

Medical Affairs Policy & Procedure

Title/Service: Inflammatory Disease, Medication for (abatacept, Actemra, adalimumab, anakinra, Enbrel, etanercept, golimumab, Humira, Kineret, Orenzia, Simponi, Stelara, tocilizumab, ustekinumab)

Revised	11/18/11
Reviewed	04/19/00, 05/05/00, 03/22/02, 02/21/03, 04/28/06, 11/21/08, 04/28/10, 04/15/11
Developed	
Policy Committee Approval	11/18/11

Description:

These medications are designed to reduce the inflammatory process, which is the cause of many of the symptoms and damage associated with [rheumatoid arthritis](#) (RA), [ankylosing spondylitis](#), [Crohn's disease](#), and [psoriasis](#). The goal of treatment with these medications is to limit the progression of disease and improve function. Enbrel (etanercept), Humira (adalimumab), and Simponi (golimumab) are tumor necrosis factor (TNF) blocking agents used for the treatment of arthritis. TNF-alpha is a cytokine whose overproduction increases inflammation. Kineret (anakinra) is a synthetic form of naturally occurring cytokines responsible for regulating interleukin (IL)-1 and inhibits IL-1 binding to its receptor. Orenzia (abatacept) is a selective co-stimulation modulator used to decrease T-cell activation, thus reducing lymphocyte activity. Stelara is a human monoclonal antibody that binds to IL-12 and IL-23 cytokines. Actemra (tocilizumab) is a humanized interleukin-6 receptor-inhibiting monoclonal antibody. Interleukin-6, like TNF-alpha, is over-produced in the joints of RA patients.

Indications of Coverage:

NOTE: Unless contraindicated, patient must try/fail both Enbrel and Humira for appropriate indications before coverage of Cimzia or Simponi will be considered.

Review criteria below for the specific medication being used.

Actemra is considered medically necessary for the following condition:

Moderate to severe active rheumatoid arthritis in individuals with a minimum of six painful joints and an erythrocyte sedimentation rate (ESR) greater than 27mm/hr, or a C-reactive protein (CRP) greater than .2mg/dL, or morning stiffness lasting for more than forty five minutes who have had an inadequate response to one or more nonbiologic DMARDs (disease modifying anti-inflammatory drugs), such as methotrexate, and to TNF antagonists. Actemra may be given as monotherapy or in conjunction with DMARDs such as methotrexate.

Method of administration: intravenous infusion administered over 60 minutes.

Dosage: the recommended starting dose is 4 mg/kg followed by an increase to 8 mg/kg (no more than 800 mg) based on clinical response.

Enbrel is considered medically necessary for any of the following conditions:

Moderate to severe rheumatoid arthritis (a minimum of six painful joints and an erythrocyte sedimentation rate (ESR) greater than 27 mm/hr, or a C-reactive protein (CRP) greater than .2mg/dL, or morning stiffness lasting for more than forty five minutes) which has not responded to conventional therapy (for example, a trial, at least 3 months, of nonbiologic DMARDs).

Moderate to severe active polyarticular-course juvenile rheumatoid arthritis in individuals who have had an inadequate response to one or more disease-modifying anti-rheumatic drugs (DMARDs). (For example, Hydroxychloroquine, oral or injectable gold, methotrexate, azathioprine, penicillamine, sulfasalazine)

Moderate to severe psoriatic arthritis (a minimum of six painful joints and an erythrocyte sedimentation rate (ESR) greater than 27 mm/hr, or a C-reactive protein (CRP) greater than .2mg/dL, or morning stiffness lasting for more than forty five minutes) which has not responded to conventional therapy (for example, a trial, at least 3 months, of nonbiologic DMARDs). Enbrel can be used in combination with methotrexate in individuals who do not respond adequately to methotrexate alone.

Active ankylosing spondylitis which has not responded to conventional therapy (for example, a three month (minimum) trial of a therapeutic dose of non-steroidal anti-inflammatory drugs).

Plaque [psoriasis](#) in adult patients when the medical record documents moderate to severe chronic plaque psoriasis (psoriasis affecting at least 10% of the body surface area AND/OR debilitating involvement of the palms or soles) AND the medical record and pharmacy records document a trial of conservative treatment consisting of at least three months use of each of the following:

Methotrexate, soriatane, or cyclosporine

Phototherapy (ultraviolet B (UVB) or psoralens plus ultraviolet A (PUVA))

Topical treatments

Method of administration: Self-administered by subcutaneous injection.

Dosage and Administration for Enbrel: Adult Rheumatoid Arthritis (RA), Ankylosing Spondylitis (AS), and Psoriatic Arthritis Patients - 50 mg per week given as one subcutaneous injection using a 50 mg/ml single-use prefilled syringe. Methotrexate, glucocorticoids, salicylates, nonsteroidal anti-inflammatory drugs,

or analgesics may be continued during treatment with Enbrel. Doses higher than 50 mg per week are not recommended. Adult Plaque Psoriasis Patients - 50 mg dose given twice weekly (administered three or four days apart) for three months followed by a reduction to a maintenance dose of 50 mg per week. The recommended dose should be administered subcutaneously, using 50 mg/ml single-use prefilled syringes. Starting doses of Enbrel 25 mg or 50 mg per week were also shown to be efficacious. Juvenile Idiopathic Arthritis (JIA) - for pediatric patients ages four to seventeen years of age with active polyarticular-course JIA, the recommended dose is 0.8 mg/kg per week (up to a maximum of 50 mg per week). For pediatric patients weighing 63 kg (138 pounds) or more, the weekly dose of 50 mg may be administered using the prefilled syringe. For pediatric patients weighing 31 to 62 kg (68 to 136 pounds), the total weekly dose should be administered as two subcutaneous injections, either on the same day or three or four days apart using the multiple-use vial. The dose for pediatric patients weighing less than 31 kg (68 pounds) should be administered as a single subcutaneous injection once weekly using the correct volume from the multiple-use vial. Glucocorticoids, nonsteroidal anti-inflammatory drugs, or analgesics may be continued during treatment with Enbrel. Concurrent use with methotrexate and higher doses of Enbrel have not been studied in pediatric patients.

Humira is considered medically necessary for any of the following conditions:

Moderate to severe rheumatoid arthritis (a minimum of six painful joints and an erythrocyte sedimentation rate (ESR) greater than 27 mm/hr, or a C-reactive protein (CRP) greater than .2mg/dL, or morning stiffness lasting for more than forty five minutes) which has not responded to conventional therapy (for example, a three month (minimum) trial of non-biologic DMARDs).

Moderately to severely active polyarticular juvenile idiopathic arthritis in patients four years of age and older. Humira can be used alone or in combination with methotrexate.

Moderate to severe psoriatic arthritis (a minimum of six painful joints and an erythrocyte sedimentation rate (ESR) greater than 27 mm/hr, or a C-reactive protein (CRP) greater than .2mg/dL, or morning stiffness lasting for more than forty five minutes) which has not responded to conventional therapy (for example, a three month (minimum) trial of non-biologic DMARDs).

Moderate to severe active polyarticular-course juvenile rheumatoid arthritis in individuals who have had an inadequate response to one or more disease modifying anti-rheumatic drugs (DMARDs). (For example, hydroxychloroquine, oral or injectable gold, methotrexate, azathioprine, penicillamine, sulfasalazine.)

Active ankylosing spondylitis which has not responded to conventional therapy (for example, a three month (minimum) trial of a therapeutic dose of non-steroidal anti-inflammatory drugs).

Adults with moderate to severe active Crohn's disease who have had an inadequate response to conventional therapy (aminosalicylates (mesalamine, sulfasalazine), corticosteroids, and/or thiopurines (6-mercaptopurine (6-MP) or azathioprine). Humira is also indicated for reducing signs and symptoms and inducing clinical remission in these individuals if they do not respond to or are intolerant of infliximab.

Plaque [psoriasis](#) in adult patients when the medical record documents moderate to severe chronic plaque psoriasis (psoriasis affecting at least 10% of the body surface area AND/OR debilitating involvement of the palms or soles) AND the medical record and pharmacy records document a trial of conservative treatment consisting of at least three months use of each of the following:

Methotrexate, soriatane, or cyclosporine

Phototherapy (ultraviolet B (UVB) or psoralens plus ultraviolet A (PUVA))

Topical treatments.

Method of administration: Self-administered by subcutaneous injection.

Dosage and Administration: 40 mg administered every other week as a subcutaneous injection for adult patients and pediatric patients with a weight greater than 30 kg (66 lb). The recommended dose of Humira for patients four to seventeen years of age with polyarticular juvenile idiopathic arthritis with a weight between 15 kg to 30 kg (33 to 66 lb) is 20 mg every other week. Limited data are available for Humira treatment in pediatric patients with a weight below 15 kg (33 lb).

Kineret is considered medically necessary for the treatment of moderate to severe active rheumatoid arthritis in individuals 18 years of age or older with a minimum of six painful joints and an erythrocyte sedimentation rate greater than 27mm/hr, or a C-reactive protein greater than .2mg/dL, or morning stiffness lasting for more than forty five minutes who have failed one or more nonbiologic DMARDs. Kineret can be used alone or in combination with DMARDs other than tumor necrosis factor (TNF) blocking agents.

Method of administration: Self-administered by subcutaneous injection.

Dosage and Administration: 100 mg/day administered daily by subcutaneous injection.

Orencia is considered medically necessary for the treatment of moderate to active rheumatoid arthritis or polyarticular juvenile idiopathic arthritis in individuals with a minimum of six painful joints and an erythrocyte sedimentation rate (ESR) greater than 27mm/hr, or a C-reactive protein (CRP) greater than .2mg/dL, or morning stiffness lasting for more than forty five minutes who have had an inadequate response to one or more DMARDs, such as methotrexate or TNF antagonists. Orencia may be used as

monotherapy or concomitantly with DMARDs other than TNF antagonists. Orencia should not be administered concomitantly with TNF antagonists.

Method of administration: intravenous infusion.

Dosage and Administration: 30-minute intravenous infusion at the dose specified in the table below. Following the initial administration, Orencia should be given at two and four weeks after the first infusion, then every four weeks thereafter. Orencia may be used as monotherapy or concomitantly with disease-modifying, anti-rheumatic drugs (DMARDs) other than TNF antagonists. Orencia is not recommended for use concomitantly with Anakinra.

Body Weight of Patient	Dose
Less than 60 kg	500 mg
60 to 100 kg	750 mg
Greater than 100 kg	1 gram

Simponi is considered medically necessary for any of the following conditions:

When prescribed together with methotrexate for the treatment of moderate to severe rheumatoid arthritis (a minimum of six painful joints and an erythrocyte sedimentation rate (ESR) greater than 27 mm/hr, or a C-reactive protein (CRP) greater than .2mg/dL, or morning stiffness lasting for more than forty five minutes) which has not responded to conventional therapy (for example, a three month (minimum) trial of nonbiologic DMARDs).

Active psoriatic arthritis (a minimum of six painful joints and an erythrocyte sedimentation rate (ESR) greater than 27mm/hr, or a C-reactive protein (CRP) greater than .2mg/dL, or morning stiffness lasting for more than forty five minutes) which has not responded to conventional therapy (for example, a trial, at least 3 months, of DMARDs). Simponi may be given alone or in combination with methotrexate.

Active ankylosing spondylitis which has not responded to conventional therapy (for example, a three month (minimum) trial of anti-inflammatory drugs).

Method of administration: Self-administered by subcutaneous injection.

Dosage and Administration: 50 mg administered once a month as a subcutaneous injection.

Stelara is considered medically necessary for the following condition:

Plaque [psoriasis](#) in adult patients when the medical record documents moderate to severe chronic plaque psoriasis (psoriasis affecting at least 10% of the body surface area AND/OR debilitating involvement of the palms or soles) AND the medical record and pharmacy records document a trial of conservative treatment consisting of at least three months use of each of the following:

Methotrexate, soriatane, or cyclosporine

Phototherapy (ultraviolet B (UVB) or psoralens plus ultraviolet A (PUVA))

Topical treatments.

Method of administration: Stelara is administered by subcutaneous injection; it is currently administered by a healthcare professional.

Dosage: For patients weighing less than 100 kg (220 lbs), the recommended dose is 45 mg initially and four weeks later, followed by 45 mg every 12 weeks. For patients weighing greater than 100 kg (220 lbs), the recommended dose is 90 mg initially and four weeks later, followed by 90 mg every 12 weeks.

If criteria are met, treatment may be approved for up to six months. Subsequent treatment may be approved in one year increments with review of continued therapeutic response and **consistent** prescription medication use. The drug benefit is available through a retail or mail order pharmacy for Enbrel, Humira, Kineret, Simponi, and Stelara.

Limitations of Coverage:

Review contract and endorsements for exclusions and prior authorization or benefit requirements.

If used for a condition/diagnosis other than is listed in the Indications of Coverage, deny as experimental or investigative.

If used for a condition/diagnosis that is listed in the Indications of Coverage, but the criteria is not met, deny as not medically necessary.

The use of Simponi to treat rheumatoid arthritis without the concurrent use of methotrexate is considered investigational as there is insufficient peer-reviewed scientific literature supporting this treatment.

Documentation Required:

- Office notes
- Lab reports (if necessary)
- Radiology reports (if necessary)
- Prescription medication use data

Rationale:

These medications are used for limiting further structural damage, improving physical function, and reducing signs and symptoms of the following conditions: moderate to severe active rheumatoid arthritis, juvenile rheumatoid arthritis, psoriatic arthritis, active ankylosing spondylitis (a form of arthritis primarily affecting the joints of the spine), plaque psoriasis, and Crohn's disease. Each drug helps to decrease the inflammatory

process and reduce destruction of cartilage and bone. The indications listed above are based on FDA approvals. The use of Humira for the treatment of ulcerative colitis is being studied; there is currently inadequate clinical trial data supporting the efficacy and safety for this indication.

References:

1. Actemra (tocilizumab). South San Francisco, CA: Genentech. Issued: Jan 2011. Available at: www.gene.com/gene/products/information/actemra/pdf/pi.pdf. Accessed: 22 Mar 11.
2. Chou R, Bianco T, Robinson S, King V, Schechtel M, Goei M, Dahlstrom C, Hickam D. Choosing Medications for Adults With Rheumatoid Arthritis. 9 Apr 2008. Available at: effectivehealthcare.ahrq.gov/healthInfo.cfm?infotype=sg&DocID=85&ProcessID=14. Accessed: 22 Mar 11.
3. [Emery P](#), [Keystone E](#), [Tony HP](#), [Cantagrel A](#), [van Vollenhoven R](#), [Sanchez A](#), [Alecock E](#), [Lee J](#), [Kremer J](#). IL-6 receptor inhibition with tocilizumab improves treatment outcomes in patients with rheumatoid arthritis refractory to anti-tumour necrosis factor biologicals: results from a 24-week multicentre randomised placebo-controlled trial. [Ann Rheum Dis](#). 2008 Nov;67(11):1516-23.
4. Emery P. New Biologic for Treating Rheumatoid Arthritis: Clinical Trial Experience with Tocilizumab. [Int J Clin Rheum](#). 2010;5(1):17-24.
5. Enbrel (etanercept) For Subcutaneous Injection. Thousand Oaks, CA: Immunex Corporation. Revised: 02/2011. Available at: www.enbrel.com/pdf/enbrel_pi.pdf. Accessed: 22 Mar 11.
6. [Garnero P](#), [Thompson E](#), [Woodworth T](#), [Smolen JS](#). Rapid and sustained improvement in bone and cartilage turnover markers with the anti-interleukin-6 receptor inhibitor tocilizumab plus methotrexate in rheumatoid arthritis patients with an inadequate response to methotrexate: Results from a substudy of the multicenter double-blind, placebo-controlled trial of tocilizumab in inadequate responders to methotrexate alone. [Arthritis Rheum](#). 2009 Dec 28;62(1):33-43.
7. [Genovese MC](#), [McKay JD](#), [Nasonov EL](#), [Mysler EF](#), [da Silva NA](#), [Alecock E](#), [Woodworth T](#), [Gomez-Reino JJ](#). Interleukin-6 receptor inhibition with tocilizumab reduces disease activity in rheumatoid arthritis with inadequate response to disease-modifying antirheumatic drugs: the tocilizumab in combination with traditional disease-modifying antirheumatic drug therapy study. [Arthritis Rheum](#). 2008 Oct;58(10):2968-80.
8. [Hetland ML](#), [Christensen IJ](#), [Tarp U](#), [Dreyer L](#), [Hansen A](#), [Hansen IT](#), [Kollerup G](#), [Linde L](#), [Lindegaard HM](#), [Poulsen UE](#), [Schlemmer A](#), [Jensen DV](#), [Jensen S](#), [Hostenkamp G](#), [Østergaard M](#); All Departments of Rheumatology in Denmark. Direct comparison of treatment responses, remission rates, and drug adherence in patients with rheumatoid arthritis treated with adalimumab, etanercept, or infliximab: results from eight years of

surveillance of clinical practice in the nationwide Danish DANBIO registry. [Arthritis Rheum](#). 2010 Jan;62(1):22-32.

9. Humira (adalimumab). North Chicago, IL: Abbott laboratories. Revised: 03/2011. Available at: www.rxabbott.com/pdf/humira.pdf. Accessed: 22 Mar 11.

10. [Inman RD](#), [Davis JC Jr](#), [Heijde D](#), [Diekman L](#), [Sieper J](#), [Kim SI](#), [Mack M](#), [Han J](#), [Visvanathan S](#), [Xu Z](#), [Hsu B](#), [Beutler A](#), [Braun J](#). Efficacy and safety of golimumab in patients with ankylosing spondylitis: results of a randomized, double-blind, placebo-controlled, phase III trial. [Arthritis Rheum](#). 2008 Nov;58(11):3402-12.

11. Keystone E, Fleischmann R, Emery P, Furst DE, van Vollenhoven R, Bathon J, Dougados M, Baldassare A, Ferraccioli G, Chubick A, Udell J, Cravets MW, Agarwal S, Cooper S, Magrini F. Safety and efficacy of additional courses of rituximab in patients with active rheumatoid arthritis: an open-label extension analysis. [Arthritis Rheum](#). 2007 Dec; 56(12): 3896-908.

12. Kineret (anakinra). Thousand Oaks, CA: Amgen Inc. Issue date: 12/15/2009. Available at: www.kineretrx.com/professional/pdf/Kineret%20Prescribing%20Information%202015%20December%202009_BVT.PDF. Accessed: 22 Mar 11.

13. Kornbluth A, Sachar DB; Practice Parameters Committee of the American College of Gastroenterology. Ulcerative colitis practice guidelines in adults: American College Of Gastroenterology, Practice Parameters Committee. [Am J Gastroenterol](#). 2010 Mar; 105(3):501-23.

14. [Lebwohl M](#), [Papp K](#), [Han C](#), [Schenkel B](#), [Yeilding N](#), [Wang Y](#), [Krueger GG](#). Ustekinumab improves health-related quality of life in patients with moderate-to-severe psoriasis: results from the PHOENIX 1 trial. [Br J Dermatol](#). 2009 Nov 9.

15. [Menter A](#), [Gottlieb A](#), [Feldman SR](#), [Van Voorhees AS](#), [Leonardi CL](#), [Gordon KB](#), [Lebwohl M](#), [Koo JY](#), [Elmets CA](#), [Korman NJ](#), [Beutner KR](#), [Bhushan R](#). Guidelines of care for the management of psoriasis and psoriatic arthritis: Section 1. Overview of psoriasis and guidelines of care for the treatment of psoriasis with biologics. [J Am Acad Dermatol](#). 2008 May;58(5):826-50.

16. [Nishimoto N](#), [Miyasaka N](#), [Yamamoto K](#), [Kawai S](#), [Takeuchi T](#), [Azuma J](#), [Kishimoto T](#). Study of active controlled tocilizumab monotherapy for rheumatoid arthritis patients with an inadequate response to methotrexate (SATORI): significant reduction in disease activity and serum vascular endothelial growth factor by IL-6 receptor inhibition therapy. [Mod Rheumatol](#). 2009;19(1):12-9.

17. Orenzia (abatacept). Princeton, NJ. Bristol-Myers Squibb. Revised: 08/2009. Available at: www.orencia.com/about-orencia.aspx?TC=85788. Accessed: 22 Mar 11.

18. [Papp KA](#), [Langley RG](#), [Lebwohl M](#), [Krueger GG](#), [Szapary P](#), [Yeilding N](#), [Guzzo C](#), [Hsu MC](#), [Wang Y](#), [Li S](#), [Dooley LT](#), [Reich K](#); PHOENIX 2 study investigators. Efficacy

and safety of ustekinumab, a human interleukin-12/23 monoclonal antibody, in patients with psoriasis: 52-week results from a randomised, double-blind, placebo-controlled trial (PHOENIX 2). [Lancet](#). 2008 May 17;371(9625):1675-84.

19. Psoriasis. Rochester, MN: Mayo Foundation for Medical and Education Research. Feb 25, 2011. Available at: www.mayoclinic.com/health/psoriasis/DS00193/DSECTION=treatments-and-drugs. Accessed: 22 Mar 11.

20. Rindfleisch JA, Muller D. Diagnosis and management of rheumatoid arthritis. *Am Fam Physician*. 2005 Sep 15; 72(6): 1037-47.

21. Rituxan (rituximab). South San Francisco, CA: Genentech, Inc. Revised: 01/2011. Available at: www.gene.com/gene/products/information/pdf/rituxan-prescribing.pdf. Accessed: 22 Mar 11.

22. Saag KG, Teng GG, Patkar NM, Anuntiyo J, Finney C, Curtis JR, Paulus HE, Mudano A, Pisu M, Elkins-Melton M, Outman R, Allison JJ, Suarez Almazor M, Bridges SL Jr, Chatham WW, Hochberg M, MacLean C, Mikuls T, Moreland LW, O'Dell J, Turkiewicz AM, Furst DE; American College of Rheumatology. American College of Rheumatology 2008 recommendations for the use of nonbiologic and biologic disease-modifying antirheumatic drugs in rheumatoid arthritis. *Arthritis Rheum*. 2008 Jun 15;59(6):762-84.

23. [Ritchlin CT](#), [Kavanaugh A](#), [Gladman DD](#), [Mease PJ](#), [Helliwell P](#), [Boehncke WH](#), [de Vlam K](#), [Fiorentino D](#), [Fitzgerald O](#), [Gottlieb AB](#), [McHugh NJ](#), [Nash P](#), [Qureshi AA](#), [Soriano ER](#), [Taylor WJ](#); [Group for Research and Assessment of Psoriasis and Psoriatic Arthritis \(GRAPPA\)](#). Treatment Recommendations for Psoriatic Arthritis. *Ann Rheum Dis* 2009;68:1387-1394

24. Simponi (golimumab). Horsham, PA: Centocor Ortho Biotech Inc. Revised: 12/2010. Available at: www.simponi.com/simponi/Healthcare-Professionals/index.html. Accessed: 22 Mar 11.

25. Smith CH, Anstey AV, Barker JNWN, Burden AD, Chalmers RJG, Chandler D, Finlay AY, Griffiths CEM, Jackson K, McHugh NJ, McKenna KE, Reynolds NJ, Ormerod AD. British Association of Dermatologists guidelines for use of biological interventions in psoriasis 2005. *British Journal of Dermatology*. 2005 (153), p486–497.

26. [Smolen JS](#), [Kay J](#), [Doyle MK](#), [Landewé R](#), [Matteson EL](#), [Wollenhaupt J](#), [Gaylis N](#), [Murphy FT](#), [Neal JS](#), [Zhou Y](#), [Visvanathan S](#), [Hsia EC](#), [Rahman MU](#); [GO-AFTER study investigators](#). Golimumab in patients with active rheumatoid arthritis after treatment with tumour necrosis factor alpha inhibitors (GO-AFTER study): a multicentre, randomised, double-blind, placebo-controlled, phase III trial. [Lancet](#). 2009 Jul 18; 374(9685):210-21

27. Stelara (ustekinumab). Horsham, PA: Centocor Ortho Biotech Inc. Revised: 10/2010. Available at: www.stelarainfo.com/pdf/PrescribingInformation.pdf. Accessed: 22 Mar 11.

28. Sterry W, Ortonne JP, Kirkham B, Brocq O, Robertson D, Pedersen RD, Estojak J, Motta CT, Freundlich B. [Comparison of two etanercept regimens for treatment of psoriasis and psoriatic arthritis: PRESTA randomised double blind multicentre trial.](#) *BMJ.* 2010 Feb 2;340:c147
29. Systemic Treatment. Portland, OR: National Psoriasis Foundation. Available at: www.psoriasis.org. Accessed: 22 Mar 11.
30. van Vollenhoven RF, Ernestam S, Geborek P, Petersson IF, Cöster L, Waltbrand E, Zickert A, Theander J, Thörner A, Hellström H, Telemann A, Dackhammar C, Akre F, Forslind K, Ljung L, Oding R, Chatzidionysiou A, Wörnert M, Bratt J. Addition of infliximab compared with addition of sulfasalazine and hydroxychloroquine to methotrexate in patients with early rheumatoid arthritis (Swefot trial): 1-year results of a randomised trial. *Lancet.* 2009 Aug 8; 374(9688): 459-66.
31. [Wilke](#) WS, Rheumatoid Arthritis. Disease Management Project. Cleveland Clinic Center for Continuing Education. Available at: www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/rheumatology/rheumatoid-arthritis. Accessed: 22 Mar 11.
32. [Xu Z](#), [Vu T](#), [Lee H](#), [Hu C](#), [Ling J](#), [Yan H](#), [Baker D](#), [Beutler A](#), [Pendley C](#), [Wagner C](#), [Davis HM](#), [Zhou H](#). Population pharmacokinetics of golimumab, an anti-tumor necrosis factor-alpha human monoclonal antibody, in patients with psoriatic arthritis. *J Clin Pharmacol.* 2009 Sep;49(9):1056-70.

Approved by the Medical Director