# FDA Approves Pfizer's Biosimilar, ABRILADA<sup>TM</sup> (adalimumab-afzb) for Multiple Inflammatory Conditions

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Pfizer Inc. (NYSE: PFE) today announced the United States (U.S.) Food and Drug Administration (FDA) has approved ABRILADA<sup>TM</sup> (adalimumab-afzb), as a biosimilar to Humira<sup>®</sup> (adalimumab), <sup>1</sup> for the treatment of certain patients with rheumatoid arthritis, juvenile idiopathic arthritis, psoriatic arthritis, ankylosing spondylitis, adult Crohn's disease, ulcerative colitis and plaque psoriasis. <sup>2</sup> For full details of indications please see the approved label.

"Biosimilars like ABRILADA represent an opportunity to help improve access to important treatment options for patients living with chronic, and often debilitating, inflammatory conditions," said Richard Blackburn, Global President, Pfizer Inflammation and Immunology. "Our current portfolio of approved biosimilar products is one of the broadest in the industry and we are proud to offer additional treatment options for patients."

The FDA approval was based on the review of a comprehensive data package, which demonstrated biosimilarity of ABRILADA to the reference product. This includes results from the REFLECTIONS B538-02 clinical comparative study, which evaluated the efficacy, safety and immunogenicity of ABRILADA and found no clinically meaningful differences in efficacy, safety or immunogenicity compared to the reference product, each taken in combination with methotrexate, in patients with moderate to severe rheumatoid arthritis.<sup>3</sup>

Biosimilars have been a significant catalyst for change for the healthcare industry over the last decade, with the potential to drive cost savings for healthcare systems. With more than 10 years of global in-market experience and eight approved biosimilar products in the U.S., Pfizer is proud to be a leader and at the forefront of this vital healthcare segment.

Pfizer is working to make ABRILADA available to U.S. patients as soon as feasible based on the terms of our agreement with AbbVie. Our current plans are to launch in 2023. We will provide further updates as the date approaches.

#### **About ABRILADA (adalimumab-afzb)**

ABRILADA is a tumor necrosis factor (TNF) blocker and biosimilar to Humira. Adalimumab targets and blocks TNF, which is believed to help reduce inflammation.<sup>4</sup>

#### IMPORTANT SAFETY INFORMATION for ABRILADA (adalimumab-afzb)

#### **SERIOUS INFECTIONS**

Patients treated with adalimumab are at increased risk for developing serious infections that may lead to hospitalization or death. Most patients who developed these infections were taking concomitant

immunosuppressants such as methotrexate or corticosteroids.

Discontinue ABRILADA if a patient develops a serious infection or sepsis.

## Reported infections include:

- Active tuberculosis (TB), including reactivation of latent TB. Patients with TB have frequently presented with disseminated or extrapulmonary disease. Test patients for latent TB before ABRILADA use and during therapy. Initiate treatment for latent TB prior to ABRILADA use.
- Invasive fungal infections, including histoplasmosis, coccidioidomycosis, candidiasis, aspergillosis, blastomycosis, and pneumocystosis. Patients with histoplasmosis or other invasive fungal infections may present with disseminated, rather than localized, disease. Antigen and antibody testing for histoplasmosis may be negative in some patients with active infection. Consider empiric anti-fungal therapy in patients at risk for invasive fungal infections who develop severe systemic illness.
- Bacterial, viral, and other infections due to opportunistic pathogens, including Legionella and Listeria.

Carefully consider the risks and benefits of treatment with ABRILADA prior to initiating therapy in patients: 1. with chronic or recurrent infection, 2. who have been exposed to TB, 3. with a history of opportunistic infection, 4. who resided in or traveled in regions where mycoses are endemic, 5. with underlying conditions that may predispose them to infection. Monitor patients closely for the development of signs and symptoms of infection during and after treatment with ABRILADA, including the possible development of TB in patients who tested negative for latent TB infection prior to initiating therapy.

- Do not start ABRILADA during an active infection, including localized infections.
- Patients older than 65 years, patients with co-morbid conditions, and/or patients taking concomitant immunosuppressants may be at greater risk of infection.
- If an infection develops, monitor carefully and initiate appropriate therapy.
- Drug interactions with biologic products: A higher rate of serious infections has been observed in RA patients treated with rituximab who received subsequent treatment with a TNF blocker. An increased risk of serious infections has been seen with the combination of TNF blockers with anakinra or abatacept, with no demonstrated added benefit in patients with RA. Concomitant administration of ABRILADA with other biologic DMARDs (e.g., anakinra or abatacept) or other TNF blockers is not recommended based on the possible increased risk for infections and other potential pharmacological interactions.

#### **MALIGNANCY**

Lymphoma and other malignancies, some fatal, have been reported in children and adolescent patients treated with TNF blockers, including adalimumab. Postmarketing cases of hepatosplenic T-cell lymphoma (HSTCL), a rare type of T-cell lymphoma, have been reported in patients treated with TNF blockers, including adalimumab. These cases have had a very aggressive disease course and have been fatal. The majority of reported TNF blocker cases have occurred in patients with Crohn's disease or ulcerative colitis and the majority were in adolescent and young adult males. Almost all of these patients had received treatment with azathioprine or 6-mercaptopurine concomitantly with a TNF blocker at or prior to diagnosis. It is uncertain whether the occurrence of HSTCL is related to use of a TNF blocker or a TNF blocker in combination with these other immunosuppressants.

• Consider the risks and benefits of ABRILADA treatment prior to initiating or continuing therapy in a patient with known malignancy.

- In clinical trials, more cases of malignancies were observed among adalimumab-treated patients compared to control patients.
- Non-melanoma skin cancer (NMSC) was reported during clinical trials for adalimumab-treated patients. Examine all patients, particularly those with a history of prolonged immunosuppressant or PUVA therapy, for the presence of NMSC prior to and during treatment with ABRILADA.
- In adalimumab clinical trials, there was an approximate 3-fold higher rate of lymphoma than expected in the general U.S. population. Patients with chronic inflammatory diseases, particularly those with highly active disease and/or chronic exposure to immunosuppressant therapies, may be at higher risk of lymphoma than the general population, even in the absence of TNF blockers.
- Postmarketing cases of acute and chronic leukemia were reported with TNF blocker use. Approximately
  half of the postmarketing cases of malignancies in children, adolescents, and young adults receiving TNF
  blockers were lymphomas; other cases included rare malignancies associated with immunosuppression
  and malignancies not usually observed in children and adolescents.

#### **HYPERSENSITIVITY**

• Anaphylaxis and angioneurotic edema have been reported following adalimumab administration. If a serious allergic reaction occurs, stop ABRILADA and institute appropriate therapy.

# HEPATITIS B VIRUS REACTIVATION

- Use of TNF blockers, including adalimumab, may increase the risk of reactivation of hepatitis B virus (HBV) in patients who are chronic carriers. Some cases have been fatal.
- Evaluate patients at risk for HBV infection for prior evidence of HBV infection before initiating TNF blocker therapy.
- Exercise caution in patients who are carriers of HBV and monitor them during and after ABRILADA treatment.
- Discontinue ABRILADA and begin antiviral therapy in patients who develop HBV reactivation. Exercise caution when resuming ABRILADA after HBV treatment.

#### NEUROLOGIC REACTIONS

- TNF blockers, including adalimumab, have been associated with rare cases of new onset or exacerbation of central nervous system and peripheral demyelinating diseases, including multiple sclerosis, optic neuritis, and Guillain-Barré syndrome.
- Exercise caution when considering ABRILADA for patients with these disorders; discontinuation of ABRILADA should be considered if any of these disorders develop.
- There is a known association between intermediate uveitis and central demyelinating disorders.

#### **HEMATOLOGIC REACTIONS**

- Rare reports of pancytopenia, including aplastic anemia, have been reported with TNF blockers. Medically significant cytopenia has been infrequently reported with adalimumab.
- Consider stopping ABRILADA if significant hematologic abnormalities occur.

#### **CONGESTIVE HEART FAILURE**

• Worsening and new onset congestive heart failure (CHF) has been reported with TNF blockers. Cases of worsening CHF have been observed with adalimumab; exercise caution and monitor carefully.

#### **AUTOIMMUNITY**

• Treatment with adalimumab may result in the formation of autoantibodies and, rarely, in development of a lupus-like syndrome. Discontinue treatment if symptoms of a lupus-like syndrome develop.

#### **IMMUNIZATIONS**

- Patients on ABRILADA should not receive live vaccines.
- Pediatric patients, if possible, should be brought up to date with all immunizations before initiating ABRILADA therapy.
- Adalimumab is actively transferred across the placenta during the third trimester of pregnancy and may affect immune response in the in utero exposed infant. The safety of administering live or live-attenuated vaccines in infants exposed to ABRILADA in utero is unknown. Risks and benefits should be considered prior to vaccinating (live or live-attenuated) exposed infants.

#### ADVERSE REACTIONS

• The most common adverse reactions in adalimumab clinical trials (>10%) were: infections (e.g., upper respiratory, sinusitis), injection site reactions, headache, and rash.

#### **INDICATIONS**

- **Rheumatoid Arthritis:** ABRILADA is indicated, alone or in combination with methotrexate or other non-biologic DMARDs, for reducing signs and symptoms, inducing major clinical response, inhibiting the progression of structural damage, and improving physical function in adult patients with moderately to severely active rheumatoid arthritis.
- **Juvenile Idiopathic Arthritis:** ABRILADA is indicated, alone or in combination with methotrexate, for reducing signs and symptoms of moderately to severely active polyarticular juvenile idiopathic arthritis in patients 4 years of age and older.
- **Psoriatic Arthritis:** ABRILADA is indicated, alone or in combination with non-biologic DMARDs, for reducing signs and symptoms, inhibiting the progression of structural damage, and improving physical function in adult patients with active psoriatic arthritis.
- **Ankylosing Spondylitis:** ABRILADA is indicated for reducing signs and symptoms in adult patients with active ankylosing spondylitis.
- Adult Crohn's Disease: ABRILADA is indicated for reducing signs and symptoms and inducing and maintaining clinical remission in adult patients with moderately to severely active Crohn's disease who have had an inadequate response to conventional therapy, and reducing signs and symptoms and inducing clinical remission in these patients if they have also lost response to or are intolerant to infliximab.
- Ulcerative Colitis: ABRILADA is indicated for inducing and sustaining clinical remission in adult patients with moderately to severely active ulcerative colitis who have had an inadequate response to immunosuppressants such as corticosteroids, azathioprine, or 6-mercaptopurine. The effectiveness of adalimumab has not been established in patients who have lost response to or were intolerant to anti-TNF agents.
- **Plaque Psoriasis:** ABRILADA is indicated for the treatment of adult patients with moderate to severe chronic plaque psoriasis who are candidates for systemic therapy or phototherapy, and when other systemic therapies are medically less appropriate. ABRILADA should only be administered to patients who will be closely monitored and have regular follow-up visits with a physician.

Please see full Prescribing Information for ABRILADA (adalimumab-afzb).

## Pfizer Inc.: Breakthroughs that change patients' lives

At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. We strive to set the standard for quality, safety and value in the discovery, development and manufacture of health care products, including innovative medicines and vaccines. Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time. Consistent with our responsibility as one of the world's premier innovative biopharmaceutical companies, we collaborate with health care providers, governments and local communities to support and expand access to reliable, affordable health care around the world. For more than 150 years, we have worked to make a difference for all who rely on us. We routinely post information that may be important to investors on our website at <a href="www.pfizer.com">www.pfizer.com</a>. In addition, to learn more, please visit us on <a href="www.pfizer.com">www.pfizer.com</a> and follow us on Twitter at <a href="@Pfizer">@Pfizer</a> not <a href="@Pfizer\_News">@Pfizer\_News</a>, <a href="LinkedIn">LinkedIn</a>, <a href="YouTube">YouTube</a> and like us on Facebook.com/Pfizer.

DISCLOSURE NOTICE: The information contained in this release is as of November 18, 2019. Pfizer assumes no obligation to update forward-looking statements contained in this release as the result of new information or future events or developments.

This release contains forward-looking information about ABRILADA (adalimumab-afzb) including its potential benefits, that involves substantial risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Risks and uncertainties include, among other things, uncertainties regarding the launch timing and commercial success of ABRILADA in the United States; the uncertainties inherent in research and development, including the ability to meet anticipated clinical endpoints, commencement and/or completion dates for our clinical trials, regulatory submission dates, regulatory approval dates and/or launch dates, as well as the possibility of unfavorable new clinical data and further analyses of existing clinical data; the risk that clinical trial data are subject to differing interpretations and assessments by regulatory authorities; whether regulatory authorities will be satisfied with the design of and results from our clinical studies; whether and when applications for ABRILADA may be filed in any other jurisdictions; whether and when any such other applications for ABRILADA that may be pending or filed may be approved by regulatory authorities, which will depend on myriad factors, including making a determination as to whether the product's benefits outweigh its known risks and determination of the product's efficacy and, if approved, whether ABRILADA will be commercially successful; intellectual property and/or litigation implications; decisions by regulatory authorities impacting labeling, manufacturing processes, safety and/or other matters that could affect the availability or commercial potential of ABRILADA; uncertainties regarding access challenges for our biosimilar products where our product may not receive appropriate formulary access or remains in a disadvantaged position relative to the innovator product; and competitive developments.

A further description of risks and uncertainties can be found in Pfizer's Annual Report on Form 10-K for the fiscal year ended December 31, 2018 and in its subsequent reports on Form 10-Q, including in the sections thereof captioned "Risk Factors" and "Forward-Looking Information and Factors That May Affect Future Results", as well as in its subsequent reports on Form 8-K, all of which are filed with the U.S. Securities and Exchange Commission and available at <a href="www.sec.gov">www.sec.gov</a> and <a href="www.pfizer.com">www.pfizer.com</a>.

<sup>&</sup>lt;sup>1</sup> Humira is a registered trademark of AbbVie.

<sup>&</sup>lt;sup>2</sup> ABRILADA<sup>TM</sup> (adalimumab-afzb) Prescribing Information. New York. NY: Pfizer Inc: 2019. Available at <a href="http://labeling.pfizer.com/ShowLabeling.aspx?id=12780">http://labeling.pfizer.com/ShowLabeling.aspx?id=12780</a>. Accessed November 2019.

<sup>&</sup>lt;sup>3</sup> Fleischmann RM, Alten R, Pileckyte M, Lobello K, Hua SY, Cronenberger C, Alvarez D, Bock AE, Sewell KL. A comparative clinical study of PF-06410293, a candidate adalimumab biosimilar, and adalimumab reference product (Humira) in the treatment of active rheumatoid arthritis. *Arthritis Res Ther.* 2018 Aug

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<sup>4</sup> Zhao S, Chadwick L, Mysler E, Moots RJ. Review of Biosimilar Trials and Data on Adalimumab in Rheumatoid Arthritis. *Curr Rheumatol Rep.* 2018;20(10):57. Published 2018 Aug 9. doi:10.1007/s11926-018-0769-6. Available at <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6097048/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6097048/</a>. Accessed November 2019.

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