Drug companies exploited medical volunteers in Australia

Human guinea pigs and profiteering in World War II

Phil Gardiner 23 July 1999

More than four months after an initial exposure of the use of Australian soldiers and civilians in potentially-fatal antimalaria drug trials during and after World War II, government agencies have issued no response concerning the long-term health impact on those involved.

About 850 Australian military personnel and other volunteers were used as medical guinea pigs, gathered from army hospitals, internee labour camps, and convalescent depots for the clinical trials, which took place at Cairns in northern Queensland between 1943 and April 1946, eight months after the war ended.

Two major drug companies, ICI of Britain and Winthrop of the United States, were given carte-blanche to infect volunteers with malaria up to the equivalent of 13,000 mosquito bites each and then treat them with experimental drugs.

Medical and service files have since been supposedly destroyed or misplaced, making compensation claims difficult for those who volunteered. The Australian authorities have even denied them the free medical treatment available to war veterans.

The material was published after a six-month investigation by *Sydney Morning Herald* reporters Gerard Ryle and Gary Hughes, based on interviews with former experimentees and staff, documents held at the Academy of Science, the Australian War Memorial, Army personnel records and other archival and medical journals.

Gerard Ryle told the *World Socialist Web Site* this week that the Howard government and military authorities had offered no remedial action, despite stating that the cases would be reviewed.

In 1943, the Army Medical Research Unit (MRU) set up a specialist military hospital with the task of finding a substitute for Quinine to treat malaria, which was taking a heavy toll of troops, particularly in Papua New Guinea.

The normal supply of Quinine, then the major treatment for malaria, ceased when Japanese forces occupied Indonesia, where almost all Quinine was produced.

Initial clinical trials conducted by the MRU from early 1943 to mid 1944 were successful with a drug called Atabrin, which had been developed by German scientists in 1931. It proved to be an effective malaria suppressant, and the malaria casualty rates among troops plummeted from late 1944.

Then the nature of the trials changed dramatically. Army recruiting officers falsely told the volunteers that allied soldiers were "dropping like flies" from malaria. The scope of recruitment was expanded nationally because the state of Queensland by itself could not supply the hundreds of men required for the new tests.

The MRU's unique ability to supply a pool of human experimental material for commercial research was much discussed in top corporate and military circles in Australia, Britain and the United States, accompanied by high-level secret communiqués between the head of the MRU, Brigadier General Neil Hamilton Fairly, and the Australian Military Mission in Washington.

In August 1944, one communiqué from Washington informed Hamilton Fairly that: "The only fear here is the unit might disband on completion of the Atabrin studies."

Almost immediately, a general order was given to all state military commands from the adjutant-general's office in Melbourne alerting them of an urgent need for men for the MRU. Each command was assigned a quota over the following six months, totalling 160 men.

The funding to continue the trials was supplied by the National Research Council of the United States, which is responsible for liaison between business, government agencies and scientists, particularly in times of war. In 1944 most of its funding came from the private sector.

With all the preparations in place, the Australian government agreed to allow the testing of two drugs, Chloroquine and Sontoquine, being developed by Winthrop corporation in the US. During a visit to London, Hamilton

Fairly offered ICI the opportunity to test the drug Paludrine.

The trials continued solely for the benefit of the drug companies. In February 1945, Hamilton Fairly ordered another 100 more men, specifically for the ICI trials. In all, 200 men were used in these trials alone.

In the tests, malaria infections were allowed to go untreated for days, the equivalent of repeated attacks far greater than naturally occurring infections. In some cases, men lost up to one-fifth of their body weight due to water loss from sweating and lay unconscious for two to three days.

Even after suppressant drugs were administered, upwards of two pints of blood were drained from their bodies to represent blood loss due to wounds. Repeated insulin injections were administered to drop blood sugar levels to simulate semi-starvation. Adrenaline was injected two-hourly over a 12-hour period, causing rapid pulse, heart palpitation, tremor and high blood pressure, in an attempt to replicate battlefield stress.

Others were subjected to periods of freezing temperatures in the cold rooms of local meatworks, dressed only in shorts and shirts. Some were put through forced marches in full battle kit or ordered to chop wood at the height of summer.

Prior to late 1944, in the Atabrin trials, only small quantities of infected blood were used—rarely more than 10cc. But in the second series of trials, transfusion became the method of infection, with the standard volumes being 200 to 500cc. In one instance, 800cc was given. One volunteer was given 35 sub-inoculations.

Don Ireland, a soldier who in June 1944 was convalescing at Warwick in Queensland after a bout of pneumonia and major surgery, was asked to volunteer. He was to be taken to the point of death twice within the next three months.

"Part of the experiment was to bring us right to the brink without medication and I believe I went five or six days without treatment and was unconscious for three days," he said.

In the second experiment, "The way they tortured us there was by making us stick our arms into cages of full of malaria-infected mosquitoes."

Within days he had malaria again and at the end of the second bout had lost almost one-fifth of his body weight, battling fevers.

"It wasn't a happy experience but somehow I got some satisfaction that it might have done some good. But I am not convinced of that. They always kept us in the dark".

The men were also used to test the possible toxic sideeffects of the experimental drugs, with some receiving more then three times the therapeutic dosage.

With the British drug Paludrine severe vomiting occurred at 1,000mg dosage and in some cases blood appeared in the

urine, indicating kidney damage. There is no record of the dosages of the US drugs, but prolonged high dosages of Chloroquine are known to cause eye damage.

Almost miraculously, no deaths were recorded, yet the authorities anticipated casualties. Hamilton Fairly issued orders that: "If any deaths occur in the series would you see to it that impression smears were made of the spleen, brain and other organs as well as pieces of tissue from the brain, spleen, lymph glands, lungs and bone marrow."

The drugs were later marketed worldwide and have become the standard treatment for malaria, which has one of the highest rates of infection and geographic spread of any disease. In the 1950s in India alone it killed an estimated one million people annually. Malaria still kills nearly two million people globally each year. The profits for Winthrop and ICI would be measured in the tens of millions of dollars.

Other arms of the military used the men of the MRU for experimentation. The Airforce ran a series of tests where the volunteers were subjected to conditions of extreme cold and hypoxic (a condition caused by the lack of oxygen to body tissue recognised by a bluing of the skin) to the point where several almost passed out.

Another group was subjected to the atmospheric pressure equivalent of 35,000 feet. They were on oxygen and kept warm, but they were depressurised to an extreme degree—to the point where underwater divers suffer bends. The stated purpose was to see if planes were being lost as the result of pilots suffering massive malaria attacks.

One would think that simple blood tests and the correlation of statistics could have proved that malaria was not a cause of unexplained crashes. Perhaps mechanical failures were a more plausible scenario.

The volunteers in these trials endured such tortures, thinking that they were saving the lives of soldiers on the front. Instead, their agony served to line the pockets of profiteers in the rear.

Hamilton Fairly wrote in 1945: "Actually, the results on experimentally infected volunteers have come out extraordinarily well, but I hope nobody calculates the cost."



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