Childhood tuberculosis neglected, despite available remedies

Childhood TB is a hidden epidemic

21 March 2012 | Geneva - Tuberculosis (TB) often goes undiagnosed in children from birth to 15 years old because they lack access to health services - or because the health workers who care for them are unprepared to recognize the signs and symptoms of TB in this age group. With better training and harmonization of the different programmes that provide health services for children, serious illness and death from TB could be prevented in thousands of children every year, WHO and Stop TB Partnership said today.

Childhood TB a hidden epidemic

“We have made progress on TB: death rates are down 40% overall compared to 1990 and millions of lives have been saved," said Dr Mario Raviglione, Director of the WHO Stop TB Department. "But unfortunately, to a large extent, children have been left behind, and childhood TB remains a hidden epidemic in most countries. It is time to act and address it everywhere".

Most families who are vulnerable to TB live in poverty and know little about the disease and how to obtain care for it. All too often, when an adult is diagnosed with TB, no attempt is made to find out whether children in the household also have the disease. This is a crucial step, since most children catch TB from a parent or relative. Any child living with a TB patient and that has an unexplained fever and failure to thrive may have the disease and should be evaluated by a health worker for TB. Those who are not ill with TB should be protected against the disease through preventive therapy with the drug isoniazid. Those who are ill should receive treatment

Low cost solutions to treat and cure

“Two hundred children die from TB every day. Yet it costs less than 3 cents a day to provide therapy that will prevent children from becoming ill with TB and 50 cents a day to provide treatment that will cure the disease,” said Dr Lucica Ditiu, Executive Secretary of the Stop TB Partnership. “But before we can give prevention or treatment we have to find the children at risk of TB, and this will only happen if governments, civil society and the private sector work together. From now on let us agree: It is unconscionable to let a single child die of TB.”

TB can be hard to diagnose

Another problem is that TB can be hard to diagnose. While high-income countries now use sophisticated childhood molecular tests to detect TB, most developing countries still use a method developed 130 years ago. The patient must cough up a sample of sputum, which is then checked under the microscope for the bacteria that cause TB. Young children generally are unable to produce a sample. Even if a child with active TB succeeds in providing a sample, it often contains no detectable bacteria.

Recent studies have shown, however, that when health programmes do start looking for children with TB, they find far more cases than expected. In Karachi, Pakistan, in 2011, researchers trained community members in the Korangi and Bin Qasim Towns to use an electronic score card on a mobile phone to find people who needed a TB test and then accompany them to the hospital or clinic. One result was a 600% increase in detection of pulmonary TB among children. Another recent study in Bangladesh found that the number of children found to have TB more than trebled when workers at 18 community health centres received special training on childhood TB.

Actions to improve TB care

WHO and the Stop TB Partnership point to three key actions needed to improve TB care and prevent TB deaths in children:

- Examine all children who have been exposed to TB through someone living in their household. If they are very ill or living with HIV, treat them for TB immediately if they have typical signs and symptoms – even if a definitive diagnosis unavailable.
- Provide preventive treatment with the drug isoniazid to all children who are at risk for TB but are not ill with the disease.
- Train all health workers who care for pregnant women, babies and children to check patients for TB risk, signs and symptoms and refer them for TB preventive therapy or TB treatment as needed.

Children at special risk of TB

TB most commonly affects the lungs, but it also can affect other parts of the body. Infants and young children are at special risk of having severe, often fatal forms of TB, such as TB meningitis, which can leave them blind, deaf, paralysed or mentally disabled. Children are just as vulnerable as adults to developing – or becoming infected with – drug-resistant forms of TB that require a lengthy, costly treatment with often severe side effects.

At least half a million babies and children become ill with TB each year and as many as 70 000 are estimated to die of the disease. Children under 3 years of age and those with severe malnutrition or compromised immune systems are at greatest risk for developing TB.

The only vaccine currently available for TB is the Bacillus Calmette-Guérin (BCG), which offers limited protection against severe forms of TB, such as TB meningitis, in young children. BCG does not create lifelong protection against pulmonary TB, and is unsafe for use in children living with HIV. Scientists are actively searching for a fully effective vaccine to protect children and adults against all forms of TB.