

PHOTOTHERAPY, PHOTODYNAMIC THERAPY

PHOTOTHERAPY OF THE PHOTODERMATOSES

Tsui-Chin Ling ⁽¹⁾

Salford Royal Foundation Trust, Photobiology Unit, Dermatology Centre, Manchester, United Kingdom ⁽¹⁾

NBUVB and PUVA are the main phototherapies currently being used for management of a variety of Photodermatoses. I examine the evidence and discuss the use of phototherapies of the Photodermatoses – Polymorphic Light Eruption (PLE), Erythropoietic Protoporphyria (EPP), Actinic Prurigo (AP), Hydroa Vacciniforme (HV), Solar Urticaria (SU), and Chronic Actinic Dermatitis (CAD).

In PLE, there is good evidence to support the use of NBUVB and PUVA, as second line therapy to topical corticosteroids. NBUVB is as efficacious as PUVA and is preferred due to its relative safety profile over PUVA. In the UK, NBUVB regimes are typically 15-18 sessions, 3 times a week, with cautious UV dose increments and consideration for need of prophylactic topical/oral corticosteroids in severe PLE patients. Patients should be advised about the high risk of provocation of PLE, and the need for continued exposure to natural sunlight post-phototherapy to maintain the photoprotective effect.

In EPP, AP, and HV, NBUVB is preferred over PUVA due to the lower carcinogenic risk in children. NBUVB is particularly effective in EPP as betacarotene is only of modest benefit.

In CAD, a primarily UVB-sensitive condition, oral PUVA is the phototherapy of choice. Precautions needed include prophylactic cover with topical/oral corticosteroids; establishing the minimal phototoxic dose; a trial of PUVA in a small treatment area initially before extending to rest of body.

In SU, the risk of provocation is potentially life-threatening, and phototherapy should be carried out in a specialized Phototherapy unit. The action spectrum and Minimal Urticarial Dose (MUD) should be determined by extended monochromator testing. NBUVB can be considered if the action spectrum does not include UVB wavebands.

Reference: Ling TC, et al. British Association of Dermatologists and British Photodermatology Group guidelines for the safe and effective use of psoralen-ultraviolet A therapy 2015. Br J Dermatol. 2016 Jan;174(1):24-55.





International League of Dermatological Societies *Skin Health for the World*

