

The Meaning of “Rapid” Antiretroviral Therapy Initiation for Adolescents With Human Immunodeficiency Virus in Sub-Saharan Africa

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(See the Major Article by Tymejczyk et al, on pages 755–64.)

In this issue of *the Journal of Infectious Diseases*, Tymejczyk, Brazier et al [1] analyzed data from the IeDEA cohort, involving 7 countries in sub-Saharan Africa, to show that adoption of a Treat All approach resulted in increased rapid antiretroviral therapy (ART) initiation (ie, within 30 days of enrollment) among young adolescents (age 10–14) with human immunodeficiency virus (HIV). These increases were greater in countries that adopted universal Treat All strategies in 2016 compared with countries that implemented pediatric-specific treatment programs in 2013. The authors highlight that reducing barriers to diagnosis, care, and treatment initiation in this key population is critical to improving the overall continuum of care for adolescents with HIV. They should be congratulated for demonstrating strong evidence for the importance and impact of expanding HIV treatment policies for adolescents in sub-Saharan Africa.

Despite these encouraging findings, one must take pause in considering the meaning of “rapid” for these adolescents, most of whom have remained outside of HIV care for 10–14 years after perinatal

HIV acquisition. As shown by Tymejczyk, Brazier et al [1], Treat All policies clearly have an important role to play in rectifying the lack of care for this vulnerable population; however, we must also consider why they were not engaged earlier.

Much effort has gone into identifying neonatal and infant HIV acquisition; however, the effectiveness of these programs has generally been suboptimal. Although an estimated 1.4 million mother-to-child HIV transmissions were averted from 2010 to 2018 through programs such as Option B+ [2], over the same time period only 50% of HIV-exposed infants completed early diagnosis procedures [2]. Moreover, an analysis in South Africa found that over one third of mothers dropped out from 1 or more steps in the prevention of mother-to-child transmission (PMTCT) service cascade [3]. Improvement of these services will be critical to avoid children growing up with HIV and eluding the lifesaving care they need.

For those not identified through early infant diagnosis programs, few initiatives target identification of older children [4]. Indeed, as seen in the IeDEA cohorts, several other studies in sub-Saharan Africa have shown concerning rates of delayed diagnoses into the adolescent years [5–7]. It is notable that Tymejczyk et al [1] found no change in age at ART initiation before or after the Treat All policy change, and the median pretreatment CD4 remained below 500 cells/ μ L after the Treat All policy change (although missing data

complicated the latter analysis). These findings suggest years of missed opportunities for diagnosis and treatment initiations in children with perinatally acquired HIV in these settings.

The largest gap in the continuum of care for adolescents with HIV is in diagnosis and linkage to care. Interventions to increase HIV testing among adolescents have been developed and involve alternative venue testing, use of mobile health technology, incentives, youth-friendly services, and peers in the community [8]. In sub-Saharan Africa, only alternative venue testing has been shown to increase HIV testing while documenting improved case finding [4, 9–12]. Although some of these other modalities have shown promise in encouraging adolescents to test for HIV, few have improved case finding, and none of them have been shown to result in linkage to care after diagnosis. This lack of entry into care is a critical gap. Because the goal of HIV testing in the Test and Treat era is to rapidly increase the number of individuals accessing ART and ultimately reach viral suppression, case finding with embedded linkage to care is essential to achieving this goal.

Although important increases have been seen in the number of adolescents timely initiating ART after entry to care, the expected rapid influx of eligible adolescents never materialized after policy changes in many sub-Saharan countries [2]. For example, in 2017, only 52% of children with HIV less than age 14 were

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receiving ART, falling well behind global targets [2]. Although Tymejczyk, Brazier et al [1] found that guideline expansions targeting adolescents may be less effective for rapid treatment initiation than universal policies, neither approach appears to have been accompanied by increases in care enrollment. Adolescent-focused programs may have an important role to play in outreach efforts to bring children into care, especially when they have been missed by PMTCT or generalized efforts. Expansion of country guidelines to Treat All strategies relieves some barriers to ART initiation, particularly by eliminating extra visits for clinical staging or waiting for CD4 cell count results; however, significant barriers remain for optimal engagement of adolescents with HIV, including stigma, disclosure, and adequate caregiver support [13, 14]. These barriers are not addressed by universal Treat All strategies and require targeted interventions to improve adolescent outcomes.

Looking beyond treatment initiation, successful ART in adolescents is often complicated by high rates of loss to follow up and viral relapse [15–17]. Stigma and disclosure remain significant barriers in this aspect of the HIV care continuum, as are the following: treatment fatigue; interference with school; cognitive, behavioral, or mental health problems; substance use; and inadequate preparation for the transition to adult care [14, 18]. The nature and severity of these challenges warrant specific focus on adolescents. Indeed, provision of adolescent-friendly services improves retention in care and viral suppression for adolescents with HIV [19] and is recommended by the World Health Organization [20]. Among these interventions, peer support, connection with the clinical staff, and convenient clinic hours positively impact care delivery [14].

As we look to expand coverage of care to adolescents with HIV, we must consider not only how rapidly they take up our programs, but how rapidly our programs reach them. Efficiencies of care delivery through universal access can have a significant impact, as shown by Tymejczyk,

Brazier et al [1], but the unique needs of children and adolescents deserve careful consideration of where, when, and how they are dropping off the care continuum. Future research efforts should explore the complex interplay of child, caregiver, and environmental factors that are currently limiting successful engagement with this population. Their future depends on our ability to meet their needs.

Notes

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