Apremilast (Otezla) is an oral medication approved for the treatment of moderate to severe plaque psoriasis. Phosphodiesterase-4 (PDE4) is an enzyme that regulates the levels of cyclic adenosine monophosphate (cAMP), a key modulator of immune cell responses. Apremilast is a PDE4 inhibitor, which results in increased intracellular cAMP levels to help modulate the balance between pro-inflammatory and anti-inflammatory mediators produced by immune cells. Apremilast regulates the production of inflammatory mediators such as interleukin-17 and tumor necrosis factor-alpha, naturally occurring proteins that regulate the immune system and are implicated in immune mediated inflammatory disorders.

Apremilast first received FDA approval on March 21, 2004 for treatment of psoriatic arthritis. It is the first oral medication in the U.S. approved for the treatment of psoriatic arthritis with a recommended starting dose of 30 mg twice daily. This medication is particularly beneficial in patients with multiple medical problems because of its excellent safety profile. Routine laboratory monitoring is not required, however, in patients with severe kidney impairment, the dose should be reduced to 30 mg daily. Apremilast is a good treatment option for patients who wish to avoid infusions, injections, or disease-modifying antirheumatic drugs (DMARDs) such as Stelara.

The most common adverse events reported were mild gastrointestinal symptoms such as diarrhea and nausea, which were temporary. Some patients treated with apremilast reported unexplained weight loss. Patients should have their weight monitored regularly, as significant and otherwise unexplained weight loss may require discontinuation of treatment. Use of apremilast has also been associated with reports of depression. While the overall incidence is low, it is still recommended that the risks and benefits of apremilast be evaluated carefully prior to starting therapy in patients with a history of depression and/or suicidal thoughts or behavior, as well as close monitoring for worsening symptoms during therapy.