Specialty Pharmacy Care and Cost Management Strategies for

PSORIATIC DISEASE THERAPIES

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MEDICAL EDUCATION RESOURCES

This activity is supported by independent educational grants from Celgene Corporation, Lilly USA, Inc. and Novartis Pharmaceuticals.

SPECIALTY PHARMACY 2019 summit

Learning Objectives

- Explain the pathophysiology and immunologic pathways of psoriatic disease
- Align psoriatic disease specialty drug treatment algorithms with evidence-based treatment recommendations
- Utilize care pathways as cost management and appropriate use tools in psoriatic disease
- Employ specialty pharmacy and disease management services for psoriatic disease patients

Current Evidence-Based Recommendations for the Treatment of Psoriasis

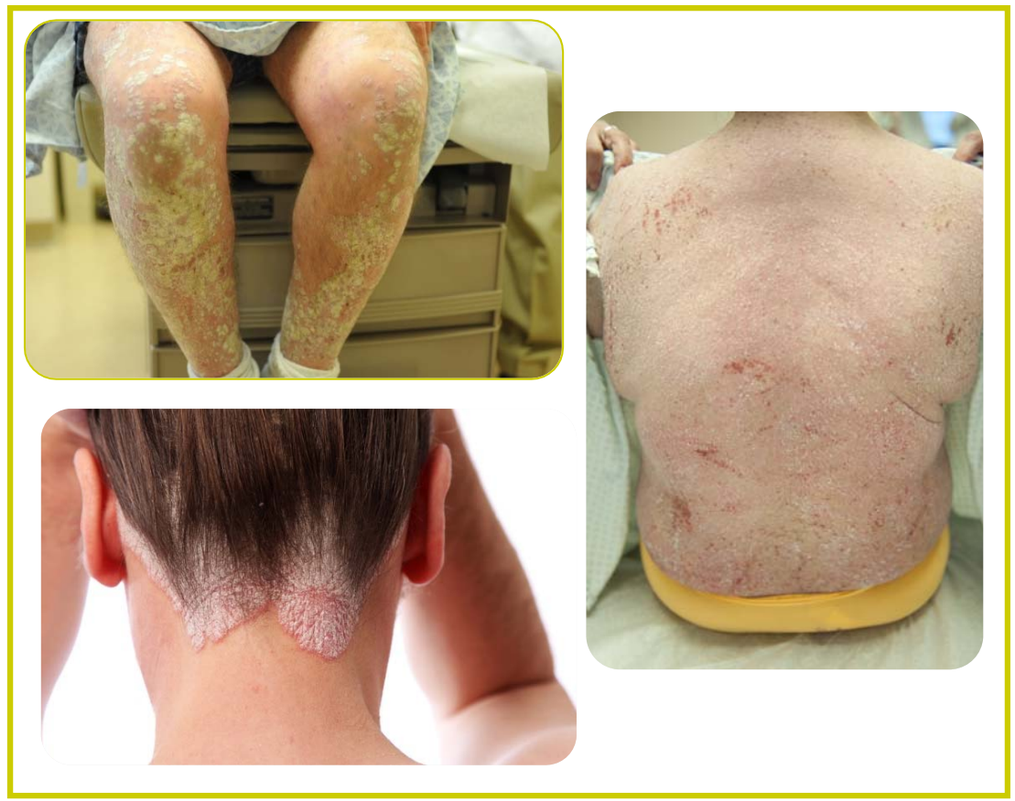
Alan Menter, MD
Chief, Division of Dermatology
Baylor University Medical Center

Learning Objective

- Align psoriasis therapy with evidence-based treatment recommendations
- Understand the systemic nature of psoriasis with multiple associated comorbid conditions

Chronic Plaque Psoriasis: A Multisystem Inflammatory Disease

- Chronic relapsing immune-mediated inflammatory disease
- Affects 2-3% of the US population
- Affects multiple areas of the body
- Up to 30% of patients with psoriasis develop psoriatic arthritis, usually 10-15 years after onset of psoriasis
- Accompanied by significant clinical, social, emotional, and economic burden
- Multiple associated comorbidities

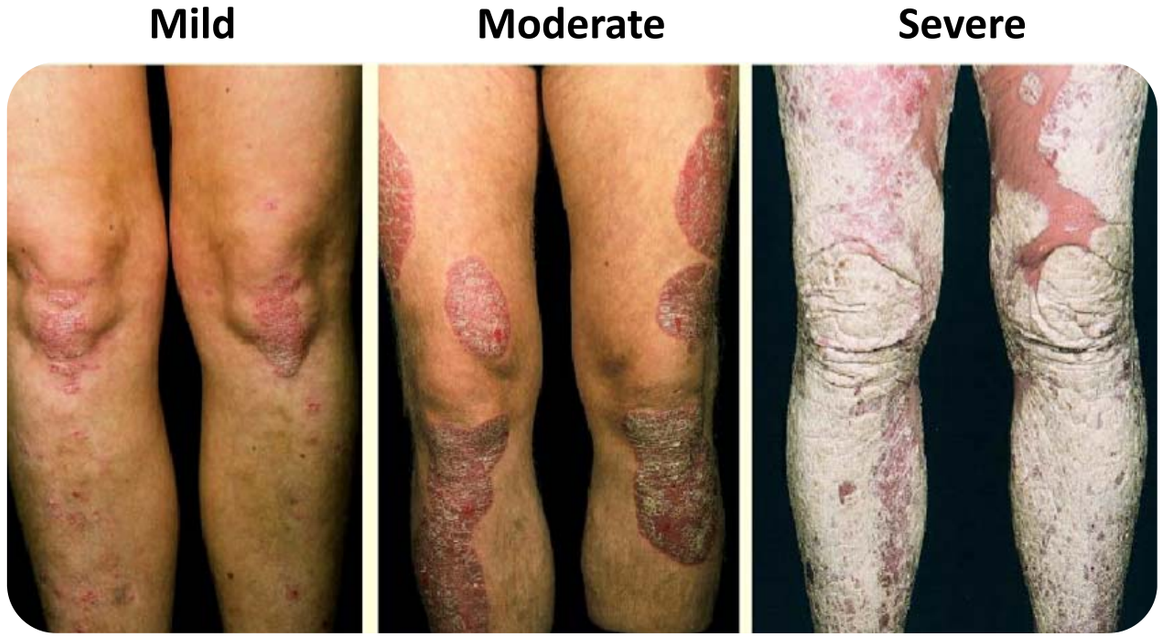


Psoriasis Fact Sheet. National Psoriasis Foundation website. https://www.psoriasis.org/sites/default/files/publications/PsoriasisFactSheet.pdf. Accessed March 2019.

Plaque Psoriasis is the Most Common of the Five Recognized Clinical Variants

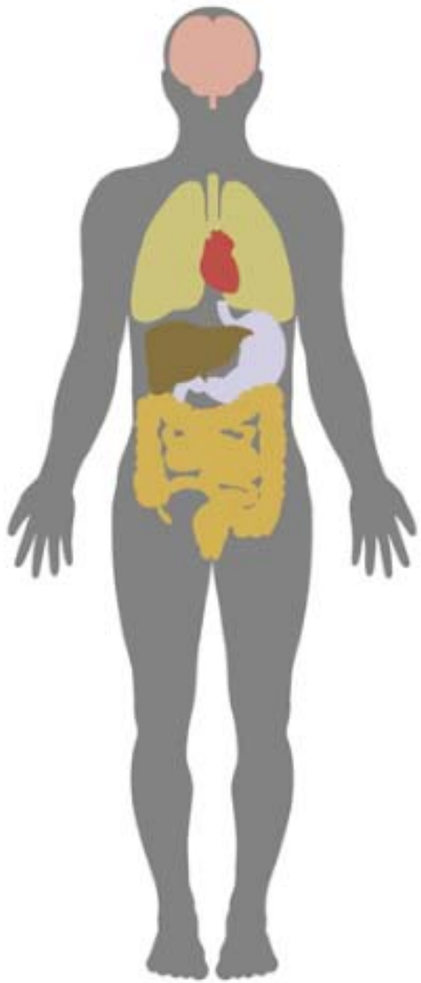
- **Plaque:** scaly, erythematous patches, papules, and plaques that are frequently pruritic; affects ~80% of patients
- **Inverse/flexural:** lesions are located in the skin folds
- **Guttate:** small papules (< 1cm) with fine scale
- **Erythrodermic:** erythema covering nearly the entire body surface area with varying degrees of scaling
- **Pustular:** clinically apparent pustules

Severity of Plaque Psoriasis



Psoriasis Fact Sheet. National Psoriasis Foundation website. https://www.psoriasis.org/sites/default/files/publications/PsoriasisFactSheet.pdf. Accessed March 2019.

Individuals with Psoriasis are At Risk of Developing Other Chronic Comorbid Conditions



Depression/Anxiety	↑ risk of poor self-esteem, psychological stress, and anxiety due to their psoriasis
Cardiovascular Disease	39% ↑ risk of CV mortality 70% ↑ risk of MI 56% ↑ risk of MI
Obesity	346% ↑ risk (mild psoriasis) 123% ↑ risk (severe)
Metabolic Syndrome	22% ↑ risk (mild) 98% ↑ risk (severe)
Diabetes	14% ↑ risk (mild) 46% ↑ risk (severe)
Psoriatic Arthritis	↑30 % of patients 10-15 years after onset of psoriasis

Elmets CA, Leonardi CL, Davis DMR, et al. *J Am Acad Dermatol*. 2019;80(4):1073-1113.
Ni C, Chiu MW. *Clin Cosmetic Invest Dermatol*. 2014;7:119-32.

Assessing Psoriasis Severity

Assessments

- Percentage of skin area involved
- Lesion characteristics including erythema, scaling, induration
- Location/distribution of lesions (eg, hands, feet, face, genitals)
- Impact on psychological factors and quality of life

Body Surface Area (BSA)

Psoriasis Area and Severity Index (PASI)

Dermatology Life Quality Index (DLQI)
Itch Severity Score (ISS)

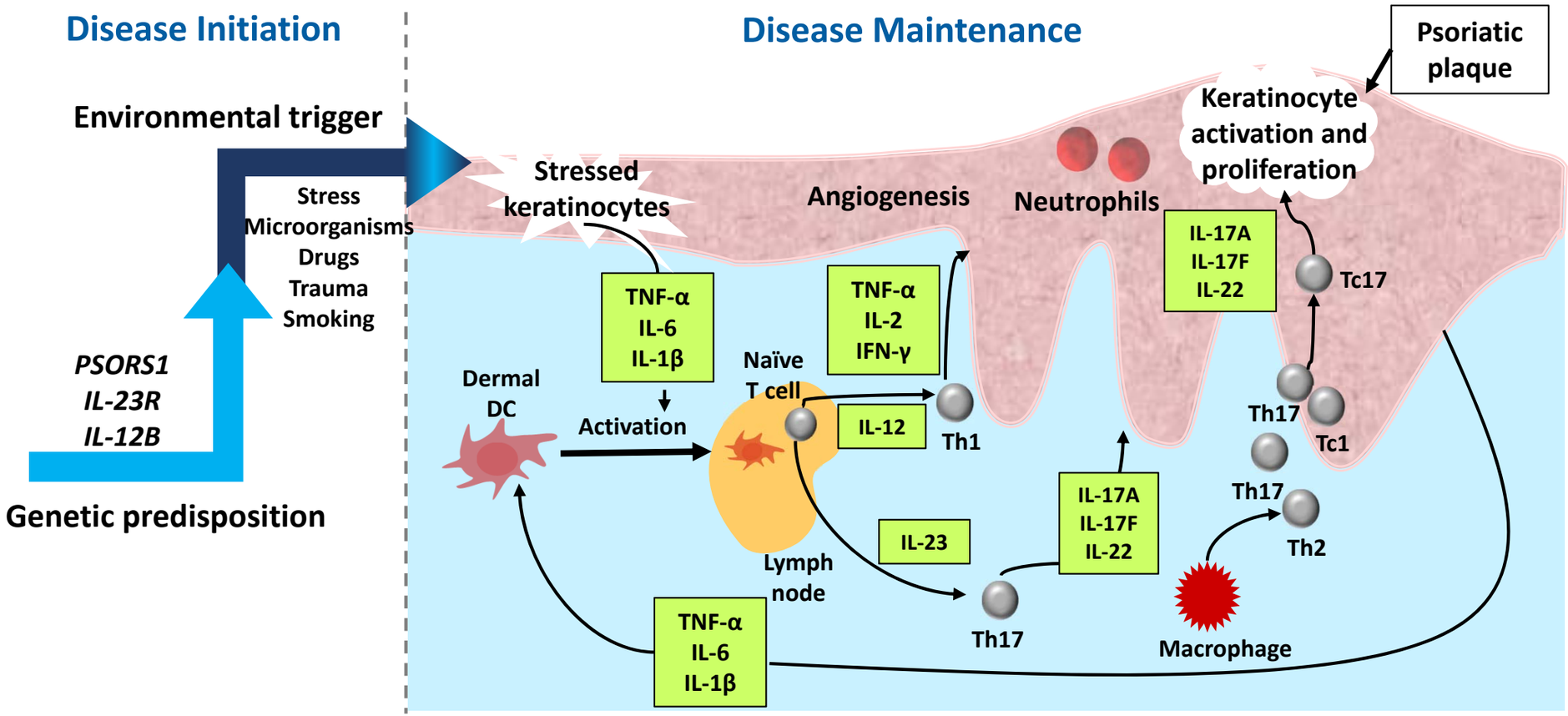
Classification of Severity

Mild disease: < 3% BSA
Moderate disease: 3%–10% BSA
Severe disease: >10% BSA

Mild-to-moderate disease:
BSA ≤ 10 and PASI ≤ 10 and DLQI ≤ 10
Moderate-to-severe disease:
(BSA >10 or PASI >10) and DLQI >10

Armstrong AW, Robertson AD, Wu J, Schupp C, Lebwohl MG. *JAMA Dermatol*. 2013;149(10):1180-5.; Menter A, Gottlieb A, Feldman SR, et al. *J Am Acad Dermatol*. 2008;58(5):826-50.; Spuls PI, Lecluse LL, Poulsen ML, Bos JD, Stern RS, Nijsten T. *J Invest Dermatol*. 2010;130(4):933-43.; Both H, Essink-bot ML, Busschbach J, Nijsten T. *J Invest Dermatol*. 2007;127(12):2726-39.; Mrowietz U, Kragballe K, Reich K, et al. *Arch Dermatol Res*. 2011;303(1):1-10.; Majeski CJ, Johnson JA, Davison SN, Lauzon CJ. *Br J Dermatol*. 2007;156(4):667-73.

Immunopathogenesis of Chronic Plaque Psoriasis



DC=dendritic cell; PSORS1=psoriasis susceptibiity 1; IL=interleukin; TNF=tumor necrosis factor.

Gaspari AA, Tyring S. *Dermatol Ther*. 2015;28(4):179-93.; Nestle FO, Kaplan DH, Barker J. *N Engl J Med*. 2009;361(5):496-509.

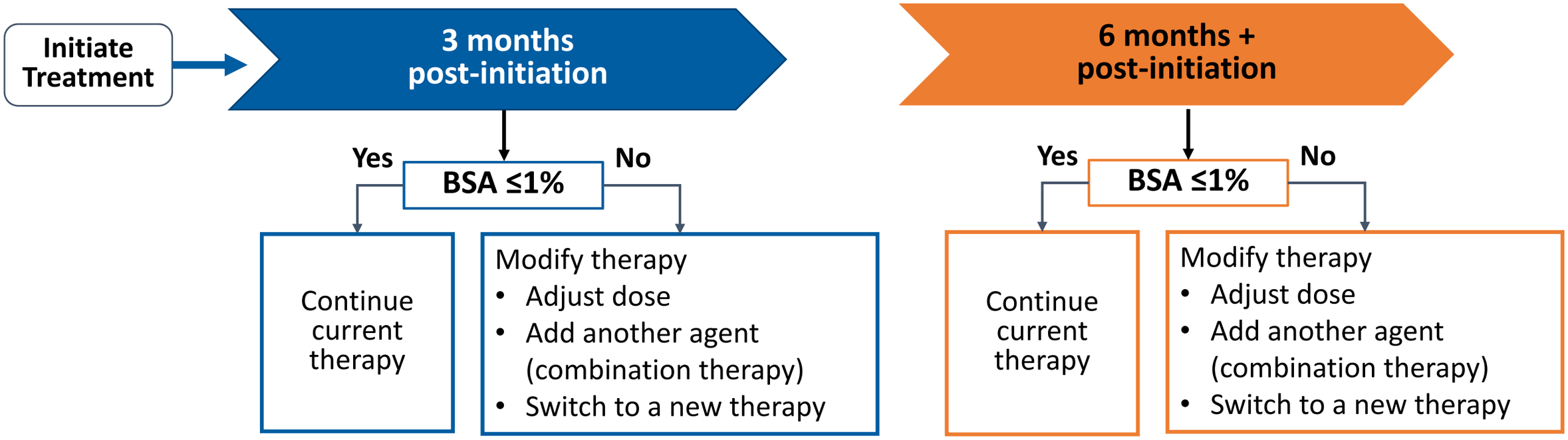
Therapeutic Agents Target Important Steps in the Pathophysiology of Psoriasis

- Several classes of biologic agents are available to target important steps in the pathophysiology of moderate-to-severe psoriasis
  - Anti-TNF-α
  - Anti-IL-12/23
  - Anti-IL-17
  - Anti-IL-23
  - PDE-4
- However, current data does not fully elucidate their ideal use, including
  - Matching patients with the most appropriate treatment
  - Ideal combinations and sequencing of agents

Menter A, et al. *J Am Acad Dermatol*. 2019;80:1029-1072; Tonini A, Gualtieri B, Panduri S, Romanelli M, Chiricozzi A. *Expert Opin Biol Ther*. 2018;18(2):135-148.

Treatment Approach: Treat-to-Target

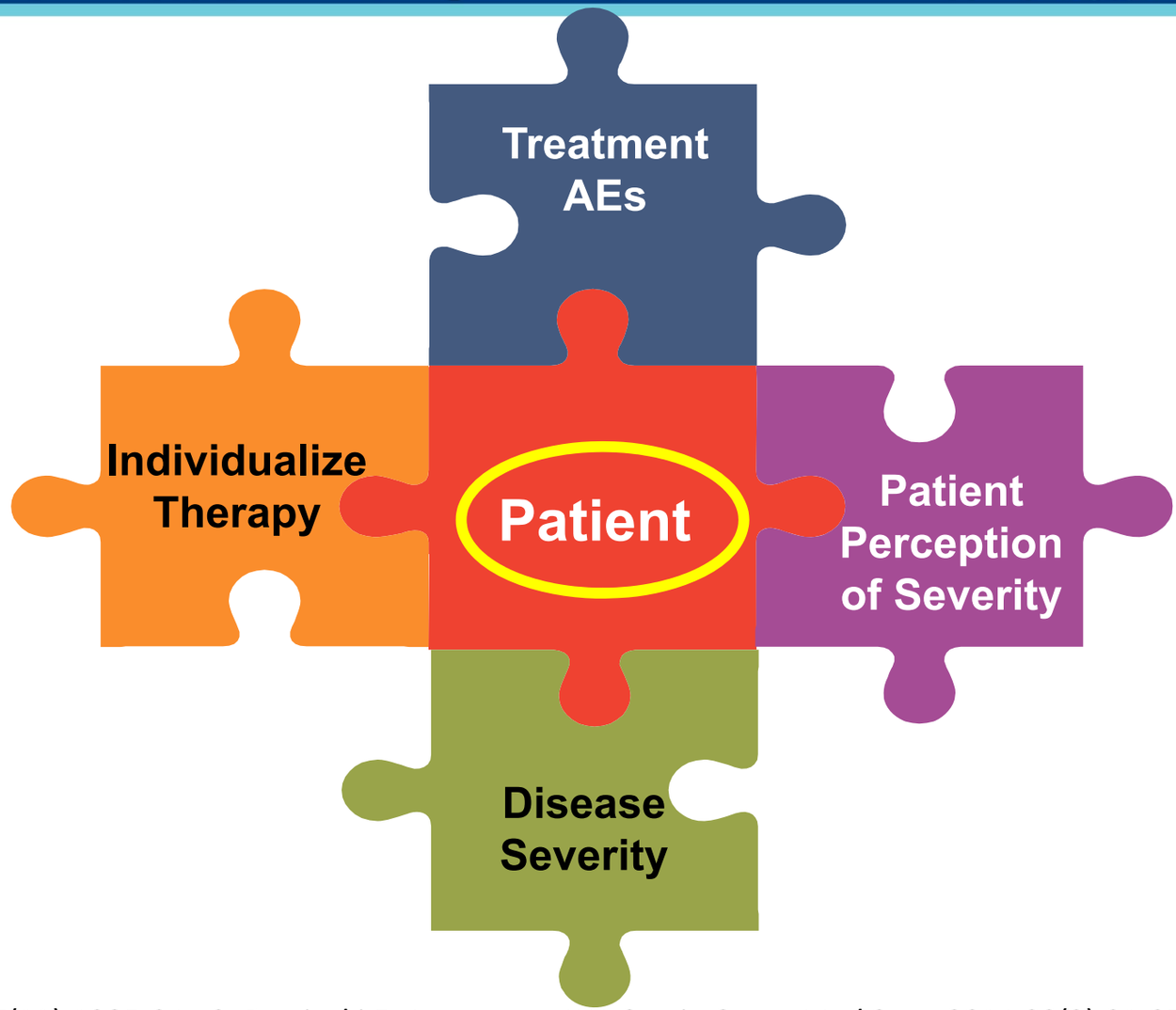
National Psoriasis Foundation Consensus Target Response:
Reduce BSA to ≤1% three months after initiating treatment



Armstrong AW, Siegel MP, Bagel J, et al. *J Am Acad Dermatol*. 2017;76(2):290-298.

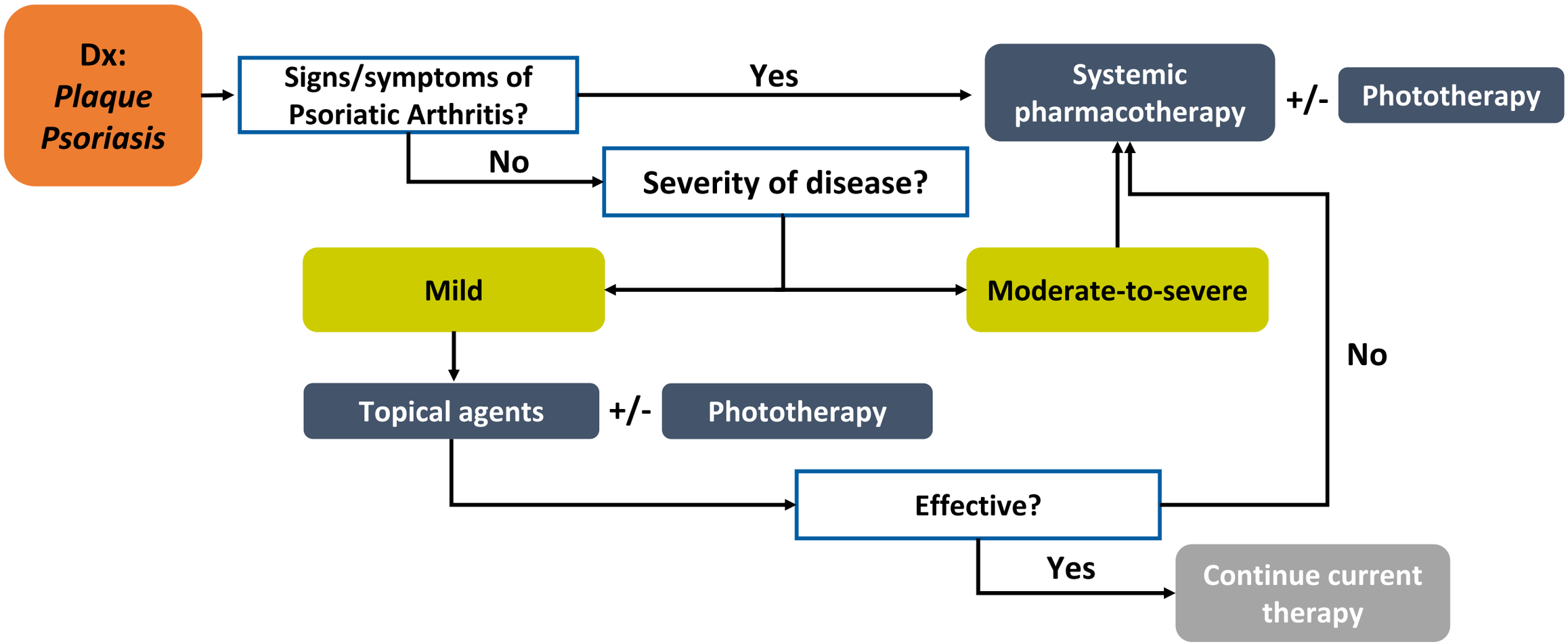
Treatment of Psoriasis: Establish Individualized Treatment Goals

- Treatment goals[1]
  - Clear the skin
  - Minimize adverse events
  - Enhance patient quality of life
  - Address comorbidities
- Involve the patient in treatment decision making[1,2]
  - Consider patient preferences when selecting therapy



1. Schaarschmidt ML, Schmieder A, Umar N, et al. *Arch Dermatol*. 2011;147(11):1285-94.; 2. Brezinski E, Armstrong AW. *Semin Cutan Med Surg*. 2014;33(2):91-97.

Use Disease Severity to Guide Treatment Selection



Menter A, Gottlieb A, Feldman SR, et al. *J Am Acad Dermatol*. 2008;58(5):826-50.; Menter A, Korman NJ, Elmets CA, et al. *J Am Acad Dermatol*. 2009;60(4):643-59.; Menter A, Korman NJ, Elmets CA, et al. *J Am Acad Dermatol*. 2010;62(1):114-35.

Biologics and Small Molecules Approved for the Treatment of Moderate-to-Severe Psoriasis

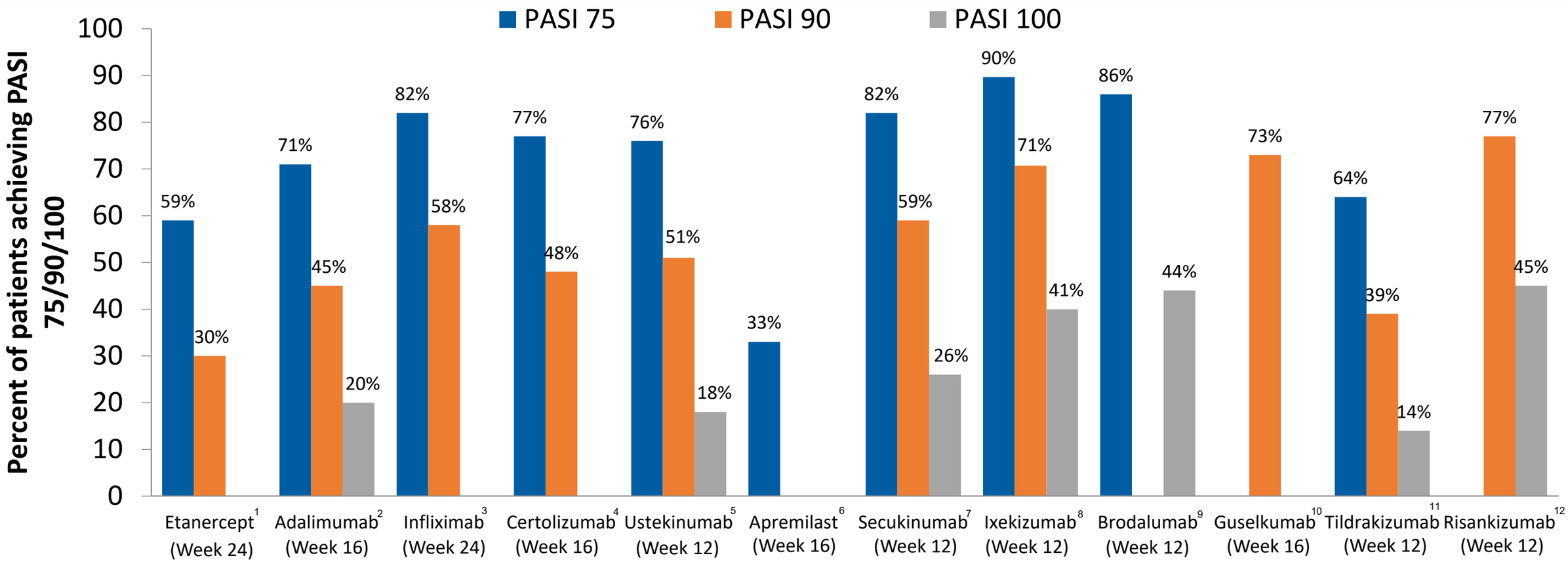
Therapeutic Target

TNF-α	IL-12/23	IL-17A Receptor	IL-17A	IL-23	PDE-4
Adalimumab	Ustekinumab	Brodalumab	Secukinumab	Guselkumab	Apremilast
Certolizumab Pegol			Ixekizumab	Tildrakizumab	
Etanercept				Risankizumab	
Golimumab					
Infliximab					
Biosimilars					

TNF=tumor necrosis factor; IL=interleukin; PDE-4=phosphodiesterase

Menter A, Strober BE, Kaplan DH, et al. J Am Acad Dermatol. 2019;80(4):1029-1072.
Treatment Comparison. National Psoriasis Foundation website. https://www.psoriasis.org/sites/default/files/treatment_comparison_chart_2018.pdf. Accessed March 2019.

Biologics Approved for Moderate-to Severe Plaque Psoriasis: PASI 75, 90, and 100 Scores



1. Leonardi CL, Powers JL, Matheson RT, et al. *N Engl J Med*. 2003;349(21):2014-22.; 2. Menter A, Tyring SK, Gordon K, et al. *J Am Acad Dermatol*. 2008;58(1):106-15.; 3. Reich K, Nestle FO, Papp K, et al. *Lancet*. 2005;366(9494):1367-74.; 4. Cimzia (certolizumab pegol) [prescribing information]. Smyrna, GA: UCB, Inc; 2018; 5. Papp KA, Langley RG, Lebwohl M, et al. *Lancet*. 2008;371(9625):1675-84.; 6. Otezla (apremilast) [prescribing information]. Summit, NJ: Celgene Corp; 2014; 7. Langley RG, Elewski BE, Lebwohl M, et al. *N Engl J Med*. 2014;371(4):326-38.; 8. Taltz (ixekizumab) [prescribing information]. Indianapolis, IN: Eli Lilly and Co; 2016; 9. Siliq (brodalumab) [prescribing information]. Bridgewater, NJ: Valeant Pharmaceuticals NA, LLC; 2017; 10. Tremfya (guselkumab) [prescribing information]. Horsham, PA: Janssen Biotech, Inc; 2019; 11. Ilumya (tildrakizumab) [prescribing information]. Cranberry, NJ: Sun Pharma; 2018; 12. Papp KA, Blauvelt A, Bukhalo M, et al. *N Engl J Med*. 2017;376(16):1551-1560.; 13. Menter A, Strober BE, Kaplan DH, et al. *J Am Acad Dermatol*. 2019;80(4):1029-1072.

Biosimilars Approved in the US for the Treatment of Moderate-to-Severe Psoriasis

Biosimilar Product	Reference Product	Approval Date	Status
infliximab-dyyb/Inflectra	infliximab/Remicade	April 5, 2016	Commercially available
etanercept-szzs/Erelzi	etanercept/Enbrel	August 30, 2016	Not available
adalimumab-atto/Amjevita	adalimumab/Humira	September 23, 2016	Not available
infliximab-abda/Renflexis	infliximab/Remicade	April 21, 2017	Commercially available
adalimumab-adbm/Cyltezo	adalimumab/Humira	August 25, 2017	Not available
infliximab-qbtx/Ixifi	infliximab/Remicade	December 13, 2017	Not available
adalimumab-adaz/Hyrimoz	adalimumab/Humira	October 31, 2018	Not available

- Biosimilars are successors to biologic agents that have lost patent exclusivity
- Not a simple generic, but highly similar to the reference product
- No clinically meaningful differences have been observed between the biosimilar and reference product in terms of the safety, purity, and potency
- Label reflects that of the reference product

Treatment Comparison. National Psoriasis Foundation website. https://www.psoriasis.org/sites/default/files/treatment_comparison_chart_2018.pdf. Accessed March 2019.

Updated Psoriasis Treatment Guidelines Now Available

Joint AAD-NPF guidelines of care for the management and treatment of psoriasis with awareness and attention to comorbidities

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Birmingham, Alabama; St. Louis, Missouri; Rochester, Minnesota; Philade Oregon; Bethesda, Maryland; Los Angeles and San Francisco, California; York, New York; Pittsburgh, Pennsylvania; San Diego, California; Dallas, T Massachusetts; Detroit, Michigan; Chicago, Illinois; Sumter, South Caro Oklahoma City, Oklahoma; Atlanta, Georgia; Farmington, Connecticut; W Texas; Irvine, California; and Rosemont, Illin

Psoriasis is a chronic, inflammatory, multisystem disease that affects up to 3.2 guideline addresses important clinical questions that arise in psoriasis mana recommendations on the basis of available evidence. (J Am Acad Dermatol

Key words: alcohol; anxiety; cancer; cardiovascular disease; chronic obstruc clinical guidelines for psoriasis; comorbidities; congestive heart failure; depre erectile dysfunction; guidelines; hyperlipidemia; hypertension; inflammatory metabolic syndrome; obesity; obstructive sleep apnea; psoriasis; psoriatic arth disease; sexual health; skin disease; smoking; uveitis; work productivity.

From the University of Alabama, Birmingham[a]; Central Dermatology, St. Louis[b]; Mayo Clinic, Rochester[c]; University of Pennsylvania Perelman School of Medicine, Philadelphia[d]; National Psoriasis Foundation, Portland[e]; National Heart Lung and Blood Institute, National Institutes of Health, Bethesda[f]; University of Southern California, Los Angeles[g]; Department of Dermatology, University of California San Francisco School of Medicine[h]; Medical College of Wisconsin, Milwaukee[i]; Department of Dermatology, Icahn School of Medicine at Mt. Sinai, New York[j]; University of Pittsburgh[k]; University of California San Diego[l]; Baylor Scott and White, Dallas[m]; University Hospitals Cleveland Medical Center[n]; Massachusetts General Hospital, Boston[o]; Icahn School of Medicine at Mount Sinai, New York[p]; Department of Dermatology, Henry Ford Hospital, Detroit[q]; Northwestern University Feinberg School of Medicine, Chicago[r]; Dermatology and Skin Surgery, Sumter[s]; Colorado Permanente Medical Group, Centennial[t]; University of Oklahoma Health Sciences Center, Oklahoma City[u]; Emory University School of Medicine, Atlanta[v]; University of Connecticut, Farmington[w]; Probity Medical Research, Waterloo[x]; San Antonio Uniformed Services Health Education Consortium, Joint-Base San Antonio[y]; Dermatology Research and Education Foundation, Irvine[z]; and American Academy of Dermatology, Rosemont.[aa]

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The following informati relationship with ind Authors (listed alphabe with respect to this gu accordance with AAD members did not have

Participation in ≥1 of the conflict: service as a m

FROM THE ACADEMY

Joint AAD-NPF guidelines of care for the management and treatment of psoriasis with biologics

Alan Menter, MD (Co-Chair),[a] Bruce E. Strober, MD, PhD,[b,c] Daniel H. Kaplan, MD, PhD,[d] Dario Kivelevitch, MD,[e] Elizabeth Farley Prater, MD,[f] Benjamin Stoff, MD, MA,[g] April W. Armstrong, MD, MPH,[h] Cody Connor, MD,[i] Kelly M. Cordoro, MD,[j] Dawn M. R. Davis, MD,[j] Boni E. Elewski, MD,[k] Joel M. Gelfand, MD, MSCE,[l] Kenneth B. Gordon, MD,[j] Alice B. Gottlieb, MD, PhD,[m] Arthur Kavanaugh, MD,[n] Matthew Kiselica,[o] Neil J. Korman, MD, PhD,[p] Daniela Kroshinsky, MD, MPH,[q] Mark Lebwohl, MD,[m] Craig L. Leonardi, MD,[r] Jason Lichten, MD,[s] Henry W. Lim, MD,[t] Nehal N. Mehta, MD, MSCE,[r] Amy S. Paller, MD,[u] Sylvia L. Parra, MD,[v] Arun L. Pathy, MD,[w] Reena N. Rupani, MD,[r] Michael Siegel, PhD,[x] Emily B. Wong, MD,[y] Jashin J. Wu, MD,[z] Vidhya Hariharan, PhD,[r] and Craig A. Elmets, MD (Co-Chair)[y]

Dallas, Texas; Farmington, Connecticut; Waterloo, Ontario, Canada; Pittsburgh and Philadelphia, Pennsylvania; Oklahoma City, Oklahoma; Atlanta, Georgia; Los Angeles, San Francisco, San Diego, and Irvine, California; Birmingham, Alabama; Rochester, Minnesota; Milwaukee, Wisconsin; New York, New York; Portland, Oregon; Cleveland, Ohio; Boston, Massachusetts; St. Louis, Missouri; Detroit, Michigan; Bethesda, Maryland; Chicago and Rosemont, Illinois; Sumter, South Carolina; San Antonio, Texas; Centennial, Colorado

Psoriasis is a chronic, inflammatory multisystem disease that affects up to 3.2% of the US population. This guideline addresses important clinical questions that arise in psoriasis management and care, providing recommendations based on the available evidence. The treatment of psoriasis with biologic agents will be reviewed, emphasizing treatment recommendations and the role of the dermatologist in monitoring and educating patients regarding benefits as well as associated risks. (J Am Acad Dermatol 2019;80:1029-72.)

Key words: biologic agents; clinical guidelines for psoriasis; dermatology; guidelines; monoclonal antibodies; psoriasis; skin disease.

The information presented here represents the authors disclosed relationship with industry during guideline development.

Authors (listed alphabetically) with relevant conflicts with respect to this guideline are noted with an asterisk. In accordance with American Academy of

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American Academy of Dermatology (AAD) strives to produce clinical guidelines that reflect the best available evidence supplemented with the judgment of expert clinicians. Significant efforts are taken to minimize the potential for conflicts of interest to influence guideline content. The management of conflict of interest for this guideline complies with the Council of Medical Specialty Societies' Code of Interactions with Companies. Funding of guideline production by medical or pharmaceutical entities is prohibited; full disclosure is obtained and evaluated for all guideline contributors throughout the guideline development process, and recusals used to manage identified relationships. The American Academy of Dermatology conflict of interest policy summary may be viewed at www.aad.org. The conflicts of interest of the individual working group members are listed in the text of this guideline.

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1029

- The American Academy of Dermatology and National Psoriasis Foundation have released 2 joint guidelines for the management and treatment of psoriasis[1,2]
- One set addresses common comorbidities seen with psoriasis (e.g., PsA, CVD, metabolic syndrome, mental health conditions, IBD) and how their presence impacts psoriasis management[1]
- The other discusses the treatment of psoriasis using biologics[2]

1. Elmets CA, Leonardi CL, Davis DMR, et al. *J Am Acad Dermatol*. 2019;80(4):1073-1113. 2. Menter A, Strober BE, Kaplan DH, et al. *J Am Acad Dermatol*. 2019;80(4):1029-1072.

Intended Use of the Revised Guidelines

- The revised guidelines are designed to:
  - Reinforce dermatologists' knowledge of psoriasis and how to treat it
  - Provide other health care providers a reference to use when caring for people with psoriasis
  - Provide health insurance companies up-to-date treatment information needed to design appropriate coverage policies for their members living with psoriasis
  - Provide patients with information that can help them improve their knowledge of psoriasis and how to work with their provider to achieve the best health outcome possible

Elmets CA, Leonardi CL, Davis DMR, et al. *J Am Acad Dermatol*. 2019;80(4):1073-1113.; Menter A, Strober BE, Kaplan DH, et al. *J Am Acad Dermatol*. 2019;80(4):1029-1072.

Guidance on the Use of Psoriasis Pharmacotherapy

- Mild-to-moderate psoriasis can be controlled with topical medications and/or phototherapy
- Biologics are more successful and have a higher benefit-to-risk ratio in the treatment of moderate-to-severe disease
- Biologics reviewed in the guidelines include:
  - Tumor necrosis factor alpha inhibitors (etanercept, infliximab, adalimumab, certolizumab pegol)
  - Interleukin (IL)-12/IL-23 inhibitors (ustekinumab)
  - IL-17 inhibitors (secukinumab, ixekizumab, brodalumab)
  - IL-23 inhibitors (guselkumab, tildrakizumab, risankizumab)

Menter A, Strober BE, Kaplan DH, et al. *J Am Acad Dermatol*. 2019;80(4):1029-1072.

Biologics and Small Molecules in Late Stage Development

Agent	Therapeutic Target (MOA) /Means of Administration	Status
BCD-085	• IL-17 inhibitor • Self-injectable	Phase 3
BMS-986165	• TYK2 kinase inhibitor • Oral	Phase 3
Bimekizumab	• IL-17A and IL-17F inhibitor • Self-injectable	Phase 3
Piclidenoson	• Adenosine A3 receptor inhibitor • Oral	Phase 3
LAS41008	• Dimethyl fumarate (anti-inflammatory) • Oral	Phase 3
Mirikizumab	• IL-23 inhibitor • Self-injection	Phase 3
Serlopitant	• Neurokinin-1 receptor antagonist (anti-pruritic) • Oral	Phase 3

Drugs in the Pipeline for Psoriasis and Psoriatic Arthritis. National Psoriasis Foundation website. https://www.psoriasis.org/drug-pipeline. Accessed March 2019.

Skin Disease Precedes Joint Involvement in 80-90% of Patients

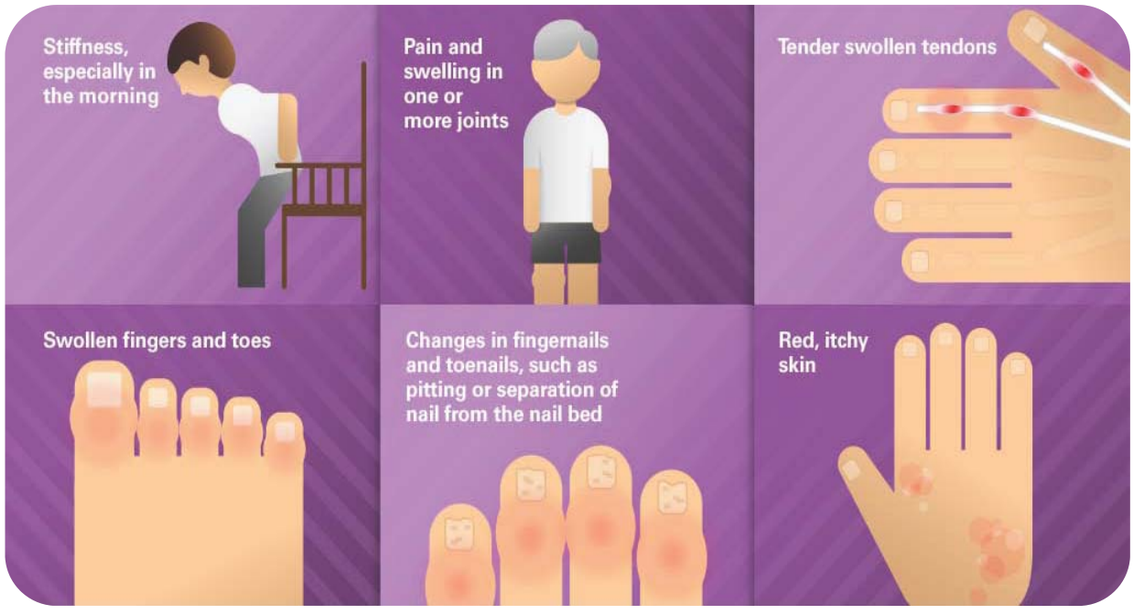
3 in 10

Patients with Psoriasis are Likely to Develop Psoriatic Arthritis

- Skin disease precedes joint disease in >80% of patients
- Severity of skin disease and the severity/course of psoriatic arthritis do not correlate with each other
- 60% of patients with psoriatic arthritis progress to permanent joint destruction if left untreated

Mease PJ, Armstrong AW. *Drugs*. 2014;74(4):423-41.; Gottlieb A, Korman NJ, Gordon KB, et al. *J Am Acad Dermatol*. 2008;58(5):851-64.

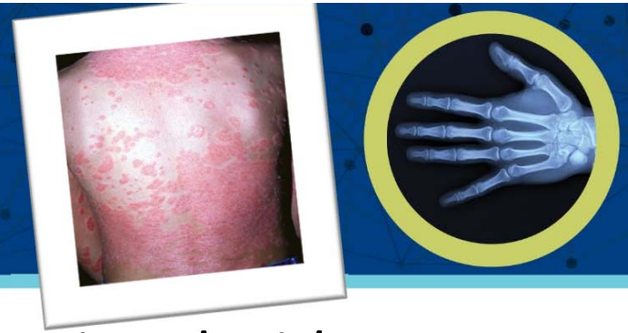
Early Referral to a Specialist is Critical for Psoriasis Patients with Joint Symptoms and Comorbidities (e.g., CV Disease)



Early detection and appropriate treatment of psoriatic arthritis in patients with psoriasis can reduce long-term disability and minimize the need for healthcare resources

Patients with severe or complicated symptoms require care from a multidisciplinary team of providers to manage skin, joint, and cardiovascular involvement over the long term

Summary



- Psoriasis is a common, chronic, inflammatory skin condition associated with significant morbidities
- Comorbidities must be recognized and appropriately managed
- The primary goals of treatment include clearing the skin, minimizing adverse events, addressing comorbidities, and enhancing patient quality of life
- Patient preference should be considered when selecting therapy
- Multiple treatment options are now available
- Dermatologists should screen for joint involvement in their psoriasis patients and collaborate with rheumatologists to adequately manage both skin and joint involvement over the long term

Current Evidence-Based Recommendations for the Treatment of Psoriatic Arthritis

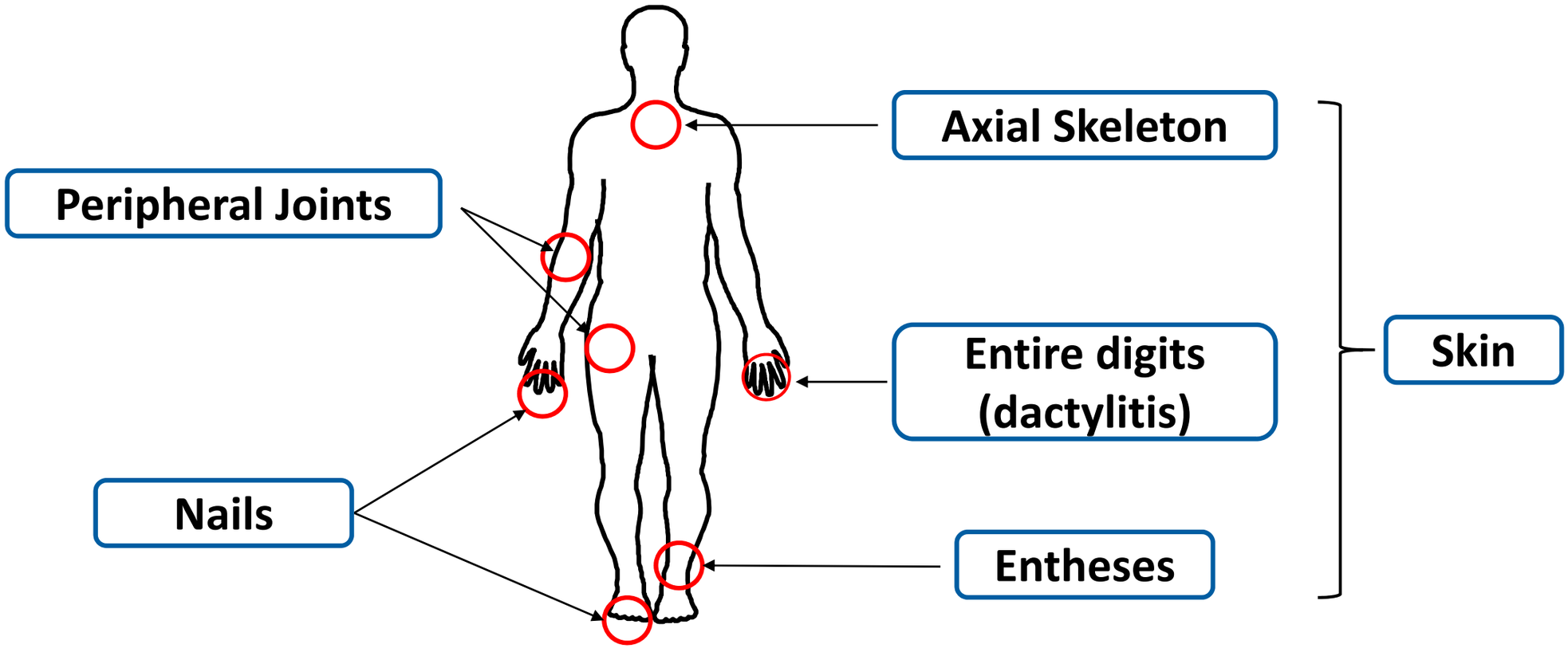
Robin Dore, MD
Clinical Professor of Medicine
David Geffen School of Medicine
University of California-Los Angeles

Learning Objective

- Align psoriatic arthritis therapy with evidence-based treatment recommendations

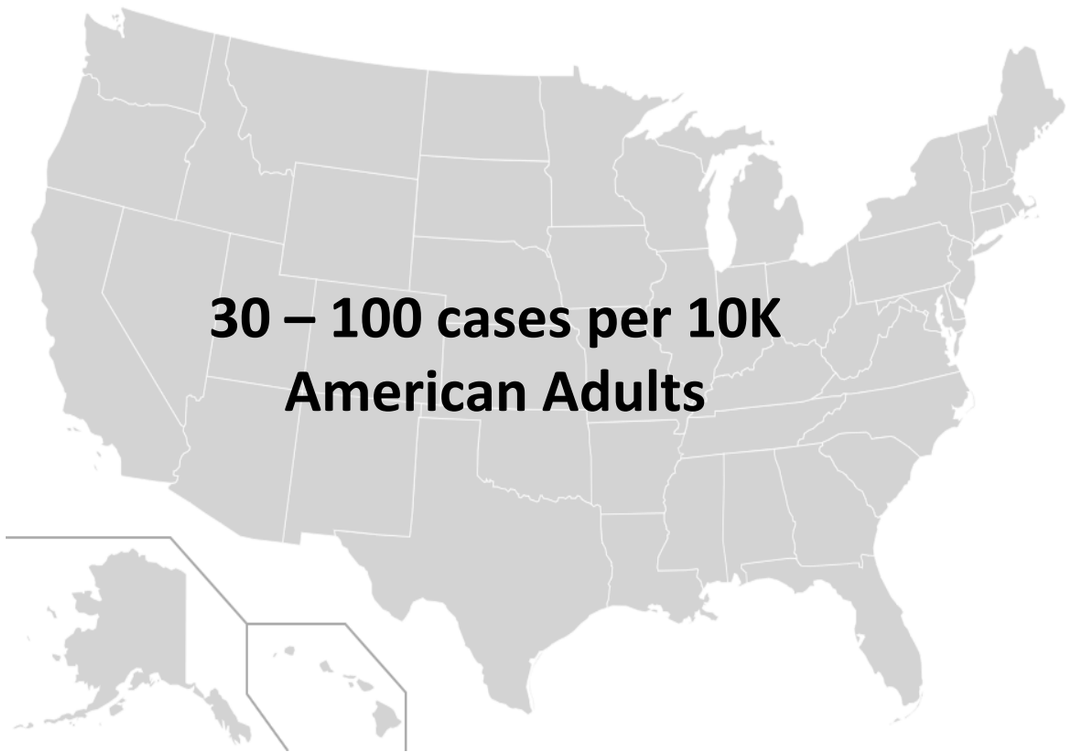
Psoriatic Arthritis is a Common Chronic Inflammatory Disease

- **Psoriatic arthritis (PsA):** a progressive disorder ranging from mild synovitis to severe progressive erosive arthropathy that affects several body areas



Pipitone N, Kingsley GH, Manzo A, Scott DL, Pitzalis C. *Rheumatology* (Oxford). 2003;42(10):1138-48.

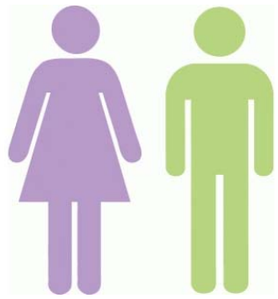
Prevalence of Psoriatic Arthritis in the US



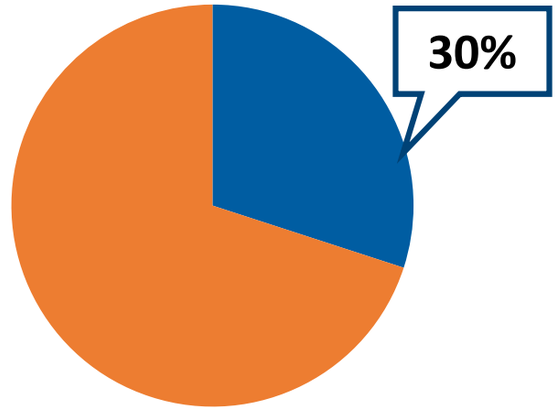
Peak incidence occurs at ages

30 – 55

Affects males and females equally



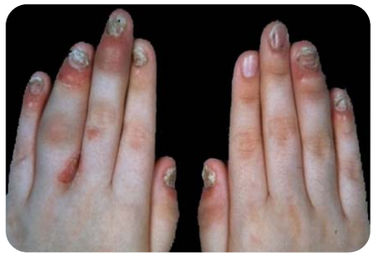
Occurs in up to 30% of individuals with psoriasis



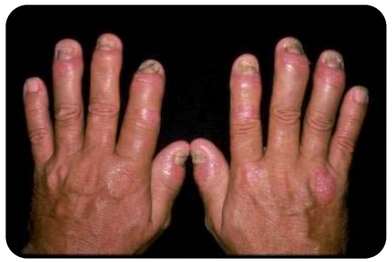
Patients with Diagnosed Psoriasis

Ritchlin CT, Colbert RA, Gladman DD. *N Engl J Med.* 2017;376(10):957-970.

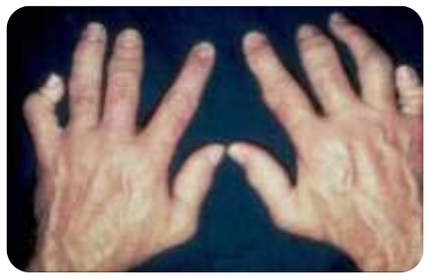
Psoriatic Arthritis has a Heterogeneous Clinical Presentation



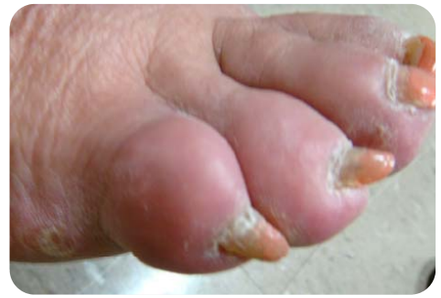
Asymmetric Oligoarthritis



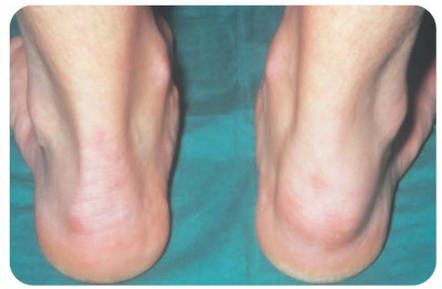
Distal Interphalangeal Predominant (DIP) Synovitis



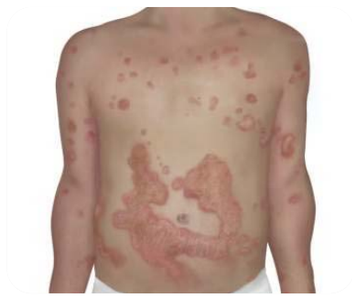
Proximal Interphalangeal Predominant (PIP) Synovitis



Dactylitis

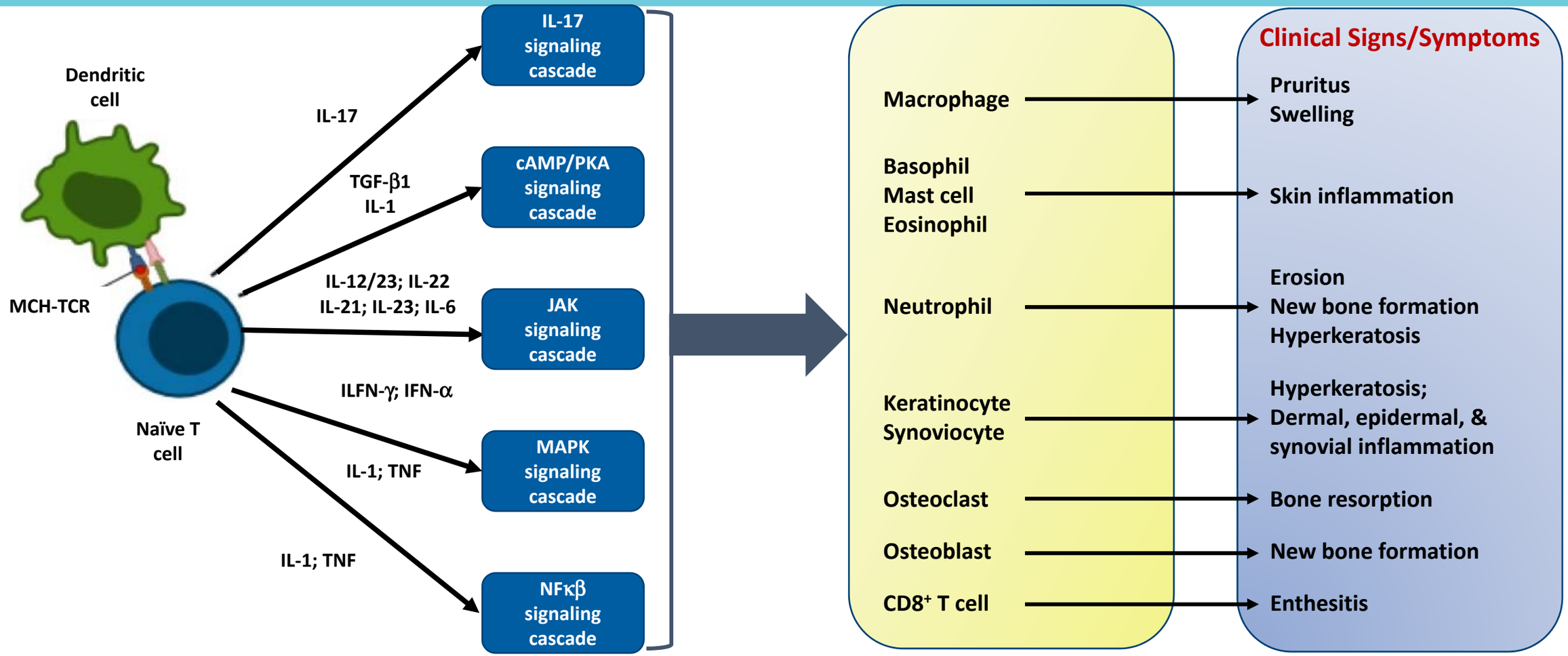


Enthesitis



Psoriasis Plaques

Pathophysiology of Psoriatic Arthritis



Coates LC, Fitzgerald O, Helliwell PS, Paul C. *Semin Arthritis Rheum*. 2016;46(3):291-304.; Gu C, Wu L, Li X. Cytokine. 2013;64(2):477-85.; Taskén K, Aandahl EM. *Physiol Rev.* 2004;84(1):137-67.; O'sullivan LA, Liongue C, Lewis RS, Stephenson SE, Ward AC. *Mol Immunol.* 2007;44(10):2497-506.; Mavers M, Ruderman EM, Perlman H. Curr Rheumatol Rep. 2009;11(5):378-85.; Tak PP, Firestein GS. *J Clin Invest.* 2001;107(1):7-11.; Mensah KA, Schwarz EM, Ritchlin CT. *Curr Rheumatol Rep*. 2008;10:311-

A Diagnosis is Based on Clinical, Laboratory and Radiographic Findings

Clinical

- Psoriasis of skin and nails
- Peripheral arthritis
- Distal interphalangeal involvement
- Dactylitis
- Enthesopathy

Laboratory

- Absence of rheumatoid factor (RF) and anti-citrullinated protein antibodies (ACPA)*
- Elevated acute phase (vs. rheumatoid arthritis)

*low levels of RF and ACPA found in 5% -16% of patients

Radiographic

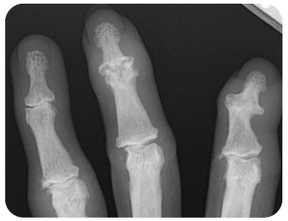
- Erosions and resorptions
- Joint space narrowing or involvement of entheseal sites
- Bony spurs
- Spinal disease†

†sacroiliitis occurs in 40% -70% of patients

Helliwell PS, Taylor WJ. *Ann Rheum Dis.* 2005;64 (2 Suppl):ii3-8.

A Delay in Diagnosis is Associated with Worse Outcomes

- Delay in diagnosis >6 months from onset of symptoms is associated with

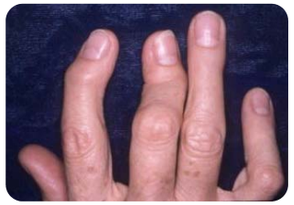


Erosive Disease

- **Odds ratio: 4.6**

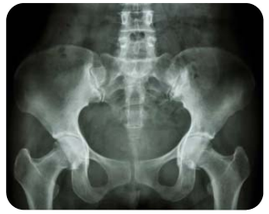
Arthritis Mutilans

- **Odds ratio: 10.6**



Functional Disability

- **Odds ratio: 2.2**



Sacroiliitis

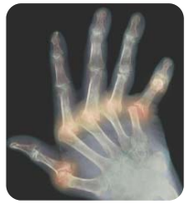
- **Odds ratio: 2.3**

Drug-free Remission

- **Odds ratio: 0.4**

Deformed Joints

- **Odds ratio: 2.3**



Haroon M, Gallagher P, Fitzgerald O. *Ann Rheum Dis.* 2015;74(6):1045-50.

Screen Patients with Suspected PsA to Minimize the Risk of Irreversible Joint Damage

Symptom Recognition

- General symptoms
  - Fatigue
  - Morning stiffness >30 min
- Joint symptoms
- Reduced range of motion
- Stiffness, pain, throbbing, swelling and tenderness in ≥1 joints
  - Swollen fingers and toes

Screening Tools

- Psoriasis Epidemiology Screening Tool (PEST)[1]
- Toronto Psoriasis Arthritis Screen (ToPAS)[2]
- Psoriatic Arthritis Screening Evaluation tool (PASE)[2]
- Psoriatic Arthritis Screening Questionnaire (PASQ)[3]
- Early Arthritis for Psoriatic Patients (EARP)[4]

1. Ibrahim GH, Buch MH, Lawson C, Waxman R, Helliwell PS. *Clin Exp Rheumatol.* 2009;27(3):469-74.; 2. Gladman DD, Schentag CT, Tom BD, et al. *Ann Rheum Dis.* 2009;68(4):497-501.; 3. Dominguez PL, Husni ME, Holt EW, Tyler S, Qureshi AA. *Arch Dermatol Res.* 2009;301(8):573-9.; 4. Khraishi M, Landells I, Mugford G. *Psoriasis Forum*. 2010;16:9-16; 5. Tinazzi I, Adami S, Zanolin EM, et al. Rheumatology (Oxford). 2012;51(11):2058-63..

Measures of PsA Disease Activity

Composite Measures of Disease Activity		Comment
MDA	Minimal Disease Activity	
CPDAI	Composite Psoriatic Disease Activity Index	First composite measure of PsA disease activity
DAPSA	Disease Activity in Psoriatic Arthritis Score	
PASDAS	Psoriatic Arthritis Disease Activity Score	Reliable and holistic composite index to measure disease activity
RAPID3	Routine Assessment of Patient Index Data 3	

Husni ME, Merola JF, Davin S. *Semin Arthritis Rheum.* 2017;47(3):351-360.

Updated PsA Treatment Guidelines: Released in December 2018

AMERICAN COLLEGE OF RHEUMATOLOGY
EDUCATION · TREATMENT · RESEARCH

Arthritis Care & Research
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SPECIAL ARTICLE

2018 American College of Rheumatology/National Psoriasis Foundation Guideline for the Treatment of Psoriatic Arthritis

Jasvinder A. Singh,[1] Gordon Guyatt,[2] Alexis Ogdie,[3] Dafna D. Gladman,[4] Chad Deal,[5] Atul Deodhar,[6] Maureen Dubreuil,[7] Jonathan Dunham,[3] M. Elaine Husni,[5] Sarah Kenny,[8] Jennifer Kwan-Morley,[9] Janice Lin,[10] Paula Marchetta,[11] Philip J. Mease,[12] Joseph F. Merola,[13] Julie Miner,[14] Christopher T. Ritchlin,[15] Bernadette Siaton,[16] Benjamin J. Smith,[17] Abby S. Van Voorhees,[18] Anna Helena Jonsson,[13] Amit Aakash Shah,[19] Nancy Sullivan,[20] Marat Turgunbaev,[19] Laura C. Coates,[21] Alice Gottlieb,[22] Marina Magrey,[23] W. Benjamin Nowell,[24] Ana-Maria Orbai,[25] Soumya M. Reddy,[26] Jose U. Scher,[26] Evan Siegel,[27] Michael Siegel,[28] Jessica A. Walsh,[29] Amy S. Turner,[19] and James Reston[20]

- Evidence-based pharmacologic and nonpharmacologic recommendations on the management of
  - Treatment-naive patients with active PsA
  - Patients who have active PsA despite therapy
- Focus is on optimal disease management using a treat-to-target approach
- Also includes recommendations regarding use of drugs in the presence of comorbidities (e.g., inflammatory bowel disease, diabetes, serious infection)

Singh JA, Guyatt G, Ogdie A, et al. Arthritis Care Res (Hoboken). 2019;71(1):2-29.

Treatment Objective

- **Treat-to-target strategy to optimize patient care**
  - Use quantitative measures (e.g., PASDAS) of disease activity to maximize achieving very low disease activity or remission
  - An integrated approach to therapeutic intervention
- **Remission**
  - The absence of clinical and laboratory evidence of significant inflammation or minimal disease activity

PASDAS=Psoriatic Arthritis Disease Activity Score

Coates L, Gladman DD, Nash P, et al. SAT0462. *Ann Rheum Diseases.* 2017;76:948-949.

Treatment Algorithms and Switching

- **Tailor treatment for individual patients**, taking into account…
  - Disease activity and severity
  - Prognostic factors
  - Comorbidities
  - Cardio-metabolic risk factors
  - Treatment history
  - Access to therapies
  - Repeated evaluations
  - Patient preference
- **Incorporate assessment and management of psychological and physical concerns of patients**

Gossec L, Smolen JS, Ramiro S, et al. *Ann Rheum Dis.* 2016;75:499-510; Merola JF, Lockshin B, Mody EA. *Semin Arthritis Rheum.* 2017;47(1):29-37.; Husni ME, Merola JF, Davin S. *Semin Arthritis Rheum*. 2017;47(3):351-360.

Non-Pharmacologic, Symptomatic, and Pharmacologic Therapies for PsA

Non-pharmacologic Therapies	• Physical/occupational therapy; weight loss; smoking cessation; exercise
Symptomatic Treatments	• NSAIDS, glucocorticoids
Oral Small Molecules	• Methotrexate; sulfasalazine; cyclosporine; leflunomide; apremilast
TNF Inhibitors	• Etanercept; infliximab; adalimumab; golimumab; certolizumab pegol
IL-12/23 Inhibitors	• Ustekinumab
IL-17 Inhibitors	• Secukinumab; ixekizumab
CTLA4-Ig	• Abatacept
JAK Inhibitors	• Tofacitinib

Singh JA, Guyatt G, Ogdie A, et al. *Arthritis Care Res* (Hoboken). 2019;71(1):2-29.

Recommendations for Treatment-Naïve Patients with Active Disease

Treatment-naïve Active PsA

Discuss with the patient, since all recommendations are conditional based on low to very low quality evidence

Start TNFi biologic over OSM, IL17i biologic or IL12/23i biologic May consider alternative choices in some situations#	Start OSM over IL17i biologic or IL12/23i biologic May consider alternative choices in some situations##	Start MTX over NSAIDS May consider alternative choices in some situations^	Start IL17i biologic over IL12/23i biologic May consider alternative choices in some situations^^
PsA still active?	PsA still active?	PsA still active?	PsA still active?
Go to Figure 5 for active PsA despite TNFi biologic therapy	Go to Figure 4 for active PsA despite OSM therapy		Go to Figure 6 for active PsA despite IL17i or IL12/23i biologic therapy

May consider alternatives (in parentheses) if patient has severe psoriasis (IL17i or IL12/23i); has contraindications to TNFi including recurrent infections, CHF, or demyelinating disease (OSM, IL17i, or IL12/23i); prefers oral medications (OSM) or less frequent administration (IL12/23i); has concern over starting biologic as 1st line therapy (OSM); or does not have severe psoriasis or severe PsA (OSM).

May consider alternatives if patient has severe psoriasis or severe PsA (IL12/23i or IL17i); has concomitant active IBD (IL12/23i); or prefers less frequent administrations (Il12/23i).

^ May consider NSAIDs in patients with less active disease, after careful consideration of the CV and renal risks of NSAIDs.

^^ May consider IL12/23i if patient has concomitant IBD or desires less frequent drug administration.

The order of listing of various conditional recommendations or of different treatment choices within a conditional statement does not indicate any sequence in which treatment options would be chosen; each conditional statement stands on its own.

Singh JA, Guyatt G, Ogdie A, et al. *Arthritis Care Res* (Hoboken). 2019;71(1):2-29.

Recommendations for Patients with Active Disease Despite Oral Small Molecule Therapy

Active PsA despite OSM

Discuss with the patient, since all recommendations are conditional based on Moderate to very low quality evidence

Switch to TNFi biologic* over another OSM**, IL 17i biologic, IL 12/23i biologic abatacept or tofacitinib# May consider alternative choices in some situations##	Switch to IL 17i biologic* over another OSM**, IL 12/23i biologic, abatacept or tofacitinib^ May consider alternative choices in some situations^^	Switch to IL 12/23i biologic* over another OSM**, abatacept or tofacitinib^ May consider alternative choices in some situations^^^

*For each biologic, biologic monotherapy is conditionally recommended over biologic + MTX combination therapy.
** Add apremilast over switching to apremilast; switch to another OSM (except apremilast) over adding another OSM.
# See algorithm for treatment options if patient has active PsA despite TNFi.
^ See algorithm for treatment options if patient has active PsA despite IL17i or IL12/23i.
May consider alternatives if patient has severe psoriasis (IL17i or IL12/23i); has contraindications to TNFi including recurrent infections, CHF, or demyelinating disease (OSM, IL17i, IL12/23i, abatacept, tofacitinib); prefers oral medications (OSM, tofacitinib) or less frequent administration (IL12/23i).
^^ May consider alternatives if patient has concomitant active IBD (IL12/23i); absence of severe psoriasis or PsA (OSM); has recurrent serious infections (abatacept); has recurrent candida infections (tofacitinib); prefers oral medications (OSM, tofacitinib) or less frequent administrations (IL12/23i).
^^^ May consider alternatives if patient has absence of severe psoriasis or severe PsA (OSM); has recurrent or serious infections (abatacept); prefers oral medications (OSM, tofacitinib).

Singh JA, Guyatt G, Ogdie A, et al. *Arthritis Care Res* (Hoboken). 2019;71(1):2-29.

Recommendations for Patients with Active Disease Despite Anti-TNF Therapy

Discuss with the patient, since all recommendations are conditional based on low to very low quality evidence

Active PsA despite TNFi biologic

- Despite TNFi Monotherapy
  - Switch to different TNFi biologic* over IL 17i biologic, IL 12/23i biologic, abatacept, tofacitinib or adding MTX
    May consider alternative choices in some situations#
  - Switch to IL17i biologic* aver IL 12/23i biologic, abatacept or tofacitinib
    May consider alternative choices in some situations##
  - Switch to IL 12/23i biologic* over abatacept or tofacitinib
    May consider alternative choices in some situations###
- Despite TNFi +MTX Combination therapy
  - Switch to Different TNFi biologic + MTX over TNFi biologic monotherapy
    May consider alternative choices in some situations^
  - Switch to IL 17i biologic monotherapy over IL17i biologic + MTX
    May consider alternative choices in some situations^^
  - Switch to IL 12/23i biologic monotherapy over IL 12/23i biologic + MTX
    May consider alternative choices in some situations^^^

*For each biologic, biologic monotherapy is conditionally recommended over biologic + MTX combination therapy.

May consider alternatives if patient has primary TNFi efficiency failure (IL17i, IL12/23i, abatacept, tofacitinib); has TNFi-associated serious adverse event (IL17i, IL12/23i, abatacept, tofacitinib); patient has demonstrated partial response to current TNFi, especially if the TNFi is a monoclonal antibody (adding MTX); prefers an oral therapy (tofacitinib); has severe psoriasis (IL17i); or prefers less frequent administration (IL12/23i).

May consider alternatives if the patient has IBD (IL12/23i, tofacitinib); prefers IV dosing (abatacept); has recurrent or serious infections (abatacept); prefers oral therapy (tofacitinib); history of recurrent candida infections (tofacitinib); or prefers less frequent drug administration (IL12/23i).

May consider alternatives if patient prefers IV dosing (abatacept); has recurrent or serious infections (abatacept); or prefers oral therapy (tofacitinib).

^ May consider alternative TNFi monotherapy if patient has demonstrated MTX-associated adverse events, prefers fewer medications or perceives MTX as a burden.

^^ May consider alternative IL17i + MTX if patient has a partial response to the existing regimen or in patients with concomitant uveitis, as uveitis may respond to MTX therapy. Continuing MTX during transition to an IL17i was discussed as potentially beneficial to allow the new therapy time to work.

^^^ May consider the alternative IL12/23i+ MTX if patient has a partial response to the existing regimen or in patients with concomitant uveitis, as uveitis may respond to MTX therapy. Continuing MTX during transition to an IL12/23i was discussed as potentially beneficial to allow the new therapy time to work.

Singh JA, Guyatt G, Ogdie A, et al. *Arthritis Care Res* (Hoboken). 2019;71(1):2-29.

Recommendations for Patients with Active Disease Despite IL17 or IL12/23 Monotherapy

Discuss with the patient, since all recommendations are conditional based on very low quality evidence

Active PsA despite IL 17i or IL 12/23i biologic monotherapy

Despite IL 17i biologic monotherapy

- Switch to TNFi biologic over IL 12/23i biologic, a different IL 17i biologic or adding MTX

  May consider alternative choices in some situations#
- Switch to IL 12/23i biologic over a different IL 17i biologic or adding MTX

  May consider alternative choices in some situations##

Despite IL 12/23i biologic monotherapy

- Switch to TNFi biologic over IL 17i biologic or adding MTX

  May consider alternative choices in some situations^
- Switch to IL 17i biologic over adding MTX

  May consider alternative choices in some situations^^

May consider alternatives if patient has contraindications to TNFi including recurrent infection, CHF, or demyelinating disease (switching to IL12/23i or a different IL17i or adding MTX to current regimen); if the patient had secondary efficacy failure (initial response, but lack of response/efficacy with continued use) to the current IL17i (different IL17i); severe psoriasis (different IL17i); if the patient had a partial response to the existing regimen (adding MTX to current regimen); or prefers less frequent administrations (IL12/23i).

May consider alternatives if the patient had a secondary efficacy failure to current IL17i (different IL17i); severe psoriasis (different IL17i); or if the patient had a partial response to the existing regimen (adding MTX to current regimen).

^ May consider alternatives if patient had contraindications to TNFi including recurrent infections, CHF, or demyelinating disease (switching to IK17i or adding MTX to current regimen).

^^ May consider adding MTX in patients with only partial response to current therapy or in those who potentially have not had enough time to adequately respond.

Singh JA, Guyatt G, Ogdie A, et al. *Arthritis Care Res* (Hoboken). 2019;71(1):2-29.

Biologics and Small Molecules in Late Stage Development for PsA

Agent	Therapeutic Target/Route of Administration	Status
BCD-085	• IL-17 inhibitor • Self-injection	Phase 3
BMS-986165	• TYK2 kinase inhibitor • Oral	Phase 3
Bimekizumab	• IL-17A and IL-17F inhibitor • Self-injection	Phase 3
Brodalumab	• IL-17 inhibitor • Self-injection	Phase 3
Guselkumab	• IL-23p19 inhibitor • Self-injection	Phase 3
Risankizumab	• IL-23p19 inhibitor • Self-injection	Phase 3
Upadacitinib	• JAK inhibitor • Oral	Phase 3

Drugs in the Pipeline for Psoriasis and Psoriatic Arthritis. National Psoriasis Foundation website. https://www.psoriasis.org/drug-pipeline. Accessed March 2019.

Summary

- **Early diagnosis** and treatment can stop or minimize joint damage and promote clearing of skin psoriasis
- Be aware of **comorbidities** and their potential impact on treatment
- Engage patients using a **multi-disciplinary and collaborative** approach to screening and treatment
- Apply **evidence-based treat-to-target strategies** to improve patient outcomes
- **Educate patients** on the range of available treatments and new options

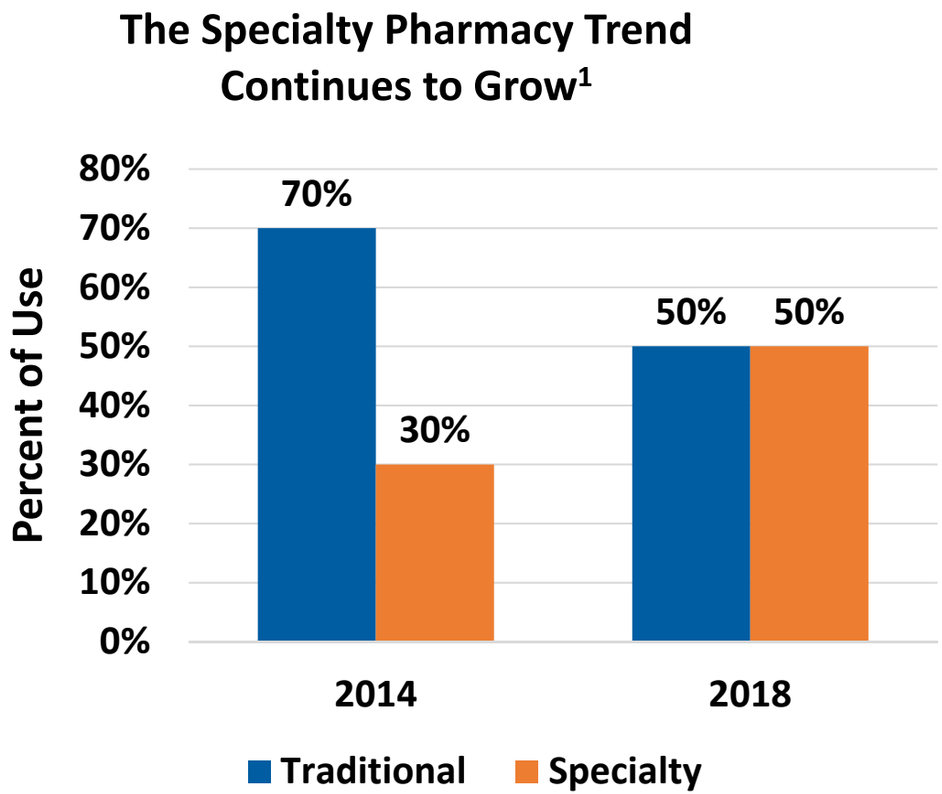
Specialty Pharmacy Management Opportunities for Psoriatic Disease

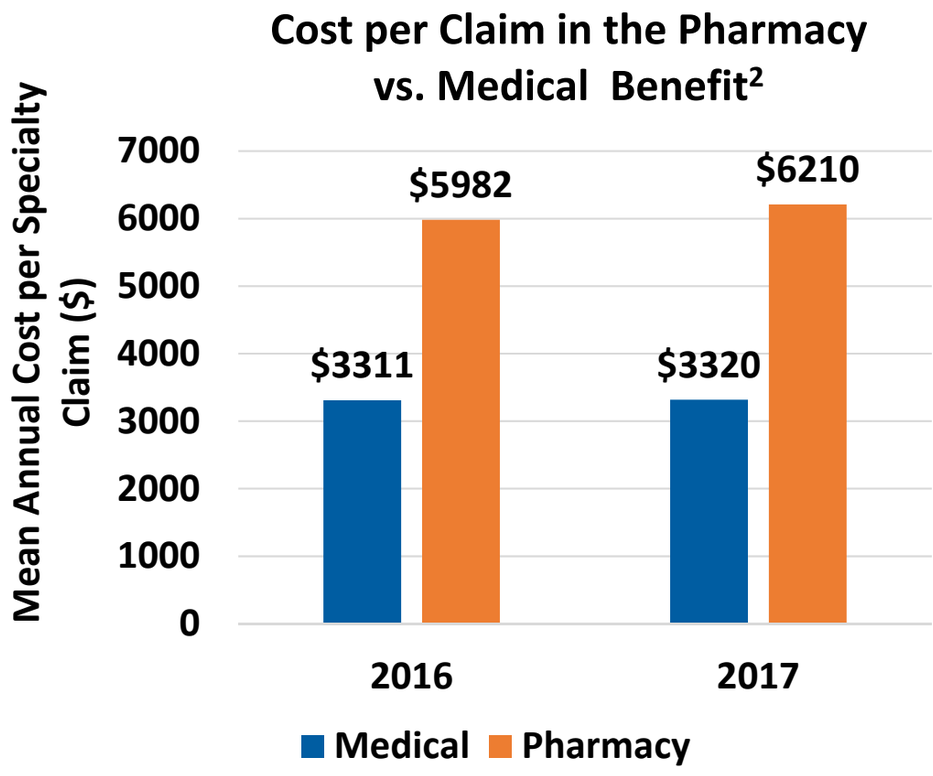
Michael Zeglinski, RPh
Senior Vice President, Specialty Pharmacy
OptumRx®/BriovaRx®

Learning Objectives

- Employ specialty pharmacy management services to improve outcomes in psoriatic disease patients
- Utilize care pathways to improve access to, and manage the cost of, psoriatic disease care

Pharmacy Spending on Specialty Drugs Expected to Increase as Coverage Shifts From the Medical Benefit





1. Latest trends and best practices in pharmacy management. Express Scripts website. http://www.connerstrong.com/wp-content/uploads/2018/03/2016-Pharmacy-Cost-Trends-Presentation.pdf. Published April 12, 2016. Accessed March 2019.
2. Artemetrx. State of specialty spend and trend. 2017. Published September 2018.

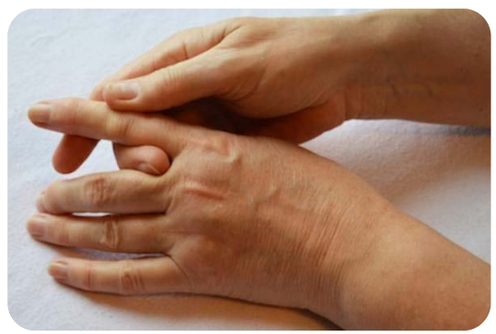
Benefits of Health System Specialty Pharmacy Coordinated Care

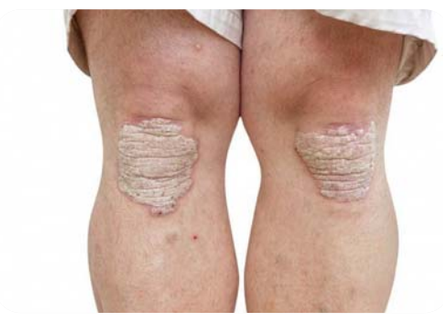
- A growing number of health systems and large hospitals report having specialty pharmacy capabilities
- Benefit of in-house specialty pharmacy services
  - Accelerate a patient's speed-to-therapy
  - Improve quality of care through integrated clinical coordination
  - Access to a patient's information via the EHR, enabling the health system specialty pharmacist to work directly with providers as an active member of the care team
  - Improved communication, therapy management and patient interventions
  - Manage adherence and financial barriers

Chambers K. The case for the health system specialty pharmacy coordinated care model. Becker's Hospital Review website. https://www.beckershospitalreview.com/pharmacy/the-case-for-the-health-system-specialty-pharmacy-coordinated-care-model.html. Published August 22, 2018. Accessed April 2019.

The Challenge of Managing the Cost of Psoriatic Disease Care While Improving Outcomes

- Psoriatic disease is chronic and progressive
- It negatively impacts patient quality of life and places a significant economic burden on patients, employers, and payers
- The challenge is to identify opportunities to reduce costs while maintaining quality





Cardarelli WJ. *Am J Manag Care*. 2016;22:S462-S469.

Specialty Pharmacy Services Can Contribute to Better Outcomes and Lower Costs

Cost & Distribution Management

Plan Design

Specialty Pharmacy Services

Output

Better Outcomes Lower cost

Incentives and Copay Assistance

Technology and Support Tools

Components of Specialty Pharmacy Service

Clinical Services	Outcomes	Drug Affordability	Operational Services
• Health care provider access • Physician consultations • Care management	• Care management • Clinical outcome measures • Patient adherence programs • Patient care quality measures • REMs programs	• Insurance navigation • Patient assistance • Plan optimization	• Supply chain management • Quality control measures • Coordination of care

Specialty pharmacy services. Pharmaceutical Care Management Association website. https://www.pcmanet.org/pcma-cardstack/what-services-do-specialty-pharmacies-provide/. Accessed March 2019.
PBM specialty pharmacies improve patient outcomes and reduce costs. Pharmaceutical Care Management Association website. https://www.pcmanet.org/wp-content/uploads/2017/04/PBM-Specialty-Pharmacies-Improve-Patient-Outcomes-and-Reduced-Costs_whitepaper_final.pdf. Accessed March 2019.

Specialty Pharmacy is an Important Contributor to Integrated Care Delivery

Specialty Pharmacy Links Care Providers

Physician

Payer

Pharma

Results
- Safety
- Adherence
- Education
- Improved outcomes

Patient Data
- Lab values
- Medical history and exam results
- Treatment history and current plan

Adherence and Benefits
- Benefit design
- Fill/refill history
- Prior authorization
- Step edits
- Copay support

Safety and Outcomes
- Safety and efficacy data
- Dosage and administration
- Storage and handling
- Cost-effectiveness data

Specialty Pharmacy Plays a Significant Role in the Patient Journey

- Patients are playing a larger role in their health care requiring them to be informed about making care decisions
- Patients are now more likely to choose settings that offer them optimum care and attention
- Pharmacy is the most frequently used health benefit
  - Specialty pharmacy can significantly impact the patient journey as patients prescribed specialty drugs often face clinical and financial challenges
  - As a result, compassionate, integrated care is crucial to a favorable patient experience
- Patient access to specialty pharmacy products is an important part of the approach to fully integrated health care

Hatwig C, Zabriski S. Specialty Pharmacy Times. https://www.specialtypharmacytimes.com/publications/specialty-pharmacy-times/2018/november-2018/health-system-specialty-pharmacies-becoming-an-industry-cornerstone. Published November 14, 2018. Accessed March 2019.

The Psoriatic Disease Patient Journey

Patient seeks care from PCP

PCP refers to dermatology / rheumatology

Diagnosis of moderate-to-severe psoriasis ± psoriatic arthritis

Treatment Options

Prescription Fulfillment

Adherence Support

Quality of Life & Symptom Assessment

Ongoing Care Management

Specialty Pharmacy Places the Focus on Individualizing Patient Care

Disease and Treatment Variables

- Disease severity
- Presence of comorbidities
- Treatment efficacy
- Treat-to-target
- Tolerability/drug interactions
- Adherence

Health Care Delivery Variables

- Patient education
- Provider-patient relationship
- Patient empowerment
- Medication therapy management
- Medication reminders
- Routine monitoring and adjustment of therapy
- Coordinated, multidisciplinary care

Patient-Focused Specialty Pharmacy Services: *Pre-Dispense* Activities

Benefit Investigation

- Initial claim review
- Test claim to assess eligibility (e.g., formulary, step therapy, other payer requirements)

Approval

- Statement of Medical Necessity
- Prior authorization

Financial Assistance

- Copay program
- Manufacturer patient assistance programs
- Alternative coverage organizations (e.g., grants, foundations)

Patient-Focused Specialty Pharmacy Services: *Post-Dispense* Activities

Patient Education	• Educate patients (and caregivers) about the disease and their prescribed therapy
Adherence Monitoring	• Ensure patients fill/refill their Rx and understand the importance of sticking with their treatment regimen
Patient Monitoring	• Provide information and resources to address clinical, emotional, and financial barriers to treatment success
Provider Communication	• Communicate with patients' providers regarding response and adherence to medication

The Value of Specialty Pharmacy Services

Impact of a Specialty Pharmacy on Adherence to Specialty Medications

Design

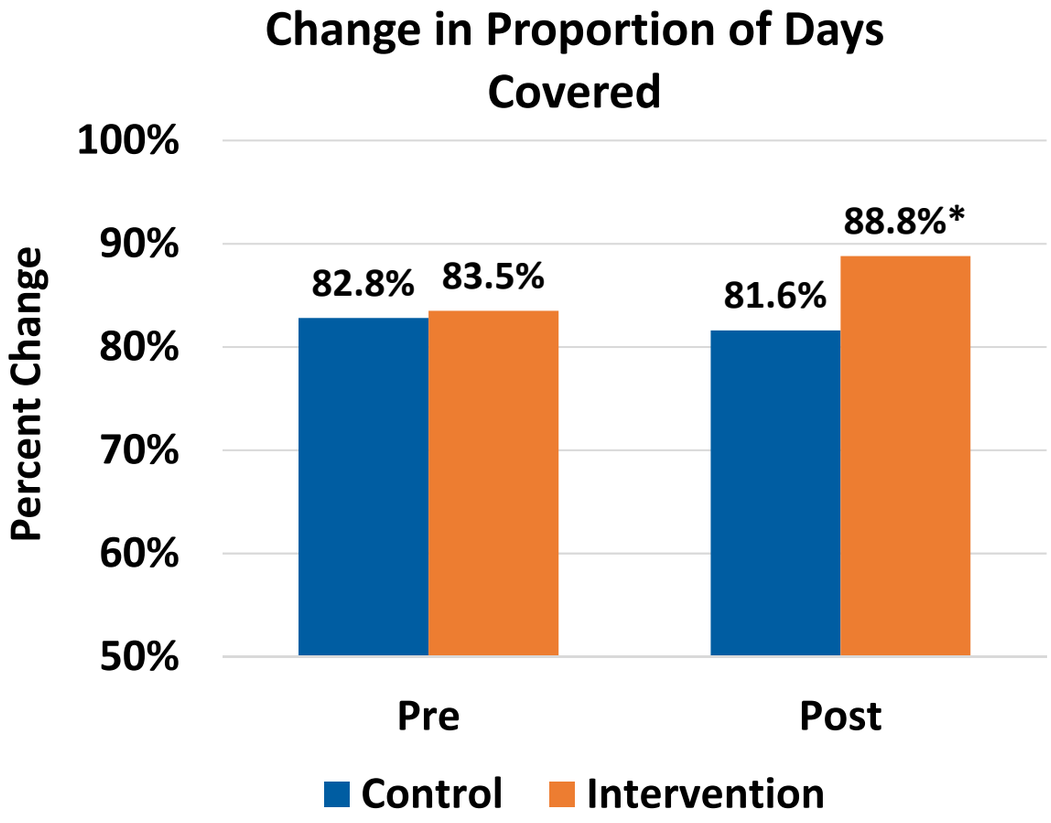
- Retrospective assessment of the impact of specialty pharmacy service model vs. usual pharmacy care on adherence to specialty medications
- Primary outcome measure tracked for 12 months before and after program implementation
  - Proportion of days covered
  - First fill persistence

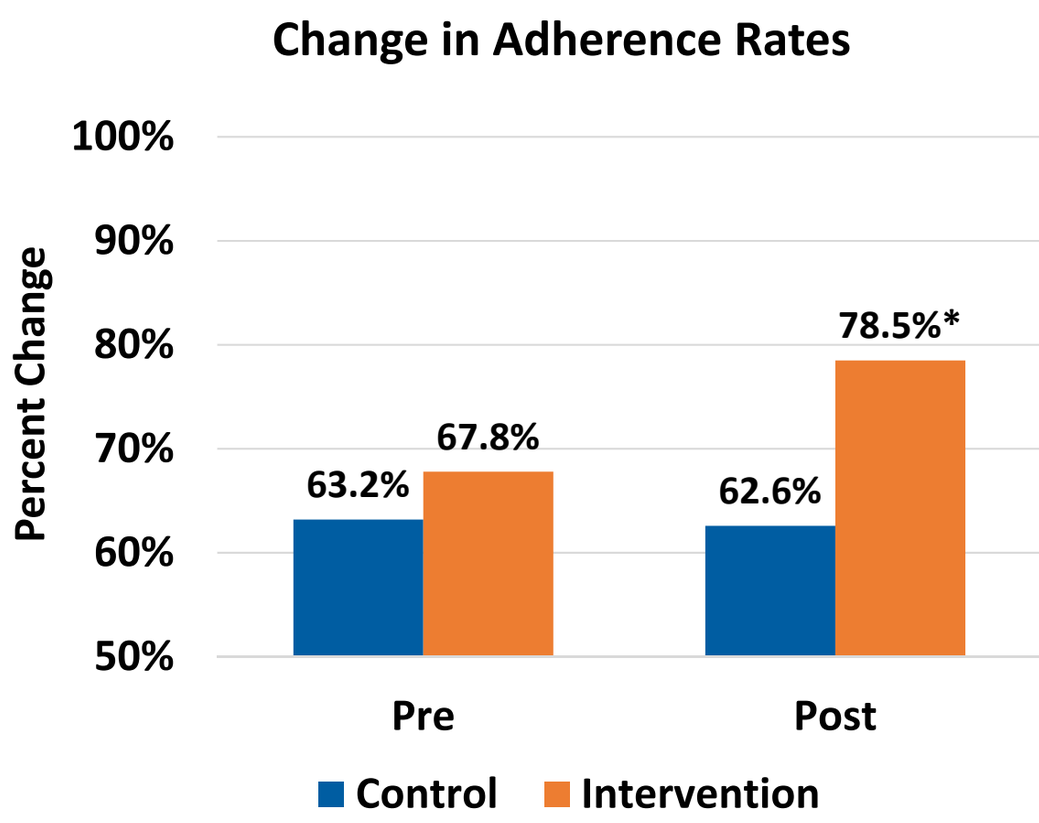
Intervention

- Clinical consultations specific to medication and disease state
- Additional support with cost and insurance processing
- Medication delivery options including shipping to the
  - Patient's home
  - Doctor’s office
  - Convenient store location

Moore JM, Matlin OS, Lotvin AM, et al. *J Am Pharm Assoc* (2003). 2016;56(1):47-53.

Use of a Specialty Pharmacy Increased Adherence to Specialty Medications

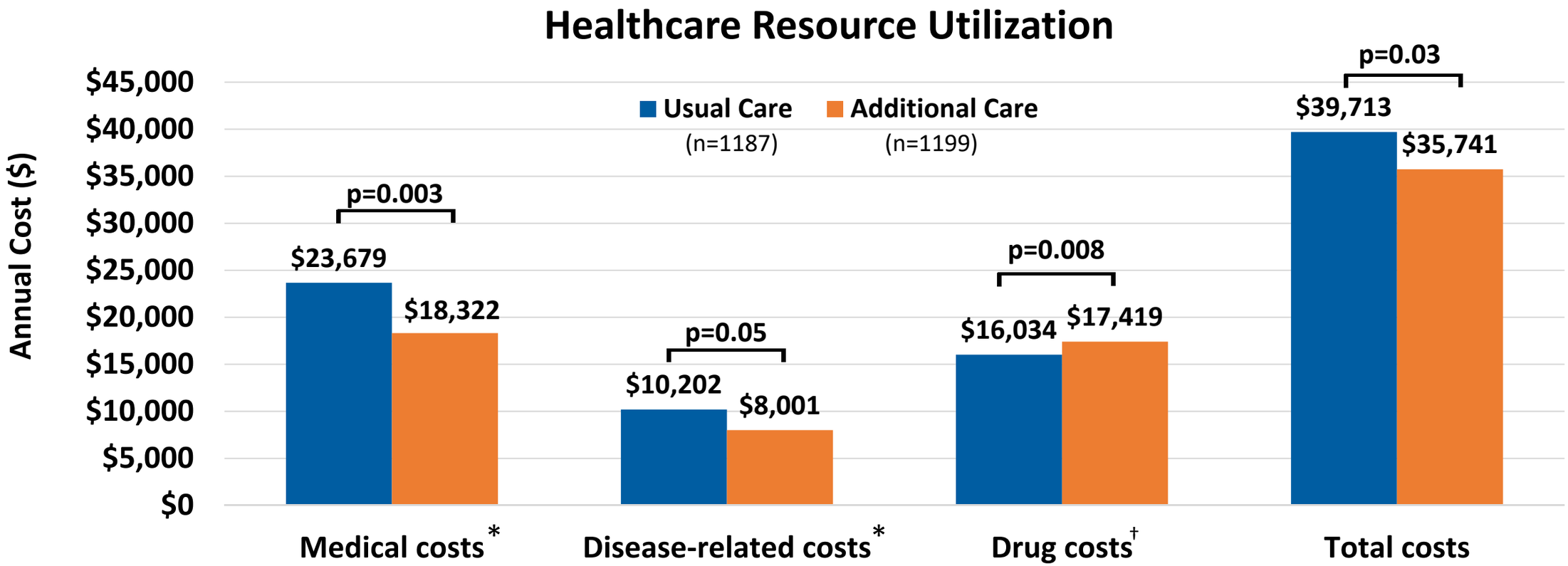




*p<0.0001 vs. control

Moore JM, Matlin OS, Lotvin AM, et al. *J Am Pharm Assoc* (2003). 2016;56(1):47-53.

Medical Costs Were Significantly Lower for Patients Who Received Additional Support



*reduction due to reduced need for inpatient care;†increase due to greater use of disease-related biologic agents.

Rubin DT, Mittal M, Davis M, Johnson S, Chao J, Skup M. *J Manag Care Spec Pharm.* 2017;23(8):859-867.

Care Pathways

Care Pathways: A Tool to Manage Patient Care and Improve Outcomes

- **Definition:** a proactive, multidisciplinary treatment plan
- Pathways provides guidance on:
  - Medical decision making
  - Psychosocial management
  - Ancillary services that go with that treatment
- **Goal:** make the treatment of complex, high-cost diseases as cost-effective as possible by improving quality, reducing variation, and increasing efficient use of healthcare
- Pathways are generally expected to reduce the overall costs of treatment
  - Many are designed to encourage efficient use of medical resources, particularly specialty drugs

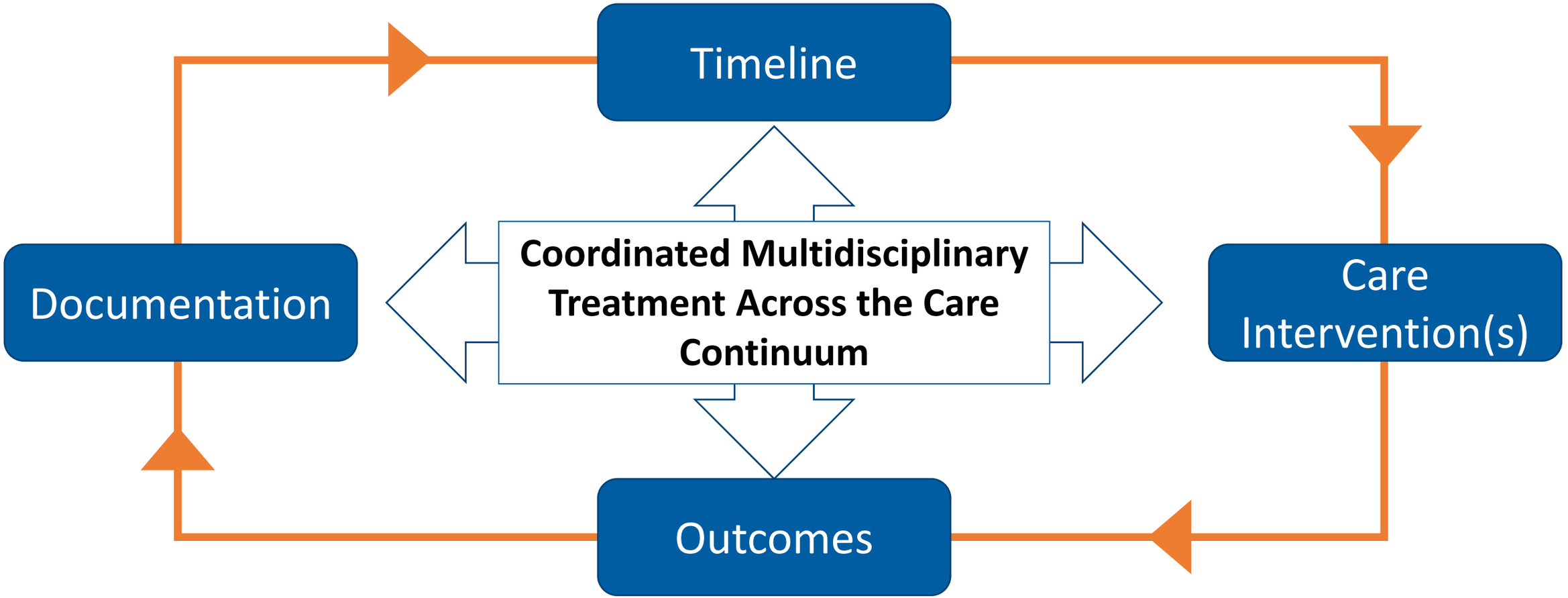
Chawla A, Westrich K, Matter S, Kaltenboeck A, Dubois R. *Am J Manag Care*. 2016;22(1):53-62.

Why Use Care Pathways?

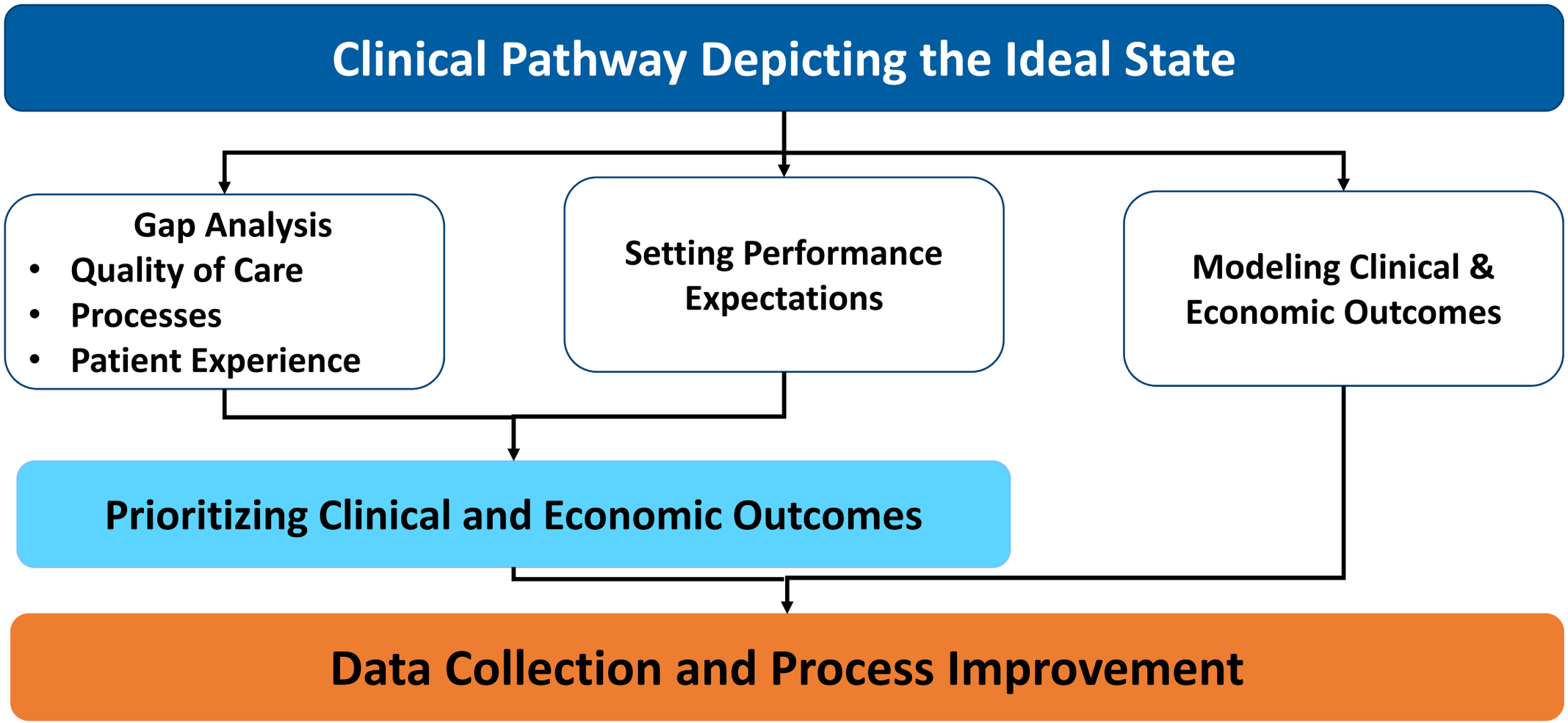
- Reinforce patient-centered care
- Enhance interdisciplinary collaboration
- Reduce unnecessary variation in patient care
- Incorporate local and national guidelines into routine clinical practice
- Support alignment with evidence-based standards of care
- Optimize management of health care resources

NHS Integrated Care Pathway Users Scotland. *Introducing Integrated Care Pathways: Benefits of ICP's*.

Primary Components of a Care Pathway



Clinical Pathways Serve as an Analytical Framework for Quality Improvement



Kuntz G. *J Clin Pathways.* 2019;5(1):36-39.

Care Pathways Can Be Used to Enhance Psoriatic Disease Management

- Increase awareness of psoriatic arthritis among patients, primary care providers and dermatologists

Pre-Diagnosis

- Promote the use of screening tools to identify early symptoms and ensure timely referral
- Develop referral pathways

Referral & Diagnosis

Treatment Initiation & Management

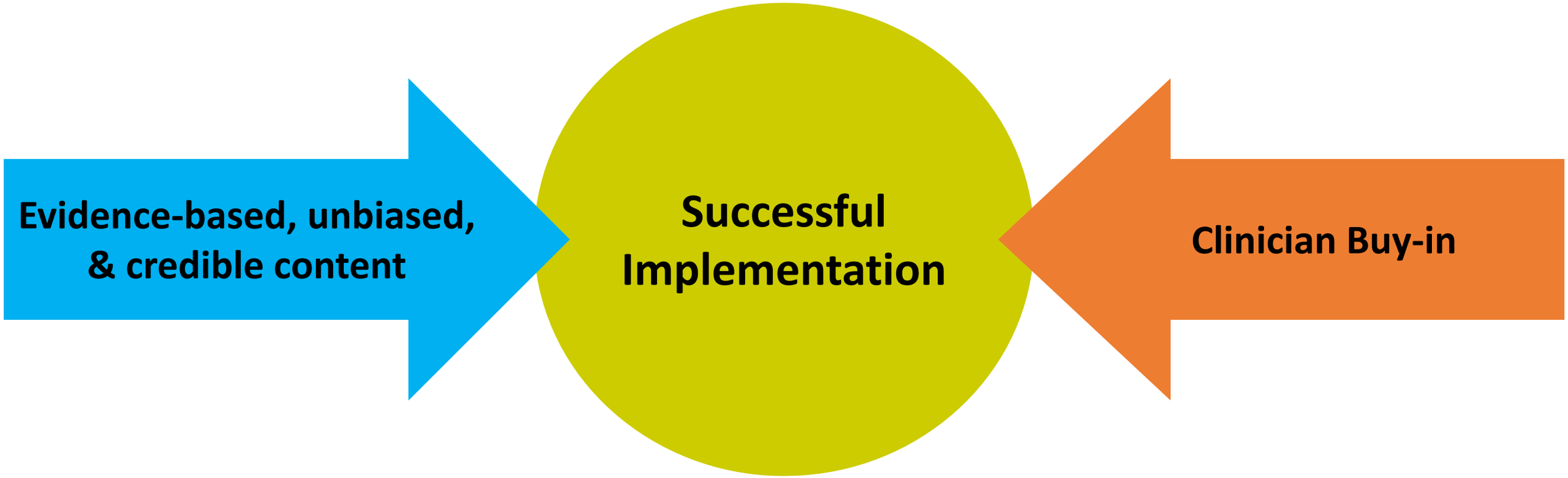
- Promote collaborative care between dermatologists and rheumatologists
- Employ a multidisciplinary care team to provide comprehensive care

- Provide evidence-based care
- “Treat-to-target”; optimize treatment based on response to therapy
- Engage patients in their care

- Perform regular monitoring of patient progress
- Manage comorbidities
- Document outcome

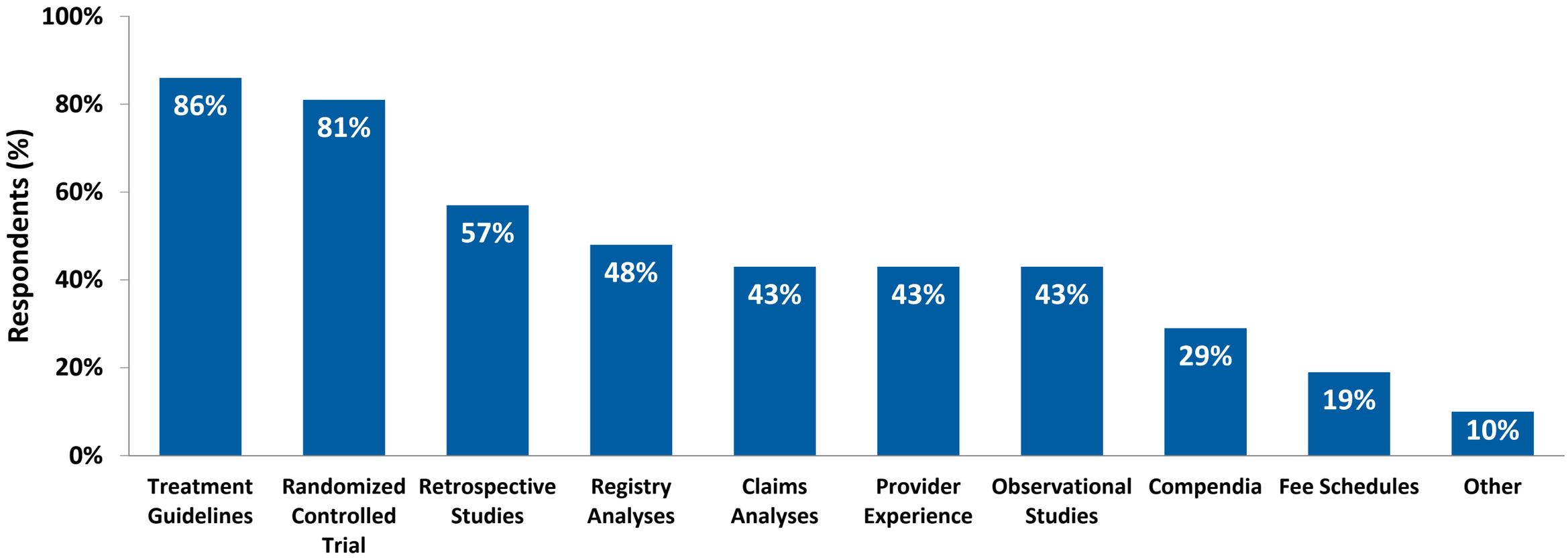
Follow Up

Critical Components Necessary for Successful Pathway Implementation



Kuntz G. *J Clin Pathways.* 2019;5(1):35-37.

Data Sources for Pathway Development



N=26 respondents to an on-line survey: medical directors (n=8); pharmacy directors (n=2); physicians (n=9); pathway vendors (n=7). Medical and pharmacy directors represented managed care organizations, integrated delivery systems, and pharmacy benefit managers that covered a total of approximately 60 million lives.

Chawla A, Westrich K, Matter S, Kaltenboeck A, Dubois R. *Am J Manag Care*. 2016;22(1):53-62.

Criteria for High-Quality Clinical Care Pathways

- Developed by clinical experts
- Up-to-date, evidence-based and clinically sound
- Transparent
- Patient-focused
- Comprehensive
- Supports clear and achievable outcomes
- Seamlessly integrated with information technology and decision supports tools
- Allows for efficient and effective communication and adjudication
- Efficient reporting of metrics
- Outcomes-driven results
- Promotes continuous quality improvement

Zon RT, Frame JN, Neuss MN, et al. *J Oncol Pract*. 2016;12(3):261-6.

Pharmacy Role in Clinical Pathways

Role	Activities
Medication therapy management	Medication selection; review of high-risk medications
Medication assistance	Identify need; assist in obtaining medication during transitions of care
Patient and family educator	Educate family and patient on medication changes, side effects, expected outcomes
Medical staff educator	Educate staff on medication place in therapy, duplications, optimal timing, drug interactions; assist in creation of educational materials
Revise and establish policies and protocols	Review current policies in place and recommend amendment based upon changes in evidence-based medicine or to reflect clinical pathway management
Research and evaluate outcomes	Complete medication use evaluations; create reports and present to leadership

Hipp R, Abel E, Weber RJ. *Hosp Pharm*. 2016;51(5):416-21.

Barriers to Pathways Expansion

- Lack of transparency in pathway development, modification, and maintenance
- Lack of patient perspective in the development process
- Interference of the pathway in the patient-provider treatment decision making process
- Lack of interoperability and integration between the pathway IT infrastructure and the patient electronic medical record
- Lack of accountability for the quality, effectiveness, and transparency of pathways

Abrahams E, Balch A, Goldsmith P, et al. *Clin Cancer Res*. 2017;23(16):4545-4549.

Summary

- Psoriatic disease is a chronic and progressive condition that places a significant economic burden on patients, employers, and payers
- The challenge is to identify opportunities to reduce costs while maintaining quality of care
- Specialty pharmacy services and care pathways may be useful strategies to ensure patients have access to and receive high-quality, evidence-based, cost-effective treatment, and multidisciplinary care