# TPT Treatment Options Table for High TB Burden Countries

**DRUGS**

<table>
<thead>
<tr>
<th>6H</th>
<th>3HP</th>
<th>3HR</th>
<th>4R</th>
<th>1HP</th>
<th>H+B6+CPT (q-TIB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isoniazid</td>
<td>Isoniazid + Rifapentine</td>
<td>INH+ Rifampicin</td>
<td>Rifampicin</td>
<td>Isoniazid+ Rifapentine</td>
<td>Isoniazid + Pyridoxine + cotrimoxazole</td>
</tr>
</tbody>
</table>

**INTERACTIONS WITH ART**

- No restriction

**SIDE-EFFECT PROFILE / TOXICITY**

- Hepatotoxicity (more), peripheral neuropathy, rash, gastrointestinal (GI) upset
- Flu-like syndrome, hypersensitivity reactions, GI upset, Orange discoloration of body fluids, rash, hepatotoxicity (less)
- Hypersensitivity reactions, hepatotoxicity (less), rash, GI upset, hypoprothrombinemia, Orange discoloration of body fluids
- Rash, GI upset, hepatotoxicity (less), hypoprothrombinemia, Orange discoloration of body fluids
- Hepatotoxicity (more), hypersensitivity reaction, rash, GI upset, Orange discoloration of body fluids
- Hepatotoxicity, rash, GI upset

**ABSORPTION**

- Best absorbed on an empty stomach; up to 50% reduction in peak concentration with a fatty meal
- Oral rifapentine bioavailability is 70% (not HP). Peak concentration increased if given with a meal.
- Rifampicin absorption is rapid but may be delayed or decreased by high-fat meals.
- Same as 3HP
- Same as 6H

**PREGNANT WOMEN**

- Not recommended according to TPT guidelines
- Safe for use
- Maybe be safe, although no safety or efficacy data available specifically in this population
- Not known
- Safe for use preferred option in PLHIV

**CHILDREN**

- Yes all ages; child-friendly (dispensable) formulation available, preferred in HIV+ve children on LPV–RTV, NVP, or DTG
- ≥ 2 years (and at least 20 kg), no child friendly formulation available
- All ages; child-friendly (dispensable) formulation available and recommended up to 35 kg weight
- All ages; no child-friendly formulation available, no formulation available for infants <≤kg weight
- All ages; no child-friendly formulation available until 13 years of age
- All ages; need to split scored adult tablet, lower-dose pills suitable for children not available

**INTERDUR (MONTHS)**

<table>
<thead>
<tr>
<th>6H</th>
<th>3HP</th>
<th>3HR</th>
<th>4R</th>
<th>1HP</th>
<th>H+B6+CPT (q-TIB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>Weekly</td>
<td>Daily</td>
<td>Daily</td>
<td>Daily</td>
<td>Daily</td>
</tr>
</tbody>
</table>

**DOSES**

<table>
<thead>
<tr>
<th>6H</th>
<th>3HP</th>
<th>3HR</th>
<th>4R</th>
<th>1HP</th>
<th>H+B6+CPT (q-TIB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>182</td>
<td>12</td>
<td>84</td>
<td>120</td>
<td>28</td>
<td>182</td>
</tr>
</tbody>
</table>

**PILL BURDEN PER DOSE (total number of pills for average adult)**

<table>
<thead>
<tr>
<th>6H</th>
<th>3HP</th>
<th>3HR</th>
<th>4R</th>
<th>1HP</th>
<th>H+B6+CPT (q-TIB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (182)</td>
<td>9 singles (108)</td>
<td>3 with FDC (36)</td>
<td>3 (252)</td>
<td>2 (240)</td>
<td>5 (140)</td>
</tr>
</tbody>
</table>

**INTERVAL**

<table>
<thead>
<tr>
<th>6H</th>
<th>3HP</th>
<th>3HR</th>
<th>4R</th>
<th>1HP</th>
<th>H+B6+CPT (q-TIB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>Weekly</td>
<td>Daily</td>
<td>Daily</td>
<td>Daily</td>
<td>Daily</td>
</tr>
</tbody>
</table>

**COST (60)**

<table>
<thead>
<tr>
<th>6H</th>
<th>3HP</th>
<th>3HR</th>
<th>4R</th>
<th>1HP</th>
<th>H+B6+CPT (q-TIB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.50</td>
<td>$10.60 (for 12-15kg child)</td>
<td>$24</td>
<td>$12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INTERACTIONS WITH ART**

- No restriction

**SIDE-EFFECT PROFILE / TOXICITY**

- Hepatotoxicity, rash, GI upset
- Orange discolouration of body fluids
- Rash, GI upset, hepatotoxicity (less)
- Hepatotoxicity, rash, GI upset

**ABSORPTION**

- Best absorbed on an empty stomach; up to 50% reduction in peak concentration with a fatty meal
- Oral rifapentine bioavailability is 70% (not HP). Peak concentration increased if given with a meal.
- Rifampicin absorption is rapid but may be delayed or decreased by high-fat meals.
- Same as 3HP
- Same as 6H

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**NOTES**

- Averate adult-available formulations: H-300mg, R-300mg/150mg, P-150mg
- B For women receiving receiving rifampicin-based TPT and oral contraceptives, consider additional barrier contraceptive methods to prevent pregnancy (including women living with HIV)
- C One randomized trial has shown increase risk of poor birth outcomes for mothers taking Rif during pregnancy, however several other studies show benefits of IPT. Hence caution is required
- D Rifampicin absorption is rapid but may be delayed or decreased by high-fat meals. Same as 3HP
- E Indicates the drug interaction has been studied in adults and not children. Applies to adults taking DTG or RAL only.

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**REFERENCES**

1. Pricing from Global Fund Catalogues
2. Data from clinical trial NCT02651259, http://tiny.cc/nvylrjz
3. Note: B6 = pyridoxine, CPT = cotrimoxazole, DTG = disoproxil fumarate, EFV = efavirenz, H = Isoniazid, LPV–RTV = lopinavir–ritonavir, NNRTI = non-nucleoside reverse transcriptase inhibitors, NVP = nevirapine, P = rifampicin, PIs = protease inhibitors, R = rifampicin, RAL = raltegravir, TAF = tenofovir alafenamide, TDF = tenofovir disoproxil fumarate

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**ABBREVIATIONS**

- ART = antiretroviral therapy
- B6 = pyridoxine
- CPT = cotrimoxazole
- DTG = disoproxil fumarate
- EFV = efavirenz
- H = Isoniazid
- LPV–RTV = lopinavir–ritonavir
- NVP = nevirapine
- P = rifampicin
- PIs = protease inhibitors
- R = rifampicin
- RAL = raltegravir
- TAF = tenofovir alafenamide
- TDF = tenofovir disoproxil fumarate
- TPT = tuberculosis preventive therapy
- HIV = human immunodeficiency virus
- TB = tuberculosis
- IPT = isoniazid preventive therapy

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**AFFILIATIONS**

- The Aurum Institute
- UNITAID
- IMPAACT 4 TB
- Prevention to End TB

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**RESOURCES**

- cotrimoxazole
- tenofovir alafenamide, TDF = tenofovir disoproxil fumarate

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- United Nations Development Program
- United Nations Foundation, and the Partnership for Supply Chain Management

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**SUPPLIERS**

- Stichting Iplussolutions
- Global Fund
- Global Fund Quality Assurance Suppliers
- IDA
- Gavi
- P-150mg
- H-300mg, R-300mg/150mg, P-150mg

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**CONTACT**

- Unitaid
- The Aurum Institute

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