PEMOD55

Acceptability of raltegravir granule use for neonates diagnosed with HIV at birth by healthcare workers and caregivers in Zimbabwe: A qualitative analysis

Mildrate Murandu[1], Leila Katirayi[2], Carl Stecker[3], Precious Andifasi[1], Angela Mushavi[4], Talent Maphosa[5], Viva Thorsen[6], Gladys Gombakomba[1], More Mungati[1], Lise Denoeud[7], Emilia Rivadeneira[6], Rachel Weber[5], Susan Hrapcak[6]

1] Elizabeth Glaser Pediatric AIDS Foundation, Zimbabwe, 2] Elizabeth Glaser Pediatric AIDS Foundation, Washington D.C., 3] Catholic Relief Services, Baltimore, Maryland, 4] Ministry of Health and Child Care, Zimbabwe, 5] Centers for Disease Control and Prevention, Zimbabwe, 6] Centers for Disease Control and Prevention, Atlanta, Georgia, 7] Elizabeth Glaser Pediatric AIDS Foundation

Caregivers reported their babies looking healthier after initiating RAL, noting improvements in skin appearance and weight. Some caregivers wanted their child to remain on RAL at the day 28 appointment instead of switching as recommended by national guidelines, and others recommended national roll-out of RAL

" other regimens are difficult to administer for example the dispersible tablets. It's actually difficult as compared to the granules which dissolves aah with ease. So, I think it's a good move for our babies. I think it will actually reduce mortality since raltegravir has been shown to actually work well in the first few weeks of life. (Healthcare Worker)"

BACKGROUND

- The World Health Organization (WHO) has recommended raltegravir (RAL)-based regimens for neonatal HIV treatment [1].
- The government of Zimbabwe adopted the WHO recommendations on birth HIV testing and the use of RAL granules for treating neonates born with HIV in an addendum to their 2016 guidelines
- A qualitative study was conducted to explore the acceptability of using RAL granules and to identify any challenges and lessons learned to support its further successful implementation.

METHODS

- In-depth interviews (IDIs) were conducted with caregivers of neonates receiving RAL-based ART and HCWs providing care and support to the neonates on RAL and their caregivers, IDIs were conducted with a total of 15 caregivers and 12 HCWs.
- Eligible caregivers were at least 18 years of age (or emancipated minors), had a newborn that tested HIV-positive and was initiated on RAL granule-based ART, attended either the 8th or 28th day of life appointment, and had administered the RAL granules to their neonate themselves.
- Eligible HCWs were at least 18 years old, worked in the maternal, newborn, and child health or similar department, and counseled caregivers on the use of RAL granules for at least three months.
- Data were collected from eight out of the 14 sites that had initiated infants on RAL. These eight locations were selected since they had caregivers who completed appointments for the 8th or 28th day of life.
- Trained research assistants (RAs) collected data between June and July 2021, written informed consent was obtained before each interview
- RAs transcribed all audio-recordings, transcripts were imported into the qualitative analysis software program MAXQDA v.12. coders trained in qualitative analysis coded the transcripts.
- Thematic analysis was used to identify recurrent patterns and themes in the data. Data matrices were created for the two study population groups of caregivers and HCWs.

RESULTS-Demographics

- Of the fifteen caregivers, only one was male. Most caregivers (n=9, 60%) were married and living with their partners at time of interview and the group had a mean age of 28.6 years.
- All caregivers had at least primary education (primary n=5, 33.3%; secondary n=8, 53.3%; and tertiary n=2, 13.3%).
- The majority of study neonates (n=11) had been on RAL for four weeks, three neonates had been on RAL for three weeks, and one neonate had been on RAL for two weeks.
- The twelve HCWs comprised of: six nurses (50%), three midwives (25%), two pharmacists (16.7%), and one doctor (8.3%).
- The majority of the HCWs had been in their current position for 3-6 months (7 HCWs), three HCWs were in their position for 7-12 months and two HCWs had been in their position for more than a year.
- Seven HCWs had been prescribing RAL for 1-6 months and five HCWs had been prescribing RAL for 7-12 months.

ACKNOWLEDGMENTS

Insert relevant and/or required donor acknowledgement here

RESULTS

Facilitators to RAL initiation and adherence

- Most HCWs were accepting of RAL and felt comfortable initiating neonates on RAL granules, because of its effectiveness, their knowledge of RAL, its ability to reduce mortality in HIV-positive neonates, and RAL's capability of rapidly achieving viral suppression
- Caregivers preferred RAL to other pediatric ART formulations because it was less bitter, making it easier for the baby to swallow and it decreased issues with partial/missed dosing
- Discreet packaging that looked similar to other mainstream medications also increased acceptability of RAL granules

Barriers to RAL initiation and adherence

- HCWs reported challenges with caregivers understanding dosing instructions, measuring with a syringe, swirling and not shaking the medicine, discarding unused medication, and following the changes in the dosing schedule and amount when RAL was initiated a few days after birth.
- Delays in birth testing causes delays in RAL initiation .HCWs reported testing delays were due to deliveries on weekends or evenings, staff trained on birth testing not being present, and stockouts of the cartridges used for the PoC birth testing machines.
- Stigmatization due to social and cultural norms presents challenges to RAL initiation and adherence. Many HCWs reported caregivers were hesitant in getting the consent of their partners and disclosing their baby's HIV status within their social support networks.
- HCWs also reported inadequate materials for practicing demonstrations . Capacity building efforts were eroded by high staff attrition and staff rotations.
- COVID-19 significantly impacted the rollout of RAL granules in Zimbabwe, stockouts led to some HCWs resorting to using remaining pediatric formulations of nevirapine.

Recommendations to improve RAL delivery

- HCWs stated that adequate counseling and repeat demonstrations were crucial to ensure that caregivers clearly understood RAL dosing and administration instructions.
- HCWs requested more standardized training targeting nurses with guidance on handling missed doses and clarification on mixing RAL granules with water and not breastmilk.
- HCWs understood the value of RAL and recommended that RAL be implemented at the national level. .To prevent delays in the birth testing process, HCWs recommended ensuring adequate supplies of the cartridges for the POC machines and training more staff on how to use the machines
- Many HCWs recommended providing caregivers with educational communication materials featuring large visuals and diagrams to take home and refer to if there were issues with RAL preparation or administration.

CONCLUSIONS

- While RAL granules were well accepted by both caregivers and HCWs, additional steps are needed to ensure adequate training of HCWs, sufficient caregiver instruction and support to ensure proper RAL preparation and administration, and timely diagnosis of HIV-positive neonates.

References

1. WHO. Updated recommendations on first-line and second-line antiretroviral regimens and post-exposure prophylaxis and recommendations on early infant diagnosis of HIV: supplement to the 2016 consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. Geneva, Switzerland: World Health Organization; 2018 Dec. Available from https://www.who.int/publications/i/item/WHO-CDS-HIV-18.51. Accessed on 27 Jan 2022.

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