

ABSTRACT

Background An estimated 370 000 children became newly infected in 2007 despite increasing access to PMTCT programs. The 2008 WHO guidelines recommend that infants in high HIV prevalence countries are screened for HIV exposure and, if exposed, have a virologic test at 4-6 weeks of age or the earliest opportunity thereafter.

Methods Free infant testing and treatment was made available at two clinics in Blantyre, Malawi as part of a community-based neurodevelopment and HIV research study. Women were informed on early infant testing and treatment and given educational fliers at PMTCT, 1 week and 6 week postnatal visits, and infant vaccination clinics. Six weeks testing was performed by HIV DNA PCR assay on dried blood spots.

Results During a six month period, 338 HIV-exposed infants were tested, and 46 infants identified as HIV-infected. Uptake of testing was lower than expected, with only 53% (338/646) of HIV-infected women presenting for infant testing at 6 weeks. Barriers to testing included poverty (lack of money for transport to primary health care clinic), stigma, especially when mothers had not disclosed her status, problems with identifying exposure status due to disconnects between mother and infant health records, and lack of awareness of infant testing and treatment in the community. Challenges to early ART initiation included mothers not returning for infant HIV test results, infant death prior to ART initiation, and refusal to start treatment in asymptomatic infants. Collection of contact information, tracing of mothers by community health volunteers and community sensitization using theater increased uptake of testing and treatment.

Conclusions Important barriers to early infant testing and treatment at primary health care clinics exist, resulting in a only half of HIV-exposed infants being tested and a minority of HIV-infected children initiating ART in the first months of life.

BACKGROUND

- In 2007 approximately 270,000 children died from AIDS and 370,000 children were newly infected with HIV
- In Malawi there were approximately 91,000 children living with HIV/AIDS in 2007
- More than 90% of new infection in children are transmitted during pregnancy, birth or breastfeeding
- Without treatment, approximately one half of children will die by two years of age
- In infants early diagnosis of infection and early antiretroviral treatment can reduce infant mortality by 76% and HIV progression by 75%
- Based on the benefits of early infant testing and treatment, in 2008 the WHO released guidelines recommending that infants in high HIV prevalence countries receive a PCR test for HIV infection at 4-6 weeks of age, and receive immediate treatment if infected
- In a resource poor setting, roll-out of early infant testing and treatment will be challenging due to the need to educate not only health care workers but also the general public about the importance of these new services

METHODS

- Free infant testing at 4-6 weeks of age was made available at two clinics in Blantyre, Malawi as part of a community-based neurodevelopment and HIV research study
- Free treatment for infants is available through the Malawi government at one of the clinics, and at the district hospital close to the second clinic
- In order to increase awareness of the free testing service and to educate HIV-infected mothers about the importance of early infant testing and treatment, women were informed by study staff of the service and given educational fliers at PMTCT, one week and six week postnatal visits and infant vaccination clinics
- Educational posters were also displayed in the clinics
- Six week testing was performed by HIV DNA PCR assay on a dried blood spot, performed through a heel prick
- Results of the testing were made available at the ten week vaccination visit

RESULTS

646 HIV-infected pregnant women identified

↓ 53%

338 infants presented for testing

↓ 13.6%

46 infants tested positive for HIV at age 6 weeks

Over a ten month period, 634 HIV-infected pregnant women were identified through the clinics' PMTCT programs. These women were informed of the early infant testing services being offered in the clinics, and were encouraged to return with their infants at 4-6 weeks of age for free infant testing. Uptake of testing was lower than expected, with only slightly more than half (338/646) of women presenting with their infants for early infant testing. During this time period 46 infants were identified as being HIV infected.

Challenges

Some of the barriers to testing were the cost of transport to the clinic, difficulty identifying exposed infants due to a disconnect between mother and infant health records, and a lack of awareness of infant testing and treatment in the community. Stigma was also a common issue, especially when the mothers had not disclosed their own status to the husband or family. Initiation of treatment for children identified as infected was also difficult. Challenges included infant death prior to ART initiation, and a failure of mothers to return to the clinic for the infant test results. Women were also hesitant to start lifelong treatment for infants who appeared healthy (asymptomatic). I

n order to improve distribution of infant test results, collection of contact information, tracing of mothers by community health volunteers was implemented. Community sensitization using theater was performed in the local villages to address the issues of stigma and to spread the message of the importance and availability of early infant testing and treatment.

CONCLUSIONS

- Important barriers to rollout of early infant testing and treatment exist in this setting
- Only approximately half of HIV-exposed infants are being presented for early infant testing, despite study attempts to publicize the importance and availability of these programs
- Once infants are identified as HIV infected, there are still challenges to initiation of early antiretroviral treatment, including stigma
- These challenges will need to be address as early infant testing and treatment programs expand in the developing world

REFERENCES

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