هيئة الصحة بدبي
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إجادة
EJADA

EJADA Program

Psoriatic Arthritis

KPIs and Recommendations

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Content

Introduction

Psoriatic arthritis (PsA) is an autoimmune disorder characterized by chronic inflammation of skin and joints, with aggressive forms leading to joint damage. PsA 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. The patients with PsA have a substantial impact on the quality of life and a compromised physical functioning.

The treatment choices for PsA are directed by a patient-focused strategy in collaboration with dermatologists, with the main goal of managing disease activity, associated health conditions, structural damage, and patient-reported outcomes. Observational studies have shown that early detection of PsA is crucial because it enables the early treatment initiation and reduces the subsequent joint damage. The treatment modalities for PsA include non-pharmacological interventions (lifestyle modifications) and pharmacological therapies (non-steroidal anti-inflammatory drugs, glucocorticoids, disease-modifying antirheumatic drug, and biologic therapy).

Introduction of biologics in the treatment armamentarium of psoriatic arthritis 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 Psoriatic arthritis KPIs and Recommendations are based on regional and International guidelines on assessment and management of Psoriatic Arthritis. The KPIs are designed for healthcare practitioners and providers to follow international best practices in the assessment and management of patients with psoriatic arthritis.
The KPIs cover the following aspects:

- Management of psoriatic arthritis patients with conventional DMARDs and systemic therapies
- Regular monitoring liver function tests, renal function tests and immunization status in patients with psoriatic arthritis, treated with biologics
- Referrals to specialists (dermatologists and rheumatologists) for initiation of appropriate therapy in patients with psoriatic arthritis

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

List of Abbreviations

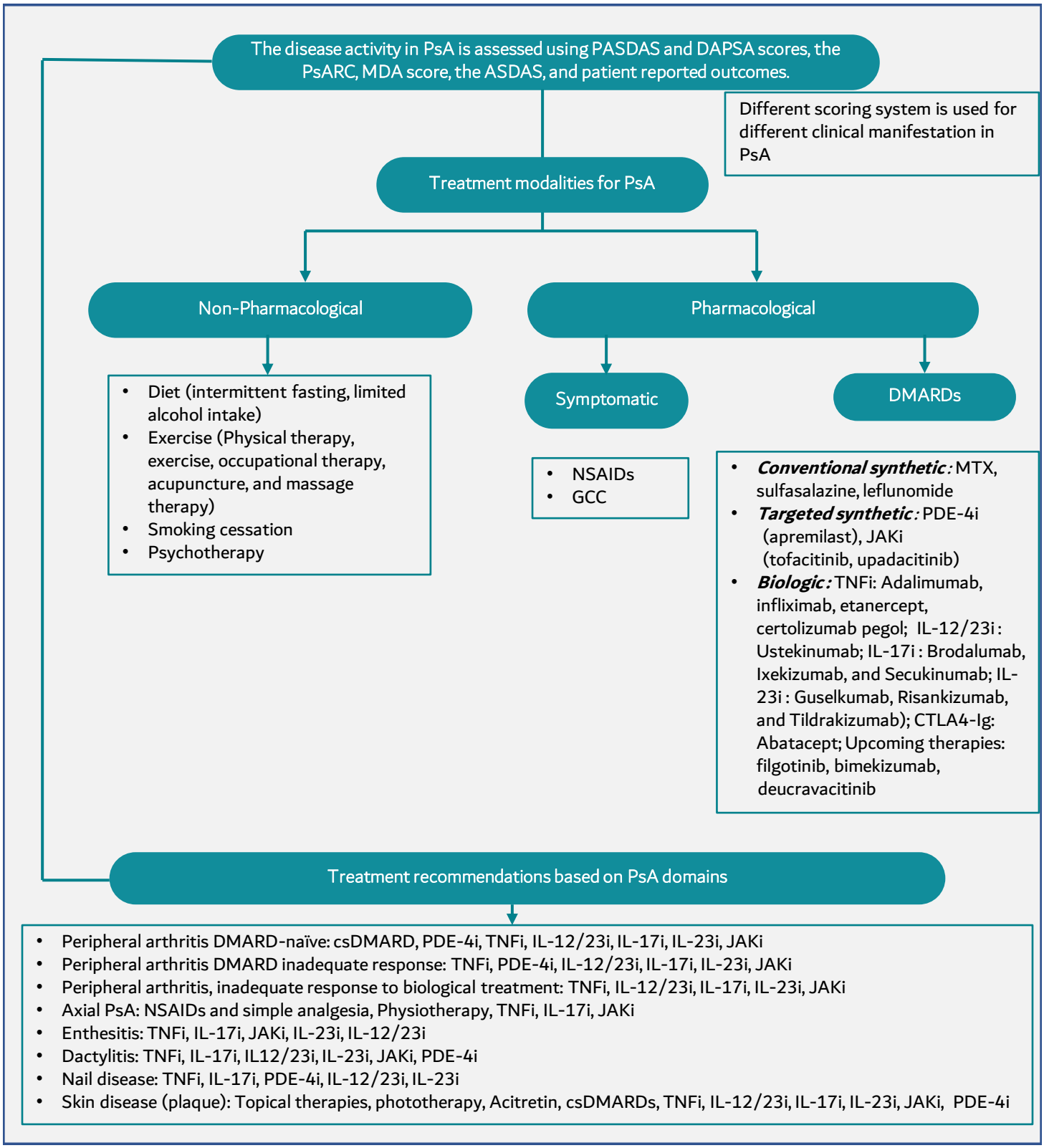
S.No	Abbreviation	Full term
1	AED	United Arab Emirates dirham
2	ASDAS	Ankylosing spondylitis disease activity score
3	bDMARDs	Biologic disease-modifying antirheumatic drugs
4	BSA	Body surface area
5	CVD	Cardiovascular disease
6	CRP	C-reactive protein
7	csDMARDs	Conventional synthetic disease-modifying antirheumatic drugs
8	CTLA4-Ig	Cytotoxic T-lymphocyte-associated antigen-4-immunoglobulin
9	DAPSA	Disease activity index for psoriatic arthritis
10	DDC	Dubai drug code
11	DHA	Dubai health authority
12	DMARD	Disease-modifying antirheumatic drug
13	ECG	Electrocardiogram
14	ESR	Erythrocyte sedimentation rate
15	GCC	Glucocorticoids
16	HBV	Hepatitis B virus
17	HCV	Hepatitis C virus
18	HIV	Human immunodeficiency virus
19	JAKi	Janus kinase inhibitors
20	KPI	Key performance indicator
21	IL-12/23i	Interleukin-12/23 inhibitor
22	IL-17i	Interleukin-17 inhibitor
23	IL-23i	Interleukin-23 inhibitor
24	JAKi	Janus kinase inhibitor
25	MDA	Minimal disease activity
26	MRI	Magnetic resonance imaging
27	MTX	Methotrexate
28	NSAIDs	Non-steroidal anti-inflammatory drugs
29	PASDAS	Psoriatic ArthritiS Disease Activity Score
30	PDE-4i	Phosphodiesterase-4 Inhibitors
31	PsA	Psoriatic arthritis
32	PsARC	Psoriatic arthritis response criteria
33	TNFi	Tumor necrosis factor inhibitor
34	tsDMARDs	Target synthetic disease-modifying antirheumatic drugs
35	UV	Ultraviolet
36	UAE	United Arab Emirates

KPIs and their Measuring Parameters

Data collection frequency: Monthly

S.No.	KPIs	Measuring Parameters
1	Radiography/Ultrasonography/MRI for Diagnosis of Patients with Psoriatic Arthritis (PsA)	Radiography/Ultrasonography/MRI
2	Conventional Synthetic Disease-modifying Antirheumatic Drugs (csDMARDs) (methotrexate, sulfasalazine, leflunomide) in Treatment of Patients with Psoriatic Arthritis	DDC List of drugs
3	Targeted Systemic Disease-modifying Antirheumatic Drugs (tsDMARDs) (phosphodiesterase-4 inhibitors/Janus kinase inhibitors) in the Treatment of Patients with Psoriatic Arthritis	DDC List of drugs
4	Biologics in the Treatment of Patients with Psoriatic Arthritis	DDC List of drugs
5	Assessment for Infections (Tuberculosis, Hepatitis B, Hepatitis C, Human Immunodeficiency Virus) in Patients with Psoriatic Arthritis Treated with Biologics	Tuberculin test, Chest x-ray, Serology for HBV and HCV, HIV test
6	Assessment of Complete Blood Count, Renal Function Test and Liver Function in Patients with Psoriatic Arthritis Treated with Biologics	Complete blood count with differentials, Renal function test, Liver function test
7	Referral of Psoriasis Patients for Rheumatologist Consultation for assessment of Psoriatic arthritis	Rheumatologist Referral
8	Avoidable Hospitalization in Patients with Psoriatic Arthritis	Hospital Admission
9	Assessment of Complete Blood Count, Renal Function Test and Liver Function in Patients with Psoriatic Arthritis Treated with Biologics	Complete blood count with differentials, Renal function test, Liver function test
10	Percentage Cost Decrease for Managing Patients with Psoriatic Arthritis	Cost (in AED)
11	Cost of Treatment with Biologics and tsDMARDs in Patients with Psoriatic Arthritis	Cost (in AED)
12	Assessment of Immunization Status of Patients with Psoriatic Arthritis Prior to Initiation of tsDMARDs and Biologics	DDC list of Vaccinations
13	Laboratory and Imaging Tests for Assessment for Presence of Comorbid Conditions in Patients with Psoriatic Arthritis	Complete blood count/liver function test/renal function test/ECG/ECHO

Treatment of Psoriatic arthritis



Adapted and Modified From:

Consensus statements for evaluation and nonpharmacological Management of Psoriatic Arthritis in UAE - PubMed (nih.gov)

Consensus statements for pharmacological management, monitoring of therapies, and comorbidity management of psoriatic arthritis in the United Arab Emirates - PubMed (nih.gov)

Abbreviation: ASDAS: Ankylosing Spondylitis Disease Activity Score; CTLA-4Ig: cytotoxic T lymphocyte-associated antigen-4 immunoglobulin; DAPSA: Disease Activity index for PSoriatic Arthritis; DMARD: disease-modifying antirheumatic drug; GCC: glucocorticoids; IL-12/23i: interleukin-12/23 inhibitor; IL-17i: interleukin-17 inhibitor; IL-23i: interleukin-23 inhibitor; JAKi: Janus kinase inhibitor; MDA: minimal disease activity; MTX: methotrexate; NSAIDs, non-steroidal anti-inflammatory drugs; PsA: psoriatic arthritis; PASDAS: Psoriatic ArthritiS Disease Activity Score; PDE-4i: phosphodiesterase-4 inhibitor; PsARC: Psoriatic Arthritis Response Criteria; TNFi: Tumor necrosis factor inhibitor

Health Outcomes Indicators

Radiography/Ultrasonography/MRI for Diagnosis of Patients with Psoriatic Arthritis

Description Title	Radiography/Ultrasonography/MRI for Diagnosis of Patients with Psoriatic Arthritis (PsA)
Definition	Percentage of PsA patients diagnosed using radiography/ultrasonography/MRI during a measurement year
Numerator	Number of PsA patients diagnosed using radiography/ultrasonography/MRI during a measurement year
Denominator	Total number of patients of PsA in the measurement year
Range of measure	Once in a measurement year
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	Percentage (Numerator/Denominator x 100)
Measure Target and/or Threshold	Higher is better
Rationale	Conventional radiography has remained the standard method to diagnose psoriatic arthritis for several years. However, in recent years, ultrasonography and magnetic resonance imaging (MRI) has been considered as other imaging modalities for diagnosis of psoriatic arthritis. Ultrasonography and MRI have good sensitivities and specificities for detecting synovitis, however not helpful in diagnosis of axial psoriatic arthritis.

Conventional Synthetic Disease-modifying Antirheumatic Drugs (csDMARDs) in Treatment of Patients with Psoriatic Arthritis

Description Title	Conventional Synthetic Disease-modifying Antirheumatic Drugs (csDMARDs) in Treatment of Patients with Psoriatic Arthritis (PsA)
Definition	Percentage of PsA patients prescribed with csDMARDs (methotrexate, sulfasalazine, leflunomide) at least once during a measurement year
Numerator	Number of PsA patients prescribed with csDMARDs (methotrexate, sulfasalazine, leflunomide) at least once during a measurement year
Denominator	Total number of patients of PsA in the measurement year
Range of measure	NA
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	Percentage (Numerator/Denominator x 100)
Measure Target and/or Threshold	Higher is better
Rationale	Conventional DMARDs are indicated for the treatment of moderate-to-severe PsA and in patients who have failed to respond to short-term NSAID therapy. Monotherapy with methotrexate offers moderate improvement in joint and skin disease in patients with PsA. In patients with mild-to-moderate peripheral arthritis, use of sulfasalazine at a dose of 2–3 g/d may improve functional outcomes. Leflunomide monotherapy with a daily loading dose of 100 mg/d for 3 days, followed by 20 mg/d is effective in the management of patients with mild-to-moderate PsA.

Targeted Systemic Disease-modifying Antirheumatic Drugs (tsDMARDs) in the Treatment of Patients with Psoriatic Arthritis

Description Title	Targeted Systemic Disease-modifying Antirheumatic Drugs (tsDMARDs) in the Treatment of Patients Psoriatic Arthritis (PsA)
Definition	Percentage of PsA patients treated with tsDMARDs (phosphodiesterase-4 inhibitors/Janus kinase inhibitors) during the measurement year
Numerator	Number of PsA patients treated with tsDMARDs (phosphodiesterase-4 inhibitors/Janus kinase inhibitors) during the measurement year
Denominator	Total number of patients of PsA in the measurement year
Range of measure	NA
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	Percentage (Numerator/Denominator x 100)
Measure Target and/or Threshold	Higher is better
Rationale	Phosphodiesterase-4 inhibitor, apremilast and Janus kinase inhibitors, such as upadacitinib/tofacitinib are recommended in treatment of psoriatic arthritis patients who are intolerant to or with inadequate response to csDMARDs. Apremilast at a dose of 30 mg twice daily improves signs and symptoms and physical function in patients with active PsA. Tofacitinib should be administered after inadequate response or intolerance to at least 1 bDMARD, or in case bDMARDs are not considered appropriate (due to patient preference for oral therapy or adherence issues to injectable formulations)

Biologics in the Treatment of Patients with Psoriatic Arthritis

Description Title	Biologics in the Treatment of Patients with Psoriatic Arthritis (PsA)
Definition	Percentage of PsA patients treated with biologics (TNF inhibitors[etanercept, infliximab, adalimumab, golimumab, and certolizumab pegol]/IL-12/23 inhibitor[ustekinumab]/IL-17inhibitor[ixekizumab, secukinumab]/IL-23 inhibitor[guselkumab]/CTLA4-Ig[abatacept]) during the measurement year
Numerator	Number of PsA patients treated with biologics (TNF inhibitors [etanercept, infliximab, adalimumab, golimumab, and certolizumab pegol]/IL-12/23 inhibitor[ustekinumab]/IL-17inhibitor[ixekizumab, secukinumab]/IL-23 inhibitor[guselkumab]/CTLA4-Ig[abatacept]) during the measurement year
Denominator	Total number of patients of psoriatic arthritis in the measurement year
Range of measure	NA
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	Percentage (Numerator/Denominator x 100)
Measure Target and/or Threshold	Higher is better
Rationale	TNF inhibitors are recommended for use in PsA after inadequate response to at least 1 synthetic DMARD, although they may also be used as initial therapy.TNFi agents are recommended in peripheral arthritis and are also the first choice of therapy in enthesitis, dactylitis, and nail psoriasis. The IL-12/23 inhibitor and IL-23 inhibitors has been recommended alongside other biologics such as TNFi after DMARD therapy in patients with active PsA.

Assessment for Infections in Psoriatic Arthritis Patients Treated with Biologics

Description Title	Assessment for Infections in Psoriatic Arthritis Patients Prior to Initiation of Biologics
Definition	Percentage of PsA 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
Numerator	Percentage of PsA 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
Denominator	Total number of patients of psoriatic arthritis treated with biologics in the measurement year
Range of measure	At baseline and once in 3 months
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	Percentage (Numerator/Denominator x 100)
Measure Target and/or Threshold	Higher is better
Rationale	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 Psoriatic Arthritis Patients on Biologics

Description Title	Assessment of Complete Blood Count, Renal Function Test and Liver Function Tests in Psoriatic Arthritis Patients on Biologics
Definition	Percentage of PsA patients treated with biologics (TNF inhibitors/IL-12/23 inhibitor/IL-17inhibitor/IL-23 inhibitor) , in whom complete blood count, renal function test and liver function test was performed during the measurement year
Numerator	Number of PsA patients treated with biologics (TNF inhibitors/IL-12/23 inhibitor/IL-17inhibitor/IL-23 inhibitor) during the measurement year
Denominator	Total number of patients of psoriatic arthritis treated with biologics in the measurement year
Range of measure	Once in 3 months in a measurement year
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	Percentage (Numerator/Denominator x 100)
Measure Target and/or Threshold	Higher is better
Rationale	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 psoriatic arthritis who are initiated on biologics.

Health Operational Indicator

Referral of Psoriasis Patients for Rheumatology Consultation for assessment of Psoriatic Arthritis

Description Title	Referral of Psoriasis Patients for Rheumatology Consultation
Definition	Percentage of patients with psoriasis who were referred to rheumatologists for consultation, during the measurement year.
Numerator	Number of patients with psoriasis who were referred to rheumatologists for consultation, during the measurement year.
Denominator	Total number of psoriasis patients during the measurement year
Range of measure	Once in a year or as advised by the healthcare practitioner
Exclusion criteria	Atopic dermatitis, contact dermatitis, lichen planus, mycosis fungoides, tinea corporis
Data collection frequency	Monthly
Unit of measure	Percentage (Numerator/Denominator x 100)
Measure Target and/or Threshold	Higher is better
Rationale	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 Psoriatic Arthritis

Description Title	Avoidable Hospitalization in Patients with Psoriatic Arthritis
Definition	Percentage of patients with PsA who were hospitalized during the measurement year
Numerator	Number of patients with PsA who were hospitalized during the measurement year
Denominator	Total number of patients with PsA in the measurement year
Range of measure	NA
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	Percentage (Numerator/Denominator x 100)
Measure Target and/or Threshold	Lower is better
Rationale	Early diagnosis and effective therapy is crucial in patients with PsA to prevent progression to severe disease and to avoid hospitalization. Also, psoriatic arthritis 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 psoriatic arthritis.

Health Economic Indicator

Percentage Cost Decrease for Managing Patients with Psoriatic Arthritis

Description Title	Percentage Cost Decrease for Managing Patients with Psoriatic Arthritis
Definition	Percentage decrease in cost incurred (in AED) for managing patients with Psoriatic Arthritis during the measurement year when compared to previous year
Numerator	Difference of total cost (AED) incurred for managing patients with Psoriatic Arthritis in previous measurement year (A) from current measurement year (B)
Denominator	Total cost incurred for managing patients with Psoriatic Arthritis during the previous measurement year (A)
Range of measure	NA
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	A-B/A X 100
Measure Target and/or Threshold	Higher Percentage is better
Rationale	The disease and economic burden of psoriatic arthritis 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 and tsDMARDs (PDE4 and JAKs) in Patients with Psoriatic Arthritis

Description Title	Average of Cost of Biologics and tsDMARDs in Treatment of Patients with Psoriatic Arthritis
Definition	Average costs incurred (in AED) for biologics and tsDMARDS in management of patients with psoriatic arthritis during the measurement year
Numerator	Total costs incurred for biologics and tsDMARDS in management of patients with psoriatic arthritis during the measurement year
Denominator	Total number of patients diagnosed with psoriatic arthritis in the measurement year
Range of measure	NA
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	Average (Numerator/Denominator)
Measure Target and/or Threshold	Lower is better
Rationale	psoriatic arthritis 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 Psoriatic Arthritis Prior to Initiation of tsDMARDs and Biologics

Description Title	Vaccination of Patients with Psoriatic arthritis on biologics
Definition	Percentage of patients with PsA who were vaccinated with pertussis/inactivated influenza/pneumococcal/HBV vaccine prior to initiation of tsDMARDs and Biologics
Numerator	Number of patients with PsA who were vaccinated with pertussis/inactivated influenza/HBV vaccine prior to initiation of tsDMARDs and Biologics
Denominator	Total number of PsA patients in the measurement year
Range of measure	Once per year
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	Percentage (Numerator/Denominator x 100)
Measure Target and/or Threshold	Higher is better
Rationale	Immunization status of the psoriatic arthritis patient should be assessed prior to initiation of systemic therapies including the tsDMARDs and the 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 for Presence of Comorbid Conditions in Patients with Psoriatic Arthritis

Description Title	Assessment for Presence of Comorbid Conditions in Patients with Psoriatic Arthritis
Definition	Percentage of patients with PsA 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)
Numerator	Number of patients with PsA 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)
Denominator	Total number of patients with PsA in the measurement year
Range of measure	Once per year
Exclusion criteria	Rheumatoid arthritis, reactive arthritis, ankylosing spondylosis
Data collection frequency	Monthly
Unit of measure	Percentage (Numerator/Denominator x 100)
Measure Target and/or Threshold	Higher is better
Rationale	Several comorbid conditions including diabetes mellitus, hypertension, cardiovascular disease, hypercholesterolemia, renal function test, liver function test are common in patients with psoriatic arthritis. Early identification of these comorbidities is crucial for optimal management.

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