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## Arthritis drugs reduce risk of COVID-19 deaths

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Arthritis drugs tocilizumab and sarilumab reduce the risk of death and the need for ventilators among hospitalized COVID-19 patients, according to an analysis of nearly 11,000 patients published Tuesday.

The study appeared in the Journal of the American Medical Association and prompted the World Health Organization (WHO) to recommend the use of the medicines, known as IL-6 inhibitors, in addition to corticosteroids among patients with severe or critical COVID. Manu Shankar-Hari, a professor at King's College London and lead author of the paper, told AFP that the research represented a "definitive piece of evidence" in favor of the drugs after earlier studies produced mixed results.

Among hospitalized COVID patients, administering one of the drugs in addition to corticosteroids reduced the risk of death by 17 percent, compared to the use of corticosteroids alone.

In patients who were not on ventilators, the risk of progressing to mechanical ventilation or death was reduced by 21 percent, compared to the use of corticosteroids alone. Severely ill COVID patients experience an immune system overreaction known as a "cytokine storm" that can cause severe organ damage and death.

Tocilizumab and sarilumab are used to treat rheumatoid arthritis, an autoimmune condition, by inhibiting the effects of interleukin (IL)-6, a type of protein called a cytokine that signals the body to mount an inflammatory response.

But previous research on whether IL-6 inhibitors can be useful against severe COVID have variously reported benefit, no effect and harm. This prompted the WHO to coordinate the new study that combined data from 27 randomized trials conducted across 28 countries. The analysis included information on 10,930 patients, of whom 6,449 were randomly assigned to receive interleukin-6 inhibitors and 4,481 to receive usual care or placebo.