

Pediatric Tuberculosis Preventive Treatment (TPT) Guidelines

Initiate TPT only after active TB disease is ruled out.

Note: Managing children under 12 years of age with latent TB: consult or refer to SickKid's TB Clinic at 416-813-8327.

| Recommendations for Treatment of Paediatric TB infection | | |
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| Drug | Dose & Duration | Comments |
| Rifampin (RMP) | 10-20 mg/kg to a maximum of 600 mg daily for 4 months | <ul style="list-style-type: none">Rifampin should be used if infected with an INH-resistant strain.Criteria: Asymptomatic, normal physical TB exam, normal CXR/CT imaging (or demonstrates evidence of remote infection, such as a calcified parenchymal nodule and/or a calcified intrathoracic lymph node) to rule out active TB disease to avoid inducing drug resistance.If immuno-compromised (e.g. dialysis, low CD4 count) - collect 2 spontaneous sputum cultures for TB with final negative cultures prior to initiating treatment to avoid inducing drug resistance. If unable to produce sputum, refer to a specialist. |
| Isoniazid (INH) | 10-15 mg/kg to a maximum of 300 mg daily for 9 months Available dosage forms: 10 mg/mL suspension 100 mg tablet 300 mg tablet | With ≥ 80% compliance: <ul style="list-style-type: none">INH daily for 12 months gives 93% protection and INH daily for 6 months gives 69% protection from progression to TB disease (INH for 12 months is not much more effective than 9 months)Duration is the most important variable, not continuity (i.e. extend treatment long enough to achieve the equivalent of 9 months of 100% compliance)The INH liquid suspension causes diarrhea and abdominal pain in more than half of children. INH tablets crushed into a semisoft substance such as pudding, baby food or yogurt is acceptable and often well tolerated. INH crushed into sugary liquids is less stable and should be avoided if possible. |
| Vitamin B6 | Children: proportional according to weight: 1 mg/kg (max 25 mg) daily <10kg = 6.25 mg (1/4 tab) 10-30kg =12.5mg (1/2 tab) >30kg = 25mg (1 tab) | <ul style="list-style-type: none">If being treated with INH, it is recommended that Vitamin B6 be given as an adjunct for all breastfed infants, those on meat and milk deficient diets, pregnant and breastfeeding adolescents and adults, and when adequacy of diet cannot be assessed. |
| Vitamin D | Children: according to age: <i>(suggested doses)</i> < 7 yrs old = 400 I.U./day ≥ 7 yrs old = 1000 I.U./day | <ul style="list-style-type: none">Due to its health benefits, it is generally recommended that all children on treatment for TB infection take Vitamin D as an adjunct. |
| Note: Rifapentine and Isoniazid, weekly x 12 doses (3HP) – not currently available | | |

| Monitoring Paediatric Patients on Tuberculosis Preventive Treatment |
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| <p><u>Most children tolerate RMP, INH and 3HP with no side effects. RMP, INH and 3HP may cause mild to severe hepatic dysfunction. Although very rare, liver transplantation has been required.</u></p> <p><u>Counsel patients and their parents to immediately stop medication if any anorexia, jaundice, vomiting or fatigue occurs.</u></p> <ul style="list-style-type: none">It is recommended that children undergo baseline liver function tests before they start treatment.Children should be seen in the clinic monthly for review of symptoms and adherence to medication.Monitor patients at each follow-up appointment for symptoms of hepatitis (e.g. fatigue, weakness, malaise, anorexia, nausea or vomiting, dark urine and/or yellowing of the skin); <u>should symptoms occur at any time, STOP MEDICATION</u> and perform liver function tests immediately.Families should be educated to watch for the symptoms of hepatotoxicity and to stop the therapy and return to the clinic if the symptoms are consistent with drug toxicity.Discontinue RMP/INH/3HP immediately if LFTs are above normal limit or if symptoms of hepatic damage occur and refer to a TB specialist (<i>in 10-20% of patients, AST levels will elevate 2-3 times during the first months of therapy; these levels typically will return to normal despite continuance of the drug</i>).<u>Repeated liver function tests are rarely suggested for children receiving INH. However, check AST, ALT and Bilirubin if ANY anorexia, nausea or vomiting occur. Ask specifically for each symptom at every visit.</u> |

SickKids TB Clinic: 555 University Avenue, Main Floor, 416-813-8327. To book an appointment call 416-813-6609 or contact Toronto Public Health TB Program at 416-338-7600 to help with a referral.

1. Canadian Pharmacists Association. (2023). *Compendium of Pharmaceuticals and Specialties, online version (e-CPS)*.
2. Canadian Tuberculosis Standard (CTS), 8th edition, Canadian Journal of Respiratory, Critical Care and Sleep medicine, 2022, Volume 6, Issue sup 1.