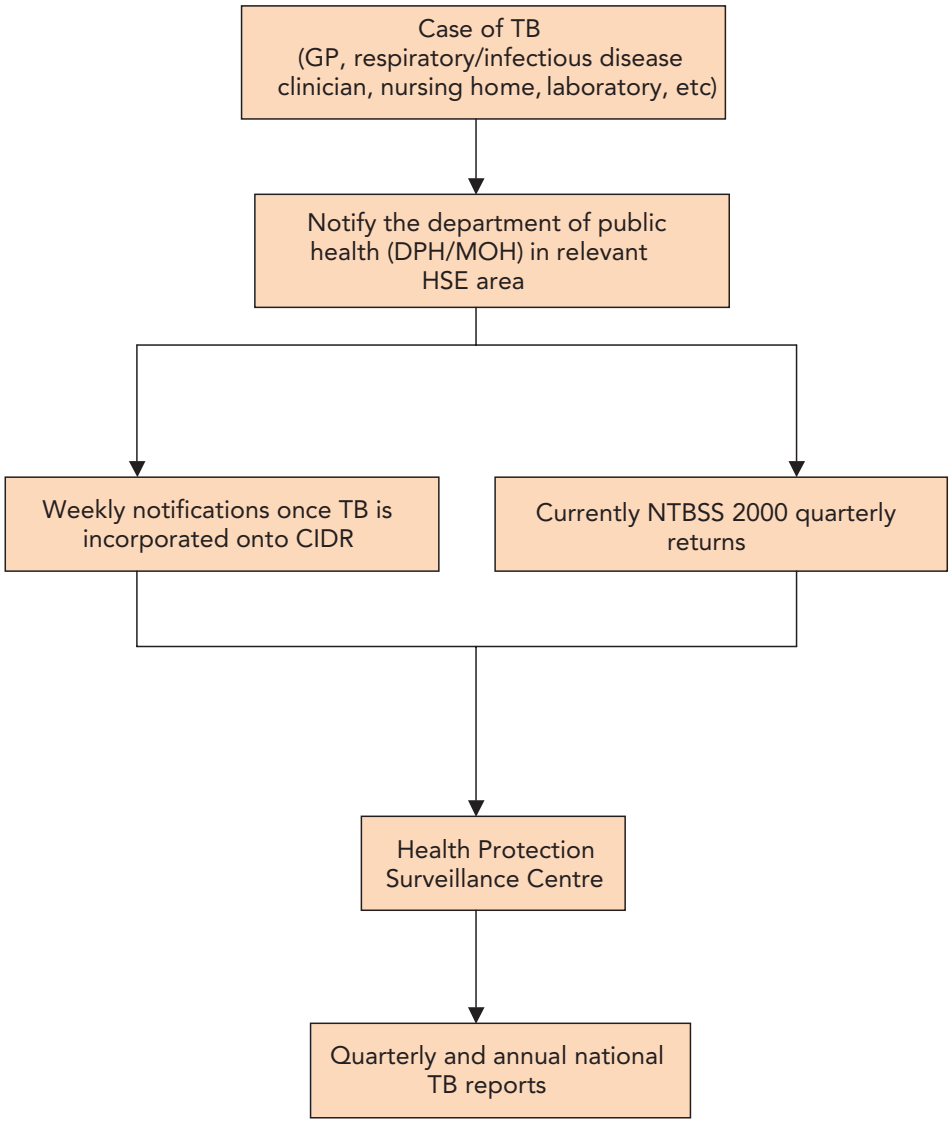
List of Appendices

Appendix 1: List of groups who were consulted

The following is a list of those to whom a draft of the document was sent for consultation as well as those who made submissions. The document was also posted on the HPSC website. We would like to thank those who made submissions for their invaluable contribution to this document.

Academy of Medical Laboratory Science
Claire Keane, Senior Pharmacist, St. Vincent's University Hospital, Elm Park, Dublin 4
Consultants in Public Health Medicine
Directors of Public Health
Directors of Public Health Nursing in HSE areas
Dr Eibhlin Connolly, Deputy Chief Medical Officer, Department of Health and Children
Dr Karoline de La Hoz, European Centre for Disease Prevention and Control
Dr Enda Dooley, Medical Director, Department of Justice, Equality and Law Reform
Dr Pat Doorley, National Director of Population Health
Dr Kevin Kelleher, Assistant National Director of Health Protection
Dr Jim Kiely, Chief Medical Officer, Department of Health and Children
Dr Tom O Connell, Chief Medical Officer, Occupational Health Department, Civil Service
Emergency Medicine Association
Faculty of Occupational Medicine, Royal College of Physicians of Ireland
Faculty of Paediatrics, Royal College of Physicians of Ireland
Faculty of Pathology, Royal College of Physicians of Ireland
Faculty of Public Health Medicine, Royal College of Physicians of Ireland
Faculty of Radiology, Royal College of Surgeons of Ireland
Geraldine O Connell Public Health Nurse, South Lee Public Health Nursing Department
Imelda O Connor, Public Health Nurse, HSE-Midwest
Irish College of General Practitioners
Irish Infection Society
Infection Prevention Society
Irish Medicines Board
Irish Society of Clinical Microbiologists
Irish Society of Gastroenterology
Irish Society of Physicians in Geriatric Medicine
Irish Society of Rheumatology
Irish Thoracic Society
Maeve Moran, Senior Pharmacist, St. Vincent's University Hospital, Elm Park, Dublin 4
Mairead Lane, Occupational Health Department, Mid-Western Regional Hospital, Limerick,
Marie Philbin, Chair of Irish Antimicrobial Pharmacists Group
National Immunisation Advisory Committee, Royal College of Physicians of Ireland
National Immunisation Office
Principal Medical Officers, HSE
Public Health Medicine Communicable Disease Group
Royal College of Physicians of Ireland
School of Pharmacy, Royal College of Surgeons, Ireland
Stella Sheehan, Senior Medical Laboratory Technician, Cork University Hospital
Surveillance Scientists Association
The Federation of Irish Nursing Homes

Appendix 2: Notification pathway for a case of TB



TB is a notifiable disease. A case of TB should be notified to the department of public health in the relevant HSE area. Currently, the department of public health in turn notifies HPSC through the enhanced TB surveillance system each quarter. Once TB is incorporated onto CIDR, TB cases will be notified to HPSC in "real-time"/ weekly basis. HPSC produces quarterly and annual national TB reports.

Appendix 3: Tuberculosis Notification Form

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

National Tuberculosis Notification Form

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TB Case Registration: Health Area ☐ County ☐ CCA ☐ Year 2 0 ☐☐ Sequence Number ☐☐☐

First Name / Initial ☐ Surname / Initial ☐

Address ☐ Phone ☐☐☐☐☐☐☐☐☐☐☐☐

A. SOCIODEMOGRAPHIC DETAILS

1. Sex: Male ☐ Female ☐
2. Date of Birth ☐☐/☐☐/☐☐☐☐
3. Age (years) ☐☐☐

4. Most recent occupation ☐

5. Current employment status
   - ☐ Paid employment ☐ Unemployed
   - ☐ Retired ☐ Student
   - ☐ Housewife / husband ☐ Other

   If OTHER, please specify: ☐

6. Current living status
   - ☐ Home (private / rented) ☐ Institution
   - ☐ B&B / Hotel ☐ Hostel
   - ☐ Homeless ☐ Prison
   - ☐ Other If OTHER, please specify: ☐

7. Country of Birth
   - ☐ Ireland ☐ Other

   If OTHER, please specify country: ☐

8. Race or ethnic group
   - ☐ Caucasian ☐ Traveller
   - ☐ Black ☐ Chinese
   - ☐ Indian subcontinent ☐ Other

   If OTHER, please specify: ☐

9. Refugee / asylum seeker
   - ☐ Yes ☐ No

   If YES, date/year of entry into Ireland: ☐

B. DIAGNOSTIC & CLINICAL DETAILS

10. Date of onset of symptoms ☐☐/☐☐/☐☐☐☐
11. Date diagnosed ☐☐/☐☐/☐☐☐☐
12. Date of notification ☐☐/☐☐/☐☐☐☐
13. Diagnosis (tick one only)
    - ☐ Pulmonary ☐ Extrapulmonary
    - ☐ Pulmonary + extrapulmonary (P+E)

    If Extrapulmonary or P+E, please specify site(s) ☐

14. Direct sputum microscopy:
    - (a) 1st specimen ☐ ZN pos ☐ ZN neg ☐ ZN not done
      Specimen date ☐☐/☐☐/☐☐☐☐
    - (b) 2nd specimen ☐ ZN pos ☐ ZN neg ☐ ZN not done
      Specimen date ☐☐/☐☐/☐☐☐☐
15. Histology:
    - ☐ Positive ☐ Negative
    - ☐ Not done ☐ Unknown
16. Chest x-ray:
    - ☐ Active TB ☐ Inactive / Old TB
    - ☐ Normal ☐ Other ☐
17. Culture Results
    - ☐ Culture pos ☐ Culture neg
    - ☐ Culture not done ☐ Unknown

    If done, please specify culture site: ☐

18. Isolate
    - ☐ M. TB ☐ M. Bovis
    - ☐ Other ☐ Unknown

    If OTHER, please specify: ☐

19. Drug sensitivities
    (S = sens, R= res, N = not done)
    (Please fill for each drug used)
    - ☐ Isoniazid ☐ Rifampicin
    - ☐ Pyrazinamide ☐ Ethambutol
    - ☐ Other (specify) ☐

20. This case was found by
    - ☐ Presenting as case ☐ Contact tracing
    - ☐ Immigrant screening ☐ Other screening
    - ☐ Other (specify) ☐

21. Previous history of TB
    - ☐ Yes ☐ No ☐ Unknown

    If YES, please specify:
    - (a) year of diagnosis ☐☐☐☐
    - (b) treated >1month?
      ☐ Yes ☐ No ☐ Unknown
    - (c) cured?
      ☐ Yes ☐ No ☐ Unknown

22. BCG Given
    ☐ Yes ☐ No ☐ Unknown
23. BCG Scar
    ☐ Yes ☐ No ☐ Unknown
24. Risk Factors
    ☐ Yes ☐ No ☐ Unknown

    If YES, please specify:
    (e.g. immunosupression, C2H5xs, IVDU) ☐
25. Immune Code (see explanatory notes) ☐

C. OUTCOME DETAILS (**Please note that 26 (a), (b), (c) and (d) apply to SMEAR POSITIVE cases ONLY**)

26. (a) At 2 mths: **Direct Sputum microscopy** ☐ ZN pos ☐ ZN neg ☐ ZN not done **Culture** ☐ Pos ☐ Neg ☐ Not done

    If ZN pos at 2 mths then go to (b), otherwise go to (d)

    (b) At 3 mths: **Direct Sputum microscopy** ☐ ZN pos ☐ ZN neg ☐ ZN not done **Culture** ☐ Pos ☐ Neg ☐ Not done

    If ZN pos at 3 mths then go to (c), otherwise go to (d)

    (c) At 5 mths: **Direct Sputum microscopy** ☐ ZN pos ☐ ZN neg ☐ ZN not done **Culture** ☐ Pos ☐ Neg ☐ Not done

    Please now go to (d)

    (d) Rx end: **Direct Sputum microscopy** ☐ ZN pos ☐ ZN neg ☐ ZN not done **Culture** ☐ Pos ☐ Neg ☐ Not done

27. Treatment Outcome
    - ☐ Completed ☐ Interrupted (>2months)
    - ☐ Lost to follow up ☐ Died

    If dead, date of death ☐☐/☐☐/☐☐☐☐

    If dead, was TB the direct cause? ☐ Yes ☐ No

28. Case Denotified? (i.e. was diagnosis changed?)
    ☐ Yes ☐ No

    If YES, please specify new diagnosis ☐

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

National Tuberculosis Notification Form

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(D) CASE LOCATION DETAILS

DED name / code:

Hospital name:

Chart Number:

Work Address:

School Address:

(E) CONTACT TRACING DETAILS

Is this case:

Index case ☐ **or** Contact of another case ☐ *(please tick 1)*

If contact of another case, please complete

Name of index case:

Address of index case:

REG ID of index case:

Date of notification of index case:

COMPLETING DOCTOR SIGNATURE

Tick section(s) completed:

Signature 1	Date 1	Section completed:	A☐ B☐ C☐ D☐ E☐
Signature 2	Date 2	Section completed:	A☐ B☐ C☐ D☐ E☐
Signature 3	Date 3	Section completed:	A☐ B☐ C☐ D☐ E☐
Signature 4	Date 4	Section completed:	A☐ B☐ C☐ D☐ E☐
Signature 5	Date 5	Section completed:	A☐ B☐ C☐ D☐ E☐
Signature 6	Date 6	Section completed:	A☐ B☐ C☐ D☐ E☐

Version 1.0: 11/08/2006

Thank you for completing this form.
Please forward completed forms to your local Department of Public Health

Appendix 4: Ways to assess and promote adherence to LTBI treatment

Ways to assess and promote adherence to LTBI treatment

1. Use directly observed therapy (DOT) for LTBI when available especially for foreign-born persons from countries with an annual TB notification rate ≥ 40 cases per 100,000, homeless persons and intravenous drug users

2. Provide written information about the potential adverse effects of the medications at the start of treatment

3. Send reminder letters or call patients before appointments

4. Follow up promptly on missed appointments to prevent interruption or cessation of treatment

5. Minimise wait time at clinics

6. Ask patients at monthly visits about the number of missed pills in the past week

7. Remind patients to bring in their medication bottle (s) and monitor pill counts (but not in their presence)

8. During each monthly visit, stress the importance of adherence and educate patients about the potential adverse effects of medication.

Adapted with kind permission from Tuberculosis, Clinical Policies and Protocols. New York City Department of Health and Mental Hygiene (2008). Available from www.nyc.gov/html/doh/downloads/pdf/tb/tb-protocol.pdf.

Appendix 5: Tuberculosis Therapy Audit Form

Tuberculosis Therapy Audit Form

Preventive and Curative Therapy Monitor

Surname | Forename

Address

Phone | DOB | Age (years)

HSE area | LHO | Hospital/clinic

Is the patient a: TB case ☐ TB contact ☐ Date therapy started

Index case number | Contact number

Index case details - TB diagnosis: Clinically suspected ☐ Laboratory confirmed ☐

Site: Pulmonary ☐ Extrapulmonary ☐

Sputum smear: Positive ☐ Negative ☐

Month 1 - 6	1	2	3	4	5	6	7
Date							
TREATMENT	YES= ✓ NO= —						
Isoniazid							
Rifampicin							
Pyrazinamide							
Streptomycin							
Ethambutol							
Other (please specify)							
COMPLIANCE	GOOD = +++, UNCERTAIN = ++, UNSATISFACTORY = +						
Administration (S or D)*							
SYMPTOM CHECK							
Anorexia							
Nausea							
Vomiting							
Abdominal discomfort							
Rash							
Jaundice							
Dark urine							
Fever (> 3 days)							
Fatigue (> 3 days)							
Paraesthesia							
Other (please specify)							
INVESTIGATIONS	Record result once available. Not available = —						
LFTs done? (Y/N)							
Alk Phos (result)							
ALT / SGPT							
AST / SGOT							
GGT							
Bilirubin (total)							
Bilirubin (direct)							
Sputum sample (Y/N)							
Direct micro (Y/N)							
Culture (Pos/Neg)							
Resistance (Y/N)							
If Resistant, specify							

*** S = Self administered, D = Directly Observed (Preventive) Therapy i.e. DOT**

Appendix 6: Questions and Answers about Tuberculosis

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

hpsc

What is Tuberculosis?
Tuberculosis or "TB" is a disease caused by a bacterium (germ) called *Mycobacterium tuberculosis*. TB usually affects the lungs but it can also affect other parts of the body, including the glands, the bones and rarely the brain.

Tuberculosis used to be more common in Ireland. There were nearly 7,000 cases a year in the early 1950s. The incidence of TB has declined steadily since then. In 2006, there were 465 cases notified in Ireland. Doctors are obliged to notify each case of TB to the local departments of public health in the Health Service Executive.

TB disease is preventable and curable.

What are the symptoms of TB?
Symptoms of TB can include any of the following:

- Fever and night sweats
- Cough (generally lasting more than 3 weeks)
- Weight loss
- Blood in the sputum (phlegm) at any time.

A person with any of these symptoms should visit their family doctor for advice.

How is TB spread?
TB is usually spread in the air from another person who has TB of the lungs. It is spread by that person coughing, sneezing or spitting. People with TB in the lungs or throat can be infectious. This means that the bacteria can be spread to other people. Even then close and prolonged contact with such a person (i.e. family, friends, childminder, co-worker) is needed to become infected. Most cases of infectious TB stop being infectious after a few weeks of treatment. TB in other parts of the body such as the kidney or spine is usually not infectious.

Another type of TB called *Mycobacterium bovis* can arise from drinking contaminated milk. This form of TB is now rare as pasteurisation of milk removes the risk.

The following people have a greater chance of becoming ill with TB, if exposed to it:

- Those in very close contact with infectious people
- Children
- Elderly people
- Diabetics
- People on steroids
- People on other drugs affecting the body's defence system
- People who are HIV positive
- People in overcrowded, poor housing
- People dependent on drugs or alcohol
- People with chronic poor health.

What happens when a person is found to have infectious TB?

- Treatment for TB is started
- Public health doctors talk to the infected patient to see if other people need to be checked for TB.

What is the difference between latent tuberculosis infection and active tuberculosis disease?
Infection with the TB bacterium may not develop into TB disease. Most people who are exposed to TB are

able to overcome the bacteria. The bacteria become inactive but they remain dormant in the body and can become active later. This is called latent TB infection (LTBI).

People with LTBI:

- Have no symptoms
- Don't feel sick
- Can't spread TB to others
- Usually have a positive skin test reaction
- Can develop TB disease later in life.

Most people who have LTBI never develop active TB disease. In these people, the TB bacteria remain inactive for a lifetime without causing disease. But in other people, who have weak immune systems, the bacteria can become active and cause TB disease.

The difference between latent TB infection and active TB disease

A person with Latent TB Infection	A person with Active TB Disease
• Has no symptoms • Does not feel sick • Usually has a positive skin test or blood test • Has a normal chest X-ray and sputum test	• Has symptoms which may include: A bad cough which lasts three weeks or longer Pain in the chest Coughing up sputum (phlegm) or blood Weakness or fatigue Weight loss No appetite Chills Fever Night sweats • May spread TB to others • Usually has a positive skin test or positive blood test • May have an abnormal chest X-ray or positive sputum-smear or culture

How is TB diagnosed?

There are a number of tests that can be done to check for TB:

- A skin test
- A chest X-ray
- A test of the sputum (phlegm)
- A blood or urine test.

How is TB treated?

Yes, today TB is potentially completely curable, if the responsible organism is fully sensitive to the antibiotics being used and the patient takes his or her medication as prescribed.

TB is treated with tablets which must be taken for at least six months. Without treatment, many people used to die from TB. It is essential to take the treatment regularly and to complete the course as prescribed.

The most common medicines used to treat TB are: isoniazid, rifampicin, ethambutol and pyrazinamide. A vitamin B6 tablet called pyridoxine is also prescribed to help prevent some of the side effects that may be caused by isoniazid. Your doctor will decide which TB drugs are best for you.

If you have infectious TB (TB disease of the lungs or throat), you will need to stay at home from work or school so that you don't spread the TB bacteria to other people. After taking your medicines for a few weeks, you will feel better and will no longer be infectious to others. Your doctor will tell you when you can return to work or school or visit friends.

What are the side effects of TB medicines?
If you are taking medicines for TB, you should take them as directed by your doctor or nurse. The medicines may cause side effects but everyone can react differently and not everyone will have side effects. **It is important to report any side effects to your doctor even if they are not listed below.** Side effects include:

- No appetite
- Nausea (feeling sick in the stomach) and/or vomiting
- Abdominal pain (tummy pain)
- Yellowish skin or eyes
- Dark-coloured urine
- Fever for 3 or more days
- Skin rash
- Itching
- Tingling of fingers or toes or around the mouth
- Easy bleeding and/or bruising
- Blurred or changed vision
- Ringing in the ears
- Hearing loss
- Dizziness
- Aching joints.

The following side effects are caused by rifampicin. If you have any of these side effects you can continue your medications (your doctor will advise you of these before starting treatment for TB):

Rifampicin can:

- Turn your urine, saliva (spit) or tears orange. The doctor or nurse will advise you not to wear contact lenses as they may get stained.
- Make your skin more sensitive to the sun. This means you should use a good sunscreen and cover exposed areas so that they don't burn.
- Make birth control pills and implants less effective. Women who take rifampicin should use another form of birth control.

How important is treatment?
Treatment is very important. If you have TB disease or if you have been infected with the TB bacterium but have not yet become unwell i.e. have LTBI, you must take the treatment as directed. It is very important to complete the full course of treatment as it will stop you being infectious (spreading the disease to others) and it will remove the risk of you developing drug-resistant TB. It is important to remember that TB used to kill people before we had modern treatments.

Can I drink alcohol with my medication?
It is always best to avoid alcohol while you are taking TB medicines. This is because drinking any alcohol can increase the chances of having problems with your liver when taking the medications.

What precautions need to be taken to prevent TB spreading in the home?
Some patients who are infectious (with TB) can remain at home in the household that has already been exposed. However, the following precautions should be taken:

- Use tissues when sneezing or coughing and place into a household bin immediately after use
- Wash hands after disposing of the tissues
- Stay at home and do not go to places where there will be previously unexposed people (e.g. pubs, clubs, cinemas)
- Attend all outpatient visits
- No visits by previously unexposed people

- Children who do not live at home should not visit until your doctor allows
- Relatives or friends who have weakened immune systems should not visit until your doctor allows
- You can go for a walk outside but you should avoid close contact with previously unexposed people.

Most people are no longer infectious when they have completed a few weeks of TB tablets and are feeling better and their cough is gone or improving. However your doctor will advise you when the above precautions are no longer necessary. It is also very important that you continue your medications until the doctor tells you to stop.

What should I do if I have been in contact with someone with TB?
Discuss this with your family doctor. Only close contacts are at risk of catching TB. You may be asked to attend a chest clinic and to have a skin test and/or a chest X-ray. Sometimes a doctor or nurse will contact you first (they will have a list of close contacts of the person who has TB). This does not necessarily mean that you have TB but is a chance to check for it, so it is very important to attend if you are asked to.

Can TB be prevented?
Yes it can, in several ways:

- Treating all people with active TB disease promptly. After two weeks of treatment, most patients are no longer infectious to other people.
- Ensuring that all close contacts of people with TB are seen promptly in the chest clinic. Those found to have LTBI or those at high risk of developing TB after close contact may be offered a course of preventive therapy (chemoprophylaxis) once active TB has been ruled out.
- Vaccination: In Ireland the BCG vaccination (vaccine against TB) is recommended for newborn babies. BCG is also given to adults who are considered to be at risk of developing TB where potential contact with the disease could occur or has occurred. BCG vaccine is very effective, particularly in preventing childhood TB and the more severe forms of TB.

What are multidrug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB)

Multidrug-resistant TB (MDR-TB)
MDR-TB is a specific form of TB which is resistant to at least isoniazid and rifampicin, two of the main first line drugs used in the treatment of TB. MDR-TB therefore is much more difficult to treat. It takes longer to treat with second line drugs which are more expensive and have more side-effects.

Extensively drug-resistant TB (XDR-TB)
XDR-TB is a rare type of MDR-TB which is also resistant to any of a group of drugs called fluoroquinolones and at least one of three injectable second line anti-TB drugs (capreomycin, kanamycin or amikacin). Because XDR-TB is resistant to first line and second line drugs, treatment options are more limited. Further information on XDR-TB can be found on the WHO website at www.who.int/tb/challenges/xdr/en/index.html

Information on TB in Ireland can be found on the Health Protection Surveillance Centre website at www.hpsc.ie/hpsc/A-Z/VaccinePreventable/TuberculosisTB/.

Appendix 7: Contact details for clinical and laboratory TB advice

Respiratory Physicians
Dr Tim McDonnell, St Vincent's University Hospital, Dublin
Dr Brendan Keogh, Mater Misericordiae Hospital, Dublin
Dr Terry O Connor, Mercy University Hospital, Cork
Dr JJ Gilmartin, University College Hospital, Galway

Infectious disease Physicians
Dr C. Fleming, University College Hospital, Galway
Dr Karina Butler, Our Lady's Hospital, Crumlin, Dublin

Consultant Microbiologists
Dr Margaret Hannan, Mater Misericordiae Hospital, Dublin
Dr Bartley Cryan, Cork University Hospital

Irish Mycobacteria Reference Laboratory
Mr Noel Gibbons, Chief Medical Scientist, (01) 416 2963, ngibbons@stjames.ie
Prof T Rogers, Clinical Director, (01) 896 2131, rodgerstr@tcd.ie
Dr J Keane, Consultant Respiratory Physician, (01) 410 3920, jkeane@stjames.ie

Webpage: www.stjames.ie/Departments/DepartmentsA-Z/I/IMRL/DepartmentOverview/
or go to www.stjames.ie choose Lab services and then Irish Mycobacteria Reference Laboratory

Antimicrobial Reference Laboratory,

Department of Medical Microbiology,
North Bristol NHS Trust,
Southmead Hospital,
Bristol BS10 5NB,
United Kingdom

The Antimicrobial Reference Laboratory user manual may be found at www.bris.ac.uk/bcare/AssayBooklet.doc

Results and general inquiries: Tel. No: 00-44-117-959-5653

Service Enquiries
Prof A. P. MacGowan, Consultant Medical Microbiologist. Contact telephone no: 0044- 117-959-5652
Email address: alasdair.macgowan@nbt.nhs.uk

Dr. A. M. Lovering, Consultant Clinical Scientist. Contact telephone no: 0044-117-959 5653
Email address: andrew.lovering@nbt.nhs.uk

Mr. H. A. Holt, Laboratory Manager. Contact telephone no: 0044-117-959-5658
Email address: alan.holt@nbt.nhs.uk

Appendix 8: International Standards for Tuberculosis Care

In 2006 the "International Standards for Tuberculosis Care" were published to describe a widely accepted level of care that all practitioners, public and private should seek to achieve in managing patients who have or are suspected of having tuberculosis. The standards are outlined below. The full document is available at www.who.int/tb/publications/2006/istc_report.pdf.

Standards for Diagnosis

Standard 1. All persons with otherwise unexplained productive cough lasting two to three weeks or more should be evaluated for tuberculosis.

Standard 2. All patients (adults, adolescents, and children who are capable of producing sputum) suspected of having pulmonary tuberculosis should have at least two and preferably three, sputum specimens obtained for microscopic examination. When possible, at least one early morning specimen should be obtained.

Standard 3. For all patients (adults, adolescents, and children) suspected of having extrapulmonary tuberculosis, appropriate specimens from the suspected sites of involvement should be obtained for microscopy and, where facilities and resources are available, for culture and histopathological examination.

Standard 4. All persons with chest radiographic findings suggestive of tuberculosis should have sputum specimens submitted for microbiological examination.

Standard 5. The diagnosis of sputum smear-negative pulmonary tuberculosis should be based on the following criteria: at least three negative sputum smears (including at least one early morning specimen), chest radiography findings consistent with tuberculosis and lack of response to a trial of broad spectrum antimicrobial agents. (**Note**: Because the fluoroquinolones are active against *M. tuberculosis complex* and thus may cause transient improvement in persons with tuberculosis, they should be avoided.) For such patients, if facilities for culture are available, sputum cultures should be obtained. In persons with known or suspected HIV infection, the diagnostic evaluation should be expedited.

Standards for Treatment

Standard 6. The diagnosis of intrathoracic (i.e. pulmonary, pleural, and mediastinal or hilar lymph node) tuberculosis in symptomatic children with negative sputum smears should be based on the finding of chest radiographic abnormalities consistent with tuberculosis and either a history of exposure to an infectious case or evidence of tuberculosis infection (positive TST or interferon gamma release assay). For such patients, if facilities for culture are available, sputum specimens should be obtained (by expectoration, gastric washings, or induced sputum) for culture.

Standard 7. Any practitioner treating a patient for tuberculosis is assuming an important public health responsibility. To fulfill this responsibility the practitioner must not only prescribe an appropriate regimen but, also, be capable of assessing the adherence of the patient to the regimen and addressing poor adherence when it occurs. By so doing, the provider will be able to ensure adherence to the regimen until treatment is completed.

Standard 8. All patients (including those with HIV infection) who have not been treated previously should receive an internationally accepted first-line treatment regimen using drugs of known bioavailability. The initial phase should consist of two months of isoniazid, rifampicin, pyrazinamide, and ethambutol. The preferred continuation phase consists of isoniazid and rifampicin given for four months. Isoniazid and ethambutol given for six months is an alternative continuation phase regimen that may be used when adherence cannot be assessed, but it is associated with a higher rate of failure and

relapse, especially in patients with HIV infection. The doses of antituberculosis drugs used should conform to international recommendations. Fixed-dose combinations of two (isoniazid and rifampicin), three (isoniazid, rifampicin, and pyrazinamide), and four (isoniazid, rifampicin, pyrazinamide, and ethambutol) drugs are highly recommended, especially when medication ingestion is not observed.
Standard 9. To foster and assess adherence, a patient-centered approach to administration of drug treatment, based on the patient's needs and mutual respect between the patient and the provider, should be developed for all patients. Supervision and support should be gender-sensitive and age-specific and should draw on the full range of recommended interventions and available support services, including patient counselling and education. A central element of the patient-centered strategy is the use of measures to assess and promote adherence to the treatment regimen and to address poor adherence when it occurs. These measures should be tailored to the individual patient's circumstances and be mutually acceptable to the patient and the provider. Such measures may include direct observation of medication ingestion (directly observed therapy, DOT) by a treatment supporter who is acceptable and accountable to the patient and to the health system.

Standard 10. All patients should be monitored for response to therapy, best judged in patients with pulmonary tuberculosis by follow-up sputum microscopy (two specimens) at least at the time of completion of the initial phase of treatment (two months), at five months, and at the end of treatment. Patients who have positive smears during the fifth month of treatment should be considered as treatment failures and have therapy modified appropriately (see Standards 14 and 15). In patients with extrapulmonary tuberculosis and in children, the response to treatment is best assessed clinically. Follow-up radiographic examinations are usually unnecessary and may be misleading.

Standard 11. A written record of all medications given, bacteriologic response, and adverse reactions should be maintained for all patients.

Standard 12. In areas with a high prevalence of HIV infection in the general population and where tuberculosis and HIV infection are likely to co-exist, HIV counselling and testing is indicated for all tuberculosis patients as part of their routine management. In areas with lower prevalence rates of HIV, HIV counselling and testing is indicated for tuberculosis patients with symptoms and/or signs of HIV-related conditions and in tuberculosis patients having a history suggestive of high risk of HIV exposure.

Standard 13. All patients with tuberculosis and HIV infection should be evaluated to determine if antiretroviral therapy is indicated during the course of treatment for tuberculosis. Appropriate arrangements for access to antiretroviral drugs should be made for patients who meet indications for treatment. Given the complexity of co-administration of antituberculosis treatment and antiretroviral therapy, consultation with a physician who is expert in this area is recommended before initiation of concurrent treatment for tuberculosis and HIV infection, regardless of which disease appeared first. However, initiation of treatment for tuberculosis should not be delayed. Patients with tuberculosis and HIV infection should also receive cotrimoxazole as prophylaxis for other infections.

Standard 14. An assessment of the likelihood of drug resistance, based on history of prior treatment, exposure to a possible source case having drug-resistant organisms, and the community prevalence of drug resistance, should be obtained for all patients. Patients who fail treatment and chronic cases should always be assessed for possible drug resistance. For patients in whom drug resistance is considered to be likely, culture and drug susceptibility testing for isoniazid, rifampicin and ethambutol should be performed promptly.

Standard 15. Patients with tuberculosis caused by drug-resistant (especially multiple drug-resistant [MDR]) organisms should be treated with specialised regimens containing second-line antituberculosis drugs. At least four drugs to which the organisms are known or presumed to be susceptible should be used and treatment should be given for at least 18 months. Patient centered measures are required to ensure adherence. Consultation with a provider experienced in treatment of patients with MDR-tuberculosis should be obtained.

Standards for Public Health Responsibilities

Standard 16. All providers of care for patients with tuberculosis should ensure that persons (especially children under 5 years of age and persons with HIV infection) who are in close contact with patients who have infectious tuberculosis are evaluated and managed in line with international recommendations. Children under 5 years of age and persons with HIV infection who have been in contact with an infectious case should be evaluated for both latent infection with *M. tuberculosis* and for active tuberculosis.

Standard 17. All providers must report both new and retreatment tuberculosis cases and their treatment outcomes to local public health authorities, in conformance with applicable legal requirements and policies.

Appendix 9: DOT referral form-HSE South (Cork and Kerry)

Hosp Logo
Address

TO/ DIRECTOR OF PUBLIC HEALTH NURSING

North Lee ☐ South Lee ☐
North Cork ☐ West Cork ☐
Kerry ☐

REFERRAL REQUEST FOR DIRECTLY OBSERVED THERAPY (TUBERCULOSIS MEDICATION)

Name _____ D.O.B. _____

Home Address _____ Current Address (if different) _____

_____ _____

_____ _____

_____ _____

Contact Number _____

Hospital _____

Treating Consultant _____ GP _____

Diagnosis _____

Date of commencement of TB therapy _____

Most recent sputum: Date _____ Result _____

Case Currently Infectious? Yes ☐ No ☐ Mask wearing recommended? Yes ☐ No ☐
(If yes, for how long? _____)

Reason/s for DOT Request?

Poor/Non compliance	Yes ☐	No ☐
MDR-TB	Yes ☐	No ☐
TB Relapse	Yes ☐	No ☐
Homeless	Yes ☐	No ☐
Other	Yes ☐	No ☐ (Specify:_____)

Date Next OPD Appointment _____

Patient informed of DOT Request? Yes ☐ No ☐

TB Medication _____

_____

_____

_____

_____

(Prescription faxed)

Signed: _____ Date _____
Referring Medical Consultant.

☐ c.c. Senior Medical Officer, Cork. Fax No. 021 4927370
☐ c.c. Senior Medical Officer, Kerry. Fax No. 066 7184542

Appendix 10: Standard and Airborne Precautions

Standard Precautions to be used by all HCWs for all patients in all settings at all times
and
Airborne Precautions, in addition to **Standard Precautions**, should be instituted when caring for a suspected or confirmed case of infectious pulmonary or laryngeal TB

See chapter 6 for definition of infectious case
See chapter 6 for criteria for discontinuation of Airborne Precautions
Standard Precautions must be continued for all patients once Airborne Precautions are discontinued

Clinical Work Practice	STANDARD PRECAUTIONS	AIRBORNE PRECAUTIONS
Occupational Health Programme	All HCWs should be assessed by an occupational heath team prior to commencing work. This assessment should include: • Immunisations (Irish guidelines on immunisations required for HCWs are available at www.hpsc.ie/hpsc/A-Z/VaccinePreventable/Vaccination/Guidance/) • Screening HCWs who perform exposure prone procedures for blood borne viruses. DoHC guidelines available at www.dohc.ie/publications/transmission_of_blood_borne_diseases_2006.html	
Patient Placement	HCWs should include the potential for transmission of infectious agents in patient placement decisions Where possible, place patients who contaminate the environment or cannot maintain appropriate hygiene in isolation rooms with en suite toilet facilities and ante room	Place all patients with suspected or confirmed pulmonary or laryngeal TB in one the following airborne isolation rooms. Refer to figure 6.1 for risk assessment algorithm if an airborne isolation room is not available. Refer to section 6.5 for engineering standards 1. Negative pressure isolation room with a hand wash sink, an ante room and en-suite 2. A neutral pressure design room, as detailed in HBN 04 Supplement 1 Patients with **known or suspected multi drug-resistant TB (MDR-TB) must be placed in an airborne isolation room** which may require transfer of the patient to another facility A notice should be placed on the door of the isolation room advising those entering to report to the nurse in charge before entering Patients should be educated regarding the reason/indication for Airborne Precautions and requested not to leave the room unless absolutely necessary

Clinical Work Practice	STANDARD PRECAUTIONS	AIRBORNE PRECAUTIONS
Patient Placement (cont)	HCWs should include the potential for transmission of infectious agents in patient placement decisions Where possible, place patients who contaminate the environment or cannot maintain appropriate hygiene in isolation rooms with en suite toilet facilities and ante room	Emergency departments (ED) without an airborne isolation room must have a process in place to prioritise transfer of patients with suspected or confirmed TB to an appropriate room. ED departments without any airborne isolation rooms should place a surgical mask on the patient and place him/her in an examination room or single room while awaiting transfer. This room should be left vacant for 1 hour once the patient is transferred to allow for a full exchange of air. Aerosol-generating procedures such as sputum induction and the administration of medications by nebuliser must be avoided while a patient with suspected or confirmed TB is in an open bay or an unventilated area in any ward Bronchoscopy should preferably be performed in an appropriate negative pressure suite with adequate ventilation. Unnecessary staff and other patients should be excluded during the procedure. If endoscopy rooms are without air handling equipment, the procedure should be done at the end of the list for the day, or in the patient's room. Avoid placement of recovering patients in a multi-bedded ward post procedure. Procedures on an extrapulmonary TB open abscess or lesion where aerosolisation of drainage fluid may occur should only be undertaken in an airborne isolation room

Clinical Work Practice	STANDARD PRECAUTIONS	AIRBORNE PRECAUTIONS
Hand Hygiene	**Hand hygiene is recommended;** • Before and after each episode of patient contact • Between individual patient contacts • After contact with blood, body fluids, secretions or excretions, whether or not gloves are worn • After handling soiled/contaminated equipment, materials or the environment • Immediately before glove application • Immediately after removing gloves or other protective clothing Hands should be decontaminated using soap and water or alcohol gel if physically clean. Antiseptic soap should be used prior to aseptic procedures. Patients should wash their hands after toileting and before meals. HCWs should assist those patients unable to perform hand hygiene independently. Visitors should be educated on the importance of hand decontamination before and after visiting. (SARI) Guidelines on Hand Hygiene are available at www.hpsc.ie/hpsc/A-Z/Gastroenteric/Handwashing/	Antiseptic soap or alcohol gel if hands are physically clean before and after patient care

Clinical Work Practice	STANDARD PRECAUTIONS	AIRBORNE PRECAUTIONS
Patient Movement and Transfer	**No special precautions recommended**	**Limit movement and transport of patient to essential purposes only** Prior to patient transfer • Prior to accepting a patient with known or suspected infectious TB it is the responsibility of the receiving facility to ensure compliance with isolation room requirements as described above under patient placement. It is the responsibility of the facility transferring the patient to provide the information. • Inform transport personnel (emergency medical technicians, porters) and the receiving department of the need for Airborne Precautions • Request patient to wear a surgical mask which should be changed when heavily contaminated with respiratory secretions and/or wet or if torn. Instruct patient on respiratory hygiene and cough etiquette and ensure the patient has a supply of tissues. • HCWs should remove contaminated apron/gown/gloves (if worn) and mask and dispose prior to transporting patients. Staff do not need to wear masks during internal transportation unless patient is unable to wear a surgical mask (e.g. confused, respiratory distress). • Ambulance staff should consider the use of FFP2 or FFP3 masks in the following situations: (a) the patient is unable to wear a surgical mask; (b) it is anticipated that the duration of the journey will be ≥ 8 hours (≥ 4 hours if HCW is immunocompromised); (c) if the patient has either MDR-or XDR-TB (consult infection prevention and control team in this situation). • Don FFP2/3 mask prior to handling patient at the transport destination (e.g. X-ray, bronchoscopy suite) • Transport equipment (stretcher, bed wheelchair) used to transport patient must be cleaned and disinfected with a detergent and 1,000ppm of available chlorine before use on another patient

Clinical Work Practice	STANDARD PRECAUTIONS	AIRBORNE PRECAUTIONS
Respiratory Etiquette/ Cough Etiquette	**Administrative** • Educate HCWs on the importance of control measures to contain respiratory secretions to prevent droplet and contact transmission of respiratory pathogens, especially during seasonal outbreaks of viral respiratory tract infections (e.g. influenza, RSV, etc) in the community • Ensure that supplies of tissues, foot operating waste bins and hand hygiene facilities are available in all departments including waiting areas throughout the facility **Information for patients/visitors/public** Educate patients/visitors/carers on respiratory etiquette and cough hygiene using some or all of the following: • Patient information leaflets • Welcome packs • Posters in all departments especially waiting areas **Additional precautions during times of increased prevalence of respiratory infections** • During periods of increased prevalence of respiratory infections in the community, offer masks to coughing patients and other symptomatic persons (e.g. persons who accompany ill patients) upon entry into the facility and encourage them to maintain special separation, ideally a distance of at least 3 feet, from others in common waiting areas • Some facilities may find it logistically easier to institute this recommendation year-round as a standard of practice See appendix 14 for sample poster for respiratory etiquette/cough etiquette	**No extra precautions recommended**

Clinical Work Practice	STANDARD PRECAUTIONS		AIRBORNE PRECAUTIONS
Use of Personal Protective Equipment (PPE)	**Type and selection of PPE**	**PPE** consists of: • Gloves, • Aprons/gowns • Eye, nasal and mouth protection Each HCW should make an risk assessment of the planned procedure and select PPE depending on; • The nature of the procedure • The risk of exposure to blood and body fluids • The risk of contamination	**Additional respiratory protection required (see facial protection section)**
	Gloves	Gloves should be single use items and should conform to European Community Standards **Gloves are recommended**; • For all activities that carry a risk of exposure to blood, body fluids, secretions or excretions, sharps or contaminated instruments • When touching mucous membranes and non-intact skin • When handling contaminated equipment **Gloves should be;** • Single use only • Sterile if contact anticipated with sterile body site • Put on immediately before an episode of patient contact and remove as soon as the activity is completed • Changed when caring for different patients and between different care activities on the same patient • Disposed of as health care risk waste if contaminated with blood or body fluids from patients with suspected or known infection. Hand hygiene should be performed before donning and immediately following removal of gloves	**No extra precautions recommended**

Clinical Work Practice	STANDARD PRECAUTIONS		AIRBORNE PRECAUTIONS
Use of Personal Protective Equipment (PPE)	**Face protection**	Face protection should be worn where: • There is a risk of blood, body fluids, secretions or excretions splashing into the face or eyes • When placing a catheter or injecting into the spinal or epidural space. Face protection consists of one of the following: • Fluid repellent mask with separate goggles • Respiratory mask (FFP2/3) • Face shield • Fluid repellent mask with eye shield. Face protection should be: • Single use or single person use (face shields and goggles can be reused by the same HCW but they must be adequately cleaned and disinfected as per manufacturer's instructions after each use.	In addition to eye protection as required for Standard Precautions HCWs and visitors should don correctly fitted: • FFP2 masks before entering the isolation room of a suspected or confirmed infectious TB case where MDR-TB not suspected • FFP3 mask during high risk procedures for all patients where TB is suspected or confirmed (susceptible or MDR) such as: o Sputum induction o Cough producing procedures (e.g. administering aerosolised medications, bronchoscopy, airway suctioning, endotracheal intubation) o Procedures where aerosolisation of drainage fluid from an abscess/ lesions may occur • FFP3 masks before entering the isolation room of a suspected or known case of MDR-TB or XDR-TB To preserve privacy and confidentiality restricting visiting to immediate family should be discussed with the patient All HCWs who may be required to use respiratory masks (FFP2 & FFP3) during the course of their work should be fit tested by a trained professional within each organisation HCWs should fit check the mask each time it is worn to check the seal HCWs visiting a patient in their own home should wear a FFP2 or FFP3 mask while the patient is infectious (see chapter 6 on Infection Prevention and Control for discontinuation of Airborne Precautions). Patient privacy must be maintained if mask is worn in the home. All masks should be removed in the ante room or immediately outside the single room if there is no ante room Discard mask into healthcare risk waste Decontaminate hands immediately after removing mask

Clinical Work Practice	STANDARD PRECAUTIONS		AIRBORNE PRECAUTIONS
Use of Personal Protective Equipment (PPE)	**Aprons or gowns**	Disposable aprons should be worn where there is a risk that the front of uniform/clothing may become exposed to blood, body fluids, excretions or secretions Long sleeved fluid repellent gowns may be required if there is a risk that uniform/clothing and skin may be exposed to blood, body fluids, excretions or secretions	**No extra precautions recommended**
	Removal of PPE	**Remove PPE** when procedure is complete. PPE should be removed in the following order and disposed of into healthcare risk waste if contaminated with blood and/or body fluids • Gloves • Apron/gown • Decontaminate hands • Eye wear • Mask (handle by the mask straps to avoid touching the front) • Decontaminate hands	**All masks should be discarded into healthcare risk waste**

Clinical Work Practice	STANDARD PRECAUTIONS	AIRBORNE PRECAUTIONS
Environmental Decontamination	Routine environmental cleaning is required to minimise the number of micro-organisms in the environment. Particular attention should be given to frequently touched surfaces and those most likely to be contaminated with blood or body fluids e.g. bedrails, mattress, bedside tables, commodes, doorknobs, sinks, surfaces and equipment close to the patient Chemical disinfectants are not recommended for routine environmental cleaning When using disinfectants, staff should follow the manufacturer's instructions for dilution and contact times **Refer to National Hospital Office Cleaning Manual 2006**	Patient care environment be cleaned and disinfected with a detergent and 1000ppm of available chlorine daily before use on another patient if contaminated with respiratory secretions. PPE should be worn for all cleaning procedures as per page 180-182. Room should remain vacant for one hour with windows open before re-use
Patient Care Equipment & Decontamination of Medical Devices	Medical devices designated as "Single Use Only" must not be reprocessed or reused under any circumstances (MDA DB 2000), (MDD) 93/42/EEC **Non-critical equipment** Non-critical equipment refers to equipment that is either not in contact with a patient or in contact with healthy skin. Such equipment should be: • In a state of good repair in order to facilitate effective cleaning • Must be thoroughly cleaned prior to use on another patient/resident. If soiled with blood or body fluids, disinfect using a chlorine-releasing solution of 1000ppm, or equivalent according to manufacturer's instructions, rinse and dry. **Reusable invasive medical devices (RIMD)** RIMD refers to equipment that is classified as semi-critical or critical. RIMDs are in contact with sterile body sites, mucous membranes and breaks in the skin. HCWs must ensure that RIMDs are not used for another patient until they have been cleaned and reprocessed appropriately. (HSE Code of Practice for Decontamination of Reusable Invasive Medical Devices 2007) www.hse.ie/eng/Publications/Hospitals/Code_of_Practice_for_Decontamination_of_Reusable_Invasive_Medical_Devices_.html www.hpsc.ie/hpsc/A-Z/MicrobiologyAntimicrobialResistance/CJD/Guidance/	**No extra precautions recommended**

Clinical Work Practice	STANDARD PRECAUTIONS	AIRBORNE PRECAUTIONS
Management of Health Care Risk Waste	Dispose of healthcare risk waste in accordance with the Department of Health & Children's (DoHC) Guidelines for Waste Disposal, which outlines the categorisation and segregation of healthcare waste. **Disposal of sharps;** • Syringes and needles should be disposed of as a single unit • Used sharps should be carefully discarded into designated sharps bin at the point of use • Sharps bin should be securely stored out of reach of clients, visitors and children • Needles should not be re-capped, bent, broken or disassembled • Sharps should not be passed from person-to-person by hand **DoHC Guidelines on Disposal of Healthcare Risk Waste are available at** www.dohc.ie/publications/segregation_packaging.html	Waste contaminated with sputum from a suspected or known TB patient should be disposed of as healthcare risk waste within a healthcare facility Respiratory masks should be disposed of into Healthcare risk waste
Management of needle stick injuries (NSI) and blood and body fluid exposure	All facilities must have a local guideline on the management of needle stick injuries and blood and body fluid exposure. This guideline should include; • First aid • Risk assessment and screening of source patient (if known) • Risk assessment for chemoprophylaxis • Counselling and follow up testing Further information from www.dohc.ie/publications/transmission_of_blood_borne_diseases_2006.html	**No extra precautions recommended**

Clinical Work Practice	STANDARD PRECAUTIONS	AIRBORNE PRECAUTIONS
Laundry care	Laundry should be handled and transported in a manner that prevents transmission of micro-organisms to other patients, HCWs or the environment Staff handling soiled linen should wear gloves and a disposable plastic apron Segregation and transportation of used laundry should be in accordance with the guidelines from the Society of Linen Services and Laundry Managers (2008) Staff should not manually sluice or soak soiled or infected linen/clothing Linen should be heat disinfected during the wash process by raising the temperature to either 65°C for not less than 10 minutes or preferably 71°C for not less than 3 minutes. Disinfection of heat labile materials (according to manufacturer instructions) can be achieved at low temperatures by introducing 150ppm of chlorine into the penultimate rinse.	**No extra precautions recommended**

Clinical Work Practice	STANDARD PRECAUTIONS	AIRBORNE PRECAUTIONS
Spillages	Spillages of blood, urine, faeces or vomit should be dealt with immediately wearing protective clothing For spillages of body fluid (e.g. urine, faeces or vomit); • Soak up as much of the visible material as possible with disposable paper towels • Dispose of the soiled paper towels according to national guidelines • Clean the area using warm water and general purpose neutral detergent • Disinfect using a chlorine-releasing solution of 1,000ppm, rinse and dry • Discard gloves and apron according to national guidelines • Decontaminate hands • Do not apply chlorine-based disinfectants directly onto spillages of urine as it may result in the release of chlorine vapour **For blood spillages;** • Decontaminate all blood spills with a chlorine based disinfectant (e.g. powder, granules or liquid containing 10,000ppm available chlorine) or suitable alternative, in line with the manufacturer's instructions and local policy • Wipe up the spillage with disposable paper towels and discard into a yellow healthcare risk bag or rigid container • Wash the area with a general purpose neutral detergent and water • Discard gloves and apron into healthcare risk bag • Decontaminate hands	**No extra precautions recommended**

Clinical Work Practice	STANDARD PRECAUTIONS	AIRBORNE PRECAUTIONS
Safe Injection Practices	**Administration** Educate all HCWs who administer injections on the importance of safe injection practices All facilities should have a guideline on the use of multi-dose vials. **Preparation of Injections** All injections should be prepared in a clean area. This area must not be used for disposing of used needles and syringes, handling blood samples or any material contaminated with blood or body fluids An aseptic technique must be used when drawing up injections Needles, syringes and cannulae are sterile, single use items; they must not be reused for another patient nor to access a medication or solution that might be used for a subsequent patient Use single dose vials wherever possible Do not use single dose vials for multiple patients Do not combine leftovers for later use **Multi-dose vials** Multi-dose vials should only be used when absolutely necessary Restrict wherever possible the use of multi-dose vials to a single patient Label vial with patient's name and date opened Discard if sterility is compromised or questionable Do not leave multi-dose vials at a patient's bedside Use a sterile syringe and needle every time a medication vial is accessed even if it is a 2nd dose of the same drug for the same patient. **Infusions and intravenous sets** Do not use bags or bottles of intravenous fluids as a common source of supply for multiple patients Intravenous fluids and intravenous sets are single use sterile items for use by a single patient Consider a syringe or needle/cannula contaminated once it has been used to enter or connect to a patient's intravenous infusion bag or administration set.	**No additional precautions necessary**
Practices for lumbar puncture procedures	When inserting a catheter, injecting material/chemotherapy into the spinal canal or subdural space, healthcare workers should wear a surgical mask and adhere to aseptic technique.	**No additional precautions necessary**

Appendix 11: Discharge instructions for patients with potentially infectious TB

You have been placed on medication to treat TB. You are now being discharged home from hospital. However, your TB may remain infectious (contagious) for some time longer. A number of general instructions and temporary restrictions are therefore being advised until it is certain that you are no longer infectious to others. These restrictions will help reduce any possibility of spread of TB germs to other people. You should follow them carefully until you are advised otherwise by the doctor who is treating your TB.

General instructions:

- Take your TB medications as instructed by your doctor
- You should always cover your nose and mouth with a tissue when coughing or sneezing
- Dispose of used tissues in a bin immediately after use and wash your hands
- It is ok to share eating utensils (spoons, forks, cups or glasses) and other household items
- Keep your doctor's or clinic appointment so that you complete your treatment.

Temporary restrictions after hospital discharge

- Do not go to work or school and you should avoid going to any public areas (e.g. cinema, pubs or clubs, using public transport) until the doctor who is treating your TB says it is ok for you to do so.

- **If there are others living at home you should**
  - limit the time you spend in common household areas (e.g. kitchen or living room) and keep your bedroom door closed
  - If advised by your doctor to wear a surgical mask (as a temporary measure) that covers your nose and mouth (as explained to you in hospital) when you are around other people, follow the instructions given. This will reduce the number of TB germs that you put into the air when you cough or talk.

- You should not be around babies, young children or, to the best of your knowledge, people who have weakened immune systems such as people with HIV/AIDS. (If there are young children at home, you may still be discharged home if the children have been tested for TB infection and are being followed up by the local public health department).

These temporary restrictions will be removed once your doctor decides that you are no longer infectious. However, your TB treatment will continue until the course is completed.

If you have any questions about your treatment, please call .....

Adapted with kind permission from Tuberculosis, Clinical Policies and Protocols. New York City Department of Health and Mental Hygiene (2008). Available from www.nyc.gov/html/doh/downloads/pdf/tb/tb-protocol.pdf.

Appendix 12: List of Tuberculosis-related websites and resources

National TB Websites

Health Protection Surveillance Centre
www.hpsc.ie/hpsc/A-Z/VaccinePreventable/TuberculosisTB/

Irish Thoracic Society
www.irishthoracicsociety.com/

Immunisation Guidelines of Ireland
www.hpsc.ie/hpsc/A-Z/VaccinePreventable/Vaccination/Guidance/

International TB Websites

Centers for Disease Control and Prevention, USA, Division of TB Elimination
www.cdc.gov/tb/

Health Protection Agency, UK
www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1191942150134?p=1191942150134

The Public Health Agency of Canada
www.phac-aspc.gc.ca/tbpc-latb/index.html

European Centre for Disease Prevention and Control
www.ecdc.europa.eu/Health_topics/Tuberculosis/Tuberculosis.html

EuroTB: Surveillance of TB in Europe
www.eurotb.org/

WHO-Geneva Tuberculosis Homepage
www.who.int/tb/en/

WHO-Euro Tuberculosis Site
www.euro.who.int/tuberculosis

The Global Plan to Stop TB
www.stoptb.org/globalplan/

WHO Stop TB Department
www.who.int/tb/about/en/index.html

Stop TB Partnership
www.stoptb.org/

The International Union against TB and Lung Disease
www.iuatld.org/

NICE: TB information for the Public
www.nice.org.uk/nicemedia/pdf/CG033publicinfo.pdf

TB Alert
www.tbalert.org/

Tuberculosis Guidance

UK

NICE Tuberculosis Clinical Guidance
www.nice.org.uk/search/guidancesearchresults.jsp?keywords=TUBERCULOSIS&searchType=guidance

Control and prevention of tuberculosis in the United Kingdom: Code of Practice 2000. Joint Tuberculosis Committee of the British Thoracic Society. *Thorax* 2000. Vol. 55, 11: 887-901
www.thorax.bmj.com/cgi/reprint/55/11/887

USA

Centers for Disease Control and Prevention (CDC) TB Guidelines (listed by category or by date)
http://www.cdc.gov/tb/pubs/mmwr/maj_guide.htm

Canada

Canadian Tuberculosis Standards 6th Edition, 2007
www.phac-aspc.gc.ca/tbpc-latb/pubs/pdf/tbstand07_e.pdf

New Zealand

New Zealand TB Guidelines, 2003
www.moh.govt.nz/moh.nsf/0/4760df3580a6f5b5cc256c86006ed394?OpenDocument

World Health Organization

Tuberculosis and Airflight (WHO)
www.who.int/docstore/gtb/publications/aircraft/PDF/98_256.pdf

WHO Guidelines for the programmatic management of resistant TB
www.whqlibdoc.who.int/publications/2006/9241546956_eng.pdf

Treatment Guidelines for National Programmes – WHO Global Tuberculosis Programme, Geneva
www.who.int/docstore/gtb/publications/ttgnp/

Guidelines for the prevention of tuberculosis in health care facilities in resource limited settings – WHO Global Tuberculosis Programme, Geneva
www.who.int/docstore/gtb/publications/healthcare

What is DOTS? - Guide to the WHO recommended TB control strategy
www.who.int/docstore/gtb/publications/whatisdots

Scientific Resources

MEDLINEplus Tuberculosis
www.nlm.nih.gov/medlineplus/tuberculosis.html

Francis J. Curry National Tuberculosis Center
www.nationaltbcenter.edu/

New Jersey Medical School Global Tuberculosis Institute
www.umdnj.edu/globaltb/home.htm

Stanford Center for Tuberculosis Research12
www.stanford.edu/group/molepi/index.html

Brown University TB/HIV Research Laboratory
www.brown.edu/Research/TB-HIV_Lab/

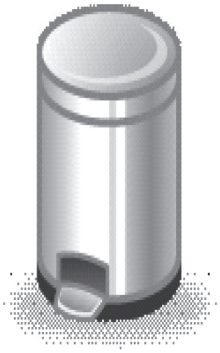
The Public Health Research Institute (PHRI) Tuberculosis Center
www.phri.org/programs/program_tbcenter.asp

Aeras Global TB Vaccine Foundation
www.aeras.org/

Appendix 13: Respiratory hygiene and cough etiquette

These 3 steps will help prevent the spread of respiratory infections

When coughing or sneezing use a tissue or cover your nose and mouth



Dispose of the tissues afterwards in a waste bin

Decontaminate your hands after discarding tissue using soap and water or alcohol gel