An initial high dose dexamethasone p. 455 or prednisolone p. 458 should be started at the same time as antituberculosis therapy and then slowly withdrawn over 4–8 weeks.

Referral for surgery should be considered only in children who have raised intracranial pressure.

Pericardial tuberculosis

An initial high dose of oral prednisolone should be offered to children with active pericardial tuberculosis at the same time as initiation of antituberculosis therapy; it should then be slowly withdrawn over 2–3 weeks.

Latent tuberculosis

Clinicians should be aware that some groups of children with latent tuberculosis are at increased risk of developing active tuberculosis (such as children who are HIV-positive, diabetic or receiving treatment with a tumour necrosis factor alpha inhibitor). These children and their carers should be advised of the risks and symptoms of active tuberculosis.

Close contacts

All children who are a close contact (prolonged, frequent or intense contact, e.g. household contacts or relations) of a person with confirmed pulmonary or laryngeal tuberculosis should be tested for latent tuberculosis. Children under 2 years should be assessed by a specialist.

Immunocompromised

Children in whom latent tuberculosis is suspected and who are anticipated to be, or who are currently immunocompromised (for example, if they are from a high incidence country or have been in close contact with people with suspected infectious or confirmed pulmonary or laryngeal tuberculosis), should be referred to a tuberculosis specialist.

Chemoprophylaxis for latent tuberculosis

Neonates who have been in close contact with a person with tuberculosis which has not yet been treated for at least two weeks, should be treated with isoniazid p. 382 (with pyridoxine hydrochloride p. 650) followed by a Mantoux test after six weeks of treatment. If the test is positive (and active tuberculosis is not present) treatment should be continued for six months; if negative (and confirmed by a negative interferon-gamma release assay), the treatment should be stopped and a BCG vaccination given.

Children aged 4 weeks to 2 years who have been in close contact with a person with tuberculosis which has not been treated for at least two weeks, should be treated with either isoniazid (with pyridoxine hydrochloride) alone for six months (preferred regimen if interactions with rifamycins are a concern) or rifampicin p. 379 and isoniazid (with pyridoxine hydrochloride) for three months (recommended when hepatotoxicity is a concern); and then have a Mantoux test. If the test is positive (and active tuberculosis is not present), the treatment course should be completed. If the test is negative, treatment should be continued and re-assessed after 6 weeks. If the results are then negative (and confirmed by a negative interferon-gamma release assay), the treatment should be stopped and a BCG vaccination given (if the child has not already had one). If the result is positive (and active tuberculosis is not present), the course of treatment should be continued.

Children aged over 2 years should be offered a Mantoux test, and if positive (and active tuberculosis is not present), then treated as above for children aged 4 weeks to 2 years. If the test is negative, reassess after 6 weeks.

Testing for hepatitis B and hepatitis C should be considered before starting treatment for tuberculosis as this may affect the choice of therapy. Children with severe liver disease should be treated under the care of a specialist team; careful monitoring of liver function is necessary in children with non-severe liver disease, abnormal liver function, or who misuse alcohol or drugs.

See advice on immunisation against tuberculosis and tuberculin testing in BCG vaccine p. 802.

Treatment failure

Major causes of treatment failure are incorrect prescribing by the physician and inadequate compliance by the child or their carer. Monthly tablet counts and urine examination (rifampicin imparts an orange-red coloration) may be useful indicators of compliance with treatment. Avoid both excessive and inadequate dosage. Treatment should be specialised by a specialist paediatrician.

Treatment interruptions

A break in antituberculosis treatment of at least two weeks (during the initial phase), or missing more than 20 % of prescribed doses is classified as treatment interruption. Re-establishing treatment appropriately following interruptions is key to ensuring treatment success without relapse, drug resistance or further adverse events. If an adverse reaction recurs upon re-introducing a particular drug, do not give that drug in future regimens and consider extending the total regimen accordingly.

Treatment interruptions due to drug-induced hepatotoxicity

Following treatment interruption due to drug-induced hepatotoxicity, all potential causes of hepatotoxicity should be investigated. Once hepatic function has recovered, antituberculosis therapy should be sequentially re-introduced at previous full doses over a period of no more than ten days, initially with ethambutol hydrochloride p. 381 and either isoniazid (with pyridoxine hydrochloride) or rifampicin.

In children with severe or highly infectious tuberculosis who need to interrupt the standard regimen, consider continuing treatment with at least two drugs with low risk of hepatotoxicity, such as ethambutol hydrochloride and streptomycin p. 323 (with or without a quinolone, such as levofloxacin p. 700 or moxifloxacin p. 700), and with ongoing monitoring by a liver specialist.

Treatment interruptions due to cutaneous reactions

If a child with severe or highly infectious tuberculosis has a cutaneous reaction, consider continuing treatment with a combination of at least two drugs with a low risk of causing cutaneous reactions, such as ethambutol hydrochloride and streptomycin with monitoring by a dermatologist.

Antituberculosis drugs

Isoniazid is cheap and highly effective. Like rifampicin it should always be included in any antituberculosis regimen unless there is a specific contra-indication.

Rifampicin, a rifamycin, is a key component of any antituberculosis regimen. Like isoniazid it should always be included unless there is a specific contra-indication.

During the first two months ('initial phase') of rifampicin administration transient disturbance of liver function with elevated serum transaminases is common but generally does not require interruption of treatment. Occasionally more serious liver toxicity requires a change of treatment particularly in those with pre-existing liver disease.

On intermittent treatment six toxicity syndromes have been recognised—influenza-like, abdominal, and respiratory symptoms, shock, renal failure, and thrombocytopenic purpura—and can occur in 20–30% of patients.

Rifabutin p. 378 is licensed in adults for the *treatment* of non-tuberculous mycobacterial disease and pulmonary tuberculosis. There is limited experience in children.

Pyrazinamide p. 383 is a bactericidal drug only active against intracellular dividing forms of *Mycobacterium tuberculosis*; it exerts its main effect only in the first two or three months. It is particularly useful in tuberculous meningitis because of good meningeal penetration. It is not active against *M. bovis*.