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 ORIGINAL ARTICLE

Safety of Bimekizumab for Plaque Psoriasis: An Expert Consensus Panel

Joshua Burshtein MD,[a,b] Milaan Shah MD,[a,b] Danny Zakria MD MBA,[a,b] April W. Armstrong MD MPH,[c] Alexandra K. Golant MD,[a] Alice B. Gottlieb MD PhD,[a] Jeffrey M. Weinberg MD,[a] Leon Kircik MD,[a] George Han MD PhD,[d] Richard G. Langley MD FRCPC,[e] Andrea L. Neimann MD,[f] Mark Lebwohl MD[a]

[a]Department of Dermatology, Icahn School of Medicine at Mount Sinai, New York, NY
[b]Ronald O. Perelman Department of Dermatology, NYU Langone Health, NY
[c]Division of Dermatology, David Geffen School of Medicine at UCLA, Los Angeles, CA
[d]Department of Dermatology, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Hempstead, NY
[e]Division of Dermatology, Dalhousie University, Halifax, NS, Canada
[f]Division of Rheumatology, Department of Medicine, NYU Langone Health, NY

ABSTRACT

Background: Plaque psoriasis is a chronic, relapsing systemic illness that has a significant effect on quality of life. Bimekizumab is the first monoclonal antibody to target both interleukin (IL)-17A and IL-17F, and recently received Food and Drug Administration (FDA) approval for moderate to severe plaque psoriasis. Guidance is necessary regarding the safety of bimekizumab.

Methods: A comprehensive literature search of PubMed, Scopus, and Google Scholar was completed for English-language original research articles on the safety of bimekizumab for moderate to severe psoriasis. A panel of 9 dermatologists and 1 rheumatologist with significant expertise in the treatment of psoriasis gathered to review the articles and create consensus statements on this new medication. A modified Delphi process was used to approve each statement, and strength of recommendation was assigned using the Strength of Recommendation Taxonomy criteria.

Results: The literature search produced 110 articles that met the criteria. A thorough screening of the studies for relevance to the research question resulted in 15 articles. These were distributed to all panelists for review prior to a roundtable discussion. The panel unanimously voted to adopt 5 consensus statements and recommendations, all of which were given a strength of "A".

Conclusion: Bimekizumab has a safety profile consistent with other biologics, except for a higher risk of oral candidiasis. Its hepatic safety profile is comparable with other currently FDA-approved biologics for plaque psoriasis. In addition, the data do not support an association of bimekizumab with suicide, and the incidence of inflammatory bowel disease is not greater than the incidence of other IL-17 blockers.

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INTRODUCTION

Plaque psoriasis is a chronic, relapsing systemic illness that has a significant effect on quality of life.[1-3] New biologic therapies targeting tumor necrosis factor (TNF), interleukin (IL)-12/23, IL-17, and IL-23 have demonstrated efficacy and safety for the treatment of plaque psoriasis.[4] The IL-17 class of biologic therapies includes secukinumab and ixekizumab, which target IL-17A,[5,6] and brodalumab, which targets IL-17RA.[7] Bimekizumab, the first monoclonal IgG antibody to target both IL-17A and IL-17F, was recently approved by the Food and Drug Administration (FDA) for the treatment of plaque psoriasis.[8] Clinical trial data as well as real-world studies have revealed bimekizumab's rapid and long-lasting clinical efficacy for moderate to severe plaque psoriasis.[9–15]

The safety profile of bimekizumab has been extensively studied, demonstrating consistent adverse events to other biologics, apart from an increased incidence of oral candidiasis.[16] Several important safety considerations for bimekizumab include its effects on the liver, rates of oral candidiasis, relationship with suicidal ideation and behavior (SIB), and rates of inflammatory bowel disease (IBD) (specifically Crohn's disease). As bimekizumab has been recently approved in the United States for plaque psoriasis and clinicians will begin prescribing it, a thorough evaluation of these safety considerations is vital. The purpose of this study was for a panel of experts in psoriasis to evaluate the current literature and provide consensus statements on the safety of bimekizumab.

MATERIALS AND METHODS

Literature Search and Study Selection

A comprehensive literature search of PubMed, Scopus, and Google Scholar was completed on November 15, 2023, using the keywords "psoriasis," "bimekizumab," and "safety" along with the Boolean term "AND" for English-language original research articles, systematic reviews, and meta-analyses without date restrictions. This study did not require Institutional Review Board (IRB) approval. Articles were screened for relevance to the safety of bimekizumab for the treatment of moderate to severe psoriasis.

A 10-person consensus panel was selected for their expertise in the management of plaque psoriasis. The articles that met inclusion criteria were distributed to the panelists, and each member of the panel reviewed the selected studies and assigned them a level of evidence based on the Strength of Recommendation Taxonomy (SORT) criteria.[17] These levels include level 1 (good-quality patient-oriented evidence), level 2 (limited-quality patient-oriented evidence), or level 3 (other evidence such as consensus guidelines, usual practice, opinion, or disease-oriented evidence).[17]

Development of Consensus Statements

The panel consisted of 9 dermatologists and 1 rheumatologist with expertise in the treatment of psoriasis. The panel convened on November 30, 2023, to review and discuss the studies and create consensus statements with guidance on the safety of bimekizumab for the treatment of plaque psoriasis. To reach a consensus for each statement, a modified Delphi process was used.[18] This process requires supermajority approval for the adoption of a recommendation through multiple rounds of real-time voting and is a regularly used method to create expert recommendations in dermatology.[19–22]

RESULTS

Literature Search and Study Selection

The literature search resulted in 110 articles that met the search criteria. After a comprehensive screening process, 15 articles were selected as relevant to the research questions. These articles were distributed to the panelists for evaluation prior to the roundtable discussion.

Levels of Evidence Designation

The panel assigned level 1 evidence to all articles that were evaluated (Table 1).

Consensus Statements

The panel developed 5 consensus statements regarding the safety of bimekizumab for the treatment of plaque psoriasis. Of the 5 statements, all received a unanimous (10/10) vote for adoption. SORT criteria were used to assign a strength to each statement and recommendation (Table 2).

Statement 1: *Compared with traditional oral systemic therapies like methotrexate, cyclosporine, and acitretin for plaque psoriasis, biologic agents exhibit a favorable hepatic safety profile. Bimekizumab has a comparable hepatic safety profile to other currently FDA-approved biologics for plaque psoriasis. (SORT Level A).*

Traditional oral systemic therapies for plaque psoriasis, including methotrexate (MTX), cyclosporine, and acitretin, are known to have harmful effects on the liver.[23] A systematic review of clinical trials demonstrated that MTX increases the risk of total adverse liver events and both minor (≤3 upper limit of normal (ULN)) and major (>3 ULN) liver enzyme abnormalities.[23,24] Hepatic adverse events of MTX range from elevation in liver function tests (LFTs) to fatty liver disease, fibrosis, and cirrhosis.[25] Cyclosporine also has a risk of abnormal LFTs and hepatotoxicity, though lower than MTX.[23,26] In addition, acitretin is associated with abnormal LFT findings and hepatitis.[27] The psoriasis patient population has a high rate of metabolic syndrome, obesity, and level of alcohol consumption, each of which can have adverse effects on a patient's liver function.[28,29] Non-alcoholic fatty liver disease is also more prevalent in psoriasis patients, occurring in up to 66% of patients, and can contribute to elevation in LFTs.[30]

Biologic agents for plaque psoriasis have consistently demonstrated a lower rate of adverse effects on the liver compared with MTX, cyclosporine, and acitretin.[12,14,31-34,30] The hepatic safety data of bimekizumab have been reported throughout multiple randomized clinical trials. In a pooled analysis of phase II and phase III data, the overall exposure-adjusted incidence rate (EAIR) of elevated liver enzyme levels was 3.6 (3.0-4.4) per 100 person-years (PY).[16] Clinical trials demonstrate a comparable safety profile to other FDA-approved biologics for plaque psoriasis. After 24 weeks of bimekizumab every 4 weeks and then every 8 weeks, EAIR for elevated LFTs was 5.5 (1.5-14.1) per 100 PY, whereas for adalimumab alone it was higher at 15.8 (7.9-28.3) per 100 PY.[31] The hepatic adverse event rate declined with time and was not cumulative, EAIR at 1 year was 2.2 (0.3-8.0) per 100 PY for bimekizumab vs 6.9 (2.5-15.0) per 100 PY for those who received adalimumab followed by bimekizumab (ADA/BKZ).[31] At year 1, there was a similar number of patients with elevated LFTs for bimekizumab compared with ADA/BKZ (1.3% vs 4.0%, respectively).[34] At year 2, EAIR continued to decrease, 1.6 (0.2-5.9) per 100 PY for bimekizumab vs 6.1 (2.4-12.5) per 100 PY for ADA/BKZ.[31] In a phase III trial for adalimumab, LFT elevation occurred at a rate of 1.2% compared with 1.8% in placebo after 16 weeks.[35] Of note, many patients who are on TNF-blockers such as adalimumab are concurrently taking MTX.

TABLE 1.

SORT Criteria Level of Evidence for Articles Pertaining to the Safety of Bimekizumab	
Article	**Level of Evidence**
Blauvelt A, Armstrong A, Merola JF, et al. Bimekizumab in patients with moderate to severe plaque psoriasis: analysis of mental health and associated disorders. *SKIN J Cutan Med.* 2023;7(6):s300. doi:10.25251/skin.7.supp.300	1
Reich K, Nestle FO, Papp K, et al. Infliximab induction and maintenance therapy for moderate-to-severe psoriasis: a phase III, multicentre, double-blind trial. *Lancet.* 2005;366(9494):1367-1374. doi:10.1016/S0140-6736(05)67566-6	1
Menter A, Gordon KB, Leonardi CL, Gu Y, Goldblum OM. Efficacy and safety of adalimumab across subgroups of patients with moderate to severe psoriasis. *J Am Acad Dermatol.* 2010;63(3):448-456. doi:10.1016/j.jaad.2009.09.040	1
UCB, Inc. BIMZELX (bimekizumab-bkzx) [package insert]. *US Food Drug Adm.* Published online 2023. Accessed December 10, 2023. https://www.accessdata.fda.gov/drugsatfda_docs/label/2023/761151s000lbl.pdf	--
Abbott Laboratories. Humira [package insert]. *US Food Drug Adm.* Published online 2007. Accessed December 10, 2023. https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/125057s410lbl.pdf	--
Centocor Inc. Remicade [package insert]. *US Food Drug Adm.* Published online 2006. Accessed December 10, 2023. https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/103772s5401lbl.pdf	--
Gordon KB, Langley RG, Warren RB, et al. Bimekizumab safety in patients with moderate to severe plaque psoriasis: pooled results from phase 2 and phase 3 randomized clinical trials. *JAMA Dermatol.* 2022;158(7):735-744. doi:10.1001/jamadermatol.2022.1185	1
Gordon KB, Foley P, Krueger JG, et al. Bimekizumab efficacy and safety in moderate to severe plaque psoriasis (BE READY): a multicentre, double-blind, placebo-controlled, randomised withdrawal phase 3 trial [published correction appears in Lancet. 2021;27;397(10280):1182]. *Lancet.* 2021;397(10273):475-486.	1
Kokolakis G, Warren RB, Strober B, et al. Bimekizumab efficacy and safety in patients with moderate-to-severe plaque psoriasis who switched from adalimumab, ustekinumab or secukinumab: results from phase III/IIIb trials. *Br J Dermatol.* 2023;188(3):330-340. doi:10.1093/bjd/ljac089	1
Reich K, Papp KA, Blauvelt A, et al. Bimekizumab versus ustekinumab for the treatment of moderate to severe plaque psoriasis (BE VIVID): efficacy and safety from a 52-week, multicentre, double-blind, active comparator and placebo controlled phase 3 trial [published correction appears in Lancet. 2021;397(10275):670]. *Lancet.* 2021;397(10273):487-498. doi:10.1016/S0140-6736(21)00125-2	1
Reich K, Papp KA, Blauvelt A, et al. Bimekizumab versus ustekinumab for the treatment of moderate to severe plaque psoriasis (BE VIVID): efficacy and safety from a 52-week, multicentre, double-blind, active comparator and placebo controlled phase 3 trial. *Lancet.* 2021;397(10273):487-498. doi:10.1016/S0140-6736(21)00125-2	1
Reich K, Warren RB, Lebwohl M, et al. Bimekizumab versus secukinumab in plaque ssoriasis. *N Engl J Med.* 2021;385(2):142-152. doi:10.1056/NEJMoa2102383	1
Strober B, Tada Y, Mrowietz U, et al. Bimekizumab maintenance of response through 3 years in patients with moderate-to-severe plaque psoriasis: results from the BE BRIGHT open-label extension trial. *Br J Dermatol.* 2023;188(6):749-759. doi:10.1093/bjd/ljad035	1
Strober B, Paul C, Blauvelt A, et al. Bimekizumab efficacy and safety in patients with moderate to severe plaque psoriasis: two-year interim results from the open-label extension of the randomized BE RADIANT phase 3b trial [published online ahead of print, 2023 May 12]. *J Am Acad Dermatol.* 2023;S0190-9622(23)00782-X.	1
Thaci D, Vender R, de Rie MA, et al. Safety and efficacy of bimekizumab through 2 years in patients with moderate-to-severe plaque psoriasis: longer-term results from the BE SURE randomized controlled trial and the open-label extension from the BE BRIGHT trial. *Br J Dermatol.* 2023;188(1):22-31. doi:10.1093/bjd/ljac021	1
Warren RB, Blauvelt A, Bagel J, et al. Bimekizumab versus adalimumab in plaque psoriasis. *N Engl J Med.* 2021;385(2):130-141. doi:10.1056/NEJMoa2102388	1

Comparator trials demonstrate the head-to-head hepatic adverse event rates. For ustekinumab, year 1 EAIR for elevated LFTs was 2.6 (0.7-6.6) per 100 PY compared with 1.7 (0-9.7) per 100 PY for bimekizumab;[12] and the number of patients with total hepatic events was also similar (3% vs 3%), respectively.[32] Clinical trial data also demonstrate comparable hepatic adverse events to secukinumab. One year EAIR for bimekizumab was 1.6 (0.2-5.6) per 100 PY compared with 5.9 (3.5-9.2) per 100 PY for secukinumab;[12] and the number of patients with elevated LFTs was 5.6% vs 5.1%, respectively.[33] Other biologics have LFT elevation rates similar to or greater than bimekizumab: infliximab (9%),[36] ixekizumab (3%),[37] and brodalumab (1%).[38]

In a phase IIIb trial, year 1 EAIR for LFT elevation more than 3 times the ULN was 3.0 (1.4-5.5) per 100 PY for continuous bimekizumab and 4.6 (2.6-7.6) per 100 PY for secukinumab followed by bimekizumab (SEC/BKZ).[14] At year 2, EAIR for >3xULN for LFT elevation was 1.9 (0.8-3.9) per 100 PY for continuous bimekizumab vs 2.0 (0.8-4.2) per 100 PY for SEC/BKZ.[14] Furthermore, in a phase III clinical trial of bimekizumab for patients with psoriatic arthritis, the majority of whom were concurrently taking MTX, elevated LFTs only occurred in 2% of patients,[39] further substantiating the hepatic safety of bimekizumab.

TABLE 2.

Consensus Statements and Recommendations for the Safety of Bimekizumab		
Consensus Statement/Recommendation	**Strength of Recommendation**	**Consensus Vote**
Compared with traditional oral systemic therapies like methotrexate, cyclosporine, and acitretin for plaque psoriasis, biologic agents exhibit a favorable hepatic safety profile. Bimekizumab has a comparable hepatic safety profile to other currently FDA-approved biologics for plaque psoriasis.	A	10/10
There is no evidence to support more frequent monitoring of hepatic function tests in patients on bimekizumab compared with other biologics.	A	10/10
The risk of oral candidiasis is higher with bimekizumab than with other biologics and is dose dependent. Most cases are mild to moderate, easily managed, and did not result in discontinuation.	A	10/10
The risk of suicidality with bimekizumab is rare and not greater than what is seen in the psoriasis population. The data do not support an association of bimekizumab with suicide.	A	10/10
The prevalence of Crohn's disease is increased in patients within psoriasis. The incidence of IBD, including Crohn's disease, in patients treated with IL-17 blockers, including bimekizumab, is very low. The incidence of IBD in patients treated with bimekizumab is not higher than the incidence for other IL-17 blockers.	A	10/10

FDA, Food and Drug Administration; IBD, inflammatory bowel disease; IL, interleukin.

In the summary basis of approval for bimekizumab, the FDA concluded that there was no clear drug-induced liver injury (DILI) phenotype for the 10 at least possible DILI cases.[40] These cases had a median latency of 164 days (range 28-338 days) to elevated liver enzymes.[40] No cases were very likely or certain to be DILI by the FDA and/or the Hepatic Adjudication Committee (HAC) of UCB Pharma.[40] Five cases were considered probably or possibly related to bimekizumab, and the FDA and HAC only agreed on 2 of 5 cases (Table 3). All but 1 of the patients with adverse hepatic events had an additional component of their medical history that could also contribute to the elevation of hepatic enzymes.[40] Of these 5 cases, 2 had a history of alcohol use, 4 were obese, 2 were taking concomitant medications known to cause liver damage, and 2 had a history of elevated LFTs (Table 3).

The association between bimekizumab dosing and the rate of hepatic adverse events may also provide insight into this relationship. In phase III trials, bimekizumab dosing of 320 mg every 8 weeks had a 24-week EAIR of 5.5 (1.5-14.1) per 100 PY for elevated LFTs compared with 4.2 (0.9-12.2) per 100 PY for 320mg every 4 weeks.[31] At year 1 this relationship was maintained, 2.2 (0.3-8.0) per 100 PY vs 1.1 (0-5.9) per 100 PY, respectively.[31] These findings demonstrate that, when dosing was raised, the rate of elevated LFTs decreased, indicating that there is no dose-dependent relationship. And, the adverse events may not be entirely related to bimekizumab.

Statement 2: *There is no evidence to support more frequent monitoring of hepatic function tests in patients on bimekizumab compared with other biologics. (SORT Level A).*

Given the reports of adverse hepatic events for bimekizumab, the frequency of monitoring is an important consideration. The FDA package insert for bimekizumab states, "Test liver enzymes, alkaline phosphatase, and bilirubin at baseline, periodically during treatment with BIMZELX, and according to routine patient management".[8]

TABLE 3.

Cases of Possible or Probable DILI Due to Bimekizumab[56]					
Case	**History of Alcohol Use**	**History of Obesity**	**Concomitant Medications[1]**	**History of Elevated LFTs**	**Likelihood that the Liver Problem was Caused by DILI[2]**
1	No	Yes	Yes	Yes	HAC: Possible FDA: Possible
2	No	No	No	No	HAC: Possible FDA: Possible
3	No	Yes	No	No	HAC: Possible FDA: Probable
4	Yes	Yes	No	No	HAC: Probable FDA: Possible
5	Yes	Yes	Yes	Yes	HAC: Probable FDA: Possible

[1]Concomitant medications with known adverse effects on the liver.
[2]According to the FDA definitions for whether a liver issue was caused by drug-induced liver injury (DILI): "unlikely" = 5-25%, "possible" = 25-50%, "probable" = 50-75%, "very likely" = 75-95%, "certain, definite" = >95%.
DILI, drug-induced liver injury; HAC, Hepatic Adjudication Committee of UCB; FDA, Food and Drug Administration; LFTs, Liver Function Tests.

There is currently no consensus on the meaning of "routine patient management". For many biologic therapies, common approaches are to obtain baseline hepatic function tests for all patients and, if normal, to subsequently monitor at 6-month intervals or once within the first year, and none thereafter.[41,42] All participants in this expert consensus panel for bimekizumab recommend obtaining baseline hepatic function tests for all patients being initiated on bimekizumab. If normal at baseline, and unless there is any suggestion of liver injury, 7/10 participants would routinely check hepatic function tests at least once within the first year of treatment. Although there is no published clinical evidence to support the timing of routine monitoring, the phrasing in the FDA package insert guided these participants to choose this monitoring schedule. The package insert does not provide a recommended monitoring timeline, but participants felt monitoring is necessary as there may be medical/legal implications if it is not performed.

If the hepatic function tests continue to be within the normal range after 1 year of bimekizumab treatment, 3/10 participants would routinely re-check them. These participants would do so as they routinely check hepatic function tests after 1 year for all other biologics for plaque psoriasis. Given the higher rates of hepatic adverse events for infliximab and adalimumab, recommended routine monitoring is more frequent than for other biologics.[41-44]

If hepatic function tests are abnormal, consultation with a hepatic expert may be necessary to exclude other causes, and cessation of the drug may be required if DILI is suspected.[45] If the cause of LFT elevation is thought to be DILI and drug administration is suspended, LFTs typically return to normal within days to several weeks.[46]

As the rates of LFT elevation with bimekizumab are consistent with or lower than other biologics, this expert panel found no evidence to support more frequent monitoring of hepatic function tests for bimekizumab compared with other biologics.

Statement 3: *The risk of oral candidiasis is higher with bimekizumab than with other biologics and is dose-dependent. Most cases are mild to moderate, easily managed, and do not result in discontinuation. (SORT Level A).*

Blockage of IL-17 has been associated with candida infections in both animal models and humans.[47] Oral candidiasis was one of the most common treatment-related adverse events reported with bimekizumab.[14,16,31] The overall bimekizumab EAIR for oral candidiasis throughout phase II and phase III clinical trials was 12.6 (11.3-14.0) per 100 PY.[16] Comparator trials to other biologics demonstrated bimekizumab's higher rate of oral candidiasis. After 24 weeks of treatment, oral candidiasis EAIR for bimekizumab was 21.9 (12.2-36.0) per 100 PY compared with 0 for adalimumab.[31] When compared at year 1, the EAIR was 0.6 (0.0-3.6) per 100 PY for ustekinumab vs 23.7 (12.6-40.6) per 100 PY for bimekizumab, and 3.4 (1.7-6.0) per 100 PY for secukinumab vs 9.5 (4.9-16.7) per 100 PY for bimekizumab.[12] The number of cases in the head-to-head trials also follows this trend: secukinumab 3% vs bimekizumab 19.3%, adalimumab 0 vs bimekizumab 9.5%, and ustekinumab 1% vs bimekizumab 15%.[32–34]

Other IL-17 blockers have had lower rates of oral candidiasis compared with bimekizumab. In a comprehensive summary of safety outcomes, ixekizumab had an EAIR for oral candidiasis of 0.8 (0.7-0.9) per 100 PY and was present in 2.1% of patients.[48] In a pooled data analysis, brodalumab had 0 cases of oral candidiasis.[38]

Most cases of oral candidiasis with bimekizumab were mild or moderate, many patients with an infection only had 1 occurrence, and the majority of infections resolved with treatment.[16] Treatment regimens commonly included nystatin and/or fluconazole,[16] which is consistent with prior infections due to IL-17 blockers.[49,50] Of all patients, only 3 (0.2%) discontinued bimekizumab due to oral candidiasis.[16]

Statement 4: *The risk of suicidality with bimekizumab is rare and not greater than what is seen in the psoriasis population. The data do not support an association of bimekizumab with suicide. (SORT Level A).*

Patients with psoriasis are more likely to exhibit suicidal behaviors, attempt suicides, and complete suicides than those without psoriasis.[51] Clinical trial data for bimekizumab demonstrate that the risk of suicidality is rare. Overall EAIR for adjudicated suicidal ideation and behavior (SIB) was 0.1 (0-0.3) per 100 PY[16]; and in head-to-head trials SIB was similar to other biologics: ustekinumab 1% vs bimekizumab <1%, secukinumab 0 vs bimekizumab 0.3%, and ADA/BKZ 0 vs bimekizumab 0.[32–34] In pooled safety analyses of bimekizumab and ADA/BKZ, EAIR of SIB was 0 for both groups through year 2.[31] In addition, patients who switched from adalimumab, ustekinumab, or secukinumab to bimekizumab also had EAIR of 0 for SIB through 1 year.[12] There was also no pattern of SIB events according to treatment initiation or dosing of bimekizumab.[16]

In an analysis of mental health for patients taking bimekizumab, mean Patient Health Questionnaire (PHQ)-9 scores with bimekizumab were lower than placebo and similar to active comparators.[52] Low PHQ-9 scores were maintained over 3 years of treatment (mean score of 1.2).[52] This study also showed that over 7,166 PY of bimekizumab treatment, rates of adjudicated SIB (0.13 per 100 PY), suicidal behavior (0.06 per 100 PY), and completed suicides (0.01 per 100 PY) were on par with rates from other IL-17A blockers and IL-23 blockers for psoriasis.[52] The

risk of adjudicated SIB is also similar to the general psoriasis population, which has an EAIR of 0.09-0.54 per 100 PY.[53–55]

In 2015, the FDA completed a clinical review of SIB across all psoriasis biologics at the time. Regarding suicidal ideation, brodalumab had a rate of 240 per 100,000 PY, followed by apremilast with 135 per 100,000 PY, adalimumab with 74 per 100,000 PY, etanercept with 72 per 100,000 PY, secukinumab with 31 per 100,000 PY, and infliximab, ixekizumab, and ustekinumab each with 0.[56] More specifically for brodalumab, an analysis of all clinical trials found an overall SIB rate of 0.20 (0.08-0.41) per 100 PY, which was similar to ustekinumab with 0.60 (0.12-1.74) per 100 PY.[57] Of interest, brodalumab, which blocks IL-17RA, was given a boxed warning and Risk Evaluation and Mitigation Strategy program for suicides even though no causal association was made between the drug and suicides.[57] Since its introduction to the American market, there have not been any completed suicides in the US.[58] The data demonstrate that bimekizumab does not have a causal association with suicide and is similar to other currently FDA-approved biologics for plaque psoriasis.

Statement 5: *The prevalence of Crohn's disease is increased in patients with psoriasis. The incidence of IBD, including Crohn's disease, in patients treated with IL-17 blockers, including bimekizumab, is very low. The incidence of IBD in patients treated with bimekizumab is not higher than the incidence for other IL-17 blockers. (SORT Level A).*

Inflammatory bowel disease (IBD), including Crohn's disease, has been associated with an increased prevalence in the psoriasis population.[59,60] Multiple systematic reviews/meta-analyses found no statistically significant differences in risk of new or recurrent IBD for patients treated with IL-17 blockers (secukinumab, ixekizumab, and brodalumab) compared with placebo.[61,62] New cases of IBD with secukinumab or ixekizumab occurred at an EAIR of 0.23 per 100 PY in patients with psoriasis.[61] Specifically for ixekizumab, IBD occurred at EAIR of 0.1 per 100 PY[48] and Crohn's at 1.1 per 1,000 PY,[63] which was similar to brodalumab at 0.2 per 100 PY.[38]

In bimekizumab trials, patients with IBD were excluded from enrollment; therefore, incident cases of IBD were recorded. The overall EAIR of IBD for bimekizumab was 0.1 per 100 PY, with a total of 4 incident cases (3 which led to bimekizumab discontinuation).[16] In a phase IIIb trial, EAIR of IBD after 1 year of treatment with bimekizumab was 0.3 per 100 PY, which decreased to 0 after 2 years.[14] In another trial, IBD EAIR for adalimumab, ustekinumab, and bimekizumab were 0, whereas for secukinumab EAIR was 0.3 per 100 PY.[12] In addition, there were comparable IBD rates throughout all comparator trials: bimekizumab <1% vs ustekinumab 0, bimekizumab 0.3% vs secukinumab 0.3%, bimekizumab 0 vs ADA/BKZ 0.[32–34] The data demonstrate similar rates of incident IBD for bimekizumab when compared with other IL-17 blockers, as well as other biologics for plaque psoriasis.

CONCLUSION

Bimekizumab is the first monoclonal antibody to target both IL-17A and IL-17F and recently received FDA approval for moderate to severe plaque psoriasis. An expert consensus panel completed a comprehensive review of the literature and developed 5 consensus statements related to the safety of bimekizumab. Bimekizumab has a hepatic safety profile comparable to other currently FDA-approved biologics for plaque psoriasis, and there is no evidence to support more frequent monitoring of hepatic function tests. There is a higher risk of oral candidiasis, but most cases are mild to moderate and easily managed. In addition, the data do not support an association of bimekizumab with suicide and the incidence of IBD is not greater than the incidence for other IL-17 blockers. This expert panel concluded that bimekizumab has a safety profile consistent with other biologics, and the consensus statements will help guide clinicians in their management of plaque psoriasis with bimekizumab.

DISCLOSURES

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AUTHOR CORRESPONDENCE

Joshua Burshtein MD

E-mail:..... jburshtein13@gmail.com