Systemic treatments for psoriasis: not another network meta-analysis!

DOI: 10.1111/bjd.21601

Linked Article: Guelimi et al. Br J Dermatol 2022, 187:29-41.

The number of available systemic treatments for psoriasis, including biologics, has increased rapidly in recent years, necessitating up-to-date and comprehensive comparative effectiveness research to aid clinical decision making. A plethora of systematic reviews have been published assessing the effectiveness of systemic treatments for psoriasis, typically compared in randomized trials to placebo. More recently, the analytical methods in systematic reviews have been expanded through the application of network meta-analysis (NMA), which enables head-to-head comparisons of active treatments using both direct (where treatments have been compared within trials) and indirect evidence (where treatments have been compared with a common comparator).1 NMAs thus allow all treatments connected in a network to be compared and ranked with each other.

In this issue of the BJD, Guelimi et al. evaluate 47 NMAs published from 2006 to 2020 that assessed the effectiveness of systemic treatments for moderate-to-severe psoriasis.2 The authors included systematic reviews of randomized controlled trials that assessed the efficacy or safety of a wide range of systemic treatments compared with placebo or another intervention.

Firstly, the authors concluded that there was a high level of redundancy from so many NMAs published on the same research question – on average three per year over 15 years – with the rate of publication increasing over time. This highlights the need for researchers and journals to check that existing NMAs have not been registered or published and, where they have, for authors to provide robust arguments for why an additional NMA is required.

Secondly, the authors noted that the rankings of treatments varied between the NMAs, even when they were published in the same year. This discrepancy may be attributed to the quality of the underlying systematic review and NMA, where more than 80% of the included NMAs were deemed to be critically low in terms of the confidence in their results, predominantly due to not registering or publishing the protocol, inadequate reporting of the literature search, or not performing a risk-of-bias assessment, which are fundamental components of a high-quality systematic review.3 This highlights the importance for NMAs to be conducted1 and reported4 using best-practice methods, and authors should consider including an assessment of the confidence of the evidence (e.g. CINeMA)5 so that the results are reproducible and provide a true account of the evidence to support consistent clinical decision making.

Another potential explanation for discrepant results between NMAs is possible bias related to industry funding. More than half (55%) of the included NMAs were funded by industry. This could lead to bias in the way an NMA is conducted by influencing the inclusion and exclusion criteria, outcomes analysed and statistical methods to achieve results favourable to a funder’s treatment.

Finally, studies were selective of the outcomes assessed: many focused solely on efficacy, were limited to short-term outcomes, and did not consider safety. Systematic reviews should provide a global account of the evidence, focusing on both beneficial and harmful effects of interventions. It is important that, where possible, both short- and long-term efficacy and safety outcomes are considered in systematic reviews.

This publication draws attention to the overuse of NMAs on systemic treatments for psoriasis. Researchers conducting future NMAs in psoriasis and other clinical areas should avoid redundancy and use robust methods and complete reporting.

Acknowledgments: the authors thank Dr A. Bastounis for his review of and comments on this commentary.

Jo Leonardi-Bee1 and Aaron M. Drucker2,3

1 Centre for Evidence Based Healthcare, School of Medicine, University of Nottingham, Nottingham City Hospital, Nottingham, UK; 2Division of Dermatology, Department of Medicine, University of Toronto, Toronto, ON, Canada; and 3Women’s College Research Institute and Department of Medicine, Women’s College Hospital, Toronto, ON, Canada
Email: jo.leonardi-bee@nottingham.ac.uk

Conflicts of interest: J.L.B. has received compensation from the British Association of Dermatologists (BJD Associate Statistical Editor). A.M.D. has received compensation from the British Association of Dermatologists (BJD reviewer and Section Editor), the American Academy of Dermatology (guidelines writer) and the National Eczema Association (grant reviewer).

References

1 Chaimani A, Caldwell DM, Li T et al. Chapter 11: Undertaking network meta-analyses. In: Cochrane Handbook for Systematic Reviews of Interventions (Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T et al., eds). Chichester: John Wiley & Sons Ltd, 2019; 285–320.
The notion of patient-centred care has evolved; recent literature suggests nine core themes: (i) empathy, (ii) respect, (iii) engagement, (iv) relationship, (v) communication, (vi) shared decision making, (vii) holistic focus, (viii) individualized focus and (ix) coordinated care. In more recent years the focus has shifted to person-centred care, the key difference being the aim of the former is a functional life, while the latter strives to enable a meaningful life. Both concepts have a clear place in dermatology care where people are living with conditions such as psoriasis which impact on wellbeing and quality of life. Shared decision making is a key component of person-centred care. It is essential in dermatology practice, as it provides a foundation to enable the significant and sustained self-management that must be integrated into the person’s everyday life.

The ‘personal models of illness’ theory emerged in the 1990s and defines ‘personal models’ as an amalgamation of individual beliefs, emotions, knowledge, attitudes and experiences that influence behavioural responses to illness. Existing research mainly focuses on patients, but one study of clinician personal models in psoriasis concludes that although most participants recognized psoriasis as a complex condition they continued to treat it as a skin condition alone.

In this issue of the BJD, Hewitt et al. report on a qualitative study designed to deepen understanding about how dermatologist’s personal models inform a patient-centred approach to psoriasis management with a focus on prescribing a new treatment. In this rigorous research a patient-centred approach to the clinician’s care decision was not universal. One clinician offered the powerful quote: ‘Well, my patients, they actually do what I tell them to do (laughs) [...] In this regard, I am conservative (laughs) and if you don’t like that, you should find someone else.’

In dermatology, as with all healthcare, we espouse the principles of evidence-based practice. In prescribing Apremilast clinicians will be adhering to evidence-based guidance. This article points to the need to give more thought to other types of equally important evidence. We know that person-centred care can improve patient satisfaction, knowledge and quality of life in other long-term conditions, for example prevention and treatment of chronic wounds. Extensive literature suggests shared decision making is a key component of person-centred care in dermatology. Now is the time to influence the personal models of those clinicians who have yet to integrate this important evidence that will improve patient experience and outcomes.

Fiona Cowdell
Faculty of Health Education and Life Sciences, Birmingham City University, Birmingham, UK
Email: fiona.cowdell@bcu.ac.uk

Conflicts of interest: the author declares no conflicts of interest.

References
1 Balint M. The possibilities of patient-centred medicine. Br J Gen Pract 1968; 17:269–76.
2 Häkansson Eklund J, Holmström IK, Kumlin T et al. Same or different? A review of reviews of person-centred and patient-centred care. Patient Educ Couns 2019; 102:3–11.
3 Tonelli MR, Sullivan MD. Person-centred shared decision making. J Eval Clin Pract 2019; 25:1057–62.
4 Tan J, Linos E, Sendelweck MA et al. Shared decision making and patient decision aids in dermatology. Br J Dermatol 2016; 175:1045–8.
5 Morrison T, Johnson J, Baghoornian W et al. Shared decision-making in dermatology: a scoping review. JAMA Dermatol 2021; 157:330–7.
6 Skelton JA, Croyle RT. Mental representation, health, and illness: an introduction. In: Mental Representation, Health, and Illness (Skelton JA, Croyle RT, eds). New York: Springer; 1991: 1–9.
7 Chisholm A, Nelson PA, Pearce CJ et al., IMPACT team. The role of personal models in clinical management: exploring health care providers’ beliefs about psoriasis. Br J Health Psychol 2016; 21:114–34.
8 Hewitt RM, Bundy C, Newi A-L et al. How do dermatologists’ personal models inform a patient-centred approach to management: a qualitative study using the example of prescribing a new treatment (Apremilast). Br J Dermatol 2022; 187:82–8.
9 Gethin G, Probst S, Stryja J et al. Evidence for person-centred care in chronic wound care: a systematic review and recommendations for practice. J Wound Care 2020; 29:51–22.

Evidence should inform more than prescribing decisions

DOI: 10.1111/bjd.21603

Linked Article: Hewitt et al. Br J Dermatol 2022; 187:82–88.