Initial safety trial results find increased risk of serious heart-related problems and cancer with arthritis and ulcerative colitis medicine Xeljanz, Xeljanz XR (tofacitinib)

FDA will evaluate the trial results

FDA previously communicated about the safety clinical trial with Xeljanz, Xeljanz XR (tofacitinib) in February 2019 and July 2019.

2-4-2021 FDA Drug Safety Communication

The U.S. Food and Drug Administration (FDA) is alerting the public that preliminary results from a safety clinical trial show an increased risk of serious heart-related problems and cancer with the arthritis and ulcerative colitis medicine Xeljanz, Xeljanz XR (tofacitinib) compared to another type of medicine called tumor necrosis factor (TNF) inhibitors. FDA required the safety trial, which also investigated other potential risks including blood clots in the lungs and death. Those final results are not yet available.

We will evaluate the clinical trial results we have received to date and will work with the drug manufacturer to obtain further information as soon as possible. We will communicate our final conclusions and recommendations when we have completed our review or have more information to share.

Patients should not stop taking tofacitinib without first consulting with your health care professionals, as doing so may worsen your condition. Talk to your health care professionals if you have any questions or concerns.

Health care professionals should consider the benefits and risks of tofacitinib when deciding whether to prescribe or continue patients on the medicine. Continue to follow the recommendations in the tofacitinib prescribing information.

Tofacitinib was first approved in 2012 to treat adults with rheumatoid arthritis (RA) who did not respond well to the medicine methotrexate. In RA, the body attacks its own joints, causing pain, swelling, and loss of function. In 2017, we approved tofacitinib to treat patients with a second condition that causes joint pain and swelling, psoriatic arthritis (PsA), who did not respond well to methotrexate or other similar medicines. In 2018, we approved the medicine to treat ulcerative colitis, which is a chronic, inflammatory disease affecting the colon. Tofacitinib works by decreasing the activity of the immune system; an overactive immune system contributes to RA, PsA, and ulcerative colitis.

When FDA first approved tofacitinib, we required the manufacturer, Pfizer, to conduct a safety clinical trial in patients with RA who were taking methotrexate to evaluate the risk of serious heart-related events, cancer, and infections. The trial studied two doses of tofacitinib (5 mg twice daily, which is the approved dosage for RA, and a higher 10 mg twice daily dosage) in comparison to another type of RA medicine called a TNF inhibitor. Patients in the trial were required to be at least 50 years old and have at least one cardiovascular risk factor. In February 2019 and July 2019, we warned that interim trial results showed an increased risk of blood clots

and death with the higher 10 mg twice daily dosage, and as a result, approved a *Boxed Warning* to the tofacitinib prescribing information. The clinical trial is now complete and initial results show a higher occurrence of serious heart-related events and cancer in RA patients treated with both doses of tofacitinib compared to patients treated with a TNF inhibitor. FDA is awaiting additional results from the trial.

We urge health care professionals and patients to report side effects involving tofacitinib or other medicines to the FDA MedWatch program, using the information in the "Contact FDA" box at the bottom of the page.

Health care professionals, patients, and consumers can sign up for email alerts about Drug Safety Communications on medicines or medical specialties of interest to you.

Related Information

National Institute of Arthritis and Musculoskeletal and Skin Diseases: Rheumatoid Arthritis

National Institute of Arthritis and Musculoskeletal and Skin Diseases: Psoriatic Arthritis

National Institute of Diabetes and Digestive and Kidney Diseases: Ulcerative Colitis

FDA: Information on Tumor Necrosis Factor (TNF) Blockers

The FDA's Drug Review Process: Ensuring Drugs Are Safe and Effective

Think It Through: Managing the Benefits and Risks of Medicines