A SOUTH African research team will next year be the first in the world to hold clinical trials to improve the treatment of cervical cancer in women who are HIV-positive.

In February a team from the University of the Witwatersrand’s oncology department will begin a four-year clinical trial involving more than 200 women with advanced cancer.

The trials will take place at the Charlotte Maxeke Academic Hospital in Johannesburg and will test the effectiveness of combining modulated electro-hyperthermia treatment with standard chemotherapy and radiation. Hyperthermia is the process of heating tumours to above normal body temperature. This improves blood flow and increases oxygen supply and makes the affected area more sensitive to the effects of radiation therapy and chemotherapy.

The research team will be led by a senior specialist at Charlotte Maxeke’s Radiation Oncology Department, Dr Jeffrey Kotzen, and Dr Ans Baeyens, head of the radiobiology lab at Wits Medical School.

Kotzen said the research had generated much interest from oncologists in South Africa.

“In some aspects it’s a world first... Everyone is interested in the outcomes and we can’t prejudge them. I guess we’ll know at the end of the study,” he said.

Studies have shown that HIV-positive people are more susceptible to certain types of cancer, including cancer of the cervix, and that tumours are tougher to treat. HIV-positive patients are often not able to receive normal doses of standard treatment due to their compromised immune systems.

The treatment plan for the study has been made possible thanks to a device donated by private firm, C-therm Africa, and is the first of its kind in Africa.

The company’s managing director, Carrie Minnaar Strauss, who will be working on the study as part of her doctoral studies in radiation sciences, said the combination treatment in the clinical trial holds the potential to improve the effectiveness of treatment while lowering the cost thereof.

Participants in the trial will receive six weeks of radiation treatment and three doses of chemotherapy, administered three weeks apart. This treatment will be complemented with the hyperthermia treatments twice a week for some of the women. The ethically approved study will be conducted on women with locally advanced cancer of the cervix (stages 1b to 3). Cervical cancer is the second most prevalent form of cancer among South African women. Charlotte Maxeke alone treats between 500 and 700 cervical cancer patients each year.

The last national statistics published in 2010 showed 4 817 new cases were diagnosed in 2001, representing 16.24% of all new cancer diagnoses that year. Just this week the Minister of Health, Dr Aaron Motsoaledi, told parliament that the National Cancer Registry had not been updated in eight years.

Research on the benefits of hyperthermia treatment on HIV-positive patients with cancer had never been conducted in Europe because of the low HIV prevalence, said Minnaar Strauss.