Title: An Immuno-Dermatological disease registry to understand the burden of Atopic dermatitis (AD), Alopecia areata (AA), and Vitiligo in Indian Patients

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Name and Affiliation:

Redacted

Rationale and Background:

Nationwide systematic studies identifying the disease burden, epidemiology, and challenges and unmet needs in the diagnosis and management of AD, vitiligo, and AA in India are lacking.

To have an Indian Immuno-Dermatological registry amongst Indian patients, suffering from AD, vitiligo, and AA to:

- Evaluate the epidemiological burden of AD, vitiligo, and AA.
- Current diagnostic modalities.
- Burden of diseases – pediatric population, adult patients, mild, moderate, or severe.
- Treatment – topical therapies, advanced therapies across the spectrum of the disease.
- Unmet needs in diagnosis and management of diseases – Need for newer alternative therapies for patient's refractory to current therapeutic alternatives.

Atopic dermatitis (AD) is a chronic, pruritic inflammatory skin disease that occurs most frequently in children but also affects many adults. It has a relapsing course and is often associated with elevated serum IgE levels and a personal or family history of allergic rhinitis and asthma. AD is one of the most common skin diseases which affects up to 20% of children and 1%–3% of adults in most countries of the world. It is often the first step in the development of other atopic diseases such as rhinitis and/or asthma. There is, however, no documentation of an atopic march from India.[1]The exact prevalence of, vitiligo and atopic dermatitis (AD) in India is not known and we rely on Western data.[2] Vitiligo is an acquired, idiopathic, and common depigmentation disorder. The values of various epidemiologic parameters of vitiligo are often doubtful due to the methodological weaknesses of the studies.[3] Alopecia areata (AA) is a common form of non-scarring alopecia involving the scalp and/or body, characterized by hair loss without any clinical inflammatory signs. It is one of the most common forms of hair loss seen by dermatologists and accounts for 25% of all the alopecia cases.[4] The information on prevalence would be useful for planning strategies to manage these diseases.[2]

This non-interventional study is designated as a PASS and is conducted voluntarily by Pfizer.

Research Question and Objective:

Primary objective

- The objective of this registry is to evaluate the epidemiological burden of mild, moderate and severe atopic dermatitis, vitiligo, and alopecia areata across enrolled dermatology centers.

Secondary objectives

- To elucidate the Current diagnostic criteria and grading modalities for AD, vitiligo, and AA in India.
- To define the burden of disease with a demographic overview of AD, vitiligo, and AA – with factors like Age (adult/adolescent/Pediatric), Gender (Male/female), Severity, region of body affected, Comorbidities, relevant personal history.
- To elucidate the treatment for AD, vitiligo, and AA – topical therapies, advanced therapies across the spectrum of the diseases, surgical interventions and laser or other cosmetic procedures across the disease severity spectrum.
- To define the unmet needs in diagnosis (sequence of treatment and adverse events on therapy) and management of dermatological disorders, need for newer alternative therapies for patient's refractory to current therapeutic alternatives.
- To identify and focus on patients' perspectives on benefits, quality of life and on the sequence of treatments.

Study Design/Setting:

A prospective, observational, longitudinal study (Immuno-Dermatological disease registry) conducted across 20 centers in India.

There is no study-related intervention. Enrolled patients are observed for the entire study period for a minimum of 3 follow-ups. Post baseline visit, follow-up visits take place at intervals as per the investigator's discretion.

At each follow-up visit, the investigator documents the clinical examination findings as per the CRF, the prescribed therapy as well as reasons for a change or continuation of therapy and possible adverse drug reactions (ADR) if any.

The patient questionnaire for follow-up visits is similar to the questionnaire for the baseline visit.

All assessments described in this protocol are performed as part of normal clinical practice or standard practice guidelines for the patient population and healthcare provider specialty in the countries where this non-interventional study is being conducted.

Population:

Adults and children, aged between 2 and 64 years old, who have been clinically diagnosed with AD, vitiligo, and AA will be included in the study.

Variables:

To note the age at diagnosis, the severity of disease, treatment initiation, treatment switch to advanced therapies, time to remission, time to relapse, patients with refractory disease, diagnosis at admission, patient demographics, underlying co-morbidities, treatment history, history of atopy, concomitant medications, clinical characteristics, clinical outcomes, use of topical therapy, the duration for moisturizers, quality of life parameters.

For Atopic Dermatitis[5]

Clinician Reported Outcomes

- Demographic criteria;
- Clinical diagnosis;
- Disease severity at baseline
  - QoL: loss of daily work/school days;
  - Body Surface Area (BSA) Involvement;
  - Eczema Area and Severity Index (EASI);
  - SCORing Atopic Dermatitis (SCORAD)
  - Itch Severity (Visual Analogue Scale);
- Associated comorbidities
- Past treatment history
- Current choice of therapy as I/II line agents;
- Use of any other medications (phototherapy, antibiotics, antihistaminics);
- Treatment change, if any;
- Maintenance drugs (Topical/Systemic);
- Use of moisturizers;
- Hospitalizations;

Patient Reported Outcomes

- Patient-Oriented Eczema Measure (POEM);
- Patient global impression of severity (PGIS) score for AD

For Alopecia Areata[6]

Alopecia areata:

Clinician Reported Outcomes:

- Demographic details;
- Clinical diagnosis;
- Clinical history;
- Associated Comorbidities;
- Past treatment.
- Skin examination;
- Skin biopsy (if done);
- Severity of Alopecia Tool (SALT)
- Current treatment.

Patient Reported Outcomes:

- Alopecia Areata symptom impact scale (AASIS);
- Patient global impression of severity (PGIS) score for AA

Alopecia Areata Patient Priority Outcomes (AAPPO)

For Vitiligo[7]

Clinician Reported Outcomes:

- Demographic details
- Clinical diagnosis
- Clinical history at baseline
- Skin Examination

    - Body Surface Area

- Vitiligo Area Scoring Index scorePast vitiligo treatments (dose, duration, response, adverse effects,):
- Current medications;
- Koebner score;
- Photography.

Patient Reported Outcomes:

- Patient global impression of severity (PGIS) score for Vitiligo and Face
- VIS-22

Data Sources:

According to the inclusion and exclusion criteria specified in the protocol, Investigators are to recruit patients for the specified conditions, AD, vitiligo and AA.

Primary data collected by the investigator through patient enrollment as per the protocol inclusion and exclusion criteria, observation & questionnaire during baseline and follow -up visits of the patient to the Investigator as per the CRFs.

The data would be collected using either Electronica Data Capture (EDC) or in paper CRF's.

It is the investigator's responsibility to ensure that the study is conducted in compliance with all legal requirements and that the data are correctly recorded in the CRFs at the study site and the sponsor would be responsible for the compliance of the overall study conduct.

All data generated in the course of this study (including concomitant diseases, results of examinations and adverse events) must be recorded in the CRFs by appropriately authorized persons.

Study Size:

The total study duration is estimated to be 3 years. The enrollment of all participants would be completed by 18 months with a minimum of three follow up visits. A total of 3000 patients will be recruited and the sample distribution will be as follows:

- 1500 AD patients – The enrollment would proceed in a phased manner with evaluation on enrollment every 6 months.
- 750 vitiligo patients.
- 750 AA patients.

Data Analysis:

Detailed methodology for summary and statistical analyses of data collected in this study will be documented in a statistical analysis plan (SAP), which will be dated, filed and maintained by the sponsor. The SAP may modify the plans outlined in the protocol; any major modifications of primary endpoint definitions or their analyses would be reflected in a protocol amendment.

Milestones:

Milestones	**Planned Date**
Completion of feasibility assessment	05 May 2023
Start of Data Collection	30 Jun 2023
End of Data Collection	31 Aug 2026
Interim report 1 AD subset interim analysis	31 Mar 2025
Interim report 2 Interim analysis at the end of patient enrolment	31 Jan 2026
Registration in the EU PAS Register	30 Apr 2023
Final Study Report	28 Feb 2027

1. REFERENCES

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