

Revision Notice

‘Treating Psoriasis: What Is New About Fumaric Acid Esters?’ was first made available online on 7th June 2018. The article was removed for revisions on 8th June 2018 and was revised and placed back online on 15th October 2018. The following revisions were made to the online version of this article.

General changes:

Figure 1 was at the bottom of page 27 and is now at the top of page 27. Figure 2 was at the top of page 29 and is now at the bottom. The bars in Figure 2 have changed colour. Figure 3 was on page 31 and is now on page 30. The bars in Figure 3 have changed colour.

Page 25. Did say:

This symposium took place on 7th April 2018, as part of the 11th Skin Academy meeting in Barcelona, Spain.

Now says:

This oral presentation took place on 7th April 2018, as part of Almirall's 11th Skin Academy meeting in Barcelona, Spain

Page 25. Did say:

The symposium and the publication of this article were funded by Almirall. The views and opinions expressed are those of the authors and not necessarily of Almirall.

Now says:

The Skin Academy meeting and the publication of this article were funded by Almirall. The views and opinions expressed are those of the authors and not necessarily of Almirall. The Skin Academy is a promotional meeting initiated and funded by Almirall and is for healthcare professionals only.

Page 25. Did say:

This report covers the first session of Almirall's 11th Skin Academy meeting in Barcelona, Spain.

Now says:

This publication covers the first session of Almirall's 11th Skin Academy meeting in Barcelona, Spain.

Page 26. Did say:

Analysis of the German PsoBest registry, the main registry of systemic treatments for psoriasis, found that during 2015–2016, the most frequently prescribed systemic treatments were FAE, followed by methotrexate and then biologics (PsoBest, 2018, data on file).

Now says:

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Page 29. Figure 2. Did say:

A comparison was made between FAE and other nonbiologic systemic agents (control). The control group represents all available systemics prescribed to enrolled patients, most commonly methotrexate (PsoBest, 2018, data on file).

Page 29. Figure 2. Now says:

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Page 30. Did say:

Safety analyses using PsoBest data indicated that FAE were associated with higher rates of skin reactions (erythema and flushing), lymphopenia, and gastrointestinal disorders (e.g., cramps, diarrhoea), and lower rates of infections and infestations, when compared with other nonbiologic systemic therapies (PsoBest, 2018, data on file).

Page 30. Now says:

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Page 30. Did say:

This is comparable to the drug survival observed with other nonbiologic systemic agents but is lower than the drug survival levels observed with the biologic agents adalimumab and ustekinumab. (PsoBest, 2018, data on file).

Page 30. Now says:

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Page 30. Did say:

Skilarence has been available in Germany since October 2017, during which time data from the PsoBest registry have shown that most patients receiving Fumaderm have since been switched to receive Skilarence (PsoBest, 2018, data on file).

Page 31. Now says:

DMF monotherapy has been available in Germany since October 2017, during which time data from the PsoBest registry have shown that most patients receiving Fumaderm have since been switched to receive DMF monotherapy (PsoBest registry data, 4/2018).

Page 30. Deleted:

Furthermore, no impact on oral contraceptives has been identified when coadministered with FAE (Thaçi and Augustin, unpublished data) or DMF,⁵³ and no washout period is required for patients wishing to conceive.

Page 30. Did say:

In June 2017, Skilarence® (Almirall, Barcelona, Spain), a DMF monotherapy, became the first FAE to be licensed by the European Medicines Agency (EMA) for the treatment of psoriasis.^{54,55} Prior to this approval, Fumaderm® (Biogen Idec GmbH, Ismaning, Germany), a combination of four FAE, was the only FAE treatment approved in Europe; however, Fumaderm was only licensed for use as a psoriasis treatment in Germany. Skilarence has been available in Germany since October 2017, during which time data from the PsoBest registry have shown that most patients receiving Fumaderm have since been switched to receive Skilarence (PsoBest, 2018, data on file).

Page 31. Now says:

In June 2017, Skilarence® (Almirall, Barcelona, Spain), a DMF monotherapy, became the first FAE to be licensed by the European Medicines Agency (EMA) for the treatment of moderate-to-severe plaque psoriasis in adults in need of systemic medicinal therapy.^{53,54} Prior to this approval, Fumaderm® (Biogen Idec GmbH, Ismaning, Germany), a combination of four FAE, was the only FAE treatment approved in Europe; however, Fumaderm was only licensed for use as a psoriasis treatment in Germany. DMF monotherapy has been available in Germany since October 2017, during which time data from the PsoBest registry have shown that most patients receiving Fumaderm have since been switched to receive DMF monotherapy (PsoBest registry data, 4/2018).

Page 30. Deleted:

EMA approval of Skilarence has added an important licensed treatment option for physicians and psoriasis patients to consider in future treatment decisions. While similar efficacy profiles alone may not be a reason to switch from combined FAE to Skilarence, the effects of the other esters in the combined treatments remain unknown. The use of Skilarence removes this uncertainty and enables dermatologists to confidently discuss known potential side effects with their patients. In addition, Skilarence is likely to be cheaper than combined FAE in the European Union (EU) and there is no known risk associated with switching. Future research exploring the efficacy and safety of Skilarence in combination with biologic medicines could provide interesting insights

Page 30. Did say:

Due to this, drug-drug interactions are an important consideration when determining optimal treatment for psoriasis. Whereas methotrexate is known to interact with other drugs,⁵¹ FAE are not metabolised via cytochrome 450 and coadministration with medications used to treat the most common comorbidities does not appear to have an effect on their efficacy (Figure 3).⁵⁰

Page 30. Now says:

Due to this, drug-drug interactions are an important consideration when determining optimal treatment for psoriasis, and methotrexate, for example, is known to interact with other drugs.⁵¹ FAE are not metabolised via common pathways, e.g., via cytochrome 450, and coadministration with medications used to treat the most common comorbidities does not appear to have a large impact on their efficacy (Figure 3).^{41,50}

Page 31. Did say:

As such, FAE are now recommended as a first-line treatment option in new German treatment guidelines.

Page 31. Now says:

As such, FAE are now recommended as a first-line treatment option in new German treatment guidelines.²⁰

Page 31. Figure 3. Did say:

Improvement in skin symptoms among patients comedicated with fumaric acid esters and agents to treat comorbidities, according to the Physician's Global Assessment; B) The most common comorbidities in the FACTS study.

Page 30. Figure 3. Now says:

Figure 3: A) Improvement in skin symptoms among patients comedicated with fumaric acid esters and agents to treat comorbidities, according to the Physician's Global Assessment. In the FUTURE study, 67% of patients at 6 months and 78% at 24 months who received FAE had a response of markedly improved or clear (21% of patients comedicated);⁴¹ B) The most common comorbidities in the FACTS study.

Page 33. Ref 53. Deleted and references renumbered accordingly:

53. Zhu B et al. Evaluation of potential drug-drug interaction between delayed-release dimethyl fumarate and a commonly used oral contraceptive (norgestimate/ethinyl estradiol) in healthy women. *Clin Pharmacol Drug Dev.* 2017;6(6):604-13.

Page 33. Ref 54. Did say:

54. European Medicines Agency (EMA). Skilarence Authorisation Information 2017. 2017. Available at: http://www.ema.europa.eu/ema/index.jsp?curl=pages/medicines/human/medicines/002157/human_med_002118.jsp&mid=WCOb01ac058001d124. Last accessed: 14 May 2018.

Page 33. Ref 53. Now says:

53. European Medicines Agency. Skilarence: EPAR – product information. 2018. Available at: http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_Product_Information/human/002157/WC500231107.pdf. Last accessed: 7 August 2018.