

# **Drug-Resistant TB in Children**

#### Why in news?

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Foundation for Innovative New Diagnostics (FIND) conducted TB diagnostic tests in collaboration with the Central TB Division under the Revised National TB Control Programme (RNTCP).

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### What are the highlights of the FIND study?

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- Of over 76000 children tested in nine cities 5,500 have TB.  $\space{1.5mu}{$n$}$
- 9 percentage children have Multi-Drug TB. n
- 6 percentage are the proportion of children among new TB patients in 2016.
- MDR TB in children is common in settings where it is common in adults.

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### What is MDR-TB?

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- Multi-drug-resistant tuberculosis (MDR-TB) is a form of tuberculosis (TB) infection caused by bacteria  $\ln$
- It is resistant to treatment with at least two of the most powerful first-line anti-TB medications (drugs), **isoniazid** and **rifampin**.

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### How MDR-TB diagnosis is done in children?

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- Clinical examination n
- Tuberculin skin test n
- Bactereological confirmation  $\n$
- HIV testing

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## What challenges were faced?

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- Absence of appropriate samples coupled with decentralised capacity to get good samples from children to test for TB remains a challenge in paediatric TB case detection.
- The paediatric MDR-TB cases had not been documented so far.  $\slashn$
- TB diagnosis in children is complicated due to challenges associated with sample collection and poor sensitivity of tests like the Acid fast bacilli (AFB) smear.

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• FIND, through this project, has collaborated with the Central TB Division to improve access to more sensitive diagnostic tools like the GeneXpert in the paediatric population.

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## What is GeneXpert?

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• GeneXpert is a diagnostic tool to diagnose TB.

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• The test is used with an automated molecular diagnostic platform that

enables the diagnosis of TB and some drug-resistant TB (DR-TB) in less than two hours.

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- GeneXpert testing was performed free of cost for all presumptive paediatric TB and drug-resistant TB patients (aged under 15 years).  $\nline{\nline{15}}$ 

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### **Quick fact**

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#### **Revised National TB control programme**

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- Revised National Tuberculosis Control Program (RNTCP) is the state-run tuberculosis (TB) control initiative of the Government of India.
- As per the National Strategic Plan 2012-17, the program has a vision of achieving a "TB free India", and aims to achieve Universal Access to TB control services.

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### Source: The Hindu

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