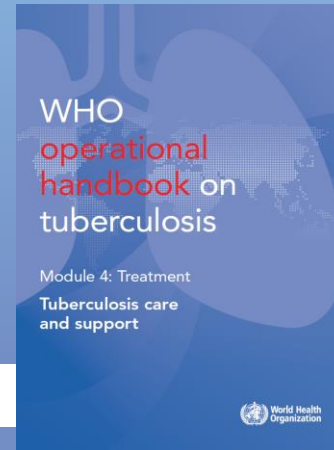
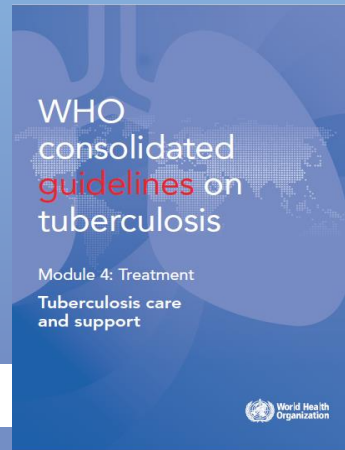




WHO recommendations on Tuberculosis Care and Support

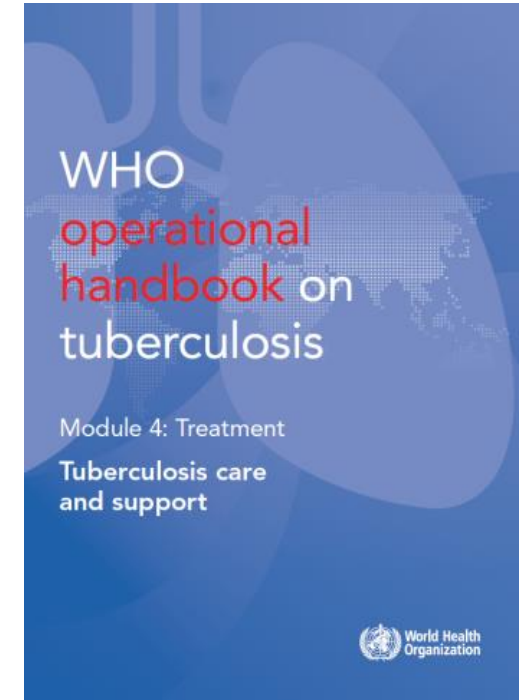
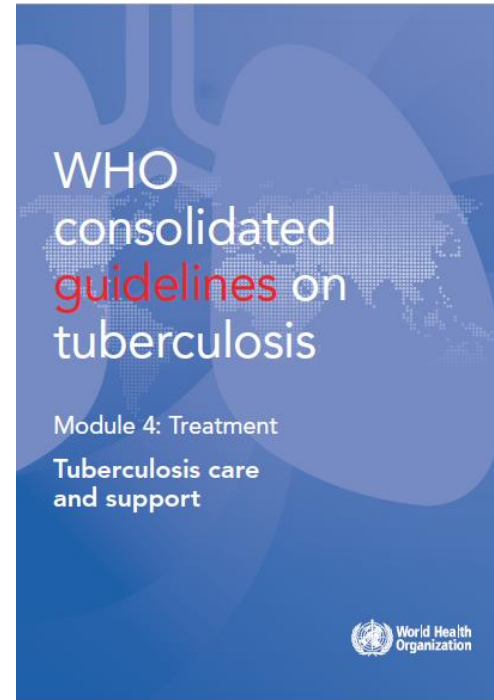
Dr Linh Nguyen
Medical Officer – TB Treatment & Care
TB Prevention, Diagnosis, Treatment, Care and Innovation Unit
WHO Global Tuberculosis Programme

African Regional workshop on DR-TB treatment
2-3 July 2024



Outline

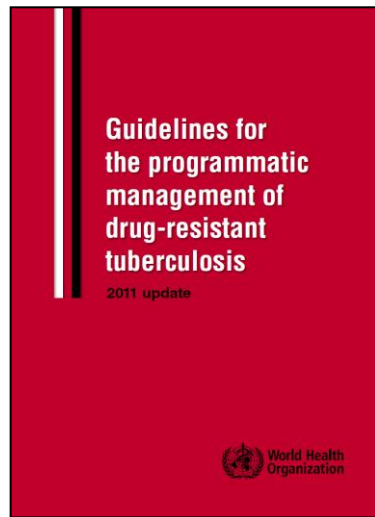
1. Overview of the guidelines
2. Evidence
3. Recommendations
4. Guidance for implementation (Operational Handbook)



<https://tbksp.org/en/node/1899>

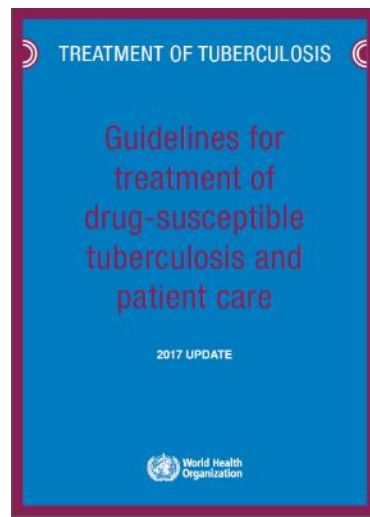
Background

Consolidation of recommendations on TB care and support



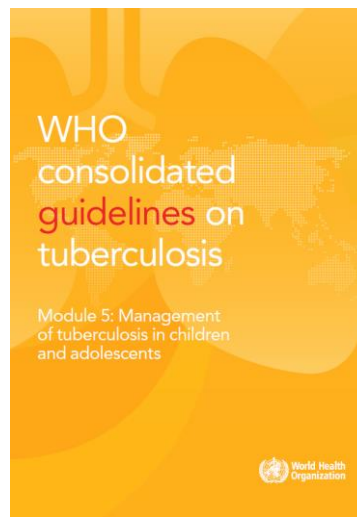
2011

Ambulatory model of care for MDR-TB



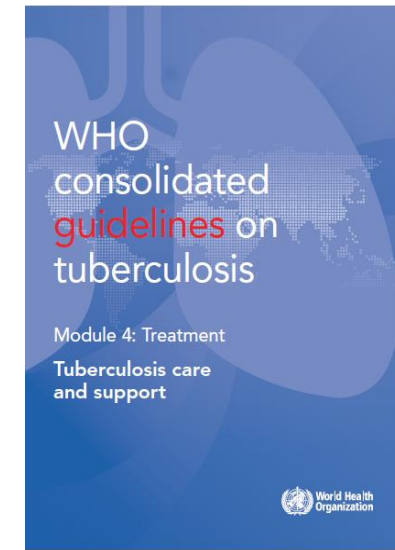
2017

- Care and support interventions for all people with TB
- Decentralized model of care for MDR-TB



2022

Models of care for children and adolescents



2022

Consolidation of all the evidence-based recommendations on TB care and support

Overview of the guidelines 2022

There are 8 recommendations, structured in 3 sections

Section 1. Care and support interventions for all people with TB

4 recommendations

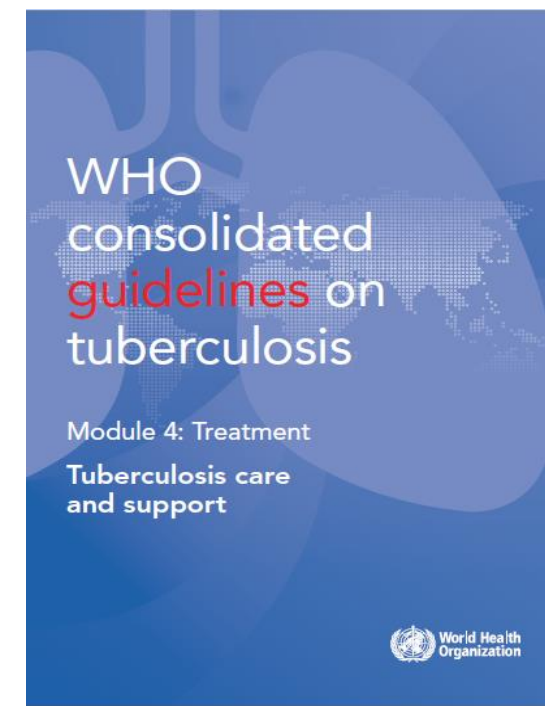
Section 2. Models of care for people with drug-resistant TB

2 recommendations

Section 3: Models of care for children and adolescents exposed to TB or with TB disease

2 recommendations

2022

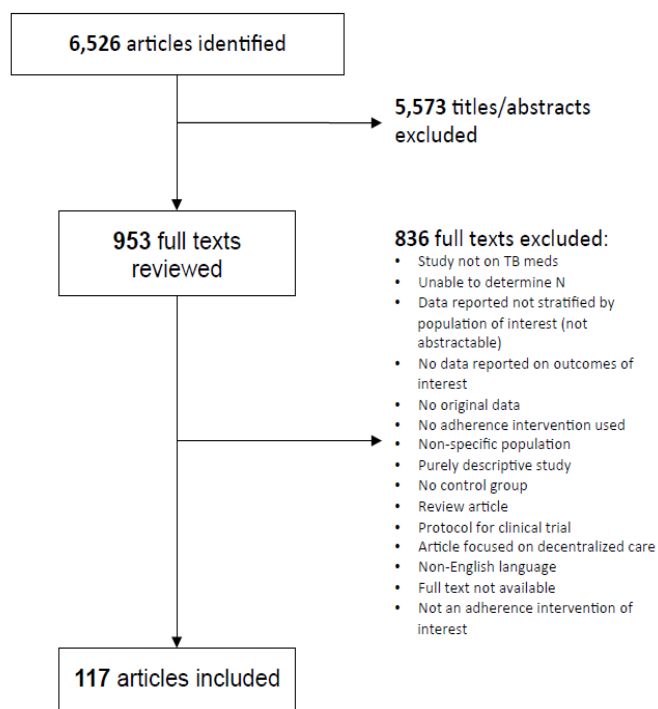


<https://tbksp.org/en/node/1899>

Evidence: Systematic reviews

Care and support interventions (Systematic review 2017)

PRISMA Summary



Alipanah N et al. Adherence interventions and outcomes of tuberculosis treatment: A systematic review and meta-analysis of trials and observational studies. *PLoS Med* 15(7): e1002595. July 2018. <https://doi.org/10.1371/journal.pmed.1002595>

Combination of treatment adherence interventions* vs treatment support alone or self-administered treatment

Outcome	Study design	RR (95% CI)
Mixed treatment adherence interventions vs treatment support alone		
Success ↑	RCT	1.16 (1.11 – 1.22)
Loss to follow up ↓	RCT	0.38 (0.25 – 0.57)
Mixed interventions vs self-administered treatment		
Success ↑	RCT	1.36 (1.06 – 1.75)
Sputum conversion ↑	RCT	1.65 (1.16 – 2.34)
Loss to follow up ↓	RCT	0.58 (0.36 – 0.93)

*Treatment adherence interventions include:

- patient education
- material support (e.g. food, financial incentive, transport fee)
- psychological support
- staff education
- home visit or digital health communication (e.g. SMS, phone call)
- medication monitor

Evidence: Systematic reviews

Care and support interventions for patients with TB

Patient education vs therapy alone

(Patient education: oral or written education before treatment, educational counseling at drug collection or follow-up visits)

Outcome	Study design	RR (95% CI)
Success ↑	RCT	1.40 (0.09 - 2.17)
Completion ↑	RCT	1.71 (1.32 - 2.22)
Cure ↑	RCT	2.15 (1.58 - 2.92)
Adherence ↑	RCT	1.83 (1.14 - 2.92)
Loss to follow up ↓	RCT	0.49 (0.21 - 1.17)

Material support vs therapy alone

(Material support: food, financial incentive or transport/living subsidy)

Outcome	Study design	RR (95% CI)
Success ↑	RCT	1.07 (1.03 - 1.11)
Mortality ↓	Observational	0.51 (0.37 - 0.71)
Failure ↓	RCT	0.66 (0.50 - 0.87)
Loss to follow up ↓	RCT	0.74 (0.60 - 0.90)

Psychological support vs therapy alone

(Psychological support: psychological/emotional counselling, peer-support group)

Outcome	Study design	RR (95% CI)
Completion ↑	RCT	1.20 (1.03 - 1.39)
Completion ↑	Observational	1.47 (1.08 - 2.00)
Failure ↓	RCT	Risk difference -0.12 (-0.22, -0.01)
Loss to follow up ↓	Observational	0.31 (0.15 - 0.63)

Evidence: Systematic reviews

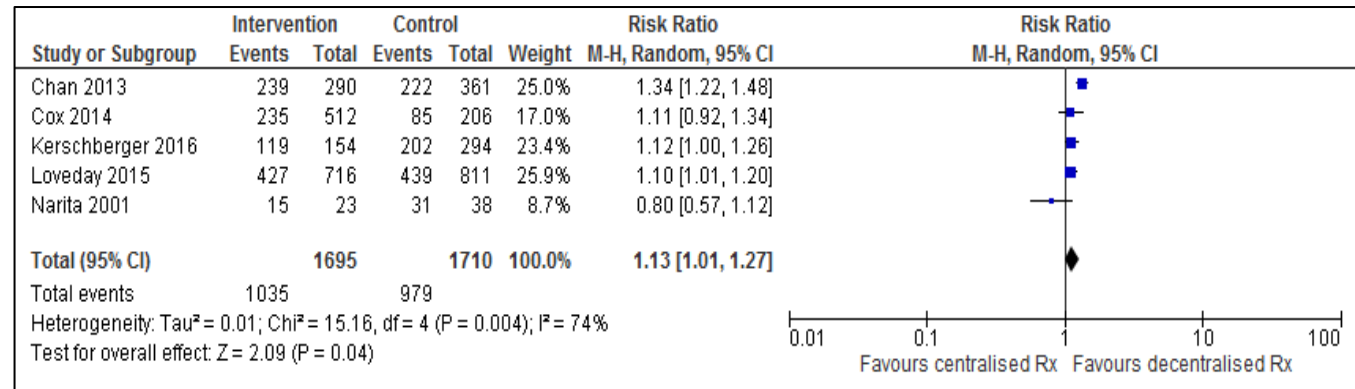
Models of care for patients with MDR-TB

Decentralized vs centralized MDR-TB care

Treatment Success

Ambulatory vs hospitalized MDR-TB care
(Data review 2011)

Decentralized vs centralized MDR-TB care
(Systematic review 2017)



Overall RR for treatment success = 1.13 (1.01-1.27)

Ho J et al. *Decentralised treatment and care for patients with multidrug-resistant tuberculosis – a systematic review and meta-analysis*. Bulletin of the World Health Organization 2017;95:584-593. <http://dx.doi.org/10.2471/BLT.17.193375>

Models of care for children and adolescents

- Systematic review (2022) on decentralized, integrated or family-centred care models on TB diagnosis, treatment or prevention in children and adolescents
- A total of 22 studies included
- Most studies focused on the 0-14-year age group

Recommendations

Treatment adherence interventions

- 1. Health education and counselling on the disease and treatment adherence should be provided to patients on TB treatment**
(strong recommendation, moderate certainty of evidence)
- 2. A package of treatment adherence interventions* may be offered for patients on TB treatment in conjunction with the selection of a suitable treatment administration option**
(conditional recommendation, low certainty of evidence)
* Treatment adherence interventions include social support, communication with patient, medication monitor, and staff education. The interventions should be selected on the basis of the assessment of individual patient's needs, provider's resources and conditions for implementation.
- 3. One or more of the following treatment adherence interventions may be offered to patients on TB treatment or to health-care providers:**
 - ✓ **material support to patient** (*e.g. meals, food baskets, food supplements, food vouchers, transport subsidies, living allowance, housing incentives, or financial bonus*)
 - ✓ **psychological support to patient** (*e.g. counselling sessions or peer-group support*)
 - ✓ **tracers** (*e.g. SMS, telephone calls, or home visit*) **or digital medication monitor**
 - ✓ **staff education** (*adherence education, chart or visual reminder, educational tools and desktop aids for decision-making and reminder*)

Treatment administration

4. The following **treatment administration options** may be offered to patients on TB treatment:
- ***Community- or home-based treatment support*** is recommended over health facility-based treatment support or unsupervised treatment
 - ***Treatment support administered by trained lay providers or health-care workers*** is recommended over treatment support administered by family members or unsupervised treatment
 - ***Video-supported treatment (VST)*** can replace ***in-person treatment support*** when the video communication technology is available and can be appropriately organized

Models of care for **MDR-TB** patients

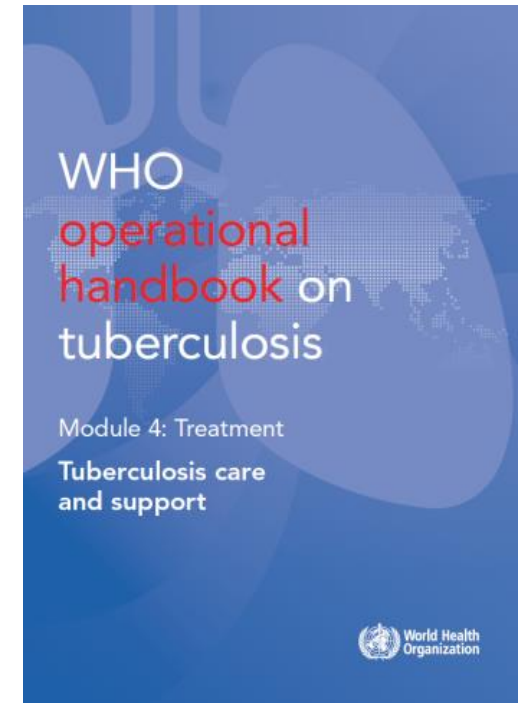
- 5. A decentralized model of care is recommended over a centralized model for patients on MDR-TB treatment**
(conditional recommendation, very low certainty of evidence)
- 6. Patients with MDR-TB should be treated using mainly ambulatory care rather than models of care based principally on hospitalization**
(conditional recommendation, very low certainty of evidence)

Models of care for **children and adolescents** exposed to TB or with TB disease

7. In TB high-burden settings, **decentralized models of care** may be used to deliver TB services to children and adolescents with signs and symptoms of TB and/or those exposed to TB
(conditional recommendation, very low certainty of evidence)
8. **Family-centred, integrated models of care** to deliver TB services may be used in children and adolescents with signs and symptoms of TB and/or those exposed to TB, in addition to standard models of care
(conditional recommendation; very low certainty of evidence)

Overview of the operational handbook structure

1. People-centred approach
2. Care and support interventions to enable TB treatment adherence
3. Health education and counselling for people affected with TB
4. Models of care for TB services
5. Palliative care



<https://tbksp.org/en/node/2308>

Assessments required to be done prior to the start of treatment for each individual patient

- *Patient's needs for social support* - for the decision on what kind of support to be provided to the patient
- *Risk of treatment interruption* - for the decision on an appropriate treatment administration option
- *Resources and conditions for implementation* of individual intervention - for the decision on a package of patient support interventions and a model of care

What are the recommended treatment adherence interventions?

Treatment adherence intervention	Description
Patient education	Health education and counselling.
Staff education	Education, chart or visual reminder, educational tool and desktop aid for decision-making and reminder.
Material support	<p>Food or financial support such as meals, food baskets, food supplements, food vouchers, transport subsidies, living allowance, housing incentives or financial bonus.</p> <p>This support addresses indirect costs incurred by patients or their attendants in accessing health services and, possibly, tries to mitigate the consequences of income loss related to the disease.</p>
Psychological support	Counselling sessions or peer-group support.
Communication with the patient	Home visit or via mobile telephone communication such as SMS or telephone (voice) call.
Digital medication monitor	A digital medication monitor is a device that can measure the time between openings of the pill box. The medication monitor can give audio reminders or send SMS to remind patient to take medications, along with recording when the pill box is opened.

What are the considerations for implementation of **models of care for patients with TB?**

- With the increasing use of all oral DR-TB treatment, patients with DR-TB should be treated whenever possible in an outpatient-based treatment programme similar to patients with DS-TB.
- For both patients with DR-TB and those with DS-TB, treatment should move towards a decentralized, ambulatory care setting
 - to make it easier for all patients to access medications and treatment support;
 - to make TB treatment be less disruptive to patients' lives
- Hospitalization may be required for patients with severe disease or treatment complications.

Key messages

1. Health education and counselling are strongly recommended for all patients with TB
2. A package of treatment adherence interventions should be considered for enhancing TB treatment outcomes in addition to the selection of an appropriate treatment administration option
3. Decentralized or ambulatory care is recommended for MDR-TB patients instead of centralized or hospitalized models of care
4. Decentralized or family-centred, integrated models of care are recommended to deliver TB services for children and adolescents with signs and symptoms of TB and/or those exposed to TB



English



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<https://extranet.who.int/tbknowledge>

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About Us

The WHO's Global Tuberculosis Programme works towards the goal of a world free of TB, with zero deaths, disease and suffering due to the disease. The team's mission is to lead and guide the global effort to end the TB epidemic through universal access to people-centered prevention and care,



Acknowledgements

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