

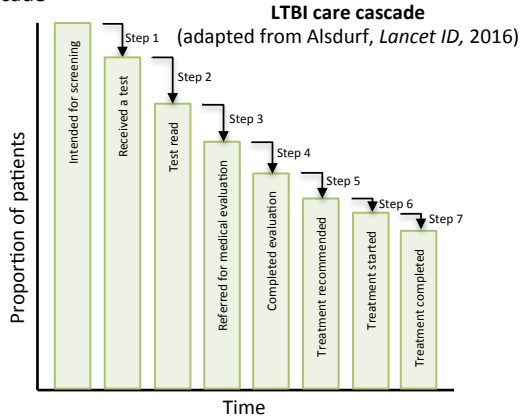
A scoping review of pediatric latent tuberculosis care cascades: literature on initial steps is lacking

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Background

- In 2018, an estimated 1.1 million children developed TB infection, and 205,000 died
- WHO names treatment of latent TB infection (LTBI) as critical to eliminating TB by 2030
- Children frequently do not complete the LTBI care cascade



- Several studies have described steps of the LTBI care cascade in children
- No systematic survey of the literature has been

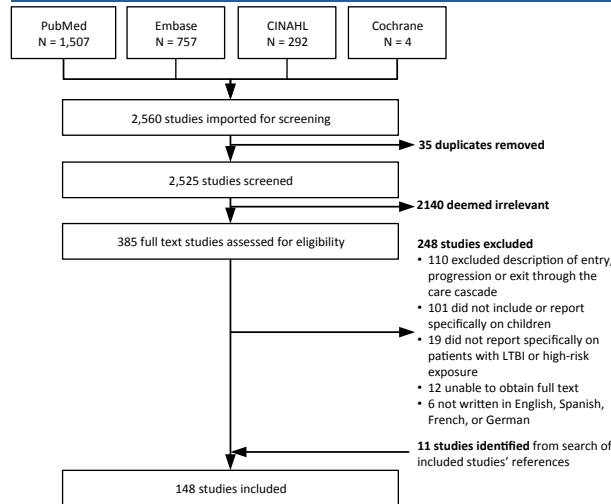
Objectives

- Summarize facilitators and barriers to retention in the pediatric LTBI care cascade in high and low burden settings
- Identify knowledge gaps in literature on the care cascade

Methods

- Review of PubMed, Embase, CINAHL, Cochrane; performed February 10, 2020
- Included studies describing:
 - Children (<21 years old)
 - Patients at risk of, screened for or diagnosed with LTBI
 - Progression through the care cascade
- Extracted data on study setting, care cascade steps, barriers and facilitators to completion, and strategies tested to improve completion

Results



Cascade step	Barriers / factors associated with lower retention LTBI care cascade	Knowledge gaps
1) Intended for screening → initial testing (n = 36)	<ul style="list-style-type: none"> Comorbidities Fear of testing procedures Inability to contact high-risk patients Older age Parental non-acceptance of testing Supply stock-outs 	<ul style="list-style-type: none"> Populations at risk for low testing uptake Efficiency of primary care-based screening
2) Initially tested → received test result (n = 23)	<ul style="list-style-type: none"> Sociodemographic factors (race/ethnicity; language) 	<ul style="list-style-type: none"> Comparison of TST and IGRA in loss to follow up Reasons for loss to follow up
3) Received test result → referral for evaluation (n = 11)	<ul style="list-style-type: none"> No analytic studies 	<ul style="list-style-type: none"> Reasons for loss to follow up Strategies to strengthen referral process
4) Referral for evaluation → completion of evaluation (n = 12)	<ul style="list-style-type: none"> Refusal of TB clinic visit Moving prior to completion of medical evaluation 	<ul style="list-style-type: none"> Comparison of referral to TB/health department versus primary care clinics Reasons for loss to follow up
5) Completion of evaluation → recommendation for treatment (n = 21)	<ul style="list-style-type: none"> Medical contraindications Moving away/transferred care before starting therapy 	<ul style="list-style-type: none"> Prevalence of medical contraindications Strategies to shorten time between evaluation and recommendation Reasons for no recommendation
6) Recommendation for treatment → initiation of treatment (n = 50)	<ul style="list-style-type: none"> Comorbidities Country of origin Lack of knowledge about LTBI therapy Older age Parental or patient refusal 	<ul style="list-style-type: none"> Reasons for parental and patient refusal Strategies to improve treatment uptake
7) Initiation of treatment → completion of treatment (n = 73)	<ul style="list-style-type: none"> Distance or lack of transportation to clinic Lack of cooperation from children Lack of understanding of how to take therapy Longer treatment regimens and side effects Parental work conflicts Pregnancy Psychological states (engaging in high risk behaviors) and forgetfulness Socioeconomic and demographic factors (older age, lack of insurance, lower parental education) Stigma about TB and links to HIV Treatment at non-TB clinics 	<ul style="list-style-type: none"> Location of treatment (primary care clinics, health department clinics) Scalability or durability of effective pilot programs Socioeconomic and demographic features associated with adherence Timing of therapy discontinuation Use of novel adherence strategies (e.g. mHealth)

Conclusions

- Literature has focused mainly on patient-level but not health system-level barriers to retention in the cascade
- Knowledge gaps exist at every step of the pediatric LTBI care cascade; little attention has been paid to steps 1-5 (i.e., intended screening to treatment recommendation)

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