

Measuring a Baby's Exposure to HIV Medications

Meconium (meh-COH-nee-um) is the first feces of a newborn baby. We created the first test to measure HIV medications in a baby's meconium.

Why did we test meconium?

Mother-to-child transmission is when an HIV-positive woman passes HIV to her baby. This can happen during pregnancy, labor and delivery, or breastfeeding.

Often, HIV-positive women who are pregnant and their newborns take antiretroviral drugs (ARVs). This can help stop the spread of HIV to the baby. However, we don't know how it affects babies' health when the mothers take ARVs during pregnancy.

When babies are born, it is hard to tell how much they have been exposed to ARVs. But it is important for us to know this. It could tell us if the baby might have other health problems later.

The way we measure this now is to ask mothers about the ARVs they are taking. We wanted to see if we could make a better test by looking for the ARV drugs in the baby's meconium instead.

Who we studied

A small number of babies in SMARTT

What we did

We created a new test to measure a newborn baby's exposure to ARVs. We tested meconium from babies with HIV-positive mothers. The meconium was tested for 16 different HIV drugs.

To do this, we removed the drugs from the meconium. Then, we measured how much of the drugs there were.

What we found

The test we developed worked very well. It was able to find all of the HIV medications in the meconium.

What we learned

Our new test will give us better information about how much ARV medication a newborn baby has been exposed to.

It may also help us find out if babies with higher ARV drug levels will have health problems later in life.



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