

# EJADA Program

Psoriasis

KPIs and  
Recommendations

2024

# Psoriasis

## KPIs and Recommendations

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## Introduction

Psoriasis is a chronic inflammatory skin disorder with high global prevalence. It is primarily characterized by abnormal keratinocyte multiplication and immune cell infiltration within the epidermis and is manifested in the form of mild to severe plaques. Psoriasis is known to occur at any age with ethnicity, genetic background, and environmental factors affecting its onset. Psoriasis is associated with multiple comorbidities including psoriatic arthritis (PsA). Reportedly, around 30% of the patients with psoriasis eventually develop PsA which is an autoimmune disorder characterized by chronic inflammation of skin and joints, with aggressive forms leading to joint damage.

Psoriasis is associated with various risk factors majorly attributable to intrinsic factors including metabolic syndrome, obesity, diabetes mellitus, dyslipidemia, hypertension and mental stress. Certain lifestyle factors (smoking and alcohol intake) and environmental factors (air pollution) also contribute towards the disorder.

Although psoriasis is incurable, there are several effective treatments available for its control. These include topical treatments, phototherapy, traditional systemic medications (non-biologics), and biologic therapy. The selection of treatment primarily depends on the severity of the disease and any accompanying health conditions.

Introduction of biologics in the treatment armamentarium of psoriasis has revolutionized the management of patients. However, biologics are expensive medicines and have substantial impact on the healthcare costs of affected patients and healthcare systems. Therefore, better policy measures in the future are paramount to reduce the cost burden and improve quality of life in these patients.

## Scope

The Ejada KPIs are quality indicators and ratings for physicians, facilities and insurance companies based on information collected by DHA systems from providers, payers and patients.

The Psoriasis KPIs and Recommendations are based on regional and International guidelines on assessment and management of Psoriasis. The KPIs are designed for healthcare practitioners and providers to follow international best practices in the assessment and management of patients with psoriasis.

The KPIs cover the following aspects:

- Management of psoriasis patients with topical and biologic therapies
- Regular monitoring liver function tests, renal function tests and immunization status in patients with psoriasis, treated with biologics
- Referrals to specialists (dermatologists) for initiation of appropriate therapy in patients with psoriasis

The KPIs and recommendations have been reviewed by leading experts in the UAE.

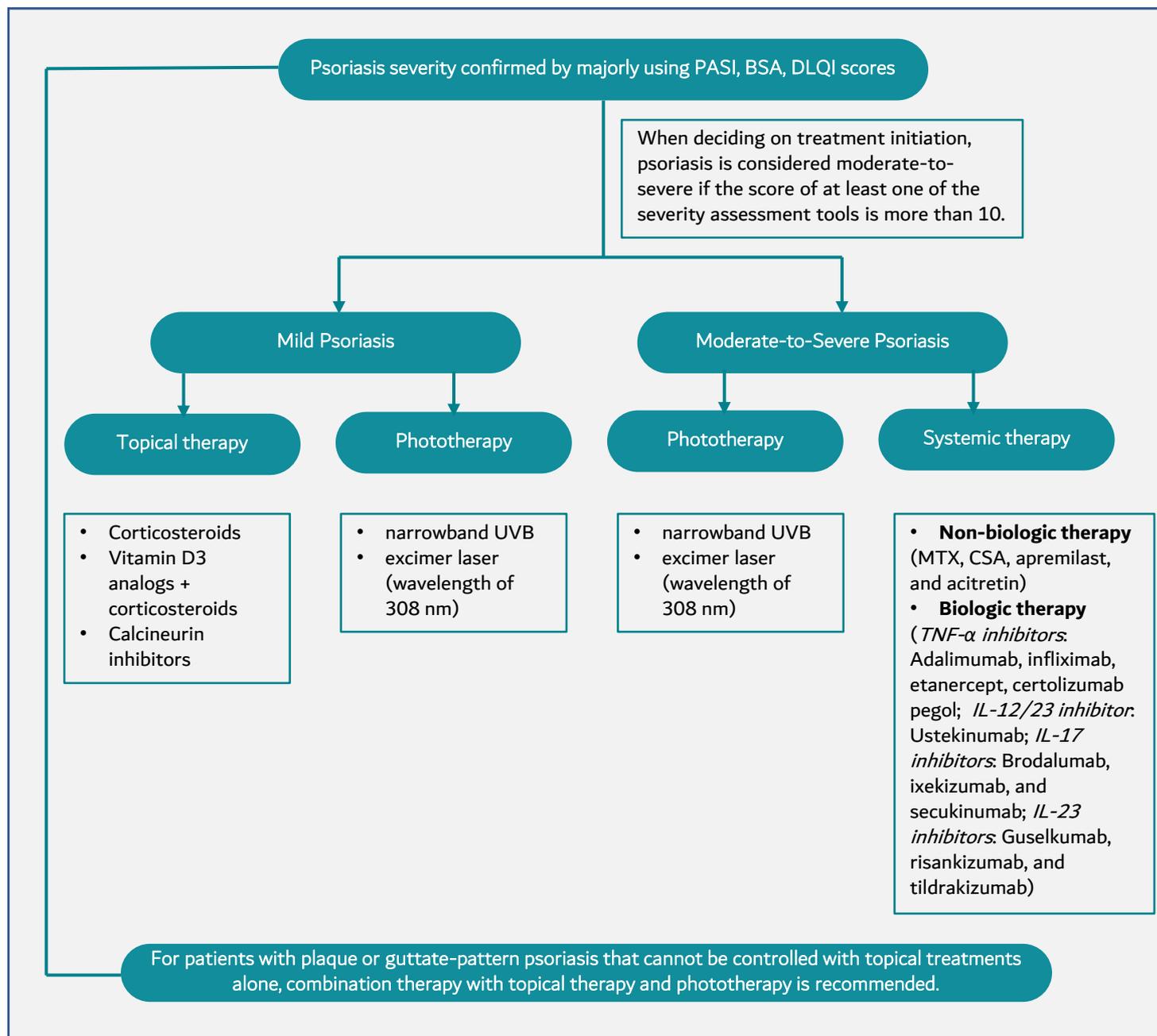
## List of Abbreviations

S.No	Abbreviation	Full term
1	AED	United Arab Emirates dirham
2	BSA	Body surface area
3	CSA	Ciclosporin
4	CVD	Cardiovascular disease
5	CRP	C-reactive protein
6	csDMARDs	Conventional synthetic disease-modifying antirheumatic drugs
7	DDC	Dubai drug code
8	DHA	Dubai health authority
9	DLQI	Dermatology Life Quality Index
10	DMARD	Disease-modifying antirheumatic drug
11	ECG	Electrocardiogram
12	ESR	Erythrocyte sedimentation rate
13	HBV	Hepatitis B virus
15	HCV	Hepatitis C virus
16	HIV	Human immunodeficiency virus
17	KPI	Key performance indicator
18	IL-12/23i	Interleukin-12/23 inhibitor
19	IL-17i	Interleukin-17 inhibitor
20	IL-23i	Interleukin-23 inhibitor
21	MRI	Magnetic resonance imaging
22	MTX	Methotrexate
23	PASI	Psoriasis Area Severity Index
24	TNFi	Tumor necrosis factor inhibitor
25	tsDMARDs	Target synthetic disease-modifying antirheumatic drugs
26	UVB	Ultraviolet B
27	UAE	United Arab Emirates

## KPIs and their Measuring Parameters for Psoriasis

S.No.	KPIs	Measuring Parameters
1	Prescription of Topical Therapies in Patients with Psoriasis	DDC List of drugs
2	Prescription of Non-biologic Systemic Therapies in Patients with Psoriasis	DDC List of drugs
3	Prescription of Biologics in Patients with Psoriasis	DDC List of drugs
4	Assessment for Infections (Tuberculosis, Hepatitis B, Hepatitis C, Human Immunodeficiency Virus) in Patients with Psoriasis Treated with Biologics	Tuberculin test, Chest x-ray, Serology for HBV and HCR, HIV test
5	Assessment of Complete Blood Count, Renal Function Test and Liver Function in Patients with Psoriasis Treated with Biologics	Complete blood count with differentials, Renal function test, Liver function test
6	Referral of Psoriasis Patients for Rheumatologist Consultation	Rheumatologist Referral
7	Avoidable Hospitalization in Patients with Psoriasis	Hospital Admission
8	Percentage Cost Decrease for Managing Patients with Psoriasis	Cost (in AED)
9	Cost of Treatment with Biologics in Patients with Psoriasis	Cost (in AED)
10	Assessment of Immunization Status of Patients with Psoriasis Prior to Initiation of tsDMARDs and Biologics	DDC list of Vaccinations
11	Laboratory and Imaging Tests for Assessment of Comorbid Conditions in Patients with Psoriasis	Complete blood count/liver function test/renal function test/ECG/ECHO

## Treatment of Psoriasis



**Adapted and Modified From:**  
Consensus Statement for Management of Moderate-to-Severe Psoriasis in UAE  
[PsO-Consensus-Guidelines-Development-in-UAE.pdf](https://www.edsuae.com/PsO-Consensus-Guidelines-Development-in-UAE.pdf)  
([edsuae.com](https://www.edsuae.com))

Abbreviation: BSA: Body surface area; CSA: Ciclosporin; DLQI: Dermatology Life Quality Index; IL: Interleukin; MTX: Methotrexate; PASI: Psoriasis Area Severity Index; TNF: Tumor necrosis factor; UVB, ultraviolet B

# Health Outcomes Indicators

## Prescription of Topical Therapies in Patients with Psoriasis

<b>Description Title</b>	Prescription of Topical Therapies Patients with Psoriasis
<b>Definition</b>	Percentage of patients with psoriasis treated with topical therapies (topical corticosteroids/ calcineurin inhibitors/vitamin D analogs/salicylic acid/coal tar/anthralin) during the measurement year
<b>Numerator</b>	Percentage of patients with psoriasis treated with topical therapies (topical corticosteroids/ calcineurin inhibitors/vitamin D analogs/salicylic acid/coal tar/anthralin) during the measurement year
<b>Denominator</b>	Total number of patients of psoriasis in the measurement year
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	Percentage (Numerator/Denominator x 100)
<b>Measure Target and/or Threshold</b>	Higher is better
<b>Rationale</b>	Topical therapy is the treatment of choice in patients with mild psoriasis affecting < 10% body surface area (BSA) (mild psoriasis). Topical therapies are also suitable for treating psoriasis on sensitive regions like the face, folds of the skin, and genital areas. Additionally, they serve as a supplementary treatment for psoriasis affecting more than 10% of the BSA (moderate to severe psoriasis) and is used alongside ultraviolet (UV) light therapy or systemic medications. They are also beneficial for persistent psoriasis on the palms, soles, or scalp.

## Prescription of Non-biologic Systemic Therapy in Patients with Psoriasis

<b>Description Title</b>	Prescription of Non-biologic Systemic Therapies in Patients with Psoriasis
<b>Definition</b>	Percentage of patients with psoriasis treated with non-biologic systemic therapy (methotrexate/ciclosporin/apremilast/acitretin) during the measurement year
<b>Numerator</b>	Number of patients with psoriasis treated with csDMARDs (methotrexate/ciclosporin/apremilast/acitretin) during the measurement year
<b>Denominator</b>	Total number of patients with psoriasis in the measurement year
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	Percentage (Numerator/Denominator x 100)
<b>Measure Target and/or Threshold</b>	Higher is better
<b>Rationale</b>	Non-biologic systemic therapies including methotrexate/ciclosporin/apremilast/acitretin are recommended as first-line therapeutic options, in psoriasis patients with mild-to-moderate skin. The non-biologic systemic therapy is chosen based on the patient profile, medical history, disease severity, and comorbidities.

## Prescription of Biologics in Patients with Psoriasis

<b>Description Title</b>	Prescription of Biologics in Patients with Psoriasis
<b>Definition</b>	Percentage of patients with psoriasis treated with biologics(TNF inhibitors/IL-12/23 inhibitor/IL-17inhibitor/IL-23 inhibitor) during the measurement year
<b>Numerator</b>	Number of patients with psoriasis treated with biologics(TNF inhibitors/IL-12/23 inhibitor/IL-17inhibitor/IL-23 inhibitor) during the measurement year
<b>Denominator</b>	Total number of patients with psoriasis in the measurement year
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	Percentage (Numerator/Denominator x 100)
<b>Measure Target and/or Threshold</b>	Lower is better
<b>Rationale</b>	Biologics including TNF inhibitors/IL-12/23 inhibitor/IL-17inhibitor/IL-23 inhibitor are recommended in treatment of patients with moderate-to-severe psoriasis. Biologics can be considered early in the treatment phase as first-line therapeutic option on a case-by-case basis, depending on severity of disease, location of lesions and presence of comorbidities.

## Assessment for Infections in Psoriasis Patients Treated with Biologics

<b>Description Title</b>	Assessment for Infections (Tuberculosis, HepatitisB, Hepatitis C, Human Immunodeficiency Virus) in Psoriasis Patients Prior to Initiation of Biologics
<b>Definition</b>	Percentage of Psoriasis patients treated with biologics (TNF inhibitors/IL-12/23 inhibitor/IL-17inhibitor/IL-23 inhibitor) , in whom hepatitis B and C serology, HIV test, tuberculin test or interferon-gamma release assay, chest x-ray, was performed during the measurement year
<b>Numerator</b>	Percentage of psoriasis patients treated with biologics (TNF inhibitors/IL-12/23 inhibitor/IL-17inhibitor/IL-23 inhibitor) , in whom hepatitis B and C serology, HIV test, tuberculin test or interferon-gamma release assay, chest x-ray, was performed during the measurement year
<b>Denominator</b>	Total number of patients of psoriasis treated with biologics in the measurement year
<b>Range of measure</b>	At baseline and once in 3 months
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis And psoriasis patients not initiated on biologics
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	Percentage (Numerator/Denominator x 100)
<b>Measure Target and/or Threshold</b>	Higher is better
<b>Rationale</b>	As most biologics are immunomodulators, there is a high risk of serious infections, including tuberculosis, hepatitis, and human immunodeficiency virus (HIV). Therefore, it is important that patients are routinely screened for tuberculosis (QuantiFERON), hepatitis B virus (HBV), hepatitis C virus (HCV), and HIV prior to initiating any biologic therapy. Hepatitis B and C serology, HIV test, tuberculin test or interferon-gamma release assay, chest x-ray should be performed. These tests have to be performed at baseline and once in every 3 months, during the treatment period.

## Assessment of Complete Blood Count, Renal Function Test and Liver Function in Psoriasis Patients on Biologics

<b>Description Title</b>	Assessment of Complete Blood Count, Renal Function Test and Liver Function Tests in Psoriasis Patients on Biologics
<b>Definition</b>	Percentage of psoriasis patients treated with biologics (TNF inhibitors/IL-12/23 inhibitor/IL-17 inhibitor/IL-23 inhibitor) , in whom complete blood count, renal function test and liver function test was performed during the measurement year
<b>Numerator</b>	Number of psoriasis patients with skin involvement (psoriasis) treated with biologics(TNF inhibitors/IL-12/23 inhibitor/IL-17 inhibitor/IL-23 inhibitor) during the measurement year
<b>Denominator</b>	Total number of patients of psoriasis treated with biologics in the measurement year
<b>Range of measure</b>	Once in 3 months in a measurement year
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis And psoriasis patients not initiated on biologics
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	Percentage (Numerator/Denominator x 100)
<b>Measure Target and/or Threshold</b>	Higher is better
<b>Rationale</b>	Owing to an increased risk of hepatotoxicity and renal toxicity associated with most systemic DMARDs, monitoring tests including complete blood count, comprehensive liver function tests, renal function test, erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), and serum creatinine levels, is recommended by international guidelines, in patients with psoriasis who are initiated on biologics.

# Health Operational Indicator

## Referral of Psoriasis Patients for Rheumatology Consultation for Assessment of Psoriatic Arthritis

<b>Description Title</b>	Referral of Psoriasis Patients for Rheumatology Consultation for assessment of PsA
<b>Definition</b>	Percentage of patients with psoriasis who were referred to rheumatologists for consultation, during the measurement year.
<b>Numerator</b>	Number of patients with psoriasis who were referred to rheumatologists for consultation, during the measurement year.
<b>Denominator</b>	Total number of psoriasis patients during the measurement year
<b>Range of measure</b>	Once in a year or as advised by the healthcare practitioner
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	Percentage (Numerator/Denominator x 100)
<b>Measure Target and/or Threshold</b>	Higher is better
<b>Rationale</b>	Identifying comorbidities is critical to the optimal management and treatment of psoriasis. Comorbidities may impact choice of therapy and/or guide monitoring. Referral of patients with psoriasis from primary care/dermatologist to rheumatologist is crucial for early evaluation and diagnosis of joint involvement (psoriatic arthritis) and for initiation of systemic therapies.

## Avoidable Hospitalization in Patients with Psoriasis

<b>Description Title</b>	Avoidable Hospitalization in Patients with Psoriasis
<b>Definition</b>	Percentage of patients with Psoriasis who were hospitalized during the measurement year
<b>Numerator</b>	Number of patients with Psoriasis who were hospitalized during the measurement year
<b>Denominator</b>	Total number of patients with Psoriasis in the measurement year
<b>Range of measure</b>	NA
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	Percentage (Numerator/Denominator x 100)
<b>Measure Target and/or Threshold</b>	Lower is better
<b>Rationale</b>	Early diagnosis and effective therapy is crucial in patients with psoriasis to prevent progression to severe disease and to avoid hospitalization. Also, psoriasis is associated with several comorbidities such as CVD, obesity, metabolic syndrome, hypercholesterolemia, hypertension, diabetes mellitus, chronic kidney disease, malignancy. Therefore, evaluation and screening for these conditions are also crucial to avoid hospitalization in patients with psoriasis.

# Health Economic Indicator

## Percentage Cost Decrease for Managing Patients with Psoriasis

Description Title	Percentage Cost Decrease for Managing Patients with Psoriasis
<b>Definition</b>	Percentage decrease in cost incurred (in AED) for managing patients with Psoriasis during the measurement year when compared to previous year
<b>Numerator</b>	Difference of total cost (AED) incurred for managing patients with Psoriasis in previous measurement year (A) from current measurement year (B)
<b>Denominator</b>	Total cost incurred for managing patients with Psoriasis during the previous measurement year (A)
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	$A-B/A \times 100$
<b>Measure Target and/or Threshold</b>	Higher Percentage is better
<b>Rationale</b>	The disease and economic burden of psoriasis is substantial. Improved clinical outcomes and reduction in associated healthcare costs can be achieved by addressing multiple factors including; greater focus on prevention, early diagnosis, appropriate medical management of the condition and associated comorbidities.

## Cost of Treatment with Biologics in Patients with Psoriasis

Description Title	Average Cost incurred on Biologics in Treatment of Patients with Psoriasis
<b>Definition</b>	Average costs incurred (in AED) for biologics in management of patients with psoriasis during the measurement year
<b>Numerator</b>	Total costs incurred for biologics in management of patients with psoriasis during the measurement year
<b>Denominator</b>	Total number of patients diagnosed with psoriasis in the measurement year
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	Average (Numerator/Denominator)
<b>Measure Target and/or Threshold</b>	Lower is better
<b>Rationale</b>	Psoriasis poses a significant economic burden to the affected patients and healthcare as it requires lifelong care and often continuous treatment. Biologic agents have revolutionized the treatment in patients previously resistant to systemic therapies; however, biologics are more costly, and some patients may discontinue or switch therapies for a variety of reasons, which further imposes substantial financial impact on the patient.

# Patient Safety Indicator

## Assessment of Immunization Status of Patients with Psoriasis Prior to Initiation of Biologics

<b>Description Title</b>	Vaccination of Patients with Psoriasis with Pertussis /Inactivated Influenza/ Pneumococcal/ HBV Vaccine/recombinant Zoster/COVID-19 Prior to Initiation of Biologics
<b>Definition</b>	Percentage of patients with Psoriasis and Psoriatic Arthritis who were vaccinated with pertussis/ inactivated influenza/pneumococcal/ HBV vaccine/recombinant Zoster/COVID-19 prior to initiation of tsDMARDs and Biologics
<b>Numerator</b>	Number of patients with Psoriasis and Psoriatic Arthritis who were vaccinated with pertussis/inactivated influenza/ HBV vaccine recombinant Zoster/COVID-19 / prior to initiation of tsDMARDs and Biologics
<b>Denominator</b>	Total number of Psoriasis patients in the measurement year
<b>Range of measure</b>	Once per year or as advised by physician
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	Percentage (Numerator/Denominator x 100)
<b>Measure Target and/or Threshold</b>	Higher is better
<b>Rationale</b>	Immunization status of the Psoriasis patient should be assessed prior to initiation of biologics. Routine vaccination for pertussis/ inactivated influenza/pneumococcal/ HBV vaccine is recommended in high-risk patients and in highly prevalent regions at baseline.

## Laboratory and Imaging Tests for Assessment of Comorbid Conditions in Patients with Psoriasis

<b>Description Title</b>	Assessment for Presence of Comorbid Conditions in Patients with Psoriasis
<b>Definition</b>	Percentage of patients with Psoriasis in whom complete blood count/liver function test/renal function test/ECG/ECHO were done to evaluated for comorbid conditions (diabetes mellitus/hypertension/hypercholesterolemia/cardiovascular disease/chronic kidney disease )
<b>Numerator</b>	Number of patients with Psoriasis in whom complete blood count/liver function test/renal function test/ECG/ECHO were done to evaluated for comorbid conditions (diabetes mellitus/hypertension/hypercholesterolemia/cardiovascular disease/chronic kidney disease )
<b>Denominator</b>	Total number of patients with psoriasis in the measurement year
<b>Range of measure</b>	Once in a measurement year
<b>Exclusion criteria</b>	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis
<b>Data collection frequency</b>	Monthly
<b>Unit of measure</b>	Percentage (Numerator/Denominator x 100)
<b>Measure Target and/or Threshold</b>	Higher is better
<b>Rationale</b>	Several comorbid conditions including diabetes mellitus, hypertension, cardiovascular disease, hypercholesterolemia, renal function test, liver function test are common in patients with psoriasis. Early identification of these comorbidities is crucial for optimal management.

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