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POSITION STATEMENT

Worldwide expert recommendations for the diagnosis and management of vitiligo: Position statement from the International Vitiligo Task Force Part 1: towards a new management algorithm

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Abstract

Background: The treatment of vitiligo can be challenging and depends on several factors such as the subtype, disease activity, vitiligo extent, and treatment goals. Vitiligo usually requires a long-term approach. To improve the management of vitiligo worldwide, a clear and up-to-date guide based on international consensus with uniform stepwise recommendations is needed.

Objectives: To reach an international consensus on the nomenclature and to develop a management algorithm for the diagnosis, assessment, and treatment of vitiligo.

Methods: In this consensus statement, a consortium of 42 international vitiligo experts and four patient representatives participated in online and live meetings to develop a consensus management strategy for vitiligo. At least two vitiligo experts summarized the evidence of topics included in the algorithms. A survey was utilized to resolve remaining issues among a core group of eight experts. Subsequently, the unanimous recommendations were finalized and validated based on further input from the entire group during two live meetings.

Results: The algorithms highlight the importance of shared decision-making. Dermatologists are encouraged to provide patients with detailed explanations of the prognosis and expected therapeutic outcomes based on clinical examination.

Nanja van Geel and Reinhart Speeckaert contributed equally to this article

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The treatment goal should be discussed and clearly emphasized to patients given the different approaches for disease stabilization and repigmentation. The evaluation of disease activity remains a cornerstone in the tailor-made approach to vitiligo patients.
Conclusions: These new treatment algorithms are intended to guide clinical decision-making in clinical practice. Promising novel therapies for vitiligo are on the horizon, further highlighting the need for reliable outcome measurement instruments and greater emphasis on shared decision-making.

INTRODUCTION

Vitiligo is an acquired depigmenting disorder affecting 0.5%–2% of the global population, without sex differences. It affects all age groups.[1] Vitiligo carries a significant disease burden, as evidenced by impairment in quality of life (QOL) and willingness to pay for treatment.[2,3] Both the diagnosis and treatment of vitiligo can be challenging. European (EDF/VETF/EADV/UEMS) and Japanese guidelines have been published in 2013.[4,5] The British and German guidelines are more recent.[6,7] However, an up-to-date international worldwide consensus was missing. In order to construct recommendations around the management of vitiligo, a broad initiative was conducted across the five continents, including members of the Vitiligo Task Force (VTF), East Asian Vitiligo Association (EAVA), Global Vitiligo Foundation (GVF), Vitiligo International Patient Organisations Committee (VIPOC), and other international participants. This paper summarizes evidence-based and expert-based recommendations (S1 level) and is intended for use in clinical practice (primary and secondary care). It consists of two parts. Part 1 will focus on the newly designed management algorithms for vitiligo, while part 2 (a second publication) will provide a more in-depth look at individual treatments.

MATERIALS AND METHODS

In order to reach a broad international consensus, a consortium of 42 international experts and four patient representatives participated in this consensus effort. A list of topics was presented, optimized and approved during the expert group meetings (Vitiligo Task Force meetings). To summarize the up-to-date evidence on vitiligo, each topic was assigned to a writing group (ranging from 3 to 8 members) represented by at least two vitiligo experts who searched the literature and provided the essential data (narrative review) on which recommendations could be made for this consensus statement. The results and remaining issues were discussed during three online VTF meetings (30 September, 28 October and 9 December 2021). To get preliminary approval on the remaining issues, a digital survey was sent out to a core review group of eight vitiligo experts. Additionally, two meetings were carried out with this core review group to reach a final consensus based on the answers to the survey. Each statement received unanimous agreement, unless specified otherwise. These results were further discussed in detail with patient representatives and vitiligo experts at the Vitiligo International Patient Organisations Committee (VIPOC) meeting (Amsterdam, April 2022) and the Vitiligo Task Force meeting (Milan, September 2022) until full agreement was reached. In total, 18 patient representatives (15 live and 3 online) participated in this VIPOC meeting. A management algorithm was constructed as a guide for the assessment, decision-making and treatment of vitiligo (Figures 1 and 2). Several versions were discussed during the online meetings, and the input of participants was incorporated into the final management model. This algorithm was first approved by the core review group, followed by a broader presentation to all vitiligo experts and discussion with vitiligo patient representatives during the VIPOC meeting and additional final conversations (email/video call). The final version of the manuscript was reviewed during the VTF meeting in Milan 9 September 2022.

RESULTS

Management and treatment algorithms were constructed for vitiligo (non-segmental) and the segmental variant (Figures 1 and 2). In recent years, research has confirmed the value of disease activity assessment and disease extent evaluation, shared decision-making, early therapeutic intervention, maintenance therapy and combining multiple treatments. This information has been incorporated into a new management model for the treatment of vitiligo patients in daily practice. The VTF considers the information below essential for the correct implementation of the algorithms.

DIAGNOSIS

Vitiligo is characterized by the progressive loss of melanocytes, leaving white patches on the skin. It is usually diagnosed by clinical examination alone supported by Wood's lamp examination. The differential diagnoses of vitiligo include pityriasis alba, hypopigmented mycosis fungoides, tinea versicolor, idiopathic guttate hypomelanosis, and other hypo- or depigmented disorders.[8] Additionally, the diagnosis of vitiligo could be wrongly made in patients with fair skin who developed due to the intervening normal skin within the melasma macules giving a vitiligo-like appearance. In cases of uncertain diagnosis, a skin biopsy, mycologic examination and appropriate blood tests may be needed to exclude a fungal infection, cutaneous lymphoma and other disorders. Routine screening of antithyroid antibodies and thyroid function is recommended.[9]

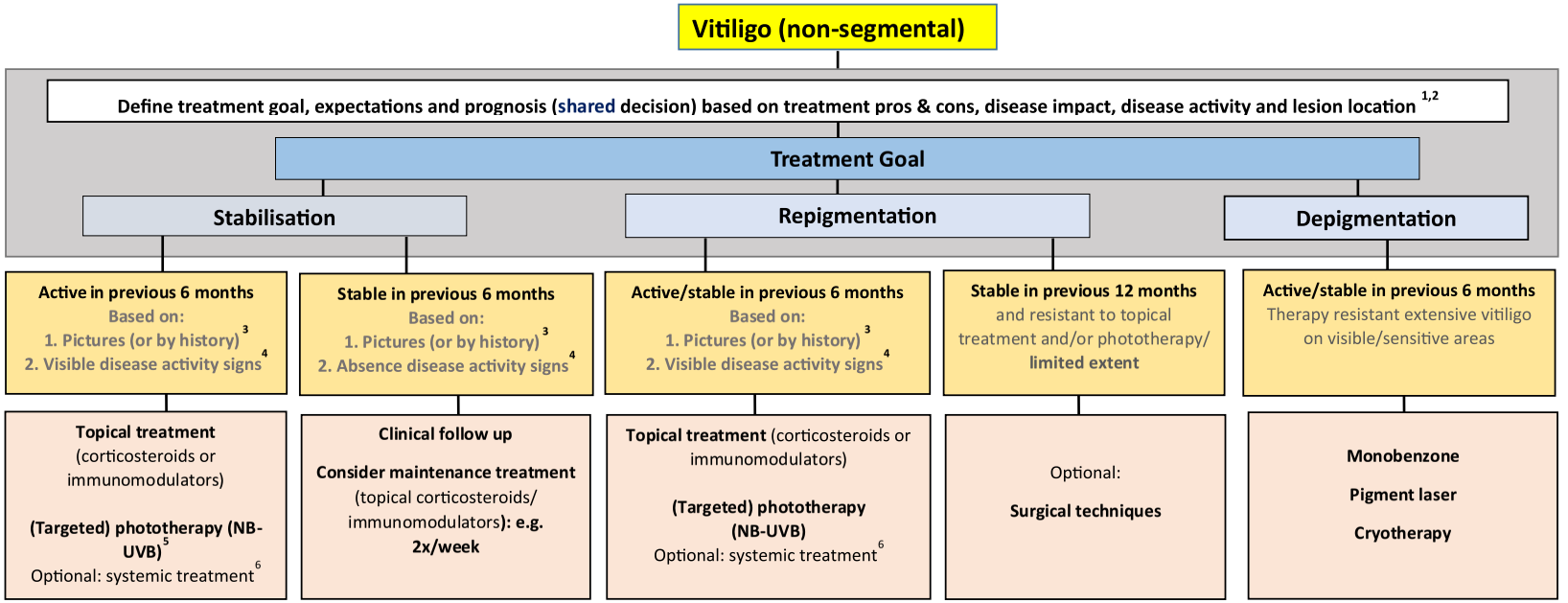
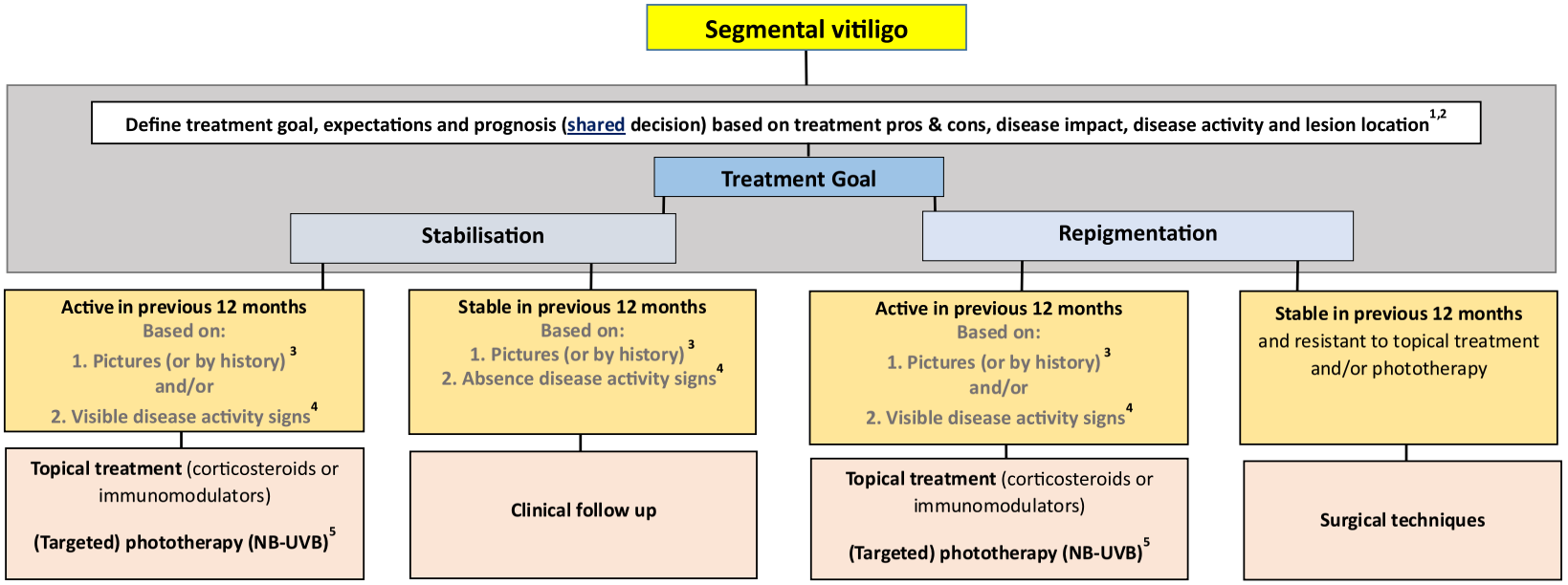


FIGURE 1 Recommendations for the management of vitiligo (non-segmental).



General remarks:

- Use algorithm in combination with information/recommendations provided in the text.
- Provide information : avoidance Koebner's phenomemon, cosmetic skin camouflage, use of sunscreens (consider information leaflet)
- Consider and discuss the risk-benefit ratio in particular for systemic treatments, combination therapies (e.g. topical immunomodulators /systemic treatment + UV) and prolonged treatment

1 Other aspects for shared decision: e.g., skin type, disease duration, presence comorbidities, extent on visible/sensitive areas, geographical region.
2 Explain relation between body location and expected results ('best' to 'worse': face>other body areas> hands/feet); Explain the treatment expectations and limitations.
3 Active= new lesions or increase of existing lesions; Stable= no new lesions or no increase of existing lesions.
4 Clear presence of confetti-like depigmentations, hypochromic borders/areas or Koebner's phenomenon (for assessment consider e.g. Br J Dermatol. 2020;183(5):883-890; www.vitiligo-calculator.com)
5 NB-UVB and combination therapy preferred (e.g. phototherapy + topical corticosteroids).

FIGURE 2 Recommendations for the management of segmental vitiligo.

TABLE 1 Recommended diagnostic procedures in vitiligo (modified from Taieb et al.[4]).

If diagnosis is uncertain	If diagnosis is certain
• Wood's lamp examination to differentiate between hypochromic and depigmented skin • Punch biopsy from lesional skin (and optional non- or perilesional or depending on differential diagnoses) • Other tests if needed (mycology, molecular testing to detect lymphoma cells, etc.)	• Anti-thyroid peroxidase (TPO) antibodies, thyroid stimulating hormone (TSH) as a routine screening. If needed[a] other tests to assess thyroid function or diagnosis • Additional autoantibodies only if patient's history, family history and/or laboratory parameters point to a strong risk of additional autoimmune disease • Endocrinologist/immunologist advice if multiple autoimmune diseases detected

[a]e.g. in case of abnormal routine thyroid screening and clinically/history based.

If the patient's history or routine laboratory parameters suggest additional autoimmune disorders, further investigation and management are strongly suggested (Table 1).

NOMENCLATURE/TERMINOLOGY

The term 'vitiligo (non-segmental)' referring to all forms of vitiligo except segmental vitiligo was preferred based on the current consensus statement and will overrule the previous agreed umbrella term 'vitiligo'.[10] The addition of 'non-segmental' was considered to be less confusing for communication (in papers, trials and daily practice). Segmental vitiligo (SV) refers to a clinically unilateral segmental distribution of depigmented lesions. The coexistence of SV plus vitiligo (non-segmental) is called mixed vitiligo. Focal vitiligo, a term that applies to localized macules characterized by loss of melanocytes, was assigned to the category undetermined/unclassified until more definitive classification can be made on clinical grounds (generally after 1–2 years of follow-up). Cases with long-lasting focal lesions or of pure mucosal vitiligo, if not classified as SV, may remain 'unclassified'. The modified nomenclature/classification is summarized in Table 2. An international consensus was also reached to define different dimensions of vitiligo activity (e.g. rapidly spreading/progressive) based on patient input and subsequent validation during the conclusive meeting (Table 3).

TABLE 2 Modified classification (2023) and consensus nomenclature (modified from Ezzedine et al.[10]).

Vitiligo (non-segmental)	Segmental vitiligo: Uni-, bi- or plurisegmental	Undetermined/ unclassified vitiligo
• Acrofacial • Mucosal (more than one mucosal site) • Generalized • Universal[a] • Mixed (associated with segmental vitiligo) • Rare variants	• uni-, bi-[a], or pluri-[a]segmental	• Focal • Mucosal (one site in isolation)[a]

[a]Rare forms of vitiligo.

TABLE 3 Consensus definitions related to vitiligo (both segmental and non-segmental) 'activity'.

Term	Definition
• Rapidly spreading/ progressive	Rapidly progressive/spreading vitiligo is defined as vitiligo in which a large number of new spots and/or a significant enlargement of existing spots have appeared over the past 3 months
• Stable/active	• "A 12-month period of photographically assessed stability is deemed appropriate to consider a lesion 'stable' for the purpose of surgical treatment."[a] • Most appropriate cut-off point to define stable vitiligo is 12 months according to the majority of experts.[b]

[a]Based on previous consensus, specifically in the context of surgical interventions.[10]
[b]Data from VGICC-Rome November 30–December 3, 2016 meeting (unpublished): survey around the definition of stable/active with international experts.[55] *Note*: *N* = 28—What cut-off point do you believe is most appropriate to define stable vitiligo? 12 months: 57%; 6 months: 21%; 24 months: 11%; 3 and 18 months: 11%.

INITIAL PATIENT ASSESSMENT

Experts recommend a comprehensive initial visit (e.g. 30–45 min) for a good assessment and enough time with the patient to discuss pathogenesis, prognosis, management, treatment rationale and practical aspects. Initial vitiligo-oriented assessment (in addition to a general medical history including current medication) includes documentation of the different aspects of the disease (e.g. by history and clinical examination) as well as clinical photography (digital imaging).[11] Table 4 proposes a checklist of the most important assessment items. Parallel to the central therapeutic paradigm to limit pigment cell damage, it is crucial to tailor interventions based on overall profile, with thorough assessment of several dimensions such as disease activity, location of lesions, disease extent, stage of available resources for repigmentation (e.g. pigmented hairs/no leukotrichia), prognosis depending on the anatomical sites of involvement and impact on quality of life.

TABLE 4 Modified assessment check list.[4]

Patient's characteristics
• Skin phototype/ethnicity • History of autoimmune disease (thyroid disease and other autoimmune diseases) • General health, medication
Disease features
• Type of vitiligo (non-segmental, segmental, unclassified) • Disease duration/age of vitiligo onset • Disease extent (physician-reported: VES[a], VASI; patient-reported: SAVES[a]) and/or global assessment (physician-reported: PGA; patient-reported: PtGA)[12,14,18,20,22] • Location of lesions (e.g. including visible areas and genital involvement) • Presence and number of halo nevi • Presence of white hairs (leukotrichia) • Disease activity in the past 6 months according to patient and physician (progressive, stable, regressive)[27]; use of standardized photography recommended[11] • Disease activity signs assessed by physicians [Koebner 2B phenomenon, confetti-like depigmentation, hypochromic lesions/borders; e.g. (VSAS)[a]][26] • Triggering factors
Burden of the disease
• Quality of life [e.g. Vitiligo Quality of Life scale (VitiQol)][30] • Disease impact [e.g. Vitiligo Impact Scale (VIPs), Vitiligo Impact Scale (VIS-22), vitiligo 0–10 impact scale)][22,28,29,31]
Family history
• Vitiligo • Autoimmune/inflammatory diseases
Previous and current interventions
• For vitiligo: type, duration, response • For associated disorders

Abbreviations: PGA, physician global assessment; PtGA, patient global assessment; SAVES, self-assessment vitiligo extent score; VASI, vitiligo area scoring index; VES, vitiligo extent score; VSAS, vitiligo signs of activity score.

[a]www.vitiligo-calculator.com.

SEVERITY SCORING METHODS

The objective assessment of vitiligo is based essentially on extent. Several instruments are available [e.g. vitiligo area scoring index (VASI), Vitiligo European Task Force assessment tool (VETFa); Vitiligo Extent Score (VES) and VE-Splus; www.vitiligo-calculator.com].[12-15] Their reliability, validity and responsiveness are reported.[16,17] The patient-reported version (SA-VES) can easily be used in daily clinical practice.[18] For target lesions, mostly in the context of clinical trials, digital image analysis can be proposed.[19] Stratification of extent and severity into global categories (limited/mild, moderate, extensive/severe) based on one study (patients' perspective) was as follow: Extent ≤1.05% BSA for limited, >1.05%–6.45% for moderate and >6.45% for extensive, Severity ≤2.07% BSA for mild, >2.07%–4.8% for moderate and >4.8% for severe.[20-22] Extent represents only one aspect of the 'severity' perception from the patients' perspective; therefore, other items need to be taken into account, for instance, location of lesions (visible areas), disease impact, skin phototype and disease activity.[21]

ASSESSMENT AND SCORING OF DISEASE ACTIVITY

Several visible clinical skin manifestations in vitiligo (Figure 1) are reported in relation to disease progression such as confetti-like depigmentation, inflammatory borders, Koebner phenomenon and hypochromic areas/borders.[23-25] For a standardized assessment, the Vitiligo Signs of Activity Score (VSAS) can be used.[26] This can be combined with a clinical assessment of vitiligo evolution (progressive, stable, improving), comparing two different time points (e.g. 6 months) [e.g. Vitiligo Disease Activity Score (VDAS) and Vitiligo Disease Improvement Score (VDIS)].[27] Photography is an important adjunct in the assessment of vitiligo disease activity. A protocol including recommendations for standardized vitiligo photography has been developed within the VGICC/GVF imaging group.[11]

ASSESSMENT OF THE DISEASE BURDEN

Low self-esteem and high levels of perceived stigma are important factors for quality of life (QOL) impairment in vitiligo patients. Quality of life measurements should be considered in all patients and intervention, guidance and support should be offered if required. The burden/impact can be assessed globally (e.g. Vitiligo global Impact scale 0 to 10 or 5-point scale), or with a more comprehensive burden scale [e.g. Vitiligo Impact Patient Scale (VIPs), Vitiligo Quality of Life scale (VitiQOL) and Vitiligo Impact Scale (VIS-22)].[21,22,28-33]

Management of the psychological implications of vitiligo is an important aspect of overall disease management.[34] Psychological support includes but is not limited to counselors, psychologists and psychiatrists, and depends on local resources, networking and the extent of the morbidity.

The treating physician should regard the announcement of the disease as important. One should try to allow for sufficient time in the visit to address the many potential questions. A second visit a few weeks following the initial diagnosis may also be beneficial as it allows for the patient and caretaker to process the condition and information from the first visit, reflect on it and formulate more questions if required. Support groups and vitiligo patient organizations (e.g. VIPOC, Global Vitiligo Foundation Support Community (GVFSC) or national organizations) can be discussed during the initial consultation if appropriate. Vitiligo patients should preferably be provided with a written or electronic information leaflet describing the disorder, the prescribed therapies and options for psychological support (self-help or psychological services).

The lives of patients with vitiligo affecting exposed body surfaces may be significantly improved by 'camouflage' or corrective makeup advice given by professional makeup

artists, and this should be discussed by the physician as a part of management strategy. In addition, information about the use of sunscreens and increased sun sensitivity of the depigmented skin should be provided.

FRAMING PATIENT EXPECTATIONS, TREATMENT GOALS AND SHARED DECISION-MAKING

Detection and treatment of vitiligo at an early stage are considered to be essential for optimal management. The timeline to obtain expert advice and start an effective treatment is often too long. There is clinical evidence among experts that early aggressive intervention is essential to improve prognosis.[35] Limiting disease progression with an active immune/anti-inflammatory approach is beneficial for all types of vitiligo, including segmental vitiligo (in particular during the early developmental stages).[36] Based on our current understanding, early aggressive treatment is now considered appropriate in rapidly progressive vitiligo to limit irreversible damage to pigment cells.[35,36] Patients are frequently frustrated by the failure of previous treatments, and undertreatment is very common. It is thus essential in the evaluation of patients that the appropriateness of previous therapy is assessed, as well as patient compliance. This is particularly true, if established treatments are reported as not efficacious. Stable vitiligo needs treatment to regenerate epidermal melanocytes from the hair follicle or interfollicular precursors, while some subtypes with a limited reservoir of melanocyte precursors such as stable segmental vitiligo are often out of reach of actual immune/inflammatory targeted therapies and may need surgical interventions.[37]

Concerning treatment goals, the distinction between disease stabilization and repigmentation should be clearly emphasized for patients. Most current treatments are immune-modulating and display good to excellent results regarding disease stabilization. Nonetheless, in most cases additional stimulation of (precursors of) melanocytes is also beneficial (e.g. by UV exposure). The chance of repigmentation is highly dependent on the body locations involved.[38] This should be explained to the patient in order to make an informed decision regarding an attainable treatment goal. Different components of disease severity are important for making management decisions such as disease activity, disease extent, location in visible areas, psychological/social impact and skin phototype. The shared decision-making (SDM) concept is a new strategy recently developed in vitiligo. The goal is to make patients aware of the availability of different therapeutic choices, to discuss their preferences and clarify the therapeutic options, including disadvantages, risks and benefits. A SDM tool has been recently developed and validated for vitiligo and could be an important part of the management of the disease.[39]

TREATMENT RECOMMENDATIONS

General remarks

Management algorithms for both vitiligo (non-segmental) and segmental vitiligo were developed (Figures 1 and 2). Based on shared decision-making, the treatment goals, disease activity and extent, the therapeutic choice can be made by the clinician using the algorithms. The vitiligo expert group generally recommends treatment for the vast majority of vitiligo patients and perceives current undertreatment of vitiligo by dermatologists. Nonetheless, the shared decision-making process may in some cases result in simple reassurance with continued observation (wait-and-see approach), depending on the desires of the patient.

In the case of active vitiligo, topical treatment, phototherapy and/or in rapidly progressive vitiligo systemic treatment are suggested. In the case of stable vitiligo, maintenance treatment should be considered to prevent flares and topical treatment with or without phototherapy can be considered for repigmentation. Surgical techniques are reserved for vitiligo which is stable for at least 12 months without treatment. For all treatments, safety should be discussed with the patient. This holds true in particular for systemic treatments, UV exposure therapies and combination therapies. We recommend reevaluation of the treatment every 3 to 6 months to check for improvement based on serial photography. Because a long course is usually required, one should consider the risk–benefit ratio for each treatment.

Therapeutic options

For topical treatment, potent to very potent corticosteroids and the topical calcineurin inhibitors tacrolimus and pimecrolimus can be recommended. The topical JAK inhibitor ruxolitinib cream 1.5% is now the first FDA and EMA approved treatment for vitiligo (non-segmental) and is also an option.

For phototherapy, NB-UVB (in office or home phototherapy) can be recommended in vitiligo patients with insufficient response to topical treatment and/or in extensive or rapidly progressive disease. Phototherapy can be given with excimer devices (laser or lamp) and are suited for more localized forms of vitiligo. Systemic treatment that is most commonly used consists of oral steroid mini pulse therapy, which has been used mainly for more extensive or rapidly progressive disease. Alternatives reported are methotrexate, cyclosporine, azathioprine and minocycline, but data remain limited to support their use. The topical JAK inhibitor, ruxolitinib, has recently been approved, and the efficacy and safety of other topical and systemic JAK inhibitors are currently being evaluated as well. Surgery is an option for patients with SV or other

treatment resistant localized forms of vitiligo after disease stability for at least 12 months. Detailed recommendations for each therapeutic option and other interventions are provided in part 2.

Combination treatment

Combination treatments are in general considered more effective than monotherapy. Safety needs to be discussed with the patient before starting the combination treatments (e.g. theoretical increased risk of skin cancer and other malignancies). The following options are reported:

- Phototherapy with topicals: Generally, the combination of phototherapy with topicals (both calcineurin inhibitors, topical steroids and topical ruxolitinib) achieves better efficacy.[40-44] As to which combination is better, the number of published studies is currently too limited to make a fair judgment.
- Combination with systemic antioxidants: There is some evidence to recommend the combination of phototherapy with oral antioxidants like polypodium leucotomos and gliadin-protected SuperOxide Dismutase (SOD) for achieving better repigmentation.[45-47]
- Combination of systemic immunosuppressives with phototherapy: Most systemic immunosuppressive therapies can induce repigmentation when given in combination with phototherapy.[48] However, administering guidelines based on RCTs including an evaluation of efficiency and safety aspects are lacking. Therefore, careful consideration of the risks and benefits should be taken into account prior to starting therapy.

Maintenance treatment

After successful repigmentation, the rate of relapse in vitiligo lesions is about 44% in the first year after discontinuation of the treatment.[49] Bi-weekly application of 0.1% tacrolimus ointment decreases relapse after repigmentation compared to placebo (9.7% compared to 40% after 6 months).[50] The optimal duration of such a maintenance therapy is still not defined, although a minimum period of 6 months after repigmentation makes sense.

Topical steroids may have a similar effect, although published data are lacking. Based on the experience of the experts, twice weekly application of potent topical steroids can be used in place of topical tacrolimus to prevent relapses, especially in non-sensitive areas. Data regarding the use of topical ruxolitinib cream as a maintenance therapy are lacking. For widespread vitiligo, a topical maintenance scheme could be considered for a selection of relevant areas. Although of great interest, significant evidence to support the use Narrowband-UVB (NB-UVB) or systemic treatments as maintenance therapies is currently lacking.[51-53]

Additional considerations for using the algorithm specifically for children or during pregnancy

Children

Age and developmental stage will affect how vitiligo affects children. The child's level of concern about the condition or future impact should be considered when making treatment decisions, including whether or not to actively treat. In general, there are no clearly defined treatment guidelines for children and adolescents, due to a lack of strong evidence related to efficacy and safety aspects within this particular group.

Some evidence was provided that early treatment for paediatric patients yields the best results.[54] Data supporting the safety of phototherapy in children are however limited, and caution is advised. Although cellular grafts and punch minigrafting in children have been described, there is no consensus regarding the minimum age for surgery.[55] As the techniques are time-consuming and require cooperation from the patient, surgery has in generally been proposed at a later age.[55,56]

Pregnancy

Data concerning the prognosis of vitiligo during or shortly after pregnancy are limited, but worsening of existing vitiligo may occur, suggesting more careful follow-up.[57] A recent large Korean study indicates that vitiligo is significantly associated with an increased risk of spontaneous abortion.[58] The treatments that have been reported to be safe for use during pregnancy as well as during lactation are topical steroids in limited areas and NB-UVB, although it is important to recommend folate supplementation and monitor for the development of melasma. Depending on the activity of vitiligo, limiting the cumulative amount of very potent topical steroids to less than 300 g during the entire pregnancy may be advisable given the possible association with low birth weight.[59]

DISCUSSION/CONCLUSION

Based on international worldwide collaboration, we developed a new treatment algorithm for the management of vitiligo. These recommendations emphasize the importance of recognizing the burden of vitiligo on patients. A correct assessment of disease activity, vitiligo extent and involved locations is crucial to frame patient expectations concerning the natural evolution and treatment results. We believe that these recommendations facilitate a shared-decision process which is of particular importance in vitiligo given the high variability in treatment results and patients' expectations.

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CONFLICT OF INTEREST STATEMENT

Nanja van Geel MD, PhD received grants, is consultant and/or investigator for AbbVie, Incyte, Merck/MSD, Pfizer and Sun Pharma; and is chair of the Vitiligo Task Force for the European Academy of Dermatology and Venereology (EADV). She was involved in the development of several measurement instruments for vitiligo. **Khaled Ezzedine** MD, PhD has served as a consultant for AbbVie, Incyte Corporation, Pfizer, Pierre Fabre Pharmaceuticals, Merck/MSD and Almirall. **Amit G. Pandya** MD has served as an investigator for Incyte. He is a consultant for AbbVie, Avita Medical, Immune Tolerance Network, Incyte, Pfizer, Thalocan, Trifecta, TWi, Viela Bio, Vyne, and Villaris and holds stock options for Tara Medical and Zerigo Health. **Thierry Passeron** MD, PhD received consultancies fees from Abbvie, Incyte, Pfizer, Vyne therapeutics and Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from from Abbvie, Incyte, Pfizer, Vyne therapeutics. **Albert Wolkerstorfer** MD, PhD, is consultant for InCyte, Novartis, AvitaMedical, Candela and Lumenis. **Jung Min Bae** MD, PhD has served as a consultant for Pfizer, AbbVie, LaserOptek, Ilooda and Cutech Korea. **Viktoria Eleftheriadou** MD, PhD VE is a consultant for Incyte, Abbvie, Pfizer and Almirall. **Samia Esmat** MD is consultant for Pfizer. **Pearl Grimes** MD conducts clinical trials, for which the Vitiligo & Pigmentation Institute of Southern California receives financial support for purposes of conducting these trials, from Procter & Gamble, Clinuvel, L'Oreal, Johnson & Johnson, LaserOptek, Mother Science, Incyte, Pfizer, AbbVie/Allergan and SkinBetterScience. Dr. Grimes receives no direct compensation for this work. **Somesh Gupta** MD is conducting a clinical trial sponsored by Pfizer on Abrocitinib and Ritlecitinib. **Iltefat H. Hamzavi** MD is Consultant to Abbvie, Pfizer, Incyte, UCB, Boerhinger Ingelheim, Sonoma, Union therapeutics, Novartis, Jansen, Avita, Galderma and is Investigator for Lenicura, Pfizer, Incyte, Avita, L'oreal/La Roche Posay. He is also Board member and Past-president of the HS foundation and Global Vitiligo foundation. **John E. Harris** MD, PhD, 3rd Rock Venture – Consultant (Fees); AbbVie, Inc – Consultant (Fees); Aclaris Therapeutics, Inc – Consultant (Fees), Investigator (Grants/Research Funding); Admirx—Consultant (Fees); Aldena—Consultant (Fees), Founder (Stock); Almiral—Consultant (Fees); AnaptysBio—Consultant (Fees); Avita—Consultant (Fees); BiologicsMD—Consultant (Fees); Boston Pharma—Consultant (Fees); BridgeBio—Consultant

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DISCLAIMER

This recommendation was proposed based on expert opinions, feedback from patient representatives and published evidence. Future updates of these recommendations are inevitable as new treatments and potential adverse responses may override current management recommendations. The Vitiligo Task Force does not represent or warrant a legislative or all-encompassing consensus based on the contents of this documentation/statement. Medical professionals may treat vitiligo following procedures and treatment plans that substantially differ from those mentioned or described in this recommendation. The Vitiligo Task Force expressly disclaims any responsibility or liability for any damages, loss, injury or liability whatsoever experienced as a result of reliance on the information contained in this publication. The contents of this manuscript can in no way be regarded as advice in legal matters (including use for claims). Inquiring about allergies and intolerance reactions, as well as detecting probable contraindications, are steps that should be considered part of a physician's general responsibilities when prescribing medications. All patients should be informed of the specific risks associated with each recommended treatment.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analysed in this study.

ETHICS STATEMENT

Not applicable.

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