suggested text and a template for a local TB clinical policy; for use in local determination and agreement. It sets out a broad set of areas for consideration to form part of overall clinical policies by TB Control Boards, CCGs, Local Authorities and partners. Relevant aspects may form part of local clinical policies and service specifications issued by individual commissioners as appropriate.
Service	TB services – TB diagnosis and treatment
Commissioner lead	XX Clinical Commissioning Group(s)/STPs
Other commissioners	ZZZ other
Providers	YY provider(s)
Period	Day/Month/Year - Day/Month/Year
Date of review	Annually Day/Month/Year

1. Background

Tuberculosis (TB) is an infectious disease that is treatable and curable but continues to be a major public health issue. There has been a year-on-year decline in the incidence of TB in England since 2011, down to 9.2 per 100,000 population (5,102 cases) in 2017, a reduction of 40% since the peak of 15.6 per 100,000 (8,280 cases) in 2011 and is the lowest recorded. There are considerable differences in incidence and numbers of TB between Clinical Commissioning Groups (CCGs) across England.

(commissioners to add brief local context as appropriate)

This clinical policy supports implementation of the Collaborative Tuberculosis Strategy for England: 2015 to 2020 to achieve year-on-year reductions in TB incidence, and the eventual elimination of TB as a public health problem in England and use of NICE guidance, NG33, Tuberculosis, 2016.

Service providers and commissioners should be aware that relevant aspects of this clinical policy can be used to develop local service standards and key performance indicators in addition to the national TB service specification.

References

1. Collaborative Tuberculosis Strategy for England: 2015 to 2020

(www.gov.uk/government/publications/collaborative-tuberculosis-strategy-for-england)

2. Collaborative Tuberculosis Strategy: Commissioning Guidance (NHS ENGLAND Gateway reference: 03634) (www.england.nhs.uk/wp-content/uploads/2015/07/coll-tb-com-strat-guidance.pdf)

Key documents

3. Latent TB testing and treatment for entrants: A Practical Guide for Commissioners and Practitioners (NHS ENGLAND Gateway reference: 03508) (www.england.nhs.uk/resources/resources-for-ccgs/out-frwrk/dom-1/tb-strategy/)
4. Latent TB Toolkit, 2016 www.tbalert.org/health-professionals/ltbi-toolkit/
5. NICE guideline, NG33, Tuberculosis, 2016 www.nice.org.uk/guidance/ng33/
6. NICE quality standards, QS141, Tuberculosis, 2017 www.nice.org.uk/guidance/qs141
7. Tuberculosis in England, 2017 report www.gov.uk/government/publications/tuberculosis-in-england-annual-report
8. Royal College of GPs Elearning course: Tuberculosis in General Practice elearning.rcgp.org.uk/course/search.php?search=tuberculosis
9. TB Alert 'The truth about TB' website resources www.thetruthabouttb.org/
10. Royal College of Nursing (RCN) Tuberculosis case management and cohort review. Guidance for health professionals, 2012 www2.rcn.org.uk/__data/assets/pdf_file/0010/439129/004204.pdf
11. BCG – Details within www.gov.uk/government/publications/tuberculosis-the-green-book-chapter-32
12. British Thoracic Society (BTS) www.brit-thoracic.org.uk/clinical-information/tuberculosis/
13. Tackling Tuberculosis in under-served populations www.gov.uk/government/publications/tackling-tuberculosis-in-under-served-populations
14. Public Health England, Management of tuberculosis in prisons, 2013 www.gov.uk/government/publications/managing-tuberculosis-tb-in-prisons

2. Outcomes

Providers will contribute to national and locally defined outcomes and work with commissioners to provide high quality TB services that best meet the needs of the local population and patients.

Expected outcomes

- increased awareness of TB across statutory and non-statutory health and non-health care providers and communities
- a reduction in the incidence of TB
- achieve the target of 85% TB treatment completion rates aiming to achieve

over 90%

- a reduction in the incidence of drug resistance
- increase in numbers of suspected pulmonary (infectious) TB patients assessed by TB services within two working days of referral
- increase in numbers of contacts of a case of TB identified and assessed for active and latent TB achieving an average minimum of five close contacts per pulmonary TB case aiming to achieve at least 10 close contacts per pulmonary TB case
- ensure 100% of all eligible neonates are offered BCG vaccination
- a reduction in people with LTBI developing active TB disease

Providers of health care for people affected by TB should be aware of national and local quality standards, key performance indicators and relevant service specifications and clinical policies that relate to patient care and service delivery.

3. Scope

Aims and objectives of TB services – TB diagnosis and treatment

3.1 Population covered

TB treatment (care and medication) is available free to all those living in England irrespective of residency or migration status. Under the National Health Services (Charges to Overseas Visitors) Regulations 1989 (amended), treatment for certain specified communicable disease including TB must be provided free of charge to all irrespective of the patient's residency status in the UK. Failed asylum seekers and illegal immigrants with TB are therefore eligible for free NHS treatment of TB.

3.2 Any acceptance and exclusion criteria and thresholds

None

3.3 Service description/care pathway

3.3.1 Prevention and control

TB services support the prevention and control of TB through action described in this specification. This includes provision of specialist TB advice and awareness raising sessions to other health and non-health care services (i.e. Local Authorities, Third Sector Organisations) and local and national TB networks.

3.3.2 Use of BCG vaccine

The Green Book, published by the Department of Health, has up to date information on vaccines and vaccination procedures, for vaccine preventable infectious diseases in the UK. Chapter 32 of 'The Green Book' provides details on the BCG (Bacillus Calmette-Guérin vaccine) vaccine and its use.

The BCG immunisation programme is a risk-based programme, the key part being a

neonatal programme targeted at protecting those children most at risk of exposure to TB, particularly from the more serious childhood forms of the disease.

Provision of BCG vaccine varies across England depending on local TB incidence, local demographics, local commissioning of TB and BCG. Usually TB services can expect to provide BCG vaccinations to previously unvaccinated individuals under 16 years of age who are contacts of pulmonary TB cases. All other BCG vaccination requests are subject to local CCG commissioning and contract arrangements i.e. maternity contracts now include BCG vaccination of neonates identified at increased risk of either developing severe TB disease or exposure to TB infection. However delivery of BCG vaccination of neonates varies across CCGs and it maybe provided by local TB services or other services.

3.3.2 Identification of patients with active or latent TB

Active TB disease

Individuals with suspected active TB disease enter TB services via a number of different routes including self-referral. Commissioners and providers to ensure that direct referral to TB services is available through primary care, emergency departments/A&E or direct access TB clinics. Commissioners and referrers should not use ’Choose and Book’ as this can delay diagnosis and treatment. Other hospital services e.g. respiratory medicine, ENT and others also see new presentations of TB disease including pathology services i.e. microbiology, and radiology services. Referral pathways to TB services for people identified with TB in non TB services should be in place.

Services and commissioners to note that the visa application process for people entering the UK from 101 countries with a high incidence of TB (≥40/100,000 population) includes screening with a chest X-ray for active TB disease in a person’s country of origin. The visa application process does not include testing for LTBI which should be offered to new entrants in England if certain eligibility criteria are met.

The Find and Treat service in London provides a mobile X-ray unit for detecting pulmonary TB and LTBI in under-served populations, such as homeless people and refugees. This service includes a multi-disciplinary, specialist outreach team to access members of under-served populations and to support patients from these populations with TB disease complete their TB treatment. The Find and Treat service mobile X-ray unit is available outside of London on a request basis to support control of TB outbreaks subject to local funding support. Static digital X-ray equipment is now in place in some of England’s prisons for active case finding of pulmonary TB in prisoners.

Latent TB infection

People with LTBI are identified through:

- primary and/or community and/or secondary care based programmatic new entrant LTBI testing and treatment programmes
- contact tracing based in secondary or community care settings

- incident investigations
- passive or targeted case finding
- testing of people on immunosuppressive or biologically derived agents (biologics) therapies
- testing of people with HIV

The NHS England funded, CCG commissioned, programmatic new entrant LTBI testing and treatment programme is commissioned and delivered in several health care settings including primary care, community care and secondary. The programme is for new entrants to England who:

- are aged 16 - 35 years
- entered the UK from a high incidence country (≥150/100,000 or Sub Saharan Africa) within the last five years
- previously lived in a high incidence country for six months or longer

LTBI treatment requires people who are otherwise well to complete either three or six months of daily medication, and compliance with treatment completion is crucial. LTBI treatment is usually based in secondary or community care with some CCGs commissioning the treatment primary care settings.

3.3.3 Diagnosis of TB

Diagnostic services for TB are an essential part of TB control. Some diagnostics such as sputum smear microbiology and chest X-rays should be available to GPs through direct access where there is a suspicion of TB to support prompt and appropriate referral. Systems should be in place to ensure that microbiology and radiology services inform TB services of a TB diagnosis from a GP sample/referral as rapidly as possible, in addition to informing the GP, especially if it is pulmonary TB.

Testing for TB infection

There are two kinds of tests to determine if a person has been infected with TB. The two tests are the tuberculin skin test (TST), also called the Mantoux test, and Interferon Gamma Release Assays or IGRAs which are carried out using blood samples.

If a person does not have symptoms or signs of active TB disease, the Mantoux test or an IGRA test can be used to diagnose latent TB infection. Contraindications to using these tests can include previous active TB disease and/or immunosuppressive conditions/disease including HIV. Advice by HIV specialists to be sought on an individual HIV positive patient basis.

Diagnosis of active TB Disease

People suspected of having active TB disease should be referred for a medical evaluation/assessment as per NICE guidance which should include:

- medical history
- physical examination

- chest radiograph (X-ray)
- appropriate laboratory tests

TB service providers to have rapid and prompt access to diagnostics including microbiology, pathology and radiology services (i.e. CT scanning, MRI, X-ray). This includes access to expert clinical advice i.e. a Clinical Microbiologist or Infectious Disease Specialist. Microbiological diagnostic services, provided directly or by referral, should include:

- microscopy for AFB (acid fast bacilli) by fluorescent stain of clinical specimens
- mycobacterial culture on solid and or liquid media
- antimicrobial susceptibility testing of TB Complex isolates by genotypic and/or phenotypic methods
- direct molecular testing of clinical samples by PCR for TB Complex and resistance to rifampicin such as Cepheid's GeneXpert®
- genotypic identification of isolates from culture
- Whole Genome Sequencing (WGS) for speciation, for TB Complex, resistance prediction and to determine relatedness between isolates

Some services may have access to other diagnostics and research diagnostics.

3.3.4 Referral process

- local protocols to be agreed so that referrals into TB services can be made by primary, community and secondary health care providers and by locally agreed agencies in the community. Patients who suspect they may have active TB should also be able to self-refer to TB services
- all patients with suspected TB should be referred to specialist TB services and must be seen within two weeks of that referral being made. Where pulmonary (infectious) TB is suspected an urgent referral to specialist TB services should be made for the patient who should be seen within two working days of the referral
- TB services should not be part of 'Choose and Book' systems for appointment bookings and should be excluded from those systems
- TB services should have one designated referral telephone number and contact address with a secure fax and/or email address facility
- patients found not to have TB or with atypical mycobacterium infections should be referred onto the appropriate service(s)

3.3.5 TB legislation and notification

The relevant duties and powers are contained within the Public Health (Control of Disease) Act 1984, as amended by the Health and Social Care Act 2008, and the regulations made under it. This work is guided by Health Protection Legislation (England) Guidance 2010. This guidance explains the notification requirements on registered medical practitioners and laboratories testing human samples, as well as the health protection powers available to Local Authorities and Justices of the Peace.

Active TB disease is one of a list of infectious diseases subject to Public Health legislation. Cases of TB must be notified via the process set out in Guidance on Notifying Tuberculosis TB cases.

It is a legal requirement that all new active TB cases are notified by registering them on either the national Enhanced TB Surveillance system (ETS) or the London TB Register (LTBR) in London, both administered by PHE.

Public Health legislation can be used to ensure a patient with suspected TB is tested for TB and to check whether a patient is adhering to treatment and this is usually through hospital admission. A patient with TB can be kept in hospital if deemed a risk to the public's health. Advice must be sought before these powers are exercised, This can be obtained from the local PHE Centre Health Protection Team **(Insert local contact details)** working with the Local Authority. There is no legislation that can be enforced to ensure a patient complies with TB treatment and a patient cannot be made to take medication. TB services should work with the TB patient and other services to ensure the patient is appropriately supported to promote treatment adherence and completion.

3.3.6 Health Protection Teams (HPTs)

The HPTs work alongside the NHS and Local Authorities providing specialist advice and operational support to the local NHS, Local Authorities and other agencies for TB incidents, outbreaks and public health risk assessment.

In addition the HPT provides support and advice on individual TB cases where the patient is a risk to the public, public health or others.

3.3.7 TB treatment

TB treatment can be either self-administered or directly observed (DOT) or video observed therapy (VOT).

TB treatment regimens to take into account NICE and relevant national guidelines and include:

- promoting treatment adherence
- managing non adherence
- managing lost to follow up (LFU) patients

TB services should seek to achieve, as a minimum, 85% TB treatment completion rate in order to reflect best practice and aspire to 90% as per WHO guidance for patients with either active TB disease or LTBI.

Flexible clinic locations, opening hours and appointment systems that meet the likely needs of the local population should be available.
TB services to have access to specialist services for TB patients diagnosed with drug resistant TB, multi drug resistant TB (MDR-TB), extensively drug resistant TB (XDR-TB), HIV/TB, medically complex drug sensitive TB and TB patients with social risk factors. Appropriate access to advice and services to reflect that:

- all patients to be offered an HIV test to ensure that they receive the best care appropriate to their needs
- some TB drugs interact with other medication i.e. contraceptive medication or methadone and patients need to be aware of this
- some TB drugs may have side effects such as sight and/or hearing loss which require that each TB patient has a baseline assessment of visual acuity and hearing before treatment commences with monitoring throughout treatment. TB services will require special training and/or access to sight and hearing assessment facilities
- TB drugs can impact on patients with liver or renal disease and additional monitoring and care maybe required

Clinical teams caring for people with TB should:

- risk assess people with suspected infectious or confirmed pulmonary TB for drug resistant TB or MDR-TB (see below)
- inpatient care for people with TB deemed to be low risk should be, as a minimum, in a single room
- have access to negative pressure facilities for adults and children
- be able to provide long term support and access to the full range of drugs and facilities required for patients with complex care issues, MDR-TB or XDR-TB

Access to negative pressure facilities and other specialist care may require TB services to work collaboratively or on a 'hub and spoke' model to ensure TB services meet patients' needs.

When treating patients with MDR-TB clinical teams should contact the MDR-TB clinical advice service which is hosted by the British Thoracic Society (BTS), supported by PHE and NHS England. This is a clinical advice service for complex TB, MDR-TB or XDR-TB providing expert, impartial and rapid advice from experienced and expert clinicians. TB services should be aware that NHS England has designated 25 centres for MDR-TB cases requiring treatment with Bedaquiline or Delamanid, see appendix 1 for the list of designated centres.

TB services should have effective protocols and processes in place with other clinical and non-clinical services to ensure appropriate support is provided to TB patients with e.g. spinal TB, ophthalmic TB, Central Nervous System, services that support addictions, sexual health needs.

3.3.8 TB services

TB services are best described as a health care professional team or multi-disciplinary team (MDT) providing TB case management. Teams can be linked to regional or local TB clinical networks based within and/or across local trusts/areas. TB services are subject to the appropriate governance and assurance arrangements of their host provider (community or secondary). The national TB clinical policy and service specification are part of local contractual and commissioning arrangements with the lead commissioning CCG for the host provider. The lead CCG can hold the

provider trust to account for the provision of TB services using the national TB clinical policy and national TB service specification or local variations as contractually agreed.

The TB services team should have a range of skills and experience to meet the needs of TB services and patients. The team must meet regularly to plan, implement and evaluate patients' care pathways and outcomes. Membership includes the lead, responsible TB physician/clinician, specialist TB nurse(s), admin support, outreach/support worker, DOT provider/support and (as required) other health care and non-health care professionals such as social workers, social care support workers and diagnostics (microbiology, radiology). Depending upon individual patients' needs it could also include pharmacy, health protection (PHE, local authority Public Health), primary care, peer support, housing, advocacy, psychiatric support and the third sector.

Effective and timely communication between members of the TB services team is essential.

Depending upon individual patient needs, the case manager for some patients with either active TB or latent TB may not be a specialist TB nurse but a health or social care professional better suited to the individual patient's needs or lifestyle. The patient's circumstances will define whether standard case management (SCM) or enhanced case management (ECM) described by the RCN should be provided to support the individual patient – summarised below.

Standard case management

Standard TB case management is co-ordinated by the TB patient's named case manager and is appropriate for TB patients who are able to self-medicate and attend monthly follow-up in a hospital or community setting.

Enhanced case management (ECM)

ECM is required where the risk/needs assessment of the TB patient establishes that the patient has clinical and/or socially complex needs. ECM commences from suspicion of TB disease and includes offering DOT or VOT in conjunction with a package of supportive care tailored to patient's needs. ECM should be available to patients in both high and low TB incidence areas. All clinical and/or socially complex TB patients must have access to ECM and should be referred to, or collaboratively managed, alongside TB specialist services where necessary to reduce the risk of patients disengaging with services including care prior to a diagnosis of TB.

ECM is co-ordinated by the TB patient's named case manager, working as part of or alongside the TB services team. The case manager ensures that TB services, with other health and non-health care services, are able to provide expert clinical and psychosocial patient care and to engage effectively with the patient. ECM should be provided for all socially complex cases with suspected TB

Medically qualified staff usually have lead clinical responsibility for TB patients. The doctors with clinical responsibility are usually either Respiratory Medicine specialists

or Infectious Diseases specialists.

3.3.9 Engaging the TB patient

The aim of the relationship between TB services, the case manager and any suspected or confirmed TB patient is to:

- establish a trusting relationship
- support the patient to be well informed about their condition and the actions they need to take in response to it
- support the patient in any actions to inform family members, other close contacts and wider contacts (if appropriate)
- identify and assess physical, psychological and social care needs and the potential barriers to completion of diagnostic investigations and treatment
- initiate contact investigation(s) as appropriate
- initiate referral to, and co-ordinate inputs of, other relevant services as appropriate
- use of social media and mobile phone technology to remind patients of i.e. appointments, medication times

The individual patient engagement aspects of the role are separate to ensuring the TB service public health role links to raising awareness through public and patient engagement activities including statutory and non-statutory organisations.

TB patients have a key role and voice in shaping and developing TB services for commissioners and TB service providers. Opportunities should be available for regular TB patient feedback on TB service quality and for community participation on behalf of, or with those affected by TB.

3.3.10 Accommodation

All TB patients should, as part of their care, have their housing circumstances assessed by their case manager including a home visit. Chapter 6, in 'Tackling tuberculosis in under-served populations: a resource for TB Control Boards and their partners' has practical examples on how to best support TB patients with accommodation issues.

3.3.11 Directly Observed Therapy (DOT)

DOT is part of a patient centred case management and care package approach where TB patients assessed as requiring DOT to ensure treatment compliance are offered DOT.

The RCN provides advice to support TB services in the provision of DOT. Patients on DOT are observed taking their medication by either a trained health professional or named responsible lay person, supported by a trained health care professional. The DOT worker completes a DOT log of medications observed and documents each visit for each TB patient. The local TB services protocol for DOT to include:

- when it should be implemented
- how it can be implemented
- who should be offered DOT
- who should observe DOT
- where DOT should be provided
- frequency of DOT
- how long DOT should be continued
- how should patients who refuse DOT be managed

TB services may wish to consider the use of VOT using smartphone based apps as a more flexible DOT option.

3.3.12 Paediatric TB

Children with TB should be considered separately to adults when considering TB service provision and delivery. This includes diagnosis of TB where TST and/or IGRA may be used.

TB services should ensure that children with TB, or suspected of having TB are managed by a paediatrician with specialist experience and/or training in TB. Alternatively paediatric cases can be managed by TB services with advice and support from a paediatrician with specialist experience and/or training in TB. Care of paediatric TB cases should be discussed at regional and local MDTs and included in cohort review.

Where appropriate, TB services should consider running family or ‘one stop’ clinic services to support families and to minimise the number of outpatient visits children and their families may need to attend. All TB services should include paediatrically trained staff to the benefit of both TB services and families.

3.3.13 Psychology services

TB patients, because of the long period of treatment and/or those with complex social needs, as part of their clinical risk assessment, maybe identified as requiring access to mental health support. This requires referral and care pathways including an assessment of the patient’s mental capacity to engage with TB services and adhere to, and complete treatment.

3.3.14 Pharmacy services

TB service providers to ensure that the pharmacy service supporting TB patients and TB services stock the range of TB medication appropriate to the local patient demographics, together with access to additional specialist drugs required for those with drug resistant or clinically complex TB.

TB treatment and medication is free of charge to TB patients in the UK, irrespective of the TB patient’s UK residency status or their eligibility for recourse to public funds.

This includes any costs associated with hospital admission, investigations and treatment. Please note that medication is free of charge if prescribed by hospital based TB services and local arrangements are required if prescribed outside of hospital based secondary care.

Increasingly TB nurses are nurse prescribers. This improves the patient experience and can reduce patients' waiting times in clinics. TB nurse prescribing should be available locally as part of local TB services through TB service providers.

TB services should engage and work with nominated community pharmacy services to provide appropriate compliance support to patients receiving TB medication. Community pharmacy based DOT is advantageous to patients providing a flexible service that may better meet individual patients' needs. This is especially beneficial for patients on other treatments (e.g. methadone) encouraging concomitant prescribing of opiate substitute therapy and TB medication by TB and substance misuse services. Commissioning actions may be required in order to put such arrangements in place.

3.3.15 Social care support

In liaison with the relevant Local Authority and TB services provider social care support that best meets local need and case mix should be available. This can include a TB services' dedicated social worker who assesses and addresses patients' social care needs to ensure that patients are able to adhere to; and complete TB treatment as prescribed. Social care support can also include social care/outreach support workers to support TB patients through treatment.

3.3.16 Transfer and discharge

TB services to ensure all appropriate services are informed of relevant information on the transfer or discharge of patients. This includes the patient's GP and the referrer where this is not the GP. Where appropriate this can include Occupational Health, Infection Control, community paediatrics and HPTs. Patients should be kept informed and copied into any correspondence.

The local MDT membership should include the local HPT when considering the discharge of inpatients with MDR/XDR-TB. The HPT role includes a risk assessment of any potential risk to public health.

3.3.17 Contact investigations and contact tracing

This is the case finding of contacts of cases with active TB. This is separate to targeted testing and treatment which includes active TB case finding by the mobile X-ray unit or programmatic latent TB testing and treatment programmes.

Contact investigations are an important public health component of the TB nurses role and provider based TB services to ensure new cases are detected and future cases prevented. A risk assessment approach is used which prioritises the extent of TB screening required based on the infectiousness of the index case, exposure and susceptibility of contacts. This may include working with the HPT especially in the

risk assessment of sputum smear positive cases of TB. Contact tracing looks at:

- household contacts
- work place contacts
- leisure contacts
- schools and other congregate settings

The minimum standard is that for each pulmonary TB patient notification, contact tracing should identify a minimum average of at least five close contacts per case, aspiring to 10 close contacts. These numbers are a minimum average and the personal and clinical circumstances of each TB patient should be considered. Contact tracing uses the 'stone in the pond' principle which provides a method of organising and prioritising contacts in order of intensity of exposure and risk of being infected including social networks, assisted by WGS. Contacts who 'do not attend' (DNA) require that TB services actively follow-up the DNA especially when contacts were identified from cases of pulmonary TB and contacts who are children. Sending another outpatient appointment is not appropriate. Contact tracing should usually be as per NICE guidance. Local policies on contact tracing and management may differ to NICE guidance as long as it is not to the detriment of patient care. The use of IGRAs is usually for programmatic testing but is recommended for large scale incident screening.

Where contact tracing identifies children under the age of 16 years who are negative for either active TB or LTBI and who have not received BCG these children should be offered BCG.

The risk assessment for incidents where there is potential exposure from an infectious TB case outside of the household setting, such as an educational institutions, care homes, work places etc will be led by the local HPT. TB services should inform the HPT of incidents within five working days of diagnosis of a case, participate in incident control meetings and actively contribute to, and support screening in such settings. Local pathways should be in place to ensure local TB services can support large contact tracing exercises i.e. CCGs and/or Local Authorities are usually able to provide adequate resources to support large contact tracing exercises including IGRA testing, additional staff.

3.3.18 Specialised case finding services

Consideration should also be given as to whether specialised case finding services would be of benefit in certain circumstances such as:

- active case finding that would benefit from the availability of mobile X-ray services i.e. under-served populations
- TB patients (diagnosed and undiagnosed) who have become non-adherent and lost to follow up
- TB patients requiring additional support beyond the usual capacity, remit and responsibility of the local social support staff to ensure treatment adherence and treatment completion
- contact investigations in institutional settings (i.e. hostels, prisons),

workplaces, day centres where TB cases have been identified

- other circumstances requiring specific outreach services

3.3.19 Cohort Review

All TB service providers should participate in cohort review. Cohort review is an essential evaluation of local TB patient care and outcomes. Cohort review provides a multidisciplinary forum to review the management of each case and ensure local accountability at all levels of service provision, while linking to local, regional and national targets. Participants in cohort review include TB nurses and clinical staff and cohort review should be part of their job descriptions or job plans. The 'cohort' consists of all cases notified over a specific time period, usually three months or according to local epidemiology. The review should be scheduled approximately six months after the close of each quarter (so cases are presented six to nine months after starting treatment). The local PHE or HPT epidemiologist will subsequently calculate and provide information on the completion data for treatment and contact investigation outcomes which are outcome measures for patient care.

Cohort review enables TB services and HPTs to highlight risks, capacity issues and success.

In areas of low TB incidence, where there is less experience of treating TB cases, cohort review may take place earlier in the treatment timetable to ensure TB patients are receiving optimal treatment. Alternatively TB services in a low incidence area can 'partner up' with a neighbouring high incidence area.

The outputs of cohort review should be regularly reported to the local TB Control Board, TB service provider trust and local CCG commissioners.

3.3.20 TB services in Prison and Immigration Removal Centres (IRCs)

The TB service is responsible for following up all suspected and known TB cases in prescribed places of detention (PPDs) such as prisons and IRCs. This includes making regular visits to patients, and liaising with prison healthcare to ensure suspected/known cases are appropriately treated and managed. PPDs are expected to ensure TB nurses have appropriate security clearance to access the PPDs in their area.

Prison health services and IRC health services have a responsibility to ensure patients are treated the same as non PPD/IRC patients. TB diagnosis and treatment in prisons and IRCs should follow care pathways agreed with local TB service providers. This includes the use of prison based static digital X-ray equipment where available and access to non-prison based diagnostic X-ray equipment for prison health services and IRC health services.

3.3.21 Community engagement

TB services to offer and contribute to awareness raising sessions with their client group, local communities affected by TB, other service providers and primary care. This enables and encourages:

- communities who are at increased risk of active TB being aware of the risks and symptoms
- anyone with possible symptoms of active TB to go to a doctor
- eligible new entrant groups to be tested for latent TB
- increased awareness of TB services and rights to access free TB healthcare
- awareness and understanding of TB among professionals, especially in primary care, who work with affected communities
- equity of access and care by patients to TB services

Various third sector and community organisations, national and local, support local services and patients through direct patient support or working with local organisations, including the NHS, to raise awareness and knowledge of TB. By engaging with local communities for opinions and views TB services can better move towards personalised care according and responding to the local environment and patient need.

TB Control Boards, TB services and health care providers should work together with PHE and Local Authority Public Health departments and the Local Authority generally to ensure that there is engagement with all relevant third sector organisations including local partners, community leads, community organisations and other relevant partners as an intrinsic part of developing and operating the patient pathway of care.

Various materials are available for raising awareness sessions including the RCGP Elearning course: Tuberculosis in General Practice which is available to all healthcare professionals, TB resource packs available through TB Alert's awareness and education materials and PHE Under-served Populations resources.

World TB Day (24 March) to be used to initiate using available resources to raise awareness of TB across a variety of audiences.

3.3.22 Discharge criteria and planning

Discharge from services will take place when a patient has either:

- successfully completed their treatment programme, is no longer infectious and assessed as clinically fit
- completed planned investigations and/or episode of care

On discharge patients should be given advice on the potential risk of TB infection, relapse and aftercare.

4. Applicable Service Standards

Service standards can include Key Performance Indicators (KPIs). Signatories to local TB service specifications need to agree local monitoring tools and KPIs which are linked to local TB commissioning intentions and clinical policy. See the National TB Service Specification for example quality standards and KPIs.

5. Enhancements to consider
This includes: • TB strategy progress measures to monitor implementation of the strategy • Service improvements to reflect best practice

Appendix 1

NHS England, Specialised Commissioning

Designated centres for treating MDR-TB patients with Bedaquiline and Delamanid

Hospital
Barts Health NHS Trust
Bradford Teaching Hospitals NHS Foundation Trust
Cambridge University Hospitals NHS Foundation Trust
Central Manchester University and North Manchester Hospitals NHS Trusts
Heart of England Foundation Trust
East Lancashire Hospitals NHS Foundation Trust
Guy’s and St Thomas NHS Foundation Trust
Hull and East Yorkshire Hospitals NHS Trust
Imperial College Healthcare NHS Trust
Leeds Teaching Hospitals NHS Trust
Lewisham and Greenwich NHS Trust
London Northwest Healthcare NHS Trust
North Bristol NHS Trust
Nottingham University Hospitals NHS Trust
Oxford University Hospitals NHS Trust
Royal Free London NHS Foundation Trust
Royal Liverpool and Broadgreen University Hospitals NHS Trust
Sandwell and West Birmingham NHS Trust
Sheffield Teaching Hospitals NHS Foundation Trust
St George’s University Hospitals NHS Foundation Trust
The Newcastle upon Tyne Hospitals NHS Foundation Trust
University Hospital of North Midlands NHS Trust
University Hospitals of Leicester NHS Trust
University Hospital Southampton NHS Foundation Trust
Whittington Health NHS Trust (includes University College London Hospitals NHS Foundation Trust)