

Study finds that AIDS drugs can help poor kids-but was it ethical?

By Michael D. Lemonick

Nobody is saying the scientists who presented their findings at the big conference in Chicago last week had anything but the best of intentions. Their target was HIV, the AIDS virus, and their focus was on its smallest victims: babies born to infected mothers.

Doctors knew that months of intravenous drug treatment during pregnancy can keep HIV from passing from mother to child, but the \$1,000-a-day treatment is too expensive for people who live in poor countries, where basic medical care and even clean drinking water are hard to come by. So the researchers launched a study to see whether babies could be protected with shorter-term therapy that would only be given during the weeks before, during and after delivery.

From the start, the study was questioned. As in many scientific studies, some of the women and babies from Uganda, South Africa and Tanzania, received real medications while others got fake medications called placebos. Normally such studies are considered unethical if an effective therapy exists.

Scientists from the United Nations AIDS Program, which organized the experiment, argue that the situations are hardly comparable. Yes, an anti-HIV treatment was available, but at a cost that would have kept the study from being carried out at all. However, the African women were told about the how the study would be done.

And, as the scientists reported last week, the results seemed to justify the risk: although it isn't as good as the full treatment, a shorter regimen of two pills a day significantly cuts down on transmission of HIV. But even as the news was presented, another issue arose to complicate matters. If you cure babies without curing their mothers, you will create a generation of orphans. The alternative, however, is letting the babies die.

From: Based on an article from *Time Magazine*

U.S. Investigating Johns Hopkins Study of Lead Paint Hazard

By Tamar Lewin

Amid growing concern about the safety of medical research involving humans, the Department of Health and Human Services opened an investigation on Wednesday into a lead-paint study in Baltimore overseen by Johns Hopkins University.

The study was criticized last week in a decision by the Maryland Court of Appeals, which likened it to the infamous Tuskegee syphilis study decades ago.

The investigation by the department's Office for Human Research Protections comes a month after a five-day suspension of federally financed medical research on humans at Johns Hopkins following the death of a healthy young volunteer in, an asthma study on June 2.

The lead-paint study was conducted in the early 1990's to test how well different levels of repair in Baltimore rental housing worked to reduce lead in the blood of inner-city children.

Two mothers later filed negligence lawsuits against the Kennedy Krieger Institute, an affiliate of Johns Hopkins, saying that the research institute had failed to warn them about the risks of the study and the danger that their children could be poisoned by lead in the houses.

Last week, the Maryland Court of Appeals overturned lower court decisions dismissing those cases and sharply criticized the researchers and their institutions as failing to see the basic impermissibility of a study that enlisted healthy children to live in potentially dangerous housing.

"It can be argued that the researchers intended that the children be the canaries in the mines but never clearly told the parents," Judge Dale R. Cathell said in a scathing decision that compared the Baltimore study to Nazi medical experiments and the study in Tuskegee, Alabama, that withheld treatment from black men with syphilis.

Neither researchers nor parents, Judge Cathell said, have the legal right to put healthy children into a study that offers them no benefit and carries real hazards. Children who ingest lead can suffer brain damage.

Dr. Gary Goldstein, the chief executive of Kennedy Krieger, defended the study and the institute's record in treating and preventing lead poisoning in the poor neighborhoods of Baltimore.

"We were not trying to put children in houses and watch them get lead-poisoned," Dr. Goldstein said. "We did not expect anyone to get lead-poisoned. The point was to show, in a neighborhood where 95 percent of the houses contain lead and 35 percent of the kids have lead poisoning, that with some repairs, you could move into a house like this and stay and not get lead-poisoned."

He added: "For the majority of kids in the study, lead levels did go down. To compare this to Tuskegee makes no sense."

Late on Wednesday, the Office for Human Research Protections sent a letter asking Johns Hopkins, which receives more federal money for medical research than any other university, to review the procedures used in the lead study.

Neither the agency's spokesman, Bill Hall, nor the Hopkins spokeswoman, Joann Rodgers, would provide details of the investigation.

Kennedy Krieger is an outpatient institute specializing in developmental disabilities. The procedures for its research projects are reviewed and approved by an institutional review board at Johns Hopkins, where its professional staff holds faculty appointments.

The study was designed to test lead levels in five groups of housing. The 75 homes in three of the groups received maintenance and repairs to reduce lead levels: 25 had minimal repairs, including scraping lead-based paint; 25 had a middle level of repairs; and 25 had extensive work, including replacement of windows and covering floors. The study also included two control groups, one of homes in which all lead hazards had been eliminated and the other of houses that never had lead paint.

For two years, the researchers took periodic blood, dust and water samples to measure contamination.

Kennedy Krieger helped landlords get public financing for eliminating lead and encouraged them to rent the premises to families with young children. Children already living in the houses were encouraged to remain, so that their blood could be analyzed.

"Through the repairs and cleaning, the homes in the study had 70 to 90 percent reduction in their lead levels, but all the families knew that lead was still a potential, because we gave them cleaning tips about what they should be doing to keep lead levels down," Dr. Goldstein said. "The impression of everyone doing the study was that everyone understood the situation."

But Suzanne Shapiro, the lawyer, for Catina Higgins, one of the mothers who filed suit, said that was not the case. In May 1994, Ms. Shapiro said, when Ms. Higgins and her 4-year-old son, Myron, moved into a rented house at 1906 East Federal Street, the lead in Myron's blood was at a safe level and his mother knew nothing about the study.

"After she moved in, Kennedy Krieger enrolled her in the study, and she signed the informed consent, but no one ever told her, 'There's lead in this house, and it can cause brain damage,'" said Ms. Shapiro, who specializes in lead-poisoning cases and has other clients who participated in the study.

Ms. Shapiro said that a month later Myron's blood contained excessive lead, and that he had since had neurological problems.

Medical Experiments of the Holocaust and Nazi Medicine

Doctors have always been thought of as the saviors of mankind, the healers, and caretakers of our health. Even ancient civilizations revered the medicine men as having special power to protect life. The trust of a physician is sacred. This is why the practice of medicine by the doctors in Nazi Germany during World War II outrageous and shocking. The Nazi doctors violated the trust that was placed in them.

Freezing

The freezing experiments were conducted for the Nazi leaders. The experiments were conducted on men to copy the conditions the German army suffered during the war. The German forces were not prepared for the bitter cold. Thousands of German soldiers died of freezing or were injured by the cold.

The freezing experiments were supervised by Dr. Sigmund Rascher. Dr. Rascher publicized the results of his freezing experiments at the 1942 medical conference entitled "Medical Problems Arising from Sea and Winter".

The freezing experiments were divided into two parts. First, to establish how long it would take to lower the body temperature to death and second how to best resuscitate the frozen victim.

The two main methods used to freeze the victim were to put the person in an icy tub of water or to put the victim outside naked in sub-zero temperatures.

The icy tub method proved to be the fastest way to drop the body temperature. The participants in the experiments were young healthy Jews or Russians. They were usually stripped naked and prepared for the experiment. A thermometer measured the drop in the body temperature. The participant was then placed in the vat of cold water and started to freeze. It was learned that most victims lost consciousness and died when the body temperature dropped to 25 C.

A prisoner doctor saw two Russian men while they were in the cold tub. They were very strong men and prisoner doctor was shocked at how long the Russian men could take the cold without losing consciousness. He asked the directing doctor to take them out of the tub. He did not allow this and increased the temperature slightly to prolong their pain. They died after a long painful stay in the tub.

The second way to freeze a victim was to strap them to a stretcher and place them outside naked. The extreme winters of northern Germany made a natural place for this experiment.

The recovery or warming experiments were just as cruel and painful as the freezing experiments.

Sun Lamp

The participants were placed under sun lamps, which were so hot they would burn the skin. One young male participant was repeatedly cooled to unconsciousness then revived with lamps until he was pouring sweat and died one evening after several test sessions.

Internal Irrigation

The frozen participant would have water heated to a near blistering temperature forcefully put into their stomach, bladder, and intestines. All victims appeared to have died from the treatment.

Hot Bath

The participant was placed in warm water and the temperature was slowly increased. This method proved to be the best. Many victims died because of shock if they were warmed up too quickly.

Adopted from: remember.org (<http://www.remember.org/educate/medexp.html>)

Bad Blood: The Tuskegee Syphilis Experiment

In 1932 the American Government promised 400 men - all residents of Macon County, Alabama, all poor, all African American - free treatment for Bad Blood, a phrase used instead of syphilis which was epidemic in the county. Treatment for syphilis was never given to the men and was in fact withheld. The men became unknowing participants for a government supported medical investigation, The Tuskegee Study of Untreated Syphilis in the Negro Male. The Tuskegee Study, which lasted for 4 decades, until 1972, had nothing to do with treatment. No new drugs were tested; neither was any effort made to determine how well the old forms of treatment worked. The study was aimed at compiling data on the effects of the untreated syphilis on black males.

The Tuskegee Study symbolizes the medical misconduct at its worst. The study's leaders were not mad scientists; they were government physicians, respected men of science, who published reports on the study in the leading medical journals. The study shows that participants in risky medical research are those who are least able to protect themselves.

The government doctors who participated in the study failed to obtain informed consent from the subjects in a study of disease with a known risk to human life. Instead, the PHS offered the men incentives to participate: free physical examinations, free rides to and from the clinics, hot meals on examination days, free treatment for minor ailments, and a guarantee that a burial fee would be paid to their survivors. This modest fee of \$50.00 represented the only form of burial insurance that many of the men had. By failing to obtain informed consent and offering incentives for participation, the PHS doctors were performing improper experiments on human beings.

Many critics of The Tuskegee Study compare it to the experiments on humans living in Nazi Germany during World War II. How could such an experiment happen in the United States? To deny that race played a role in The Tuskegee Study is naive. All 600 subjects (399 experimentals and 201 controls) were black; the PHS directors and most of the doctors who studied them were white.

In July 1972, Jean Heller wrote a story about the experiment in the New York Times. While it was obvious to the American public as a whole, PHS officials maintained that they did nothing wrong. By the time the story broke, over 100 of the infected men had died, others suffered from serious syphilis-related conditions that may have contributed to their later deaths even though penicillin, an effective treatment against syphilis, was in widespread use by 1946.

Adopted from: *Association for the Advancement of Blacks in Health Science*
(<http://www.aabhs.org/tusk.htm>)

Uganda AIDS Vaccine Test: Urgency Affects Ethics Rules

By Michael Specter

While HIV-infected individuals in wealthier countries have access to potent antiviral drugs, many infected people in poorer nations cannot get treatment.

The main hope of controlling the disease in Africa is through the creation of an HIV vaccine. Vaccines have been traditionally developed in nations with excellent health care systems so that any vaccine failure can be addressed and treated. However, the need for an HIV vaccine is so great in nations like Uganda - which has a 20 percent HIV infection rate - that they have gone ahead and started trials. Subjects who cannot afford antiviral therapy are prime candidates for the trials, because the use of treatment along with inoculation with a vaccine candidate would skew results. Nevertheless, the development of vaccines in these countries raises a number of questions, including whether to give top-level treatment to any people who become infected due to the trials, even though they would not have received the treatment had they contracted the virus under normal conditions.

Researchers are also debating whether the use of placebos is ethical and what should be done in the event that a vaccine is discovered that does not prevent the spread of HIV, but only reduces the fatality of the virus. Additionally, some are worried that even if a vaccine is developed, it will be too expensive for widespread distribution in the areas that need it most. Peter Piot, executive director of the United Nations AIDS Program, said: "Everyone is worried that we will use Africa, develop a vaccine there, say thanks and then take it back to Europe and America. I don't believe that will happen. But we are in a terrible position." Some health officials in Africa respond that their increased role in vaccine development warrants access to the vaccines.

The Tuskegee Syphilis Study: A Hard Lesson Learned

The Tuskegee Syphilis Study, carried out in Macon County, Alabama, from 1932 to 1972, is an example of medical research gone wrong. The United States Public Health Service, in trying to learn more about syphilis and justify treatment programs for blacks, withheld adequate treatment from a group of poor black men who had the disease, causing needless pain and suffering for the men and their loved ones.

In the wake of the Tuskegee Study and other studies, government took a closer look at research involving human subjects and made changes to prevent the moral breaches that occurred in Tuskegee from happening again.

The Study Begins

In 1932, the Public Health Service, working with the Tuskegee Institute, began a study in Macon County, Alabama, to record the natural history of syphilis in hopes of justifying treatment programs for blacks. It was called the "Tuskegee Study of Untreated Syphilis in the Negro Male".

The study involved 600 black men - 399 with syphilis and 201 who did not have the disease. Researchers told the men they were being treated for "bad blood," a local term used to describe several ailments, including syphilis, anemia, and fatigue. In truth, they did not receive the proper treatment needed to cure their illness. In exchange for taking part in the study, the men received free medical exams, free meals, and burial insurance. Although originally projected to last 6 months, the study actually went on for 40 years.

What Went Wrong?

In July 1972, a front-page New York Times story about the Tuskegee Study caused a public outcry that led the Assistant Secretary for Health and Scientific Affairs to appoint an Ad Hoc Advisory Panel to review the study. The panel had nine members from the fields of medicine, law, religion, labor, education, health administration, and public affairs.

The panel found that the men had agreed freely to be examined and treated. However, there was no evidence that researchers had informed them of the study or its real purpose. In fact, the men had been misled and had not been given all the facts required to provide informed consent.

The men were never given adequate treatment for their disease. Even when penicillin became the drug of choice for syphilis in 1947, researchers did not offer it to the subjects. The advisory panel found nothing to show that subjects were ever given the choice of quitting the study, even when this new, highly effective treatment became widely used.

The Study Ends and Reparation Begins

The advisory panel concluded that the Tuskegee Study was "ethically unjustified"—the knowledge gained was sparse when compared with the risks the study posed for its subjects.

In October 1972, the panel advised stopping the study at once. A month later, the Assistant Secretary for Health and Scientific Affairs announced the end of the Tuskegee Study.

In the summer of 1973, a class-action lawsuit filed by the National Association for the Advancement of Colored People (NAACP) ended in a settlement that gave more than \$9 million to the study participants. As part of the settlement, the U.S. government promised to give free medical and burial services to all living participants. The Tuskegee Health Benefit Program was established to provide these services. It also gave health services for wives, widows, and children who had been infected because of the study. The Centers for Disease Control and Prevention was given responsibility for the program, where it remains today in the National Center for HIV, STD, and TB Prevention.

From: *Centers for Disease Control and Prevention* (<http://www.cdc.gov/nchstp/od/tuskegee/time.htm>)