

The proposed dosing charts evaluated by Dr James Nuttall and colleagues at the Red Cross Children's Hospital in Cape Town

### TB Drug Dosing Chart for Children <8 years of age or <30 kg body weight (2008)

Body Weight (kg)	Isoniazid Preventive Therapy	Uncomplicated TB disease		Complicated TB disease (excluding TB meningitis/miliary TB)			TB meningitis or miliary TB			Body Weight (kg)
	6 months	Intensive phase 2 months	Continuation phase 4 months	Intensive phase 2 months		Continuation phase 4 months	Single phase of treatment 6 months			
	H tablets 100mg (scored)	RHZ dissolvable tablets 60/30/150mg (scored)	RH dissolvable tablets 60/30mg (scored)	RHZ dissolvable tablets 60/30/150mg (scored)	E tablets 400mg (un-scored)	RH dissolvable tablets 60/30mg (scored)	RH dissolvable tablets 60/60mg (scored)	Z tablets 500mg (scored)	Eo tablets 250mg (scored)	
2-2.9	1/4	1/2	1/2	1/2	Use Eo 1/4	1/2	Use RHZ (60/30/150) 1/2 + H 1/4		1/4	2-2.9
3-3.9	1/2	1	1	1	1/4	1	Use RHZ (60/30/150) 1 + H 1/2		1/2	3-3.9
4-4.9										4-4.9
5-5.9										5-5.9
6-6.9										6-6.9
7-7.9										7-7.9
8-8.9	8-8.9									
9-9.9	1	2	2	2	1/2	2	3		3/4	9-9.9
10-11.9										10-11.9
12-12.9										12-12.9
13-13.9										13-13.9
14-14.9										14-14.9
15-16.9	2	3	3	3	3/4	3	5		1	15-16.9
17-19.9										17-19.9
20-24.9										20-24.9
25-29.9	25-29.9									

H =Isoniazid, R =Rifampicin, Z =Pyrazinamide, E =Ethambutol, Eo =Ethionamide

Uncomplicated TB disease in children =new smear negative pulmonary TB, or mild forms of extrapulmonary TB e.g. lymphadenitis, pleural effusion

Complicated TB disease in children =new smear positive pulmonary TB, or extensive parenchymal/cavitary lung disease, or extrapulmonary TB (excl. TB meningitis or miliary TB), or patients with severe immunosuppression from HIV disease

## TB Drug Dosing Chart for Children $\geq 8$ years of age or $\geq 30$ kg body weight

Body Weight (kg)	Isoniazid Preventive Therapy	All forms of TB disease (excl. MDR-TB)			Body Weight (kg)
	6 months	Intensive phase 2 months	Continuation phase 4 months		
	H tablets 100mg	RHZE tablets 150/75/400/275mg	RH tablets 150/75mg	RH tablets 300/150mg	
30 - 37	3	2	2		30 - 37
38 - 54		3	3		38 - 54
55 - 70		4		2	55 - 70
$\geq 71$		5			$\geq 71$

### Important notes on TB treatment:

- All children with suspected or proven TB should have an HIV test and if HIV-infected should be referred to the nearest HIV clinic for assessment for antiretroviral therapy
- All TB drugs are given once daily every day of the week
- Drug dosages should be adjusted on a monthly basis according to the current weight of the patient
- Children  $>8$  years of age at the time of TB diagnosis are routinely treated as adults – refer to dosing chart above (Regimen I)
- Children with uncomplicated TB disease should receive treatment at their local TB clinic
- All children with severe forms of TB (TB meningitis, miliary TB, TB peritonitis, spinal or skeletal TB) and those suspected of having multi-drug resistant (MDR) TB (in contact with MDR TB case or not responding to first-line therapy) should be referred for expert opinion and management
- For children who experience persistent vomiting associated with taking TB medication consider dividing the dose and administering twice daily (particularly ethionamide)
- Supplemental pyridoxine (usually 12.5mg (1/2 tablet) in children & 25mg (1 tablet) in adults once daily) is recommended particularly in malnourished patients and patients receiving antiretroviral therapy

Compiled by J. Nuttall, D.P. Moore, Red Cross Children's Hospital, Cape Town. Adapted from Guidance for national tuberculosis programmes on the management of tuberculosis in children, World Health Organization, 2006 and South African National Department of Health: TB Control Programme 2004