

6.11 TUBERCULOSIS (TB)

Tuberculosis (TB) is a disease caused by an infection with the bacteria *Mycobacterium tuberculosis*. When a person with tuberculosis in their lungs coughs small microscopic droplets, which contain the bacteria, are expelled into the air. These microscopic droplets may then be inhaled in by another person.

These microscopic droplets dry out quickly, but the bacteria itself can remain in the air for hours. However, the tuberculosis bacteria are killed when exposed to ultraviolet light, including sunlight.

Only pulmonary (lung) tuberculosis is infectious and even this form of tuberculosis requires very close prolonged contact (such as living in a family situation) to 'catch' the disease. Tuberculosis becomes non infectious after two weeks treatment provided a full course (6 months) of treatment continues to be taken.

There are about 75 new cases of tuberculosis in Northern Ireland each year; and about 60% of these are pulmonary (lung).

BCG vaccination is now given mainly only to those who are at higher risk of developing tuberculosis. (For example those coming from countries where there is a high incidence of tuberculosis; or those who have been in close contact with TB, but have no signs of infection).

There is increasing risk that tuberculosis may be becoming resistant to some of the usual drugs which are used to treat it. This is more common in countries with a high incidence of tuberculosis and drug treatment needs to take account of this possible risk. Tuberculosis should therefore be managed and treated by an experienced team of doctors and nurses.

Overarching Standard 41:

Screening and vaccination

All people considered to be at high risk of tuberculosis (TB) should be able to access services for screening and BCG vaccination as appropriate.

Rationale:

While the annual incidence rate of TB in Northern Ireland is still much lower than in England, Wales and the Republic of Ireland there has been a rise in recent years, both in those born in this country and in those who were born in other countries. HSC Trusts need to have systems and services in place to prevent and control TB.

Evidence:

National Institute for Health and Clinical Excellence (NICE) (2006) Clinical diagnosis and management of tuberculosis, and measures for its prevention and control <http://www.nice.org.uk/CG33>

Department of Health (2007) Tuberculosis prevention and treatment: a toolkit for planning, commissioning and delivering high-quality services in England http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_075621

Updated guidance on Tuberculosis control in Northern Ireland, HSS (MD) 10/2006 http://www.dhsspsni.gov.uk/public_health_bcg

Responsibility for delivery / implementation

HSC Board
Public Health Agency
HSC Trusts
BSO
Primary Care

Quality Dimension

1. A newborn risk assessment should be undertaken on all babies and BCG offered to all eligible infants.
2. All HSC Trusts should have in place local comprehensive TB screening and assessment services and BCG clinics for older infants and children.
3. All HSC Trusts should have in place services to provide TB health screening, health advice and BCG vaccination to all new immigrants arriving from high incidence countries with TB rates more than 40/100,000.
4. All HSC Trusts should have in place services to provide for tuberculin testing and BCG immunisation for Occupational Health (both within statutory and non-statutory organisations).
5. All HSC Trusts should have in place local access to services for tuberculin testing and BCG vaccination for travel health.
6. Identified high risk groups should be offered vaccination within 8 weeks.

Performance Indicator	Data Source	Anticipated Performance Level	Date to be achieved by
Establish a system to ensure that new migrants (new arrivals from high risk countries who are registering with GPs) are screened and provided with BCG vaccination according to NICE guidelines	GP registration system (to be developed) HSC Trust report	All HSC Trusts	March 2013

Overarching Standard 42:**Infection control in hospital**

All patients with active tuberculosis who require admission to hospital should be managed in hospital according to strict infection control standards.

Rationale:

Patients with infectious TB should be rapidly identified to prevent spread. A risk assessment for the potential for drug resistant TB on suspected diagnosis of TB will ensure spread is minimised.

Evidence:

National Institute for Health and Clinical Excellence (NICE) (2006) Clinical diagnosis and management of tuberculosis, and measures for its prevention and control <http://www.nice.org.uk/CG33>

Department of Health (2007) Tuberculosis prevention and treatment: a toolkit for planning, commissioning and delivering high-quality services in England www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_075621

Responsibility for delivery / implementation

HSC Board
Public Health Agency
HSC Trusts

Quality Dimension

1. All suspect and confirmed sputum smear positive cases of TB and those who are suspected of having smear positive TB requiring hospital admission should be admitted to a side room.
2. A risk assessment for multi drug resistant (MDR) TB should be carried out on all these suspected/confirmed cases and if suspected a patient should be admitted to a negative pressure room.
3. Specific TB Laboratory testing needs to be available over a six day working week to allow rapid reporting of positive results.

Performance Indicator	Data Source	Anticipated Performance Level	Date to be achieved by
Percentage of patients requiring hospital admission, with confirmed sputum smear positive TB who were placed in a single room at time of admission to hospital	Revised TBS1 Audit	95%	March 2012

Overarching Standard 43:

Individualised treatment plans

All patients with active tuberculosis should have appropriate individualised management.

Rationale:

Individualised treatment plans increase cure rates for TB.

Evidence:

National Institute for Health and Clinical Excellence (NICE) (2006) Clinical diagnosis and management of tuberculosis, and measures for its prevention and control <http://www.nice.org.uk/CG33>

Department of Health (2007) Tuberculosis prevention and treatment: a toolkit for planning, commissioning and delivering high-quality services in England http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_075621

Responsibility for delivery/ implementation

HSC Board
Public Health Agency
HSC Trusts
Respiratory clinicians

Quality Dimension

1. An individualised risk assessment should be carried out to assess for multi drug resistant (MDR) TB and the need for enhanced case management (ECM).
2. An individualised tailored information and management plan should be available.
3. All drug treatment should be carried out according to NICE Guidance (initially four drugs).
4. All treatment plans should be reviewed in line with drug sensitivities. TB cultures should have sensitivities available within 30 days of receipt.
5. There should be individualised review arrangements and a two month review to initiate the continuation phase of treatment.
6. There should be a review at the end of treatment for reassessment of possible treatment failure.
7. All TBS2 forms should be returned with all information fully completed. (This is a legal requirement).

Performance Indicator	Data Source	Anticipated Performance Level	Date to be achieved by
Percentage of patients where prescribed treatment has been carried out in accordance with NICE Guidance	TBS2	100%	March 2012

Overarching Standard 44:

Management by specialised services

All patients with active tuberculosis, and their contacts, should be managed by professionals with appropriate skills and experience.

Rationale:

Management of TB by experienced professionals improves compliance, completion and cure rates. Contact tracing by experienced professionals is essential to prevent and control the emergence of new cases of TB.

Evidence:

National Institute for Health and Clinical Excellence (NICE) (2006) Clinical diagnosis and management of tuberculosis, and measures for its prevention and control <http://www.nice.org.uk/CG33>

Department of Health (2007) Tuberculosis prevention and treatment: a toolkit for planning, commissioning and delivering high-quality services in England http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_075621

Responsibility for delivery / implementation

HSC Board
Public Health Agency
HSC Trusts

Quality Dimension

1. People who are suspected of having active TB should be assessed by specialist TB services within two weeks of referral from primary care.
2. Each Trust should have lead clinician for TB. This specialist will usually be the respiratory physician/infectious disease physician with appropriate expertise.
3. Services should be provided which are appropriate for children and young people and adults.
4. People with confirmed TB should be managed by/or in conjunction with a clinician (respiratory physician or appropriately trained infectious disease physician) who has regular ongoing expertise in managing TB. This will usually be the lead clinician for TB.
5. All patients should be allocated a named key worker with specialist expertise (TB specialist nurse) who can facilitate education, directly observed therapy (DOT), enhanced case management (ECM) and contact tracing.

Performance Indicator	Data Source	Anticipated Performance Level	Date to be achieved by
Percentage of patients who are managed by a specialist TB service (clinician who is a respiratory physician or appropriately trained infectious disease physician / paediatrician who has regular ongoing expertise in managing TB and specialist TB nurse)	Revised TBS2	100%	March 2011