

This looks like an excellent project.

Personally .... as everyone knows, yes I do believe in the presence of the virus, and its ability to infect the susceptible infant....sometimes! If Barbara is able to help us tease out the ambiguities in this puzzle, it would be a great service! I do think that clear evidence is needed in order to develop rational policies and practices. As always, I'm grateful to George for attempting to answer many of the right questions, and sharing his writings with us.

I remember years ago submitting to Birth Issues a piece attempting to show that more babies seemed to become infected, including through breastfeeding, with higher viral load, and fewer with fewer virus. And it seemed that viral load was highest (in mothers who had not received ART) shortly after a new infection, then it declined for six-seven years and then went up again as the immune system gradually became destroyed by the virus, ie there is a relationship between CD4 count and viral load. The reviewers were very critical and nasty, and one said, "What is she talking about?" so I gave up. Then there's the issue of exclusive breastfeeding, and its protective effects against HIV-transmission, which is so paradoxical, and the whole issue of damage to the infant gut when other foods and liquids are given too early, which shows susceptibility of the infant as the other side of the coin.

But some have claimed to identify the virus with special microscopes. And others have claimed to destroy the virus with various treatments, eg heat, cold, lemon juice, sodium-docedyl. Other substances, including ARTs can destroy reverse-transcriptase and then there are NNRTIs and protease inhibitors. And parallels between the very much reduced risk of sexual transmission when HIV+ people take their drugs, and reduced risk of transmission during pregnancy, birth and breastfeeding when mothers take theirs, if they can get them....

This is a HUGE topic. So good luck, Barbara. I've just done a cursory search of my own saved files, and found about 3 pages of references which I thought touched on the topic of virus quantification, destruction etc etc: It's certainly not comprehensive or exhaustive, and some of the citations may not be relevant, but at some stage over the last 15 years I've thought they were useful enough to save. Here they are, for what they're worth, and best wishes:

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Milk Mysteries: Why Are Women Who Exclusively Breast-Feed Less Likely to Transmit HIV during Breast-Feeding? Louise Kuhn *CID* 2010;50 (1 March) □ EDITORIAL COMMENTARY