



## LETTER

# Managing the HIV-infected neonate: A rural doctor's perspective



**To the editor:** Continued improvements for prevention of mother-to-child transmission (PMTCT) of HIV have dramatically reduced the number of vertical infections. However, a number of risk factors for transmission are still seen. There is an increasing awareness that more should and could be done to prevent transmission in these cases, and that targeted early diagnosis (soon after delivery) adds significant value in some infants to prevent prolonged nevirapine exposure leading to resistance, allows for rapid initiation of antiretroviral therapy as per the current guideline, and retains the infant and mother in care.

Managing HIV-infected neonates is complex. Few antiretrovirals have dosages for the first 4 weeks of life. Lopinavir/ritonavir (LPV/solution, Kaletra, Abbott Laboratories, South Africa) is contraindicated for the first 42 weeks post conception.<sup>[1]</sup> With regard to nucleoside reverse transcriptase inhibitors, zidovudine is the only agent with adequate dosage information for term and premature infants, there is no dose for abacavir, and lamivudine dosage is lower than that for older infants. Nevirapine is safer in neonates, although therapeutic dosage and need for induction dosage for 2 weeks are uncertain. In the longer term, Kaletra is superior to nevirapine in infants regardless of prior nevirapine exposure, although there are few data in the first 2 - 3 weeks of life, with exposure being lower than in older infants.<sup>[2]</sup>

The social issues that have caused poor/incomplete access to prevention programmes often persist and complicate management. Many experienced paediatricians grapple with these issues, and there is currently no consensus on the best approach.

Rural doctors are often confronted with challenging cases with respect to initiating neonates and infants on highly active antiretroviral therapy (HAART) and need to make pragmatic decisions. At Ceres Provincial Hospital, we have begun screening for mothers at increased risk of transmitting HIV to their infants in the labour ward. Their infants are given nevirapine plus zidovudine for postexposure prophylaxis, and we perform early polymerase chain reaction (PCR) tests.

We recently identified our first infected neonate. The mother (a 28-year-old primigravida) booked early and rapid tests were negative at 8 and 32 weeks. She was retested during labour, and the rapid HIV test was positive. The mother received zidovudine, single-dose nevirapine and Truvada in the labour ward. The baby was delivered through caesarean section for breech presentation. The mother starting receiving antiretroviral therapy (ART) the next day. The baby received zidovudine and nevirapine at birth, and breastfeeding was commenced. An early diagnostic PCR was fast-tracked by contacting the National Health Laboratory Service. Fortunately,

the mother was still hospitalised when we received the positive results; the baby was in its 5th day of life.

We contacted the Medicine Information Centre HIV hotline for further assistance, and were put in contact with a local paediatrician experienced in HIV care. As per telephonic advice, we initiated triple therapy with zidovudine, lamivudine and full doses of nevirapine on day 6 of life. Kaletra was prescribed at the appropriate age. The mother was educated and instructed on how to give ART correctly, and continued with her own medication and exclusive breastfeeding.

Mother and baby are being followed at the local well baby clinic and the regional HIV clinic; they attend regularly and are healthy with no side-effects. The doctor caring for the mother and infant communicates regularly with the nurses in the mother's community. The viral load of the mother and infant will be measured at 4 months of therapy.

The key lessons learned from this case are shown below:

- Healthcare providers should not be distracted by negative HIV tests in pregnancy.
- Pregnancy is associated with an increased risk of HIV acquisition. In addition, we should emphasise safe sex practices and recommend partner testing.
- Rural doctors and nurses can implement expanded prevention and early diagnosis to infants at increased risk.
- There is still a need for point-of-care testing to allow for rapid management of infants and their mothers.
- Communication between staff at the different service points is essential to ensure good follow-up care.
- Although immediate access to ART should be the goal, allowing space and time to come to terms with the diagnosis may be needed.
- Transfer of infants to specialist centres is unnecessary provided there is a specific doctor or nurse to assume responsibility for the infant, and specialist advice is readily available.
- There is a need for pragmatic guidelines for the management of term and preterm infants.

If we are unable to prevent vertical HIV transmission, the next best option is early recognition and rapid access to therapy.

**D Demas,<sup>1</sup> H Rabie,<sup>2</sup> M F Cotton<sup>2</sup>**

<sup>1</sup> District Health Service (Boland), Ceres Provincial Hospital, Ceres, South Africa

<sup>2</sup> Department of Paediatrics and Child Health, Stellenbosch University, Tygerberg Hospital, Cape Town, South Africa

## References

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