

## The 2022 British guidelines for narrowband ultraviolet B phototherapy: an absolute necessity for anyone administering or prescribing phototherapy

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The British Association of Dermatologists (BAD) and British Photodermatology Group (BPG) guidelines<sup>1</sup> have been developed by a group of 10 highly experienced dermatologists in the phototherapeutic field, supported by a medical physicist, a phototherapy nurse, three patient representatives and a professional technical team. The guidelines have been established using the BAD's recommended methodology.<sup>2</sup> Both the BAD and BPG have an excellent track record of publishing phototherapy guidelines<sup>3</sup> and this is certainly the case with these guidelines, which can be considered an absolute necessity for anyone administering or prescribing phototherapy. The guidelines provide detailed insights and highlight recommendations for practical use of narrowband ultraviolet B (NB-UVB) phototherapy both in the clinic and at home.

These recommendations were developed on the basis of evidence from systematic reviews of the literature pertaining to the clinical questions identified, after internal discussion. Recommendations and outcome measures of importance to patients were set and ranked according to the GRADE methodology (i.e. grading of recommendations assessment, development and evaluation).<sup>2</sup> In total 38 phototherapeutic recommendations derived from literature review and consensus are provided for many diseases, including psoriasis, eczema, vitiligo, palmoplantar dermatoses, lichen planus, morphea (localized scleroderma), mycosis fungoides, pityriasis lichenoides, progressive macular hypomelanosis, subacute and nodular prurigo, idiopathic or secondary pruritus, and chronic urticaria, as well as photodermatoses, such as polymorphic light eruption, solar urticaria, actinic prurigo, photoaggravated eczema and hydroa vacciniforme.


These guidelines offer many specific references, and an impressive appendix of 580 pages with an additional 464 references. They present information on light sources and dosimetry, protocols for treatment delivery, an evidence-based analysis of the efficacy of combining therapies with various topical or systemic agents, contraindications, and safety and adverse effects. One special feature is recommendations regarding the circumstances under which treatments can be administered in pregnant or breastfeeding patients and children. In addition, the authors provide a list of key future research recommendations, such as patient characteristics that predict their response to NB-UVB, a re-evaluation of NB-UVB vs. psoralen plus ultraviolet A for the treatment of certain diseases, and long-term treatment follow-up and safety

evaluations with regard to potential carcinogenic properties. However, the authors also present many diseases for which NB-UVB has been administered, but where evidence is still insufficient to support any recommendations, presented in alphabetical order from acne to subcorneal pustular dermatosis.

Finally, the guidelines outline the relatively low costs of NB-UVB as a unique intermittent treatment. At approximately £300–400 per treatment course in the UK, these are on the order of 10–30 times lower than the yearly treatment costs of a biologic agent (which needs to be administered continuously), depending on the specific drug and country. It is important to note that such agents have only been approved for two diseases thus far, namely psoriasis and atopic dermatitis, whereas phototherapy continues to be a mainstay for the many other diseases listed above.

We have recently elucidated the complex therapeutic mechanisms of phototherapy (with its proapoptotic, immunomodulatory, antipruritic, antifibrotic, propigmentary and prebiotic key components),<sup>4</sup> which, unlike biologics, does not increase the risk of antidrug antibody formation and the resulting potential loss of efficacy after repetitive exposure. Balancing the immune response with phototherapy by suppressing the interleukin-23–T helper 17 axis and inducing regulatory T cells<sup>5</sup> may be beneficial not only for the treatment of many inflammatory skin diseases and conditions with immunological disturbance, but also for the treatment of mycosis fungoides, a cutaneous T-cell lymphoma with a heavy inflammatory milieu.<sup>6</sup> Such balancing may also be helpful for treating diseases on the systemic level, such as by suppressing the imbalanced immune response and reducing mortality in conditions such as severe COVID infection, as has recently been suggested in a pilot study.<sup>7</sup> Indeed, the therapeutic mechanisms of NB-UVB (e.g. how the interaction of UV with the skin's microbiome affects immune regulation)<sup>8</sup> can be further scrutinized, asking pertinent research questions related to this topic to keep the guidelines vibrant and to further develop, improve and support treatment in the future.

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## Asking important questions: exploring ongoing psychosocial healthcare needs using qualitative methods

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There is increasing understanding that living with any health condition can require psychological adjustment and that patients may have ongoing psychosocial needs as well as medical needs.<sup>1</sup> While the vast majority of medical research focuses on treating the physiological aspects of health conditions, which is unquestionably important, adopting a biopsychosocial approach to health remains essential. In dermatology, it has been established that skin conditions can adversely impact many areas of life, including work, leisure, socializing, relationships and activities of daily living.<sup>2</sup> Furthermore, patients' psychological distress may bear little relationship to the objective clinical severity of their skin condition.<sup>3</sup> It is therefore important to understand patients' psychosocial healthcare needs.

In this issue of the *BJD*, Kamminga et al.<sup>4</sup> highlight currently unmet healthcare needs in people treated for metastatic melanoma. As Kamminga et al. show, even when treatment is successful, the psychological impact of a health condition can be significant, and it should not be assumed that medical

treatment alone will resolve the difficulties associated with the condition. Understanding the wider impact that health conditions can have on people is a crucial step towards alleviating the associated psychological distress.

To truly understand the healthcare needs of patients, we must ensure that we ask the right questions. Qualitative and quantitative research methods address different types of research questions, both of which are valuable. Quantitative research questions tend to focus on associations or outcomes, for example, 'what are the risk factors for X' or 'which is the best treatment for X'. In contrast, qualitative research questions tend to focus on processes or why things are the way they are, for example 'what is it like to receive a diagnosis of X'. Although quantitative self-report measures could be used for such questions, the data generated would necessarily be limited by prior assumptions (i.e. the range of possible answers has already been decided by the authors of the scale). Qualitative research methods (e.g. interviews or focus groups) offer the opportunity to gain in-depth insights into people's experiences in ways that are less restricted by prior assumptions.

Far from being an easy option, qualitative research presents challenges that may be unfamiliar to quantitative researchers, such as considering one's philosophical position as a researcher and being transparent about preconceptions of the subject matter. There are a variety of processes that qualitative researchers can use to ensure that their research is trustworthy,<sup>5</sup> although which processes are most appropriate depends upon the nature of the study.<sup>6</sup> Thankfully, there is an increasing amount of guidance and examples available to help researchers design, conduct and report high-quality qualitative health research.<sup>7,8</sup>

Despite its challenges, qualitative research undoubtedly adds value to the existing knowledge base of the psychosocial impact of health conditions, allowing effective interventions to be developed. As such, the *BJD* has recognized the contribution of qualitative research to clinical practice<sup>9</sup> and continues to publish a wide range of research that will benefit dermatology patients going forwards.

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