

Table 8.16: Regimens for the Treatment of RMP Mono-resistant TB

| Regimens | Initial Phase  | Continuation Phase                                |
|----------|--|---|
| 1        | 2 months daily INH, PZA, EMB, FQN*   | 10–16 months daily or thrice weekly INH, EMB, FQN |
| 2        | 2 months daily INH, PZA, SM (or other aminoglycoside/polypeptide daily or thrice weekly) | 7 months daily or thrice weekly INH, PZA, SM      |
| 3        | 2 months daily INH, PZA, EMB daily†  | 16 months daily or thrice weekly INH, EMB         |

INH = isoniazid, PZA = pyrazinamide, EMB = ethambutol, FQN = levofloxacin or moxifloxacin, SM = streptomycin

\*For treatment in patients with extensive cavitory disease or to shorten the duration of treatment (e.g. 12 months), addition of an injectable agent for at least the first 2 months is recommended.

† An injectable agent may strengthen the regimen in patients with extensive disease

## Recommendations for Treatment of PZA or EMB Mono-resistant TB

Monoresistance to PZA or EMB is rare. Isolated PZA resistance occurs with exposure and infection with *M. bovis*. Therefore it can serve as a critical tool for laboratories to differentiate between *M. tuberculosis* from *M. bovis* or *M. bovis* BCG.

- Patients with mono-resistant TB to PZA should have their total duration of treatment as 9 months or more
- Patients with mono-resistant TB to EMB, the standard regimens do **not** change

## Multidrug-Resistant (MDR-TB) and Extensively Drug-Resistant (XDR-TB) Tuberculosis

A patient with MDR-TB or XDR-TB will need treatment with second-line treatment. Second-line anti-TB drugs are considered less effective, require extended periods of treatment (20–24 months or more) and can cause more side effects than first-line drugs. When on treatment, these patients can be infectious for a longer period of time before improvements are seen.

When the drug susceptibility results are available, then the treatment regimen can be determined.

Surgery is considered in cases of MDR-TB/XDR-TB when the bacteria drug-resistance pattern shows a high probability of treatment failure. Removal of diseased lung by resection is an option for these patients to improve their chances of cure.

Cure from MDR-TB is reached when five consecutive negative cultures are collected 30 days apart in the final 12 months of the treatment. Treatment is usually 18 months in duration after there is evidence of culture conversion. When treatment is completed, patients should be seen every 6 months for a minimum of 2 years. Clinical, radiologic and mycobacteriologic assessment is necessary at each follow up.

## Historical TB Cases

A review of old cases of active TB should be undertaken in every community. Inadequately treated TB increases the risk of relapse and outbreak in the community. Treatment regimens considered to be complete include:

- INH and para-aminosalicylic acid (PAS) for 18 months (used in the 1950s and 1960s)
- INH and EMB for 15 months (used in the 1970s)

If treatment regimens are uncertain or if treatment is determined to be inadequate, these patients require yearly follow-up consisting of:

- Symptom Inquiry (see **NWT Tuberculosis Assessment Form**)
- CXR
- Sputa for AFB x 3

In situations where treatment falls short of the above requirements, and once active disease has been ruled out, individuals may be considered for further prophylaxis treatment. In cases where there has been a wide variety of treatment regimes, these will be assessed by the TB Specialist for treatment options.