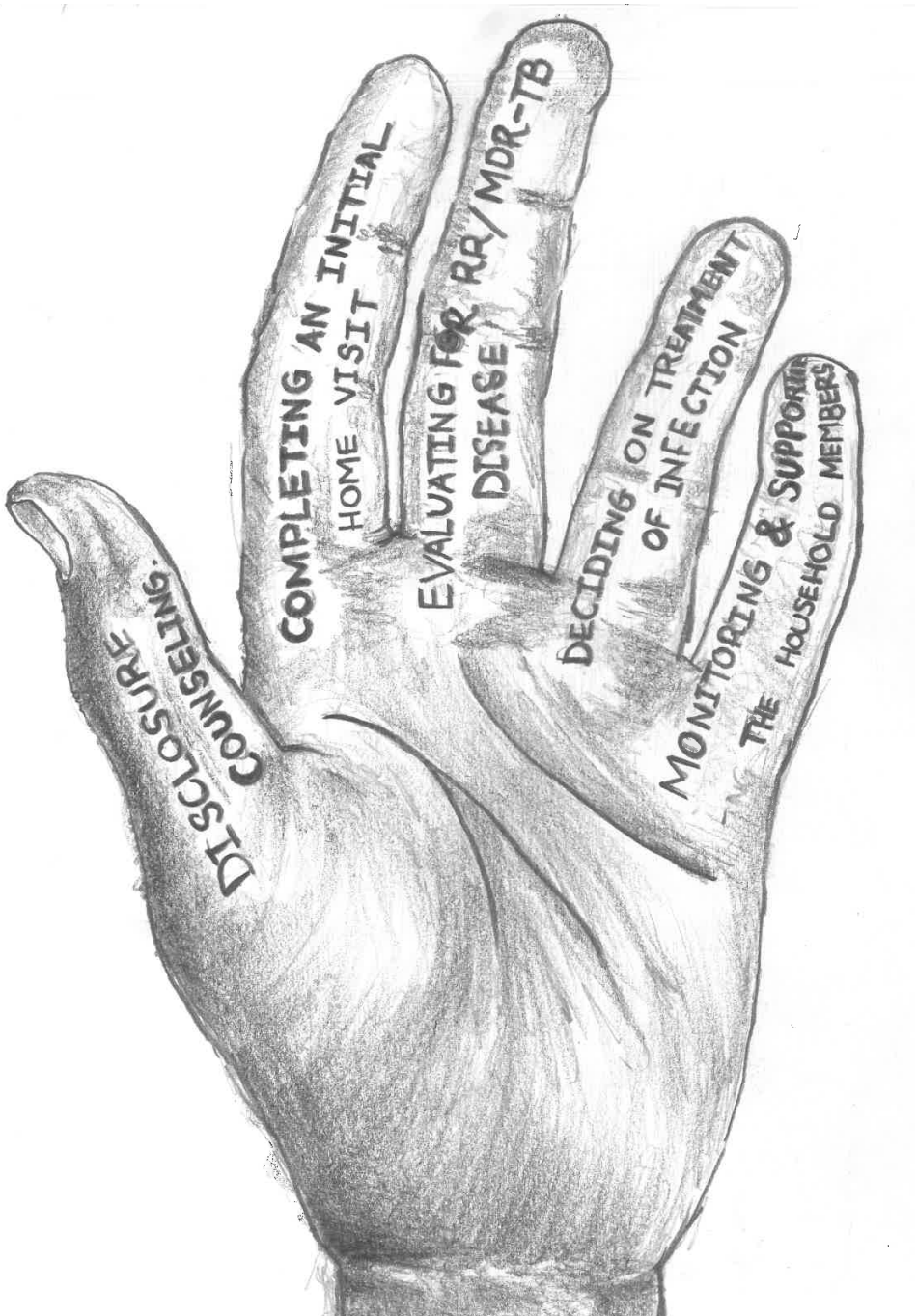
Implementing a Family-Centered Approach to

Post-Exposure Management for Rifampicin-Resistant/Multidrug-Resistant TB:

A "POCKET" TOOLKIT FOR RAPID REFERENCE



This “pocket” toolkit contains easy to reference tables and algorithms for optimal implementation of a family-centered approach to post-exposure management for rifampicin-resistant/multidrug-resistant tuberculosis (RR/MDR-TB). It is meant to be used in conjunction with the full field guide “A Family-Centered Approach to Post-Exposure Management for Rifampicin-Resistant/Multidrug-Resistant Tuberculosis: A Field Guide. Boston, MA, USA: The Sentinel Project for Pediatric Drug-Resistant Tuberculosis and Free of TB; July 2024, First edition.” The same disclaimers apply to the use of this “pocket guide”. The writing committee, illustrations and acknowledgements are the same as the field guide.

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ZERO child deaths from DR-TB

Sentinel Project on pediatric drug-resistant tuberculosis

Stop TB Partnership GLOBAL DRUG FACILITY

FREE of TB

THE "RR/MDR-TB PEP": OVERVIEW

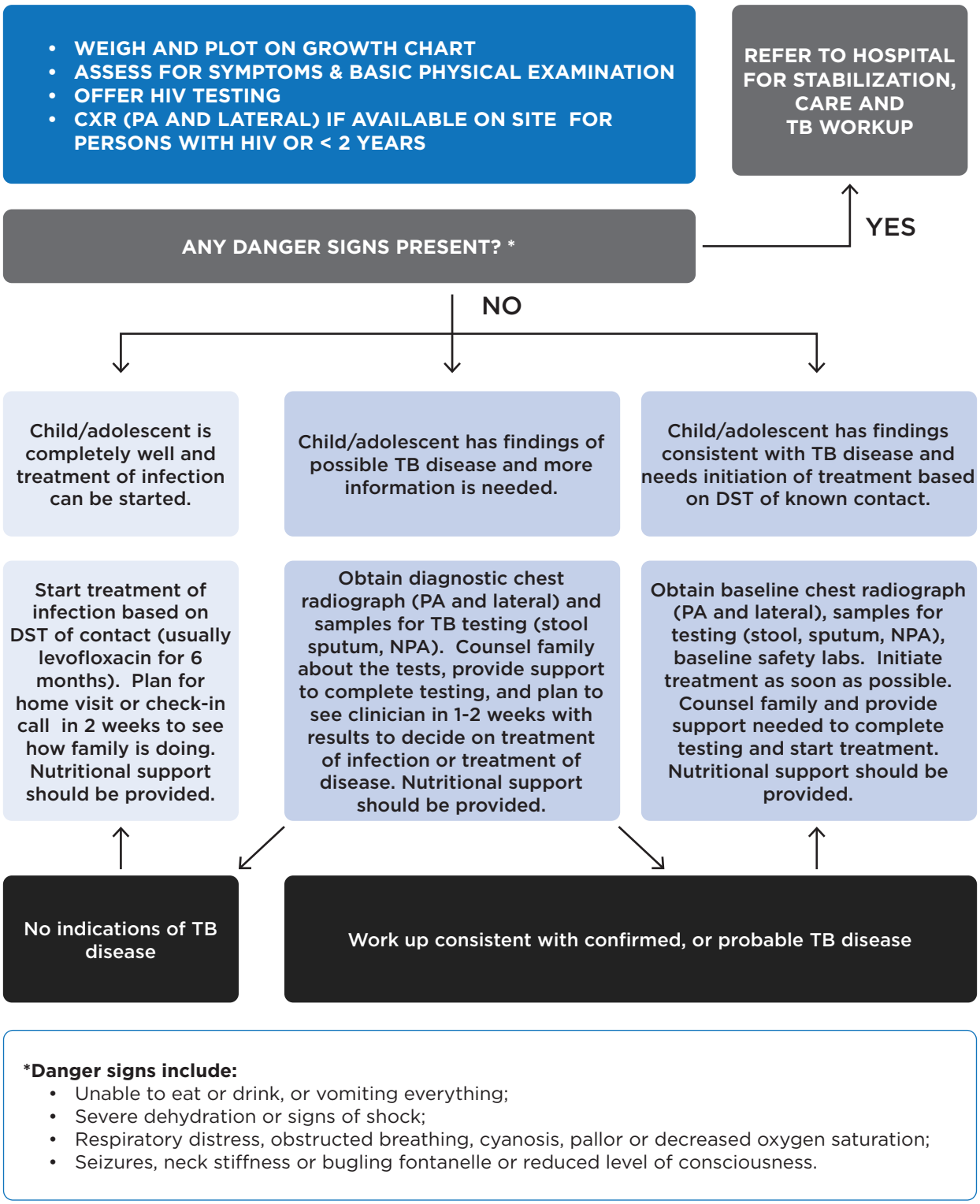
While caring for people with RR/MDR-TB and their household contacts can seem complex, these are the things that need to be done for them and which we will review in this Field Guide

- Every person diagnosed with RR/MDR-TB should receive counseling and support to disclose their diagnosis to household members.
- Household members of all ages should be assessed for RR/MDR-TB infection and disease. This should be done using exposure scales, symptom assessment, weight, and a basic physical exam offered at a time and in a place convenient for them. They should also be offered HIV counseling and testing.
- Household members with signs and symptoms of possible TB disease should undergo further assessment to rule out RR/MDR-TB disease.
- Household members in whom RR/MDR-TB disease is not likely or has been ruled out should be offered a post-exposure package of care.
- The RR/MDR-TB post-exposure package of care should include: 1) psychosocial support/counseling; 2) medication therapy (usually with six months of levofloxacin); and 3) nutritional supplementation.
- Programs should offer these interventions in an urgent and systematic fashion. This will both improve the detection of RR/MDR-TB cases and prevent TB cases in households where a person has been found sick with TB.

TABLE 1: ACTIONS INVOLVED IN PEP

Step / Action	Details
1. Identify close contacts through disclosure counselling	Done by a trained or experienced health care worker or counsellor with the person newly diagnosed with RR/MDRTB and includes: • a review of reasons to disclose RR/MDR-TB status to household members; • a role playing or practice disclosure session; • identification of a trusted person to disclose to first; • selection for site of disclosure (clinic, home); • identification of possible consequences of disclosure; and • development of an action plan following disclosure. *Disclosure counselling could span over more than one contact session depending on the reaction, and receptiveness, of the person who is given a diagnosis of RR/MDR-TB during the interaction.*
2. Perform a home visit (if permission given and visiting the home is acceptable)	Done by a health worker who is familiar with the community and includes: • identifying the time, date, and location of the visit; • avoiding inadvertent disclosure or increasing stigma to family; • identify individuals who have been exposed to RR/MDR-TB at the household level; • identifying socioeconomic family needs.
3. Evaluate for RR/MDR-TB disease (select location of evaluation convenient, and preferred, by contacts)	Done by a clinically trained health worker and includes: • Offering HIV testing; • Plotting weight and height (on growth curve for children/adolescents); • Assessing for symptoms; • Assessing exposure level using formal scale • Performing basic physical examination; • Determining who needs a chest radiograph (posterior-anterior [PA] and lateral) and referring those individuals for services *Transportation support should provided for family to attend any assessments that will be done outside of the home. Testing and CXR done should be done at no charge.*
4. Initiate medication treatment of infection and nutritional support.	Done by a clinically trained health worker and includes: • Levofloxacin for six months for household members exposed to fluoroquinolone-susceptible RR/MDR-TB; • High-dose isoniazid or delamanid as options for contacts exposed to fluoroquinolone-resistant MDR-TB. • Provision of medication treatment in two- or three-month intervals for a total of 6 months. • Provision of nutritional support to all household members in two- or three-month intervals for a total of 6 months.
5. Monitor and support household contacts	Done by a clinically trained health worker and includes: • contacting household members every two or three months until completion of treatment of infection; • refilling medications; • replenishing nutritional packages of support; • supporting adherence as needed • documenting TB status of each household members at the end of 6 months.

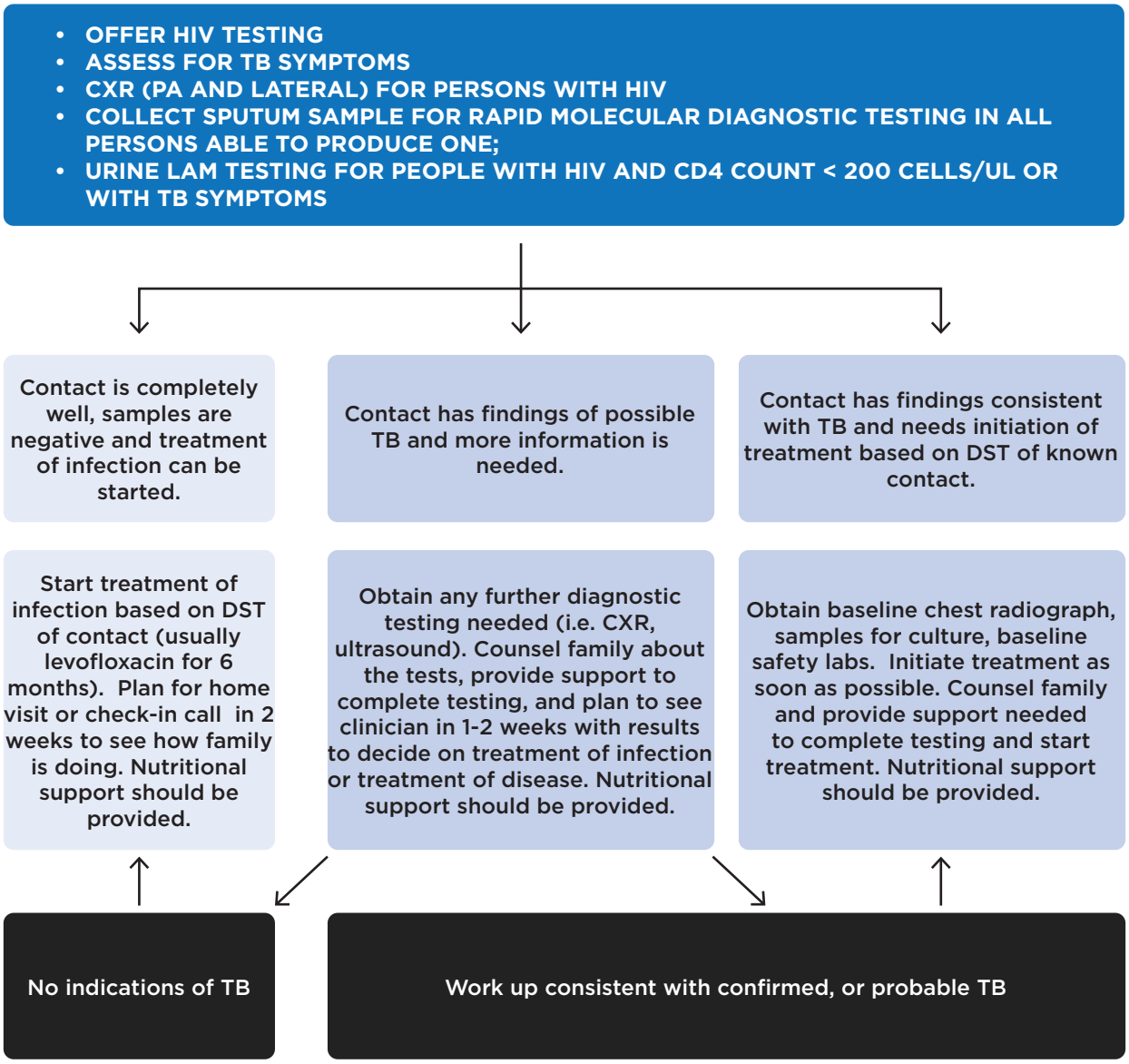
ALGORITHM 1 SUMMARIZES THE MAIN DECISION POINTS WHEN EVALUATING CHILD AND ADOLESCENT CONTACTS FOR RR/MDR-TB.



***Danger signs include:**

- Unable to eat or drink, or vomiting everything;
- Severe dehydration or signs of shock;
- Respiratory distress, obstructed breathing, cyanosis, pallor or decreased oxygen saturation;
- Seizures, neck stiffness or bugling fontanelle or reduced level of consciousness.

ALGORITHM 2 BELOW SUMMARIZES THE KEY PEP DECISION POINTS IN ADULTS



BOX 1: EXAMPLE OF A WELL-QUANTIFIED EXPOSURE SCALE

Question	No	Yes
Is the person diagnosed with RR/MDR-TB the household contact's mother?	0 points	1 point
Is the person diagnosed with RR/MDR-TB the household contact's primary caregiver?	0 points	1 point
Does the person diagnosed with RR/MDR-TB sleep in the same bed as the household contact?	0 points	1 point
Does the person diagnosed with RR/MDR-TB sleep in the same room as the household contact?	0 points	1 point
Is the person diagnosed with RR/MDR-TB coughing?	0 points	2 points
Does the person diagnosed with RR/MDR-TB have pulmonary TB?	0 points	2 points
Does the person diagnosed with RR/MDR-TB have a positive sputum smear?	0 points	2 points
Does the person diagnosed with RR/MDR-TB live in the same household as the contact?	0 points	3 points
Does the person diagnosed with RR/MDR-TB see the contact every day?	0 points	3 points
Is there more than one person with TB living in the household of the contact	0 points	4 points
Total points		

A score of 6 or more points on this scale could be used to define TB infection instead of a TST or IGRA

ALGORITHM 3: DRUG SELECTION FOR MEDICAL TREATMENT OF INFECTION

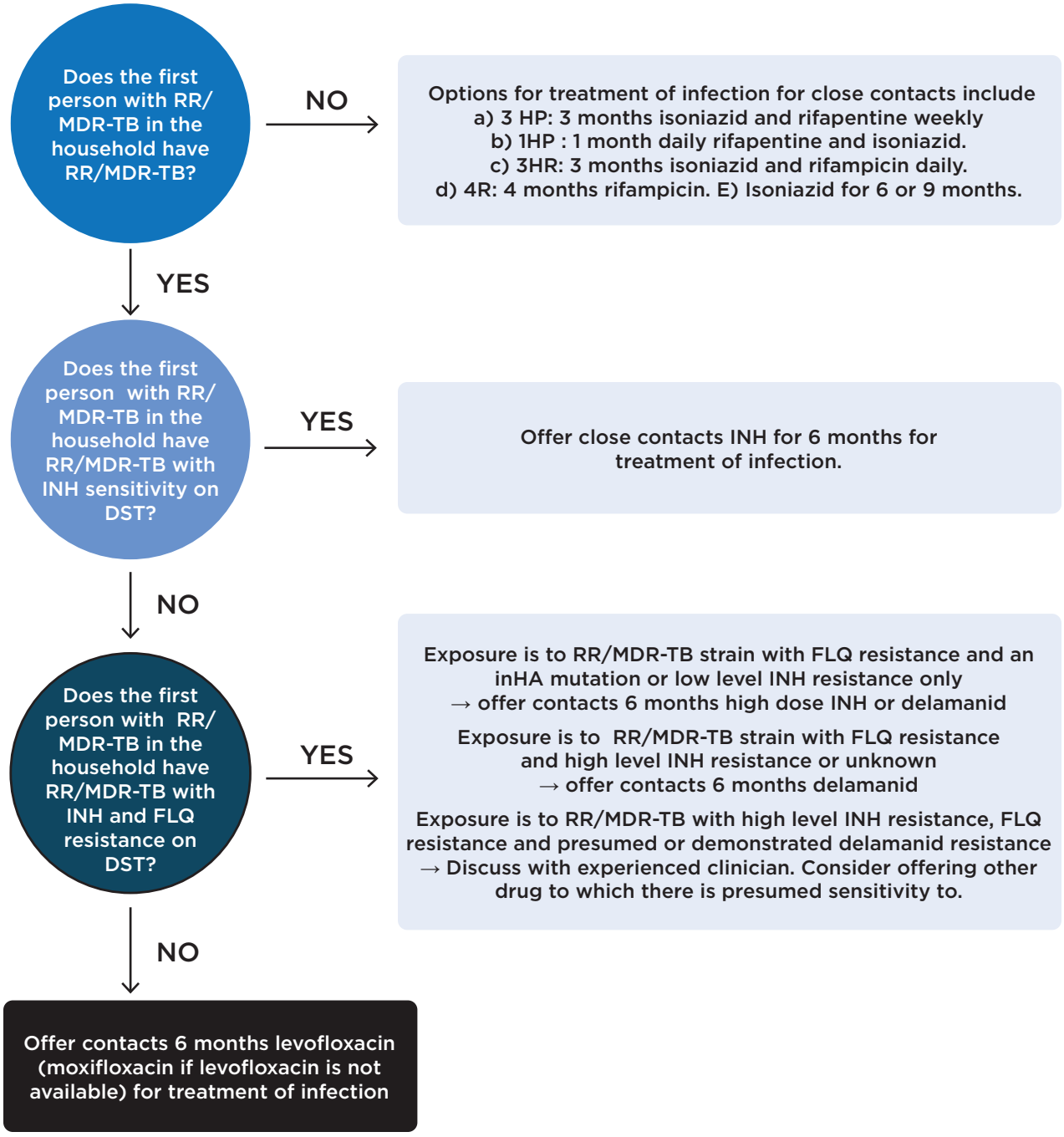


TABLE 2: GUIDANCE FOR CHOOSING DRUGS FOR TREATMENT OF INFECTION

Presumed or confirmed RR/MDR-TB resistance profile of first person diagnosed with RR/MDR-TB, to whom contact was exposed	Choice of medication therapy for close contact
Rifampicin mono-resistant TB with confirmed INH susceptibility	Isoniazid (5-10mg/kg/day) for 6 months OR Levofloxacin (20mg/kg/day—not to exceed 1000mg daily) for 6 months (For weight-based dosing see Table 2.4; p xxx)
Multidrug resistant TB with presumed or confirmed fluoroquinolone sensitivity	Levofloxacin (20mg/kg/day—not to exceed 1000mg daily) for 6 months. If levofloxacin not available, use moxifloxacin (10-15mg/kg/day—not to exceed 800mg daily) for 6 months. (For weight-based dosing see Table 2.4; p xxx)
Multidrug resistant TB with fluoroquinolone resistance	High dose isoniazid (10-15mg/kg/day) for 6 months if low level isoniazid resistance demonstrated (i.e., *inhA* mutation) OR Delamanid for 6 months (For weight-based dosing see Table 2.5; p xxx)
Multidrug resistant TB with high level isoniazid resistance, fluoroquinolone resistance, and presumed or confirmed delamanid resistance	Discuss with an experienced clinician. Short course linezolid for 1 – 2 months may be an option to consider.

TABLE 3: WEIGHT-BASED DOSING OF LEVOFLOXACIN

Levofloxacin 100mg scored, dispersible tablets Recommended dosing: 15-20mg/kg/day Weight-based dosing			
Weight Band (kg)	**Dose**	**Number of 100mg tablets**	**Number of 250 mg tablets**
1kg	20mg	Mix 100mg tablet in 10ml of water and administer 2ml of mixture immediately	-
2kg	40mg	Mix 100mg tablet in 10ml of water and administer 4ml of mixture immediately	-
3kg	50mg	0.5	-
4-6kg	100mg	1	0.5
7-9kg	150mg	1.5	0.5
10-12kg	200-250mg	2.0 to 2.5	1
13-15kg	300mg	3	1-1.5
16-18kg	300-350mg	3-3.5	1.5
19-20kg	400mg	4	1.5
21-23kg	400-450mg	4-4.5	2
24-25kg	500mg	5	2
26-35kg	750mg	-	3

TABLE 4: WEIGHT-BASED DOSING OF DELAMANID

Delamanid Recommended dosing: 3-4mg/kg/day (dose extrapolated from adult dosing for those less than 10 kg) Weight-based dosing			
Weight Band (kg)	**Dose**	**25mg tablet**	**50mg tablet**
3-4.99kg	25mg once daily	1 tablet daily	Half a tablet (0.5 tablet) daily
5-6.99kg	25mg twice daily	1 tablet twice daily	Half a tablet (0.5 tablet) twice daily
7-9.99kg	25mg twice daily	1 tablet twice daily	Half a tablet (0.5 tablet) twice daily
10-15.99kg	25mg twice daily	1 tablet twice daily	Half a tablet (0.5 tablet) twice daily
16-23.99kg	50mg morning, 25mg even	2 tablets morning, one tablet evening	One tablet morning, half a tablet (0.5 tablet) evening
24-29.99kg	50mg morning, 25mg evening	2 tablets morning, one tablet evening	One tablet morning, half a tablet (0.5 tablet) evening
30-49.99kg	50mg twice daily	2 tablets twice daily	One tablet twice daily
> 50 kg	100mg twice daily	4 tablets twice daily	Two tablets twice daily

TABLE 5: FOLLOW UP SCHEDULE FOR PERSONS STARTED ON TREATMENT OF RR/MDR-TB INFECTION

Event	M0	M2 or M3	M6
TB symptom screen, basic clinical exam, weight and height	x	x	x
QTcF (ECG) if underlying cardiovascular disease or starting moxifloxacin for treatment of infection	x		
Pregnancy test in females of childbearing age and offer contraception	x		
Counselling and adherence support including assessment of psychosocial needs	x	x	x
Nutritional support	x	x	x
Assessment and management of adverse events		x	x
Assign outcome of treatment of infection			x
Other: Chest radiograph and bacteriological testing to be done if any concerns of incident TB disease			

TABLE 6: OUTCOMES FOR PATIENTS ON MEDICAL TREATMENT OF INFECTION

Completed	Patient who has completed treatment of infection
Lost to follow up	Interruption of treatment of infection for >2 months consecutively in a 6-month regimen
Treatment stopped due to adverse event	Where treatment of infection is discontinued due to adverse events or drug-drug interactions; with or without changing regimen
Treatment stopped due to incident TB or RR/MDR-TB	Where treatment is discontinued due to incident TB or RR/MDR-TB disease during any time during therapy
Not evaluated	Transferred to another facility, medical records lost
Death	Patient died while receiving treatment of infection