



ANRS 12407 AIR-POP PROJECT

"Innovative and Rapid Access to Diagnosis and Treatment to Optimize the Care of Children Exposed to HIV in Conakry"

Optimising the care of HIV-exposed children in Conakry through the use of drones

In sub-Saharan Africa, many children are still born to mothers who were not tested for HIV during pregnancy and, therefore, did not receive antiretroviral (ARV) drugs to prevent mother-to-child transmission. In Guinea, despite the progress made in recent years, less than two out of ten HIV-infected children benefit from early HIV testing of infants whose mothers are living with HIV. This is a crucial issue to enable immediate treatment of infected children because in the absence of treatment, 50% of infants infected during the perinatal period die during the first two years of life and especially during the first 3 months of life, leaving a very short window of opportunity to test and treat them.

KEY INFORMATION

Project duration : 2019- 2021



Beneficiaries : Department of Pediatrics, CHU Ignace Deen-Conakry and Donka Hospital-Conakry



Source of finance: ANRS



Partners : National Programme Fighting against HIV/AIDS and Hepatitis (PNLSH), Guinean Civil Aviation Authority, the Ignace Deen paediatric service and the Donka laboratory



Country of intervention : Guinea



OBJECTIVES

To optimise the care of HIV-exposed children in Conakry by using drones to meet the challenge of road congestion in Conakry, which remains a major obstacle to the rapid transport of blood samples to laboratories. Thus, the AIR-POP project aims to :

- To assess the needs for paediatric HIV care and organisational diagnosis to determine the feasibility of emergency paediatric diagnosis and treatment at PMTCT/paediatric clinic sites and molecular biology laboratories in the southern part of Conakry city;
- To test the use of UAVs (cost and efficiency) for rapid transport of samples and emergency supply of health products in comparison with dedicated ground transport by motorbike;
- To study the acceptability and perceptions of the use of drones by health authorities, pregnant women living with HIV, health personnel and the population.



EXPECTED RESULTS

The use of drones could represent an innovative approach to ensure that the speed of POC (Points of Care) diagnostic tests, which allow HIV testing of infants in 90 minutes, combined with rapid transport of samples and emergency supply of health products, can benefit HIV-exposed children in Guinea. This could reduce delays in obtaining results, reduce the number of children lost to follow-up and improve immediate access to early ARV treatment for all infected children.

“1,500 infants exposed to HIV annually would see their care optimized by the operation of the drones in Conakry.” Dr Oumou Diallo, Project Manager, Solthis Guinea.

The AIR-POP project complements the ANRS1234 DIAVINA project, which in 2016 introduced early diagnosis of infants in the delivery room at Ignace Deen Hospital in order to initiate emergency treatment to reduce the risk of contamination of infants born to infected mothers. A second phase of the project was launched in January 2021 to optimise this system by introducing the measurement of the maternal viral load at delivery using POC (Points Of Care) technology, which will make it possible to improve the treatment of newborns and their mothers according to the assessed risk of HIV transmission.