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News Release

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VA launches clinical trial for Veterans with COVID-19 based on prostate cancer drug

Drug may help prevent virus from penetrating lung tissue

WASHINGTON — Today, the U.S. Department of Veterans Affairs (VA) began a new clinical trial to test a Food and Drug Administration-approved prostate cancer drug as a potential treatment for male Veterans with COVID-19.

In a double-blind randomized controlled trial, VA scientists will compare the drug degarelix (trade name Firmagon) to a placebo for improving the clinical outcomes of nearly 200 Veterans who have been hospitalized with COVID-19.

"Veterans who have contracted this virus are in need of immediate care," said VA Secretary Robert Wilkie. "This trial is an important step in advancing knowledge of a potential treatment for those infected with COVID-19. We are here to do everything in our power to preserve and protect life."

Degarelix is often used to treat advanced cases of prostate cancer. It works by rapidly, but temporarily, suppressing the body's production of male hormones. These hormones can fuel the growth of prostate cancer. Scientists are testing degarelix because lab evidence suggests male hormones trigger the production of a protein called TMPRSS2 on lung tissue. The virus that causes COVID-19 relies on TMPRSS2 to enter lung tissues.

Researchers from the University of Alabama at Birmingham and Columbia University applied advanced artificial intelligence and computational genomics techniques and used that lab evidence for this COVID-19 data. The researchers collaborated with VA to plan the new trial.

Potential side effects of degarelix are typically linked to long-term treatment. In the trial, patients will be administered only one dose of the drug that will last 28 days. Any side effects of degarelix are thus expected to be temporary.

By temporarily lowering male hormone levels, researchers believe they can reduce the production of TMPRSS2 in lung tissue and thus prevent the virus from penetrating lung cells. Hormone levels will return to normal at the end of treatment.

The study is not suitable for female Veterans. Existing evidence shows degarelix may have the opposite effect in the female body by increasing TMPRSS2 production, thus worsening the severity of COVID-19 symptoms.

The West Los Angeles VA Medical Center is leading the trial. The study also involves VA medical centers in New York (Brooklyn and Manhattan) and Washington state (Puget Sound), leveraging the Prostate Cancer Foundation/VA network of centers of excellence. The University of California, Los Angeles (UCLA) is involved in the analysis of research specimens, but not the clinical element of the study.

VA researchers expect to complete the trial in about four months.

For more information, visit research.va.gov.

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