

# ANTIRETROVIRAL DRUG RESISTANCE AMONG CHILDREN WITH PERINATAL HIV

Children with HIV can develop virus that is resistant to their antiretroviral therapy (it will not respond to that drug). This is often due to poor adherence to medications, and once resistance develops, it will not go away. Usually, different medicines can treat resistant virus. We wanted to see how often children with perinatal HIV have resistant virus and to identify risk factors (warning signs) that someone might develop resistant virus.

## WHO PARTICIPATED

234 children in AMP



234 youth in AMP participated in this study.

Some youth had already had their blood tested to see if they were resistant to any HIV medications. For others, we sent a previous sample of their blood to be tested for drug resistance.

## WHAT WE DID



We did not test mothers for resistance, so we don't know if any children got a resistant virus from their mother during pregnancy.



Children with higher viral load before or when starting cART



were more likely to develop drug resistance later

We studied how common antiretroviral drug resistance was among youth in AMP. We also compared youth in AMP to everyone else tested for resistance by the same laboratory (mostly adults). This was to show how common resistance was among all HIV-infected people in the U.S. We also looked to see if we could predict which children developed resistance.

## WHAT WE FOUND

Antiretroviral resistance was much more common among



youth in AMP born with HIV

compared to



adults in the U.S. with HIV

Resistance was common among AMP participants, with 3/4 of all youth resistant to at least one drug. Resistance to newer drugs was less common.

The most important risk factor for developing drug resistance was having a higher viral load when starting combination antiretroviral therapy (cART).

## WHAT WE LEARNED



Antiretroviral resistance is more common among children and youth with perinatal HIV than among adults with HIV. Children with a higher viral load when starting cART are at higher risk of developing resistance. They should be closely monitored for resistance and encouraged to take their medications.