

The importance of clear skin for patients with psoriatic disease

EHR Instruction Set for Epic®



Inspired by **patients.**
Driven by **science.**

EHR=electronic health record.

Table of Contents

Overview

3

The Impact of Psoriasis

4

The Impact of PsA

5

Psoriasis Treatment Goals

6

Importance of Clear Skin

7

Using the EHR

8

Instructions

9



OVERVIEW

This document is intended to guide healthcare providers in generating lists of patients with psoriasis who have unmet treatment goals and may benefit from a reevaluation of therapy.

These instructions are specific to the Epic® EHR system and are not appropriate for other conditions, treatments, or therapeutic areas or for other EHR systems. This document is not intended to provide any clinical advice or clinical recommendations, which are solely the responsibility of the health system. The naming conventions of criteria, display columns, and detailed views may vary.

Consider searching with alternative terminology to identify comparable criteria, columns, and views.

The processes outlined in this document are variable, and not all steps will apply to every health system. Any steps or settings that are not part of a health system's standard process should be excluded or modified accordingly. Questions should be directed to the appropriate service provider. The health system is solely responsible for implementing, testing, monitoring, and the ongoing operation of any EHR tools.

EHR=electronic health record.

The Impact of Psoriasis

Psoriasis is an immune-mediated inflammatory disease that impacts millions of people^{1,2}



PSORIASIS AFFECTS

~41 million people worldwide

>7.5 million adults in the US

Patients with psoriasis experience significant burdens and impaired QoL³⁻⁸

<p>Physical Burden</p> <ul style="list-style-type: none"> • Itching, burning, or stinging plaques • Dry, cracked skin 	<p>Psychosocial Burden</p> <ul style="list-style-type: none"> • Impaired mental health • Depression • Anxiety 	<p>Poor QoL</p> <ul style="list-style-type: none"> • Impaired ability to work • Low satisfaction with life • Stigmatization
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Patients with psoriasis are at a greater risk of developing a range of other health conditions⁹

<p>Metabolic</p> <ul style="list-style-type: none"> • Hypertension • Hyperlipidemia • Diabetes • Obesity 	<p>Cardiovascular</p> <ul style="list-style-type: none"> • Coronary heart disease • Cerebrovascular disease • Peripheral vascular disease 	<p>Autoimmune</p> <ul style="list-style-type: none"> • Multiple sclerosis • Crohn's disease or ulcerative colitis • Rheumatoid arthritis 	<p>Cancer</p> <ul style="list-style-type: none"> • Lymphoma • Skin cancer
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PsA=psoriatic arthritis; QoL=quality of life.

Psoriasis is associated with a significant financial burden^{10,11}

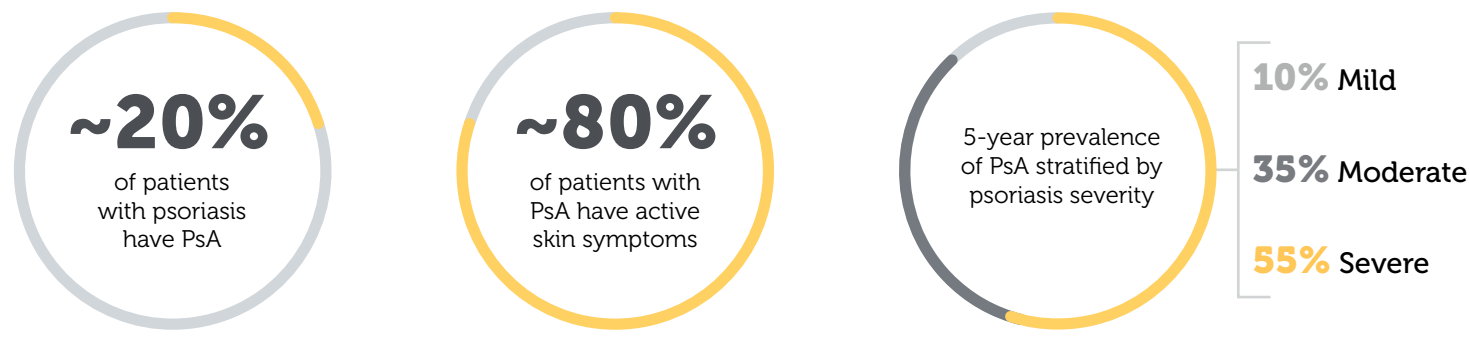
<p>HEALTHCARE COSTS*</p> <p>\$3,494 higher all-cause healthcare costs in patients with psoriasis compared with controls at 1 year</p> <p>\$5,727 higher annual drug costs in patients with psoriasis compared with controls at 1 year</p>	<p>WORK PRODUCTIVITY COSTS</p> <p>Average annual indirect cost due to loss of productivity</p> <table border="1"> <thead> <tr> <th>PSORIASIS SEVERITY</th> <th>Average annual indirect cost due to loss of productivity</th> </tr> </thead> <tbody> <tr> <td>MILD</td> <td>\$3,592</td> </tr> <tr> <td>MODERATE</td> <td>\$7,478</td> </tr> <tr> <td>SEVERE</td> <td>\$12,194</td> </tr> </tbody> </table>	PSORIASIS SEVERITY	Average annual indirect cost due to loss of productivity	MILD	\$3,592	MODERATE	\$7,478	SEVERE	\$12,194
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*Data from an analysis of the IBM MarketScan Commercial Database from January 1, 2009, to April 30, 2020. Patients with no psoriasis or PsA diagnoses in their entire claims records were selected as the control group; controls were matched 1:1 to psoriasis and PsA patients based on age, gender, and comorbidities.¹⁰



The Impact of PsA

The risk of developing PsA increases with disease severity in patients with psoriasis¹²⁻¹⁴



PsA affects many aspects of patients' lives^{7,15-17}

Physical Burden <ul style="list-style-type: none"> Joint pain and swelling Stiffness Fatigue 	Psychosocial Burden <ul style="list-style-type: none"> Impaired mental health Depression Anxiety 	Poor QoL <ul style="list-style-type: none"> Impaired ability to work Limited physical activity Social shame
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Patients with PsA commonly face associated health conditions¹⁸

Metabolic <ul style="list-style-type: none"> Hypertension Hyperlipidemia Diabetes Obesity 	Cardiovascular <ul style="list-style-type: none"> Coronary heart disease Cerebrovascular disease Peripheral vascular disease 	Autoimmune <ul style="list-style-type: none"> Multiple sclerosis Crohn's disease Ulcerative colitis Ankylosing spondylitis Rheumatoid arthritis
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PsA=psoriatic arthritis; QoL=quality of life; USD=US dollars.

Patients with PsA may experience significant financial strain^{7,10}

HEALTHCARE COSTS* \$20,733 higher all-cause healthcare costs in patients with PsA compared with controls at 1 year \$44,712 higher annual drug costs in patients with PsA compared with controls at 1 year	WORK PRODUCTIVITY COSTS <table border="1"> <thead> <tr> <th>Category</th> <th>CONTROL (USD)</th> <th>PsA (USD)</th> </tr> </thead> <tbody> <tr> <td>NONRECREATIONAL WORK ABSENCE</td> <td>\$1,217</td> <td>\$1,681</td> </tr> <tr> <td>SICK LEAVE</td> <td>\$682</td> <td>\$974</td> </tr> <tr> <td>SHORT-TERM DISABILITY</td> <td>\$335</td> <td>\$605</td> </tr> </tbody> </table>	Category	CONTROL (USD)	PsA (USD)	NONRECREATIONAL WORK ABSENCE	\$1,217	\$1,681	SICK LEAVE	\$682	\$974	SHORT-TERM DISABILITY	\$335	\$605
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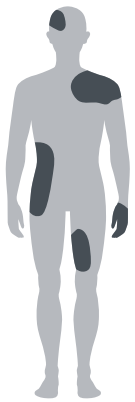
Psoriasis Treatment Goals

The National Psoriasis Foundation (NPF) treatment goals for patients with psoriasis are based on skin clearance^{19,*}



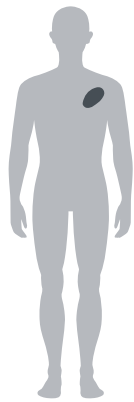
If an acceptable response to treatment is not reached by 3 months, or the target response by 6 months, the NPF recommends modifying treatment

Treatment
Initiation
Baseline



RESULT

Target
Response
BSA $\leq 1\%$



Continue
treatment

Acceptable Response
BSA $\leq 3\%$ or $\geq 75\%$
improvement from baseline



If target response is not
met after an additional 3
months, modify treatment

Inadequate Response
BSA $> 3\%$ and $< 75\%$
improvement from baseline

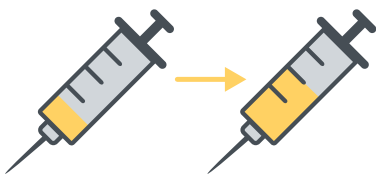


Modify treatment

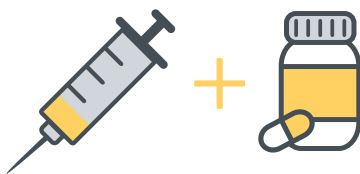
A target response of BSA $\leq 1\%$ should be achieved during **maintenance therapy**, with treatment reevaluated every **6 months**

If the target response (BSA $\leq 1\%$) is not reached with the current treatment approach, the NPF provides several options for modifying treatment¹⁹

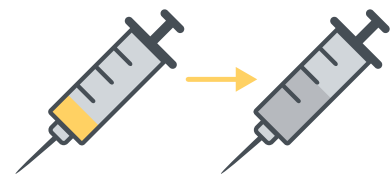
ESCALATING THE
TREATMENT



INITIATING A
COMBINATION THERAPY



SWITCHING
TREATMENTS



*Complete skin clearance was defined as either achieving PASI 100 or PhGA 0.¹⁹
BSA=body surface area; PASI 100=100% reduction in the Psoriasis Area and Severity Index; PhGA=Physician Global Assessment

Importance of Clear Skin



Patients with completely clear skin report significantly better outcomes than patients with almost clear skin^{14,20,21}

Of patients with plaque psoriasis who have complete skin clearance (PhGA=0)

91% report no impairment of their HRQoL*

Of patients with plaque psoriasis who have almost complete skin clearance (PhGA=1)

48% report no impairment of their HRQoL*



If patients with PsA have active skin symptoms, they are more likely to have

Higher levels of stiffness, fatigue, and pain

More flares, symptoms, and comorbidities

Treatments for psoriasis are not achieving clear skin^{4,22}

Of patients being treated for moderate-to-severe plaque psoriasis (N=8,338)[†]



57%

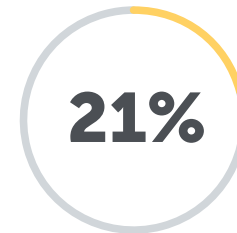
did not achieve self-assessed clear to almost clear skin

In a survey study of patients with psoriasis treated with biologics (N=192) and physicians (N=70)[‡]



32%

of patients reported dissatisfaction with biologic therapy



21%

of physicians reported dissatisfaction with biologic therapy outcomes in their patients

KEY TAKEAWAYS

- 1** Patients with psoriatic diseases experience significant physical, psychosocial, and financial burdens^{4-6,10,15,16}
- 2** Although most patients do not achieve complete skin clearance, reaching this treatment goal can significantly improve patient outcomes^{4,14,20,21}
- 3** HCPs may want to proactively identify patients whose treatment goals are not being met and initiate timely reevaluation of therapy¹⁹

*Prospective, observational, noninterventional, cross-sectional study of US patients receiving a biologic agent for the treatment of moderate-to-severe plaque psoriasis (N=230).²⁰

[†]Global self-reported survey of patients with moderate-to-severe psoriasis (N=8,338).⁴

[‡]Cross-sectional, real-world survey of patients with psoriasis and their physicians in the US and 5 European countries. Only US data and n values are shown here.²²

HCP=healthcare professional; HRQoL=health-related quality of life; PhGA=Physician Global Assessment; PsA=psoriatic arthritis.

Using the EHR

Considerations and Criteria

Patient lists in the EHR systems can be leveraged to identify patients with psoriasis whose treatment goals are not being met and may need a reevaluation of therapy. A patient list is created by entering patient clinical criteria and is processed using one of the reporting solutions offered by Epic. The clinical data elements below are only suggestions; it is strongly recommended that the appropriate population health decision-maker or clinical leader ensures that the final elements align with the expectations and goals of the organization.

An analysis of patients from a psoriasis registry found specific features associated with switching therapies.

- Worsening BSA, increasing from mild (10%)
- Moderate (3%-10%) or severe (>10%) BSA at their most recent prior visit
- NBSM added to psoriasis treatment regimen within last 6 months
- Comorbid PsA
- Higher reported DLQI*
- Fatigue

SUGGESTED INCLUSION CRITERIA

Diagnosis

- Psoriasis: *ICD-10* code L40 (Note: The *ICD-10* code for PsA (L40.5) falls within the broader L40 code range used for psoriasis)

Medications

- Biologics (may be categorized as “antipsoriatic agents, systemic”)

Clinical assessment

- BSA > X (e.g., 3%)
- PGA < Y (e.g., 20)

Display Information

- Age
- DLQI (if available in the EHR)
- Medications
- NBSM

*For every unit increase in the DLQI metric, which ranges from 0-30, the risk of switching increases. DLQI scores of 6 or greater are considered moderate to severe (6-10, moderate effect on patient’s life; 11-20, very large effect on patient’s life; 21-30, extremely large effect on patient’s life).

BSA=body surface area; DLQI=Dermatology Life Quality Index; EHR=electronic health record; ICD=International Classification of Diseases; NBSM=nonbiologic systemic medication; PGA=Patient Global Assessment; PsA=psoriatic arthritis.

Instructions

Epic users may have access to 2 reporting solutions—Reporting Workbench and SlicerDicer—to create patient lists. Steps for both options are included.

Option 1: Reporting Workbench

1. Access Reporting Workbench (click the Epic logo > Reports > My Reports)
2. Navigate to Library tab from the Reports menu
3. Enter “generic criteria” in the search field and click Search
4. Select the Find My Patients – Generic Criteria report and click New Report to share the report with other users
5. Enter a unique Name and Description (e.g., “Psoriasis Patients With Biologics Experience”). The results can be exported to Excel if desired: Right-click the bar with the patient results and select Show Slice in Reporting Workbench
6. The Report Settings window will display. Click the Criteria tab in the toolbar
7. Enter “diagnosis” in the Find Criteria field
8. Select the Diagnosis by Code criterion and enter the *ICD-10* code “L40.” Set the Code Set field to *ICD-10-CM*
9. Enter “medications” in the Find Criteria field
10. Select the Meds: Current, by pharm. class
11. Enter and select the antipsoriatic agents, systemic pharmaceutical class
12. Enter “SmartData” in the Find Criteria field
13. Select the SmartData criterion
14. Enter and select the BSA and PGA results, and set the desired results range
Note: The BSA and PGA results may be documented in a SmartForm (use the SmartData criterion) or a Flowsheet (use the Flowsheet criterion). The BSA may also be documented in the BSA field (use the Last BSA criterion)
15. Confirm the Report Logic between the criteria is set to AND
16. Select the Display tab. Search for any desired display columns in the Available Columns window, and click the right arrow to move each column to the Selected Columns window (or drag the column)
17. In the Detailed Views section of the Display tab, enter “meds” in the Detailed View row and select the Current Medications view (this may be found under AMB Reporting Workbench Current Meds) from the Available Columns window to the Selected Columns window). Select all desired display columns (e.g., patient name; age; MRN; medications; DLQI, if available)
18. Select the General tab and complete all report details. The report may be saved with a unique name (e.g., “Psoriasis Patients With Biologics Experience”)
19. Click Run to execute the report. The list displays all patients matching the criteria and can be further refined by selecting the radio button next to the desired filter criteria and adjusting the result filter as desired. Select a patient in the patient results and click Current Medications and Upcoming/Recent Visits below the patient list
20. Export the data for further processing

Instructions CONTINUED

Option 2: SlicerDicer

1. Access SlicerDicer (click the Epic logo > Reports > SlicerDicer)
2. Select the Patients data model (the number in the data model box represents the base population and number of records in the data model)
3. In the right-hand column, select the desired patient base (e.g., All Patients)
Note: First-time users of SlicerDicer may see a tutorial prompt. Complete the tutorial and continue with the steps below.
4. In the Search for Criteria field, enter "diagnosis." Alternatively, the + Browse button can be used. When using the + Browse button, a new screen will display where the filter criterion and inclusion/exclusion status can be selected
5. Select the Diagnosis criteria
6. Set the mode to ICD/Grouper and enter the ICD-10 code "L40"
7. In the Search for Criteria field, enter and select "medication"
8. Enter the topical, anti-inflammatory, steroidal pharmaceutical class
9. In the Search for Criteria field, enter and select "SmartData"
10. Enter and select the BSA and PGA results and set the desired results range
Note: The BSA and PGA results may be documented in a SmartForm (use the SmartData criterion) or a Flowsheet (use the Flowsheet criterion). The BSA may also be documented in the BSA field (use the Last BSA criterion)
11. Confirm the Report Logic between the criteria is set to AND
12. Click Save As to save the session. Click the last icon with the detail table in the Visual Option section to see the query results. Refine the results as desired

13. Hover over a column line and click the green plus sign to add display columns. Select all desired display columns (e.g., patient name; age; MRN; medications; DLQI, if available)
14. Select the Share button in the menu toolbar to share the report with other users
15. Enter a unique Name and Description (e.g., "Psoriasis Patients With Biologics Experience"). The results can be exported to Excel if desired: Right-click the bar with the patient results and select Show Slice in Reporting Workbench

Additional Patient List Actions

After the patient list is compiled, the results may be further stratified. Based on patient profiles, different actions can be developed for each cohort:

- Patients can receive a notification and request to be seen for further evaluation. Consider using bulk outreach in Reporting Workbench. Depending on the patient's communication preference, an appointment invite can be forwarded via MyChart, a letter, or a text message. Patients who prefer not to receive communications are excluded from this outreach option
- A bulk or individual task and/or action can be created. For example, if patients don't have a recent PGA result on file, a request to complete a new PGA during the next patient encounter can be created
- Consider adding filters or refining the filters to narrow down the results to a manageable number of patients. Filters to consider include adjusting the date range and the dates of the last and next scheduled appointments



The customer (e.g., physician, medical group, integrated delivery network) shall be solely responsible for implementation, testing, and monitoring of the instructions to ensure proper orientation in each customer's EHR system.

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EHR=electronic health record.

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