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Study finds gaps in pediatric HIV treatment

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Despite wider use of antiretroviral therapy (ART), progress has stalled on treating pediatric HIV infections and reducing deaths in this age group, according to a new study.

The authors said structural barriers must be addressed to improve global outcomes in children.

ART has made a significant impact on reducing AIDS-related morbidity and mortality. Researchers, however, describe major treatment gaps in children that have continued since 2010 in "Pediatric Antiretroviral Therapy (ART) Coverage and AIDS Deaths in the "Treat All" Era," (Rosen JG, et al. *Pediatrics*. May 17, 2023).

In 2015, the Treat All policy approach — also called Universal Test and Treat or Test and Start — expanded ART for all patients diagnosed with HIV, replacing criteria based on CD4 cell counts.

While several studies have tried to quantify the impact of the Treat All implementation, the focus has been on adults. This study looked at ART coverage and AIDS mortality in children from 2010 to 2020.

Researchers used estimates of national ART coverage (the proportion of children under 15 years on ART) and AIDS mortality (deaths per 100,000 population) over 11 years. For 91 countries, researchers also abstracted data for the year Treat All was incorporated into HIV treatment guidelines.

By 2018, 89% of the 91 countries had adopted Treat All into their guidelines. The policy is aligned with global targets of the Joint United Nations Program on HIV/AIDS that call for 95% of people living with HIV to know their status, 95% of people who know their status to receive life-saving ART and 95% of people on ART to have suppressed viral loads.

Despite the benefits and promise of the Treat All approach, the new study revealed that gaps persist for certain populations. As recently as 2021, ART coverage in children lagged substantially behind that of adults (52% vs. 76%).

Results also showed pediatric ART coverage tripled over the study period (from 16% to 54%), but the rate of increase declined by 6% after Treat All was adopted. From 2010-'20, pediatric AIDS-related deaths were cut in half (from 240,000 to 99,000), but the rate of decline decreased by 8% after Treat All was adopted.

"While this progress over a decade is a massive global achievement, study findings indicate that 'Treat All' adoption did not accelerate the ART coverage gains nor AIDS mortality reductions observed in the pre-implementation period," the authors wrote.

However, coverage increases in the post-implementation period may have been lower than expected because many countries increased CD4 thresholds for ART initiation before Treat All was in effect, the authors wrote.

To close gaps in coverage for children, optimized case-finding and better linkage to care and treatment are essential, the authors emphasized. Structural issues that must be addressed include integration with adult testing efforts and prioritization of family-based service delivery models. There also is an "urgent need" to identify children living with advanced HIV disease to provide them with appropriate care, while diagnosing and treating them earlier to further reduce mortality.

This is especially true in regions with high HIV burdens like West and Central Africa.

Multiple challenges slowing progress for children include the following:

- missed opportunities for early infant diagnosis and pediatric case identification;
- continuity of treatment;
- stigma and fear among caregivers to seek care for their children;
- gaps in pediatric training for HIV providers with subsequent lack of child-friendly services; and
- availability and supply of pediatric ART regimens.

These challenges "slow progress towards HIV epidemic control in the 'Treat All' era," according to the authors.

Even after diagnosis and ART initiation, children living with HIV have a greater burden of HIV-associated mortality. They make up less than 5% of all people living with HIV yet account for 15% of all AIDS-related deaths.

Authors of a related commentary wrote that "…now is the time to push for global equity in health care for children so that we can save future generations of children and families."

Resource

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