

Option Table Decision Aid

For a patient with psoriatic arthritis—arthritis, enthesitis, and dactylitis dominant clinical phenotype.

Medication options	Sulfasalazine	Methotrexate	Leflunomide	PDE4i Apremilast	JAK Inhibitor Tofacitinib	Anti-TNF Etanercept Adalimumab Infliximab Certolizumab Golimumab	T-cell modulation Abatacept	Anti IL-12/23i Ustekinumab	Anti IL-17 Secukinumab Ixekizumab*
Year of FDA approval	Off label (RA 1996)	Off label (RA 1976)	Off label (RA 1998)	2014	2012	2004 and later (RA 1999)	2017 (RA 2005)	2013 (Psoriasis 2009)	2015, 2017*
Administered via	Pill	Pill	Pill	Pill	Pill	Injection or infusion	Injection	Injection or infusion	Injection
Frequency	Twice daily	Once a week	Once daily	Twice daily	Once daily	Varied by agent	Once a week	Once a month after loading	Once a month after loading
Power to suppress arthritis (ACR 20)	57 of 100 improve	60 of 100 improve	58 of 100 improve	45 of 100 improve	50 of 100 improve	65 of 100 improve	41 of 100 improve	43 of 100 improve	51-55 of 100 improve
Power to clear psoriasis (PASI 75%)	Unknown	36 of 100 clear	17 of 100 clear	31 of 100 clear	40 of 100 clear	49-80 of 100 clear	16 of 100 clear	55 of 100 clear	70 of 100 clear
Serious infection risk (events/100 patient years)	0.5 in 100	2 in 100	3 in 100	0.5 in 100	3 in 100	5 in 100	3 in 100	3 in 100	1 in 100
Other risks	liver test, blood counts	liver test, blood counts	liver test, blood counts	Upset stomach, weight, depression	liver test, blood counts, diverticulitis	Injection site reaction, immune reaction	Injection site reaction, immune reaction, worsen COPD	Injection site reaction, immune reaction	Injection site reaction, immune reaction
Special population considerations	Caution in pregnancy Hepatitis B or C, chronic liver disease Caution in kidney disease	Avoid pregnancy Hepatitis B or C, chronic liver disease Caution in kidney disease	Avoid pregnancy Hepatitis B or C, chronic liver disease	Avoid pregnancy Drug interactions	Avoid pregnancy Reactivation of TB, fungus, or viral infection Caution in kidney disease Approved for UC	Caution pregnancy Reactivation of TB, fungus, or viral infection Caution in CHF	Avoid pregnancy Avoid in hepatitis B Reactivation of TB, fungus, or viral infection	Avoid pregnancy Avoid in hepatitis B Reactivation of TB, fungus, or viral infection Drug interactions	Avoid pregnancy Avoid in hepatitis B Reactivation of TB, fungus, or viral infection Caution in IBD drug interactions
Safety monitoring plan (ACR guidelines)	Pretreatment: CXR, hepatitis B and C Labs every 1-3 months	Pretreatment: CXR, hepatitis B and C Labs every 1-3 months	Pretreatment: CXR, hepatitis B and C Labs every 1-3 months	No blood monitoring needed	Pretreatment: CXR, hepatitis B and C, TB test Labs every 3 months Yearly TB test	Pretreatment: CXR, hepatitis B and C, TB test Labs every 6 months Yearly TB test	Pretreatment: CXR, hepatitis B and C, TB test Labs every 6 months Yearly TB test	Pretreatment: CXR, hepatitis B and C, TB test Labs every 6 months Yearly TB test	Pretreatment: CXR, hepatitis B and C, TB test Labs every 6 months Yearly TB test
My monthly cost?									

ACR=American College of Rheumatology. ACR20=American College of Rheumatology 20% response criteria. COPD=chronic obstructive pulmonary disease. CHF=congestive heart failure. CXR=chest X-ray. FDA=US Food and Drug Administration. IBD=inflammatory bowel disease. IL-12/23i=interleukin-12/23 inhibitor. IL-17=interleukin-17. JAK=janus kinase. PASI=Psoriasis Area and Severity Index. PDE4i=phosphodiesterase-4 inhibitor. RA=rheumatoid arthritis. TB=tuberculosis. TNF=tumor necrosis factor. UC=ulcerative colitis. Updated: December 12, 2018 © Richard W. Martin, MD, MA. Free use for clinical care is permitted without license.

Facts and Numbers Behind This Decision Aid

FDA MEDICATION USER GUIDES

- Abatacept: https://packageinserts.bms.com/pi/pi_orencia.pdf
- Adalimumab: https://www.accessdata.fda.gov/drugsatfda_docs/label/2008/125057s0110lbl.pdf
- Apremilast: https://www.accessdata.fda.gov/drugsatfda_docs/label/2014/205437s000lbl.pdf
- Certolizumab pegol: https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/125160s283lbl.pdf
- Etanercept: https://www.accessdata.fda.gov/drugsatfda_docs/label/2008/103795s5359lbl.pdf
- Golimumab: https://www.accessdata.fda.gov/drugsatfda_docs/label/2017/125289s133lbl.pdf
- Infliximab: https://www.accessdata.fda.gov/drugsatfda_docs/label/2011/103772s5301MedG.pdf
- Ixekizumab: https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/125521s009lbl.pdf
- Leflunomide: https://www.accessdata.fda.gov/drugsatfda_docs/label/2010/020905s020lbl.pdf
- Methotrexate: https://www.accessdata.fda.gov/drugsatfda_docs/label/2016/008085s066lbl.pdf
- Secukinumab: <https://www.pharma.us.novartis.com/sites/www.pharma.us.novartis.com/files/cosentyx.pdf>
- Sulfasalazine: https://www.accessdata.fda.gov/drugsatfda_docs/label/2009/007073s124lbl.pdf
- Tofacitinib: <https://www.fda.gov/downloads/Drugs/DrugSafety/UCM330702.pdf>
- Ustekinumab: https://www.accessdata.fda.gov/drugsatfda_docs/label/2016/761044lbl.pdf

COCHRANE DATABASE OF SYSTEMATIC REVIEWS

- Jones G, Crotty M, Brooks P. [Interventions for treating psoriatic arthritis \(review\)](#). Cochrane Database of Systematic Reviews, 2000, Issue 3. Art. No.: CD000212. DOI: 10.1002/14651858.CD000212.

OTHER PUBLICATIONS

- Coates LC, Kavanaugh A, Mease PJ, et al. [Group for Research and Assessment of Psoriasis and Psoriatic Arthritis 2015 treatment recommendations for psoriatic arthritis](#). *Arthritis Rheumatol*. 2016;68:1060-1071.
- Coates LC, Kavanaugh A, Ritchlin CT; GRAPPA Treatment Guideline Committee. [Systematic review of treatments for psoriatic arthritis: 2014 update for the GRAPPA](#). *J Rheumatol*. 2014;41:2273-2276.
- Gossec L, Smolen JS, Ramiro S, et al. [European League Against Rheumatism \(EULAR\) recommendations for the management of psoriatic arthritis with pharmacological therapies: 2015 update](#). *Ann Rheum Dis*. 2016;75:499-510.
- Singh J, Guyatt G, Ogdie A, et al. [Special Article: 2018 American College of Rheumatology/National Psoriasis Foundation Guideline for the Treatment of Psoriatic Arthritis](#). *Arthritis Rheumatol*. 2019;71(1):5-32.

Option Table Decision Aid

For choosing targeted therapies for a patient with axial psoriatic arthritis

Medication Options	Anti-TNF <ul style="list-style-type: none"> • Etanercept • Adalimumab • Infliximab • Certolizumab • Golimumab 	Anti-IL-17 <ul style="list-style-type: none"> • Secukinumab • Ixekizumab*
Year of FDA approval	2004 and later (RA 1999)	2015, 2017*
Administered via	Injection or infusion	Injection
Frequency	Varied by agent	Once a month after loading
Power to suppress arthritis (ACR20)	65 of 100 improve	51-55 of 100 improve
Power to clear psoriasis (PASI 75%)	49-80 of 100 clear	70 of 100 clear
Serious infection risk (events/100 patient years)	5 in 100	1 in 100
Other risks	Injection site reaction, immune reaction	Injection site reaction, immune reaction
Special population considerations	Caution pregnancy Reactivation of TB, fungus, or viral infection Caution in CHF	Avoid pregnancy Avoid in hepatitis B Reactivation of TB, fungus, or viral infection Caution in IBD drug interactions
Safety monitoring plan (ACR guidelines)	Pretreatment: CXR, hepatitis B and C, TB test Labs every 6 months Yearly TB test	Pretreatment: CXR, hepatitis B and C, TB test Labs every 6 months Yearly TB test
My monthly cost?		

ACR=American College of Rheumatology. ACR20=American College of Rheumatology 20% response criteria. CHF=congestive heart failure. CXR=chest X-ray. FDA=US Food and Drug Administration. IBD=inflammatory bowel disease. IL-17=interleukin-17. PASI=Psoriasis Area and Severity Index. RA=rheumatoid arthritis. TB=tuberculosis. TNF=tumor necrosis factor. Updated: December 18, 2019. © Richard W. Martin, MD, MA. Free use for clinical care is permitted without license.

FACTS AND NUMBERS BEHIND THIS DECISION AID

Medication User Guides/Prescribing Information

- Abatacept: https://packageinserts.bms.com/pi/pi_orencia.pdf
- Adalimumab: https://www.accessdata.fda.gov/drugsatfda_docs/label/2008/125057s0110lbl.pdf
- Apremilast: https://www.accessdata.fda.gov/drugsatfda_docs/label/2014/205437s000lbl.pdf
- Certolizumab pegol: https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/125160s283lbl.pdf
- Etanercept: https://www.accessdata.fda.gov/drugsatfda_docs/label/2008/103795s5359lbl.pdf
- Golimumab: https://www.accessdata.fda.gov/drugsatfda_docs/label/2017/125289s133lbl.pdf
- Infliximab: https://www.accessdata.fda.gov/drugsatfda_docs/label/2011/103772s5301MedG.pdf
- Ixekizumab: https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/125521s009lbl.pdf
- Leflunomide: https://www.accessdata.fda.gov/drugsatfda_docs/label/2010/020905s020lbl.pdf
- Methotrexate: https://www.accessdata.fda.gov/drugsatfda_docs/label/2016/008085s066lbl.pdf
- Secukinumab: <https://www.pharma.us.novartis.com/sites/www.pharma.us.novartis.com/files/cosentyx.pdf>
- Sulfasalazine: https://www.accessdata.fda.gov/drugsatfda_docs/label/2009/007073s124lbl.pdf
- Tofacitinib: <https://www.fda.gov/downloads/Drugs/DrugSafety/UCM330702.pdf>
- Ustekinumab: https://www.accessdata.fda.gov/drugsatfda_docs/label/2016/761044lbl.pdf

Cochrane Database of Systematic Reviews

- Jones G, Crotty M, Brooks P. [Interventions for treating psoriatic arthritis \(review\)](#). Cochrane Database Syst Rev. 2000, Issue 3. Art. No.: CD000212. DOI: 10.1002/14651858.CD000212.

Other Publications

- Baeten D, Østergaard M, Wei JC, et al. [Risankizumab, an IL-23 inhibitor, for ankylosing spondylitis: results of a randomised, double-blind, placebo-controlled, proof-of-concept, dose-finding phase 2 study](#). Ann Rheum Dis. 2018;77(9):1295-1302.
- Coates LC, Kavanaugh A, Mease PJ, et al. [Group for Research and Assessment of Psoriasis and Psoriatic Arthritis 2015 treatment recommendations for psoriatic arthritis](#). Arthritis Rheumatol. 2016;68:1060-1071.
- Coates LC, Kavanaugh A, Ritchlin CT; GRAPPA Treatment Guideline Committee. [Systematic review of treatments for psoriatic arthritis: 2014 update for the GRAPPA](#). J Rheumatol. 2014;41:2273-2276.
- Deodhar A, Gensler LS, Sieper J, et al. [Three Multicenter, Randomized, Double-Blind, Placebo-Controlled Studies Evaluating the Efficacy and Safety of Ustekinumab in Axial Spondyloarthritis](#). Arthritis Rheumatol. 2019;71(2):258-270.
- Gossec L, Smolen JS, Ramiro S, et al. [European League Against Rheumatism \(EULAR\) recommendations for the management of psoriatic arthritis with pharmacological therapies: 2015 update](#). Ann Rheum Dis. 2016;75:499-510.
- Mease P. [Ustekinumab Fails to Show Efficacy in a Phase III Axial Spondyloarthritis Program: The Importance of Negative Results](#). Arthritis Rheumatol. 2019;71(2):179-181.
- Singh JA, Guyatt G, Ogdie A, et al. [Special Article: 2018 American College of Rheumatology/National Psoriasis Foundation Guideline for the Treatment of Psoriatic Arthritis](#). Arthritis Care Res (Hoboken). 2019;71(1):2-29.