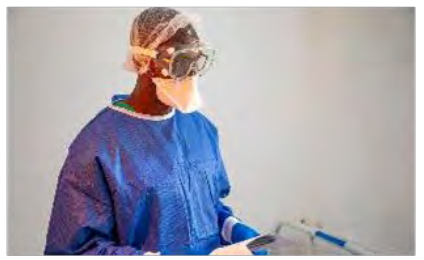
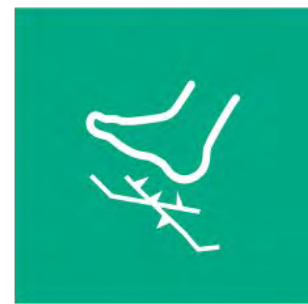


LIVING: 48-week data on LPV/r pellets in 990 children in resource-limited settings

Dalton C. Wamalwa¹, Victor Musiime², Adeodata R. Kekitiinwa³, Juliet Mwanga-Amumpaire⁴, Rachel N. Musoke⁵, Joseph K. Mbutia⁶, Elizabeth Maleche-Obimbo⁷, Winstone M. Nyandiko⁸, Elizabeth A. Bukusi⁹, Maja Weisser¹⁰, Nzovu Ulenga¹¹, **Mariama Diallo**¹², Vishal Goyal¹², Alistair Swanson¹² for the **LIVING Study Team**

¹Department of Paediatrics and Child Health, University of Nairobi, Nairobi, Kenya
²Joint Clinical Research Centre, Kampala, Uganda
³Baylor College of Medicine Children's Foundation, Kampala, Uganda
⁴Epicentre, Mbarara, Uganda
⁵Children of God Relief Institute, Nairobi, Kenya
⁶Gertrude's Children's Hospital, Nairobi, Kenya
⁷University of Nairobi, Nairobi, Kenya
⁸Department of Child Health and Paediatrics - Moi University, AMPATH and Moi Teaching and Referral Hospital, Eldoret, Kenya
⁹Centre for Microbiology Research, Kenya Medical Research Institute, Kisumu, Kenya
¹⁰Ifakara Health Institute, Ifakara, Tanzania
¹¹Management Development for Health, Dar es Salaam, Tanzania
¹²Drugs for Neglected Diseases *initiative* (Switzerland, Kenya and USA)



BACKGROUND

- LPV/r-based regimens remain an important treatment for children living with HIV (CLHIV), with established safety and efficacy. Treatment outcome data from large cohorts of CLHIV in resource-poor settings are limited. LIVING (NCT02346487) addresses this data gap across pediatric age groups.

AIM

Test the effectiveness, safety, and acceptability of LPV/r 40/10mg pellets given in combination with ABC/3TC (or AZT/3TC) dispersible tablets to CLHIV under field conditions.

METHODS

- **Design:** single-arm phase IIIb implementation studies in Kenya, Uganda and Tanzania; open-label, prospective, non-randomized, non-comparative
- **Key Eligibility Criteria:**
 - CLHIV;
 - ≥ 3 to <25 kg;
 - ARV naïve, on liquid LPV/r or failing NNRTI based ART.

- **Clinical/Other assessments:** Baseline, Week 2, 4, 12, and 12-weekly thereafter
- **Acceptability:** via caregiver questionnaire
- **Primary endpoint = effectiveness,** a composite of
 - Being alive;
 - Being on study drug;
 - Viral load < 1000 cp/ml at Week 48.
(analyzed in all children who received study drugs)

- **Dosing:** twice daily by WHO weight bands

WHO Weight Band Dosing

Drug	Strength	Number of doses by weight band morning & evening									
		3-5.9 kg		6-9.9 kg		10-13.9 kg		14-19.9 kg		20-24.9 kg	
LPV/r	Pellets 40mg/10mg	2	2	3	3	4	4	5	5	6	6
ABC/3TC	Tablet 60mg/30mg	1	1	1.5	1.5	2	2	2.5	2.5	3	3
AZC/3TC	Tablet 60mg/30mg	1	1	1.5	1.5	2	2	2.5	2.5	3	3

RESULTS

- **Key disposition data:** 990/1003 received study drugs (ITT). 82% received ABC/3TC. 852 had VL at W48 (mITT).
- **At Baseline:** 51% female; age range from 2 to 148 months with 32% aged < 24 months; 91% ART exposed; 19% had VL $\geq 100,000$ cp/ml; 32% with advanced/severe disease.
- **Median treatment duration:** 72.1 weeks (IQR 48.3-96.1).
- **Effectiveness and Efficacy:**

	ITT population n (% , 95% CI)
Primary endpoint at W48	
VL<1,000copies/ml	683/990 (69 , 66-72)
VL $\geq 1,000$ copies/ml	169/990 (17, 15-20)
No VL	138/990 (14, 12-16)

	mITT population n (% , 95% CI)	PP population n (% , 95% CI)
Secondary efficacy endpoints		
VL<1,000copies/ml at W48	683/852 (80 , 77-83)	569/692 (82, 79-85)
VL<1,000copies/ml at W96	296/337 (88, 84-91)	235/265 (89 , 84-92)
Immunological failure by W48	No	No
Clinical failure by W48	49/887 (6, 4-7)	21/686 (3, 2-5)

- **Safety:** 14% children had Gr3/4 AEs. Most frequent: malaria, pneumonia, gastroenteritis, anemia.
- 8% had treatment-related AEs (most frequent diarrhea) with 1 being a SAE. 17 deaths reported during entire study period (one related to AZT).
- **Acceptability:** at last assessment, **93%** caregivers described the pellets as *easy/very easy* to administer and **94%** reported their children *accepted pellets well*.

CONCLUSIONS

- LPV/r pellets plus ABC/3TC or AZT/3TC were effective, well-tolerated, and well-accepted in a large CLHIV cohort, with a significant proportion of children < 24 months and with advanced/severe disease.
- This combination remains a good treatment option for CLHIV, as an alternative 1st line or following failure on Dolutegravir-based ART.

ACKNOWLEDGEMENTS

- We are grateful to all study participants and caregivers in Kenya, Uganda, Tanzania, sites' staff (C. Mburu, C. Watiri, D. Karanja, M. Ndwiga, P. Oyaro, M. Nondi, E. Oyuga, L. Katusiime, E. Nambi, R. Nazzinda, R. Kidega, G. Ategeka, G. P. Kisitu, J. Nkemahame, G. Ngabirano, D. Nansera, S. Logoose, F. Abok, E. Luoga, A. Mziray,...), DNDi staff (M. Waweru, I. Andrieux-Meyer, M. Lallemand, O. Salami, S. Odhiambo, F. Kyomuhendo, G. Muthoni, C. Olima, T. Egondi, M. Ochieng, M. Wasunna, B. Pécoul, F. Bompert, I. Ribeiro, L. Burrows,...), PHPT staff (N. Salvadori, T. Luangcharoenkul, A. Rankantha, U. Wachiraroteprapa), and all other staff involved in the study.