# GUIDELINES

# Guideline for the diagnosis and management of vitiligo

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Conflicts of interest
No member of the Guideline Development Group has declared any interest in companies whose products are named in the guideline, or has had any sponsorship or consultancy from or with companies whose products are named in the guideline, or has had any editorial fees related to commissioned articles for publications named in the guideline, or has a patent pending or existing related to products named in the guideline. D.J.G. has been chairman of the Vitiligo Society's Medical Advisory Board, and M.E.W. is a patron of the Vitiligo Society.

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KEYWORDS

diagnosis • guidelines • treatment • vitiligo

# ABSTRACT

This detailed and user-friendly guideline for the diagnosis and management of vitiligo in children and adults aims to give high quality clinical advice, based on the best available evidence and expert consensus, taking into account patient choice and clinical expertise.

The guideline was devised by a structured process and is intended for use by dermatologists and as a resource for interested parties including patients. Recommendations and levels of evidence have been graded according to the method developed by the Scottish Inter-Collegiate Guidelines Network. Where evidence was lacking, research recommendations were made.

The types of vitiligo, process of diagnosis in primary and secondary care, and investigation of vitiligo were assessed. Treatments considered include offering no treatment other than camouflage cosmetics and sunscreens, the use of topical potent or highly potent corticosteroids, of vitamin D analogues, and of topical calcineurin inhibitors, and depigmentation with p-(benzyloxy)phenol. The use of systemic treatment, e.g. corticosteroids, ciclosporin and other immunosuppressive agents was analyzed.

Phototherapy was considered, including narrowband ultraviolet B (UVB), psoralen with ultraviolet A (UVA), and khellin with UVA or UVB, along with combinations of topical preparations and various forms of UV. Surgical treatments that were assessed include full-thickness and split skin grafting, mini (punch) grafts, autologous epidermal cell suspensions, and autologous skin equivalents. The effectiveness of cognitive therapy and psychological treatments was considered.

Therapeutic algorithms using grades of recommendation and levels of evidence have been produced for children and for adults with vitiligo.

## herapeutic algorithm in children

### 1. Diagnosis

Where vitiligo is classical, the diagnosis is straightforward and can be made in primary care (D/4) but atypical presentations may require expert assessment by a dermatologist (D/4).

## 2. No treatment option

In children with skin types I and II, in the consultation it is appropriate to consider, after discussion, whether the initial approach may be to use no active treatment other than use of camouflage cosmetics and sunscreens (D/4).

## 3. Topical treatment

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  Treatment with a potent or very potent topical steroid should be considered for a trial period of no more than 2 months. Skin atrophy has been a common side-effect (B/1+).

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  Topical pimecrolimus or tacrolimus should be considered as alternatives to the use of a highly potent topical steroid in view of their better short-term safety profile (B/1+).

## 4. Phototherapy

Narrowband (NB) ultraviolet (UV) B phototherapy should be considered only in children who cannot be adequately managed with more conservative treatments (D/4), who have widespread vitiligo, or have localized vitiligo associated with a significant impact on patient's quality of life (QoL). Ideally, this treatment should be reserved for patients with darker skin types and monitored with serial photographs every 2–3 months (D/3). NB-UVB should be used in preference to PUVA in view of evidence of greater efficacy, safety and lack of clinical trials of PUVA in children (A/1+).

## 5. Systemic and surgical treatments

The use of oral dexamethasone to arrest progression of vitiligo cannot be recommended due to an unacceptable risk of side-effects (B/2++). There are no studies of surgical treatments in children.

### 6. Psychological treatments

Clinicians should make an assessment of the psychological and QoL effects of vitiligo on children (C/2++). Psychological interventions should be offered as a way of improving coping mechanisms (D/4). Parents of children with vitiligo should be offered psychological counselling.

## Therapeutic algorithm in adults

### 1. Diagnosis

Where vitiligo is classical, the diagnosis is straightforward and can be made in primary care (D/4) but atypical presentations may require expert assessment by a dermatologist (D/4). A blood test to check thyroid function should be considered in view of the high prevalence of autoimmune thyroid disease in patients with vitiligo (D/3).

### 2. No treatment option

In adults with skin types I and II, in the consultation it is appropriate to consider, after discussion, whether the initial approach may be to use no active treatment other than use of camouflage cosmetics and sunscreens (D/4).

## 3. Topical treatment

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  In adults with recent onset of vitiligo, treatment with a potent or very potent topical steroid should be considered for a trial period of no more than 2 months. Skin atrophy has been a common side-effect (B/1+).

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  Topical pimecrolimus should be considered as an alternative to a topical steroid, based on one study. The side-effect profile of topical pimecrolimus is better than that of a highly potent topical steroid (C/2+).

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  Depigmentation with p-(benzyloxy)phenol (monobenzyl ether of hydroquinone) should be reserved for adults severely affected by vitiligo (e.g. more than 50% depigmentation or extensive depigmentation on the face or hands) who cannot or choose not to seek repigmention and who can accept permanently not tanning (D/4).

## 4. Phototherapy

NB-UVB phototherapy (or PUVA) should be considered for treatment of vitiligo only in adults who cannot be adequately managed with more conservative treatments (D/4), who have widespread vitiligo, or have localized vitiligo with a significant impact on QoL. Ideally, this treatment should be reserved for patients with darker skin types and monitored with serial photographs every 2–3 months (D/3). NB-UVB should be used in preference to oral PUVA in view of evidence of greater efficacy (A/1+).

## 5. Systemic therapy

The use of oral dexamethasone to arrest progression of vitiligo cannot be recommended due to an unacceptable risk of side-effects (B/2++).

### 6. Surgical treatments

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  Surgical treatments are reserved for cosmetically sensitive sites where there have been no new lesions, no Koebner phenomenon and no extension of the lesion in the previous 12 months (A/1++).

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  Split-skin grafting gives better cosmetic and repigmentation results than minigraft procedures and utilizes surgical facilities that are relatively freely available (A/1+). Minigraft is not recommended due to a high incidence of side-effects and poor cosmetic results (A/1+). Other surgical treatments are generally not available.

### 7. Psychological treatments

Clinicians should make an assessment of the psychological and QoL effects of vitiligo on patients (C/2++). Psychological interventions should be offered as a way of improving coping mechanisms in adults with vitiligo (D/4).

# Introduction

Vitiligo is a disease process that results in depigmented areas in the skin. It usually begins after birth and, although it can develop in childhood, the average age at onset is about 20 years.[1] Most commonly, vitiligo produces symmetrical depigmented areas of skin that otherwise appears normal. A less common type is the segmental form in which asymmetrical, one-sided depigmentation develops.

An important aspect of vitiligo is the psychological effect of the disease. Vitiligo is often immediately visible to others and those with the condition may suffer social and emotional consequences including low self-esteem, social anxiety, depression, stigmatization and, in extreme cases, rejection by those around them.[2] In people with a pale white skin colour, vitiligo may cause little concern.

There is increasing evidence to support the view that vitiligo is an autoimmune disease and that it shows a familial trait in about 18% of cases.[3] The diagnosis of vitiligo is in many cases regarded as being straightforward, although this is not always the case. However, the treatment of vitiligo is acknowledged as being difficult. Hence, an evidence-based review of the management of the disease is timely.

# Method of guideline development

The development of this guideline was a combined effort involving the Therapy Guidelines and Audit Subcommittee of the British Association of Dermatologists, the Clinical Standards Department of the Royal College of Physicians of London, The Cochrane Skin Group, and the Vitiligo Society. The Guideline Development Group (GDG) included one trainee dermatologist who is also a paediatrician (L.S.), one general practitioner with an interest in dermatology (I.M.-S.), one nurse (M.J.W.), one patient representative of the Vitiligo Society who is also a member of The Cochrane Skin Group (M.E.W.), and three dermatologists (A.V.A., A.D.O. and D.J.G.). Technical and methodological support was provided by the Royal College of Physicians Clinical Standards Department (J.I., K.Y. and Karen Reid), and administrative support by the British Association of Dermatologists. The Cochrane Skin Group has already published a systematic review of interventions for vitiligo.[4]

# Aims

The objective of the process was to produce a detailed and user-friendly guideline giving the best available clinical advice for the management of vitiligo, based on the best available evidence and expert consensus, taking into account patient choice and clinical expertise. The guideline is intended for use by dermatologists (with an abbreviated version available for other healthcare professionals) and as a resource for interested parties including patients.

# Scope

Diagnosis and management for adults and children with any type of vitiligo were considered. Other depigmenting diseases were considered in the differential diagnosis but their further management was not included.

## Audience

The audience for this guideline is healthcare professionals, including doctors, nurses, psychologists, and indeed patients themselves and their carers. Commissioning organizations and health service providers may also find the guideline helpful.

## Process

Nine meetings were held over a period of 12 months. A systematic approach was taken to the development of the guideline, using the method developed by the Scottish Inter-Collegiate Guidelines Network (SIGN; http://www.sign.ac.uk/methodology/index.html). In the initial meetings, the questions to be answered were formulated. Subsequently, literature searches were performed to obtain the evidence, which was subsequently appraised. This appraisal was performed in a standardized way according to the method described by SIGN (see Tables 1 and 2).

Tables showing the results were produced and are available on the website (http://www.bad.org.uk). The evidence was discussed at meetings of the group where the level of the evidence and the grade of the recommendations were agreed. Where no evidence was available, consensus statements were drawn up. Lastly, the entire guideline was agreed by the GDG.

## Funding, declaration of interests and review

The expenses for the meetings of the GDG were underwritten by the British Association of Dermatologists. The Royal College of Physicians of London bore the costs of the work done by the members from the Clinical Standards Department. The members of the Group were not paid for their work.

The guideline will be reviewed in 5 years time.