Cosentyx®
(secukinumab)

OVERVIEW OF CLINICAL STUDY DESIGNS AND PATIENT CHARACTERISTICS

INDICATIONS

COSENTYX® (secukinumab) is indicated for the treatment of moderate to severe plaque psoriasis in adult patients who are candidates for systemic therapy or phototherapy.

COSENTYX is indicated for the treatment of adult patients with active psoriatic arthritis.

COSENTYX is indicated for the treatment of adult patients with active ankylosing spondylitis.

IMPORTANT SAFETY INFORMATION

CONTRAINDICATIONS

COSENTYX is contraindicated in patients with a previous serious hypersensitivity reaction to secukinumab or to any of the excipients.

WARNINGS AND PRECAUTIONS

Infections

COSENTYX may increase the risk of infections. In clinical trials, a higher rate of infections was observed in subjects treated with COSENTYX compared to placebo-treated subjects. In placebo-controlled clinical trials in patients with moderate to severe plaque psoriasis, higher rates of common infections such as nasopharyngitis (11.4% versus 8.6%), upper respiratory tract infection (2.5% versus 0.7%), and mucocutaneous infections with candida (1.2% versus 0.3%) were observed with COSENTYX compared with placebo. A similar increase in risk of infection was seen in placebo-controlled trials in patients with psoriatic arthritis and ankylosing spondylitis. The incidence of some types of infections appeared to be dose-dependent in clinical studies.

Exercise caution when considering the use of COSENTYX in patients with a chronic infection or a history of recurrent infection.

Instruct patients to seek medical advice if signs or symptoms suggestive of an infection occur. If a patient develops a serious infection, the patient should be closely monitored and COSENTYX should be discontinued until the infection resolves.

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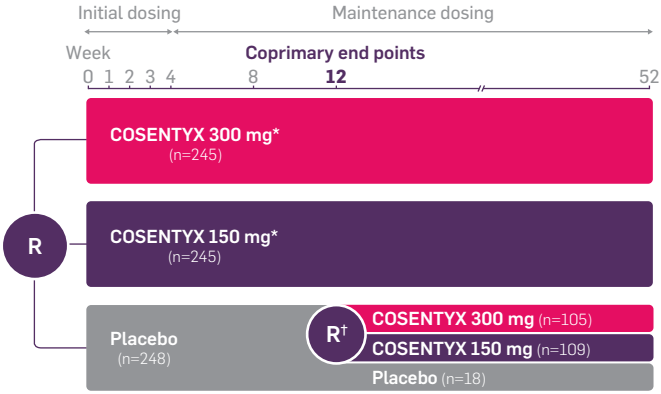
Table of Contents

Cosentyx® (secukinumab)

ERASURE[1,2]



The ERASURE study was a multicenter, randomized, double-blind, placebo-controlled trial of 738 patients.[1]

- All patients were adults with moderate to severe plaque PsO who had a BSA ≥10%, PASI score ≥12, and IGA mod 2011 score ≥3 and were candidates for systemic therapy or phototherapy[2]
- All patients were followed for up to 52 weeks[1]
- Coprimary end points were the proportion of patients who achieved a reduction in PASI score of ≥75% (PASI 75) from baseline to week 12 and treatment success (clear or almost clear) on the IGA mod 2011 at week 12[2]
- Other evaluated outcomes included the proportion of subjects who achieved a reduction in PASI score of ≥90% (PASI 90) from baseline at week 12, maintenance of efficacy (PASI 75 and IGA mod 2011 clear or almost clear) to week 52 in patients who were responders at week 12, and improvements in itching, pain, and scaling at week 12 based on the Psoriasis Symptom Diary[2]

Selected Baseline Characteristics	COSENTYX 300 mg (n=245)	COSENTYX 150 mg (n=245)	Placebo (n=248)
PASI score, mean (min-max)	22 (11-72)	22 (12-61)	21 (11-72)
IGA mod 2011 score			
3 - Moderate disease, %	63	66	61
4 - Severe disease, %	37	34	39
BSA, mean, %	33	33	30
Weight, mean (min-max), kg	89 (48-186)	87 (48-159)	90 (43-192)
PsA present, %	23	19	27
Previous exposure to nonbiologic systemic therapy, n	128	125	108
Previous failure to nonbiologic systemic therapy	100/128	95/125	78/108
Previous exposure to biologic systemic therapy, n	70	73	73
Previous failure to biologic systemic therapy	19/70	29/73	24/73

BSA, body surface area; IGA mod 2011, Investigator's Global Assessment modified 2011; PASI, Psoriasis Area and Severity Index; PsA, psoriatic arthritis; PsO, psoriasis; R, randomization.

*Initial dosing: once weekly for 5 weeks, weeks 0, 1, 2, 3, and 4; maintenance: once every 4 weeks, weeks 8 through 48.[2]

†Placebo nonresponders (who did not achieve PASI 75 at week 12) were rerandomized 1:1 to COSENTYX 150 mg or COSENTYX 300 mg at weeks 12, 13, 14, 15, and 16, followed by the same dose every 4 weeks.[1,2]

Cosentyx® (secukinumab)

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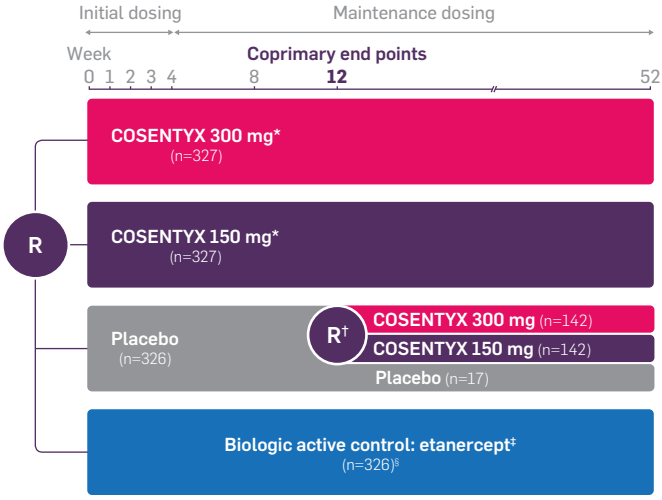
Click here for full Prescribing Information, including Medication Guide.

FIXTURE[1,3]



The FIXTURE study was a multicenter, randomized, double-blind, placebo-controlled trial of 1306 patients.[1]

- All patients were adults with moderate to severe plaque PsO who had a BSA ≥10%, PASI score ≥12, and IGA mod 2011 score ≥3 and were candidates for systemic therapy or phototherapy[3]
- Patients were followed for up to 52 weeks[1]
- Coprimary end points were the proportion of subjects who achieved a reduction in PASI score of ≥75% (PASI 75) from baseline to week 12 and treatment success (clear or almost clear) on the IGA mod 2011 at week 12[3]
- Other evaluated outcomes included the proportion of subjects who achieved a reduction in PASI score of ≥90% (PASI 90) from baseline at week 12, maintenance of efficacy (PASI 75 and IGA mod 2011 clear or almost clear) to week 52 in patients who were responders at week 12, and improvements in itching, pain, and scaling at week 12 based on the Psoriasis Symptom Diary[3]

Selected Baseline Characteristics	COSENTYX 300 mg (n=327)	COSENTYX 150 mg (n=327)	Etanercept 50 mg (n=326)	Placebo (n=326)
PASI score, mean (min-max)	24 (12-64)	24 (12-70)	23 (12-55)	24 (12-64)
IGA mod 2011 score				
3 - Moderate disease, %	62	63	60	62
4 - Severe disease, %	38	37	40	38
BSA, mean, %	34	34	34	35
Weight, mean (min-max), kg	83 (45-219)	84 (43-163)	85 (42-176)	82 (42-148)
PsA present, %	15	15	14	15
Previous exposure to nonbiologic systemic PsO therapy, n	195	198	204	199
Previous failure to nonbiologic systemic PsO therapy	163/195	171/198	161/204	172/199
Previous exposure to biologic systemic PsO therapy, n	38	45	45	35
Previous failure to biologic systemic PsO therapy	16/38	15/45	16/45	12/35

BSA, body surface area; IGA mod 2011, Investigator's Global Assessment modified 2011; PASI, Psoriasis Area and Severity Index; PsA, psoriatic arthritis; PsO, psoriasis; R, randomization; SC, subcutaneous.

*Initial dosing: once weekly for 5 weeks, weeks 0, 1, 2, 3, and 4; maintenance: once every 4 weeks, weeks 8 through 48.[3]

†Placebo nonresponders (who did not achieve PASI 75 at week 12) were rerandomized 1:1 to COSENTYX 150 mg or COSENTYX 300 mg at weeks 12, 13, 14, 15, and 16, followed by the same dose every 4 weeks.[1,3]

‡Etanercept 50 mg was administered SC twice per week from randomization until week 12, followed by 50 mg every week from week 12 through week 51. To maintain blinding, patients also received 2 placebo COSENTYX injections at the COSENTYX regimen. COSENTYX patients also received etanercept placebo twice per week from randomization through week 12, and then once per week until week 51.[3]

§In this study, n=326 for etanercept represents a randomized set and n=323 was used in the analysis of efficacy end points (PASI 75 and IGA mod 2011 0/1) presented.

Cosentyx® (secukinumab)

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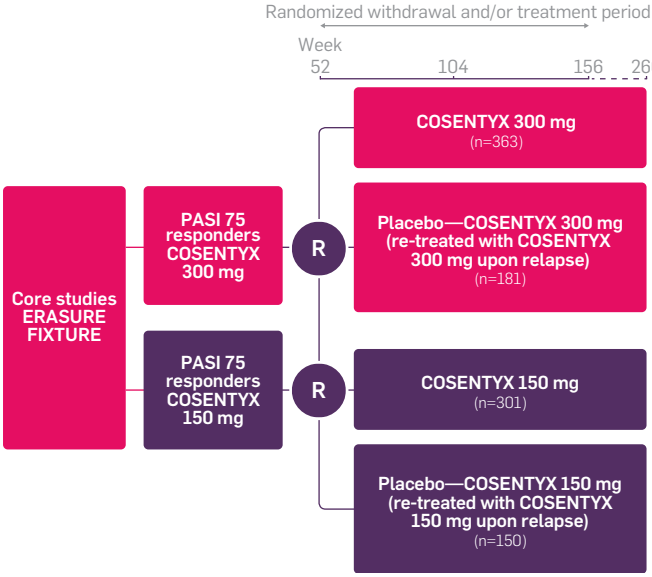
Click here for full Prescribing Information, including Medication Guide.

ERASURE and FIXTURE Extension[4]



The ERASURE and FIXTURE Extension study was a multicenter, double-blind, randomized, withdrawal trial of COSENTYX in patients completing 52 weeks in either the ERASURE or FIXTURE core studies.[4]

- Patients who were treated with COSENTYX 300 mg or 150 mg during the maintenance period in either the ERASURE or FIXTURE Core studies and who exhibited PASI 75 at week 52 were eligible to be rerandomized 2:1 to continue the same COSENTYX dose or receive placebo (withdrawal from active treatment)[4]
- Placebo patients who experienced relapse (defined as loss of >50% of maximum PASI improvement compared with baseline of the core study) at any visit were re-treated with 5 weekly doses of COSENTYX 300 mg or 150 mg, followed by 1 dose every 4 weeks[4]
- Retreatment results are for patients re-treated with COSENTYX after relapsing on placebo in the ERASURE and FIXTURE Extension study[4]

- Primary end point was loss of PASI 75 response from baseline (week 52) up to week 68. Other end points included PASI 50/75/90 and IGA mod 2011 0/1 response rates over time in patients who were PASI 75 responders at week 52, and PASI 50/75/90 response rates over time in patients who were PASI 75 responders at week 52 and re-treated with COSENTYX 300 mg or 150 mg after relapse on placebo[4]

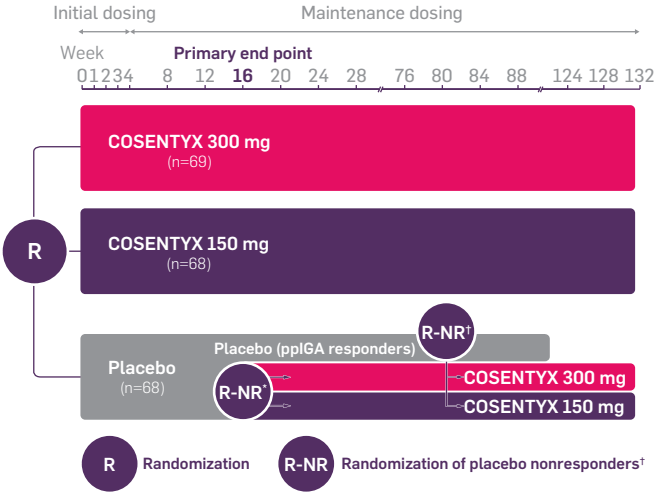
Selected Baseline Characteristics	COSENTYX 300 mg (n=363)	COSENTYX 150 mg (n=301)	Placebo-COSENTYX 300 mg (n=181)	Placebo-COSENTYX 150 mg (n=150)
PASI score, mean (min-max)	1 (0-9)	2 (0-17)	1 (0-9)	2 (0-9)
IGA mod 2011 score				
3 - Moderate disease, %	3	5	1	3
4 - Severe disease, %	0	0	0	1
Weight, mean (min-max), kg	86 (52-171)	86 (43-149)	85 (52-179)	84 (46-159)
Previous exposure to nonbiologic systemic PsO therapy, n	181	162	99	72
Previous failure to nonbiologic systemic PsO therapy	145/363	123/301	85/181	59/150
Previous exposure to biologic systemic PsO therapy, n	59	51	30	23
Previous failure to biologic systemic PsO therapy	17/363	14/301	10/181	6/150

IGA mod 2011, Investigator's Global Assessment modified 2011; PASI, Psoriasis Area and Severity Index; PsO, psoriasis; R, randomization.

Cosentyx® (secukinumab)

Please see the front cover and page 36 for Important Safety Information.
Click here for full Prescribing Information, including Medication Guide.

GESTURE[5]



GESTURE was a randomized, double-blind, placebo-controlled multicenter study in patients with moderate to severe palmoplantar plaque PsO.[5]

- All patients were adults with plaque type PsO, including moderate to severe PsO for at least 6 months with significant involvement of palms and soles as defined by a ppIGA score of ≥3 and at least 1 extrapalmoplantar plaque on the skin[5]
- Patients were required to be candidates for systemic therapy[5]
- The primary end point was proportion of patients achieving ppIGA 0/1 response and a reduction of at least 2 points from baseline on the ppIGA scale at week 16[5]
- Secondary end points included ppIGA and ppPASI responses over time to week 16 compared to placebo, and over time up to week 132[5]

Selected Baseline Characteristics	COSENTYX 300 mg (n=69)	COSENTYX 150 mg (n=68)	Placebo (n=68)
ppPASI score, mean	24	24	24
ppIGA score			
3 - Moderate disease, %	73	57	68
4 - Severe disease, %	28	43	32
PASI score, mean	8	9	8
IGA mod 2011 score			
3 - Moderate disease, %	46	41	49
4 - Severe disease, %	16	19	21
BSA, mean, %	10	11	9
Previous exposure to biologic PsO therapy, n	5	9	8
Previous failure to biologic PsO therapy	3/5	6/9	7/8

BSA, body surface area; IGA mod 2011, Investigator's Global Assessment modified 2011; PASI, Psoriasis Area and Severity Index; ppIGA, palmoplantar Investigator's Global Assessment; ppPASI, palmoplantar Psoriasis Area and Severity Index; PsO, psoriasis.

*Patients in the placebo arm who were not ppIGA responders (did not achieve a ppIGA 0/1 and at least a 2-point reduction from baseline) were rerandomized to receive either COSENTYX 300 mg or 150 mg starting at week 16 visit (5 weekly doses, followed by every 4 weeks thereafter).[5]

†Placebo patients who were not ppIGA 0/1 responders by week 76 were rerandomized to receive either COSENTYX 300 mg or COSENTYX 150 mg starting at week 80.[5]

Cosentyx® (secukinumab)

Please see the front cover and page 36 for Important Safety Information.
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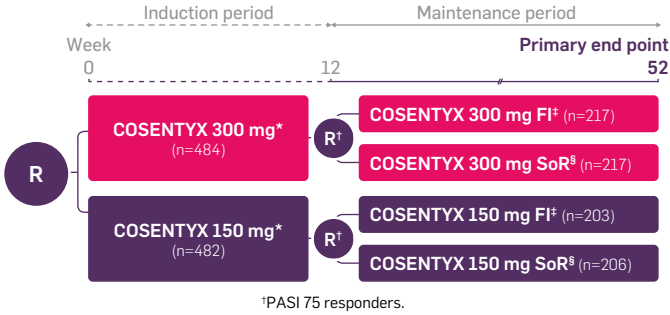
SCULPTURE Core[6]



†PASI 75 responders.

The SCULPTURE Core study was a randomized, double-blind, multicenter trial assessing PASI response and maintenance of response in patients with moderate to severe plaque PsO on either an FI regimen (every 4 weeks) or on a retreatment at SoR regimen.[6]

- All patients had a diagnosis of chronic plaque-type PsO for at least 6 months prior to randomization; moderate to severe PsO was defined as BSA ≥10%, PASI score ≥12, and IGA mod 2011 score ≥3 and were candidates for systemic therapy or phototherapy[6]
- The primary end point was noninferiority of the retreatment at SoR regimen vs the FI regimen for maintaining PASI 75 at week 52 in patients who were PASI 75 responders at week 12[6]

Selected Baseline Characteristics	COSENTYX 300 mg (n=484)	COSENTYX 150 mg (n=482)
PASI score, mean	23	24
IGA mod 2011 score		
3 - Moderate disease, %	59	60
4 - Severe disease, %	41	40
BSA, mean, %	34	36
Weight, mean (min-max), kg	85 (36-174)	85 (39-181)
PsA present, %	19	22
Previous exposure to nonbiologic systemic PsO therapy	258	272
Previous failure to nonbiologic systemic PsO therapy	210/484	215/482
Previous exposure to biologic systemic PsO therapy	141	129
Previous failure to biologic systemic PsO therapy	74/484	64/482

BSA, body surface area; FI, fixed interval; IGA mod 2011, Investigator's Global Assessment modified 2011; PASI, Psoriasis Area and Severity Index; PsA, psoriatic arthritis; PsO, psoriasis; R, randomization; SoR, start of relapse.

*Initial dosing at weeks 1, 2, 3, 4, and 8.[6]

†Patients in the FI groups received the same dose they received during the induction period: COSENTYX 150-mg patients continued to receive 150 mg COSENTYX every 4 weeks, and COSENTYX 300-mg patients continued to receive 300 mg COSENTYX every 4 weeks from week 12 up to and including week 48.[6]

§Patients received COSENTYX at week 12 and then every 4 weeks from the start of relapse (≥20% loss of maximum PASI score improvement vs baseline and a loss of PASI 75 response) until they achieved PASI 75 again.[6]

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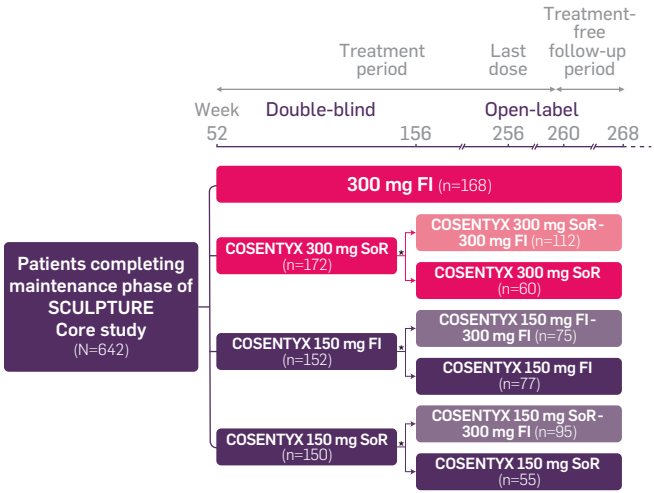
SCULPTURE Extension[7]



The SCULPTURE Extension study was a multicenter, double-blind and open-label (from week 156 through week 260) trial.[7]

- Patients who completed 52 weeks of the SCULPTURE Core study were eligible to continue the same COSENTYX dose and regimen in the SCULPTURE Extension study to week 156[7]
- At week 156, the study was unblinded and, based on investigator judgment, patients could switch dosing regimens (from SoR to FI regimen and from COSENTYX 150 mg to 300 mg)[7]
- Primary objective was to assess long-term safety and tolerability of COSENTYX in patients who completed treatment in the core study. Other objectives included efficacy over time with respect to PASI 50/75/90[7]

Selected Characteristics of Extension Study Patients at Core Study Baseline	COSENTYX 300 mg FI (n=168)	COSENTYX 300 mg SoR - 300 mg FI (n=112)	COSENTYX 300 mg SoR (n=60)	COSENTYX 150 mg FI - 300 mg FI (n=75)	COSENTYX 150 mg FI (n=77)	COSENTYX 150 mg SoR - 300 mg FI (n=95)	COSENTYX 150 mg SoR (n=55)
PASI score, mean	23	23	22	24	23	24	26
IGA mod 2011 score							
3 - Moderate disease, %	55	63	58	60	66	65	49
4 - Severe disease, %	45	38	42	40	34	35	51
BSA, mean, %	33	33	32	34	36	35	36
Weight, mean, kg	85	88	87	90	81	85	83
Previous exposure to systemic PsO therapy, n	120	76	35	51	49	59	37
Previous failure to systemic PsO therapy	95/168	56/112	25/60	36/75	41/77	43/95	26/55

BSA, body surface area; FI, fixed interval; IGA mod 2011, Investigator's Global Assessment modified 2011; PASI, Psoriasis Area and Severity Index; PsO, psoriasis; SoR, start of relapse.

*Patients could switch regimens based on investigator judgment.[7]

Cosentyx® (secukinumab)

Please see the front cover and page 36 for Important Safety Information.
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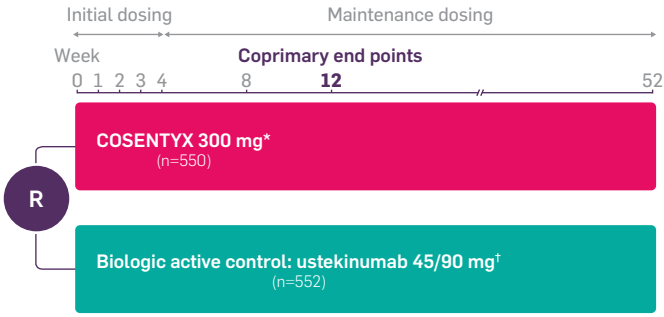
CLARITY[8,9]



CLARITY is a 52-week, multicenter, randomized, double-blind study of COSENTYX 300 mg to demonstrate efficacy as assessed by PASI and IGA mod 2011 after 12 weeks of treatment, compared with ustekinumab, and to assess long-term safety and efficacy in subjects with moderate to severe plaque PsO.[8,9]

- All patients were adults who had a BSA ≥10%, PASI score ≥12, IGA mod 2011 ≥3, and were candidates for systemic therapy or phototherapy[8]
- Coprimary end points were the proportion of patients who achieved a reduction in PASI score of ≥90% (PASI 90) and treatment success (clear or almost clear) on the IGA mod 2011, at week 12[8]
- Key secondary end points included PASI 75 at week 4, week 12, and week 16; PASI 90 at week 16 and week 52; PASI 100 at week 12 and week 16; and IGA mod 2011 0/1 (clear/almost clear) at week 16[8]

Selected Baseline Characteristics	COSENTYX 300 mg (n=550)	Ustekinumab 45/90 mg (n=552)
PASI score, mean (min-max)	21 (11-70)	21 (10-70)
IGA mod 2011 score		
3 - Moderate disease, %	62	57
4 - Severe disease, %	38	43
BSA, mean, %	29	30
Weight, mean (min-max), kg	91 (39-216)	93 (39-191)
PsA present, %	20	20
Previous exposure to biologic PsO therapy, n	110/550	130/552
Previous failure to biologic systemic therapy	52/110	53/130

BSA, body surface area; IGA mod 2011, Investigator's Global Assessment modified 2011; PASI, Psoriasis Area and Severity Index; PsA, psoriatic arthritis; PsO, psoriasis; R, randomization.

*Initial dosing: once weekly for 5 weeks, weeks 0, 1, 2, 3, and 4; maintenance: once every 4 weeks, weeks 8 through 48.

†Ustekinumab dose was based on body weight at baseline; 45 mg for patients ≤100 kg and 90 mg for patients >100 kg. An active dose was administered at weeks 0, 4, 16, 28, and 40. To maintain blinding, patients received placebo treatments at additional time points not shown in this schema.

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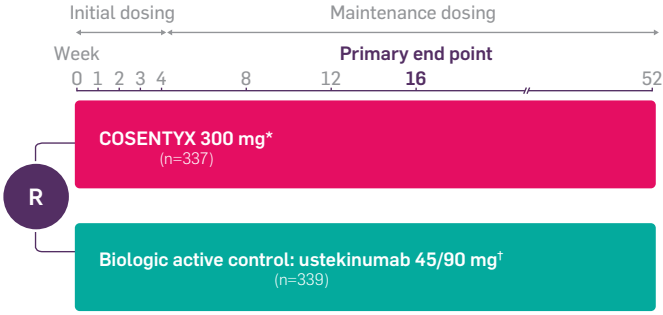
CLEAR[10,11]



The CLEAR study was a 52-week, randomized, double-blind, active-comparator parallel group, superiority phase 3B study.[10]

- All patients were adults with a diagnosis of moderate to severe plaque PsO (defined as: PASI score ≥12, BSA ≥10%, and IGA mod 2011 ≥3) at least 6 months before randomization and had been inadequately controlled by topical treatments, phototherapy, and/or previous systemic therapy[10,11]
- The primary end point was PASI 90 response at week 16[10]
- Secondary end points were PASI 75 at week 4 and PASI 90 at week 52[10]
- Other end points included PASI 75/90/100 and IGA mod 2011 0/1 (clear/almost clear) response over time up to week 52; self-assessed symptoms of pain, itching, or scaling and changes in health-related quality of life measured with the Dermatology Life Quality Index (DLQI)[10,11]

Selected Baseline Characteristics	COSENTYX 300 mg (n=337)	Ustekinumab 45/90 mg (n=339)
PASI score, mean	22	22
IGA mod 2011 score		
3 - Moderate disease, %	61	63
4 - Severe disease,‡ %	39	37
BSA, mean, %	33	32
Weight, mean, kg	87	87
PsA present, %	21	16
Previous exposure to biologic therapy, n	48/337	44/339
Previous failure to biologic therapy	36/337	34/339

BSA, body surface area; IGA mod 2011, Investigator's Global Assessment modified 2011; PASI, Psoriasis Area and Severity Index; PsA, psoriatic arthritis; PsO, psoriasis; R, randomization.

*Initial dosing: once weekly for 5 weeks, weeks 0, 1, 2, 3, and 4; maintenance: once every 4 weeks, weeks 8 through 48.

†Ustekinumab dose was based on body weight at baseline; 45 mg for patients ≤100 kg and 90 mg for patients >100 kg at baseline.

‡All other subjects had a score of 3 (moderate disease) except for 2 patients recorded at baseline as having a score of 2 (mild disease) that was later corrected to a score of 3 at the week 16 database lock.

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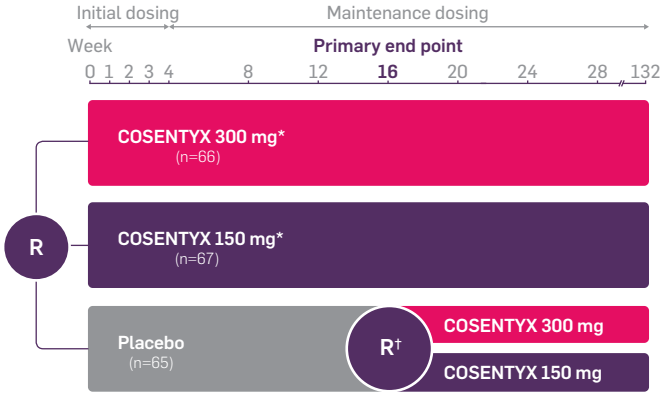
TRANSFIGURE[12]



TRANSFIGURE was a double-blind, randomized, placebo-controlled study examining the safety and efficacy of COSENTYX in patients with moderate to severe nail PsO.[12]

- All patients were adults with chronic moderate to severe plaque PsO (PASI score ≥12 and BSA ≥10%), and significant nail involvement (fingernail NAPSI score of ≥16 and ≥4 fingernails involved), who were candidates for systemic therapy[12]
- Primary end point: NAPSI assessment at week 16[12]
- Other end points included NAPSI response over time up to week 132[12]

Selected Baseline Characteristics	COSENTYX 300 mg (n=66)	COSENTYX 150 mg (n=67)	Placebo (n=65)
NAPSI score (total fingernail), mean	46	39	43
NAPSI score (target toenail), mean	6	6	6
PASI score, mean	21	21	19
BSA, mean, %	28	26	26
Weight, mean, kg	90	91	91
Previous exposure to biologic PsO therapy, n	16	15	15
Previous failure to biologic PsO therapy	10/16	8/15	8/15

BSA, body surface area; NAPSI, Nail Psoriasis Severity Index; PASI, Psoriasis Area and Severity Index; PsO, psoriasis; R, randomization.

*Initial dosing: once weekly for 5 weeks; maintenance: once every 4 weeks, weeks 8 through 128.[12]

†At week 16, patients initially receiving placebo were rerandomized 1:1 to COSENTYX 150 mg or COSENTYX 300 mg; initial dosing: once weekly for 5 weeks followed by once every 4 weeks.[12]

Cosentyx® (secukinumab)

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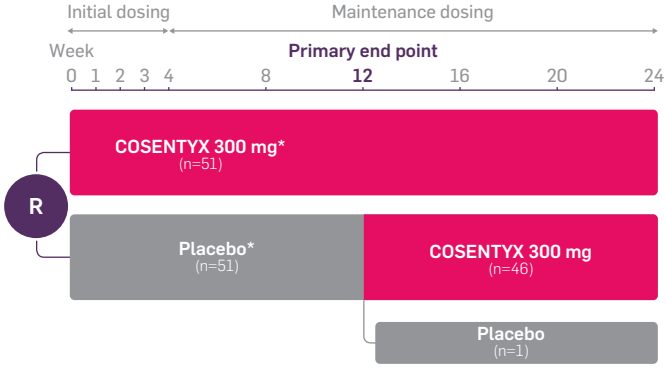
Scalp[1,13]



At week 12, patients initially receiving placebo who did not achieve a PSSI 90 response were switched to COSENTYX 300 mg: 4 weekly doses at weeks 12, 13, 14, and 15 and every 4 weeks thereafter at weeks 16 and 20. Patients who achieved response while receiving placebo continued receiving placebo through week 20.[13]

This was a multicenter, double-blind, randomized, placebo-controlled study examining the safety and efficacy of COSENTYX in patients with moderate to severe scalp PsO.[13]

- All patients were adults with chronic scalp PsO with or without plaque PsO elsewhere on the body for at least 6 months prior to randomization, and with moderate to severe scalp PsO defined as[13]:
  - PSSI score ≥12
    AND
  - IGA mod 2011 (scalp only) ≥3
    AND
  - ≥30% of scalp surface area affected
- All patients were candidates for systemic therapy[13]
- Primary end point: PSSI 90 response rate at week 12[13]
- Other end points included IGA mod 2011 0/1 (scalp only) at week 12[13]

Selected Baseline Characteristics	COSENTYX 300 mg (n=51)	Placebo (n=51)
PSSI score, mean	33	33
Scalp surface area, mean, %	62	59
IGA mod 2011 (scalp only) score		
3 - Moderate disease, %	84	71
4 - Severe disease, %	16	29
PASI score, mean	8	10
BSA, mean, %	11	12
Weight, mean, kg	91	89

BSA, body surface area; IGA mod 2011, Investigator's Global Assessment modified 2011; PASI, Psoriasis Area and Severity Index; PsO, psoriasis; PSSI, Psoriasis Scalp Severity Index; R, randomization.

*During the initial treatment period (up to week 12), patients in both treatment groups received subcutaneous treatment weekly for 4 weeks (at randomization week 0, weeks 1, 2, and 3), followed by dosing every 4 weeks at weeks 4 and 8.[13]

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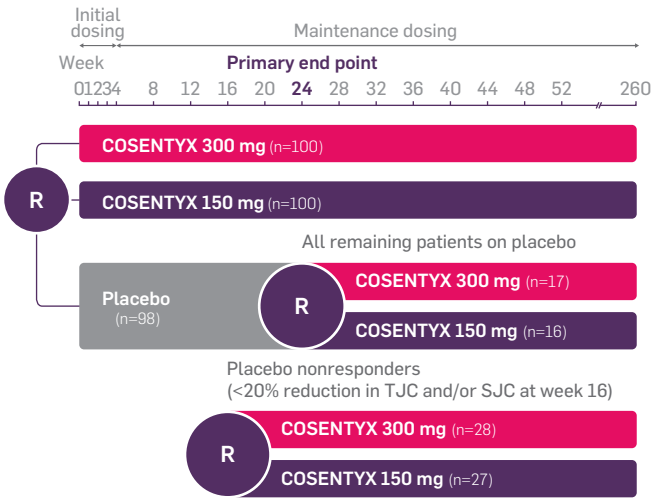
FUTURE 2[1,14-17]



FUTURE 2 is a phase 3, multicenter, randomized, double-blind, placebo-controlled trial that evaluated 397 adult patients with active PsA (≥3 swollen and ≥3 tender joints) despite use of NSAIDs, corticosteroids, or DMARDs. Patients had a diagnosis for ≥5 years and were randomized in a 1:1:1 ratio to receive COSENTYX 150 mg, 300 mg, or placebo subcutaneously at weeks 0, 1, 2, 3, and 4, followed by the same dose every 4 weeks through week 256. Patients who received placebo were rerandomized (1:1) to COSENTYX 150 mg or 300 mg every 4 weeks, at week 16 or week 24, based on responder status. All patients who met escape criteria (<20% improvement in tender or swollen joint counts) at week 16 were considered nonresponders at week 20 and week 24.[1,14,16]

- The primary end point was the percentage of patients with ACR20 response at week 24[14]
- After week 24, patients knew they were taking the active treatment but remained blind to the dose until after 1 year[14]
- After 1 year, patients were unblinded and continued to receive the same active dose as open-label treatment and were assessed every 8 weeks through 2 years and every 12 weeks from 2 years to 5 years[14]
- Starting at week 128, patients whose signs and symptoms were not fully controlled and might improve further with an increase in dose as judged by the investigator, were updosed from 150-mg dose to 300-mg dose. At week 260, 42 patients from the 150-mg dose arm had been updosed to 300 mg[15,16]
- 75-mg arm was included in this study, but not shown and is not an approved dose[1]
- Study population was mixed: two-thirds of patients were anti-TNFα–naive and one-third were anti-TNFα–experienced (patients could have been exposed to up to 3 different TNFα inhibitors)[14]

Selected Baseline Characteristics	COSENTYX 300 mg (n=100)	COSENTYX 150 mg (n=100)	Placebo (n=98)
Time since PsA diagnosis, mean, y	7.4	6.5	7.3
Age, mean, y	46.9	46.5	49.9
Female, %	49	45	60
Anti-TNFα–experienced, %	33	37	35
Biologic-naive, %	67	63	64
Concomitant MTX, %	44	44	51
Concomitant glucocorticoids, %	18	23	21
TJC, mean	20.2	24.1	23.4
SJC, mean	11.2	11.9	12.1
Enthesitis (LEI ≥1), %	56	64	66
Dactylitis (LDI ≥1), %	46	32	28
PsO ≥3% of BSA, %	41	58	44
HAQ-DI score, mean	1.3	1.2	1.2

ACR, American College of Rheumatology; BSA, body surface area; DMARD, disease-modifying antirheumatic drug; HAQ-DI, Health Assessment Questionnaire-Disability Index; LDI, Leeds Dactylitis Index; LEI, Leeds Enthesitis Index; MTX, methotrexate; NSAID, nonsteroidal anti-inflammatory drug; PsA, psoriatic arthritis; PsO, psoriasis; R, randomization; SJC, swollen joint count; TJC, tender joint count; TNFα, tumor necrosis factor-α.

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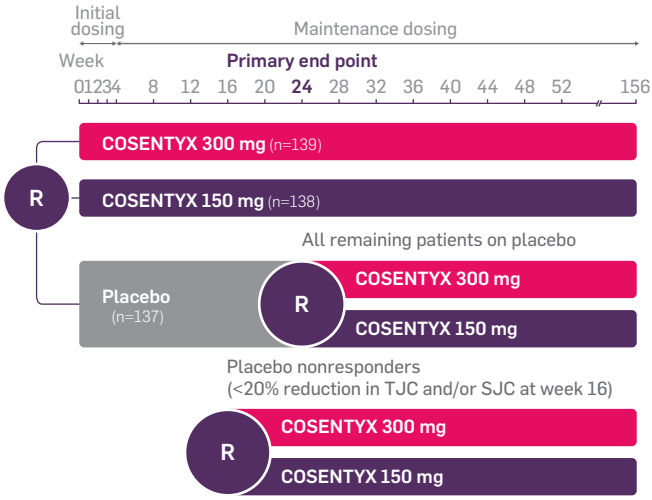
FUTURE 3[18]

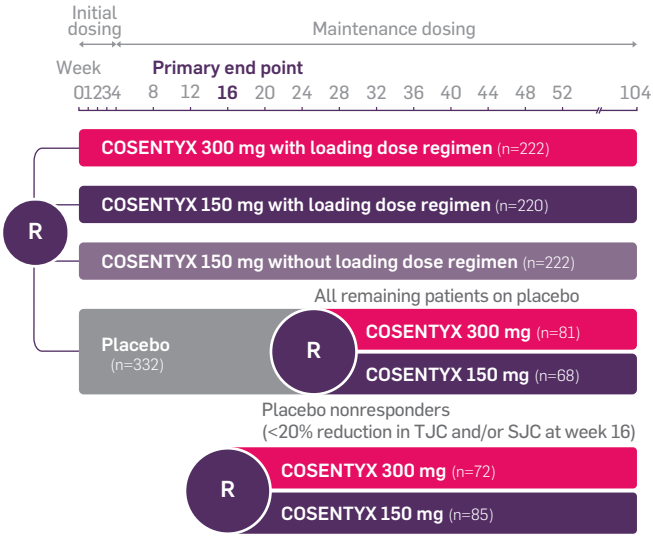


FUTURE 3 was a multicenter, randomized, double-blind, double-dummy, placebo-controlled, parallel-group, 3-year study that evaluated the efficacy and safety and autoinjector usability in 414 adult patients with active PsA. Patients received COSENTYX 150 mg (n=138), 300 mg (n=139), or placebo (n=137) subcutaneously at weeks 0, 1, 2, 3, and 4, followed by the same dose every 4 weeks thereafter.

- Patients were stratified at randomization based on previous anti-TNF therapy use as anti–TNF-naive or anti–TNF-IR; at least 60% of patients in each treatment arm were anti–TNF-naive
- At week 16, patients who received placebo were rerandomized to COSENTYX 150 mg or 300 mg every 4 weeks based on responder status at week 16 (nonresponders) or week 24 (responders)
- The primary end point was the percentage of patients with ACR20 response at week 24
- Autoinjector usability was assessed based on investigator/site staff rating scores of successful, hazard-free self injection and patient rating of autoinjector acceptability
  - The Self-Injection Assessment Questionnaire (SIAQ) was used to evaluate patients' perceptions before and after self injection
- Safety assessments included evaluation of AEs, SAEs, and immunogenicity

ACR, American College of Rheumatology; AE, adverse event; IR, inadequate responder; PsA, psoriatic arthritis; R, randomization; SAE, serious adverse event; SJC, swollen joint count; TJC, tender joint count; TNF, tumor necrosis factor.

FUTURE 5[1,19-21]



FUTURE 5 is a phase 3, multicenter, randomized, double-blind, placebo-controlled trial that evaluated 996 adult patients with active PsA. Patients were randomized in a 2:2:2:3 ratio to receive COSENTYX 150 mg without load (n=222), 150 mg with load (n=220), 300 mg with load (n=222), or placebo (n=332) subcutaneously at weeks 0, 1, 2, and 3, followed by the same dose every 4 weeks through week 100. Patients who received placebo were rerandomized (1:1) to receive COSENTYX (either 150 mg or 300 mg every 4 weeks) based on responder status at week 16 (nonresponders) or week 24 (responders). All patients who met escape criteria (<20% improvement in tender or swollen joint counts) at week 16 were considered nonresponders at week 20 and week 24.[19]

- The primary end point was the percentage of patients with ACR20 response at week 16[19]
- Secondary end points included change in mTSS score at week 24 from baseline, ACR50 response, proportion of patients with dactylitis and enthesitis, and overall safety and tolerability[19]

- After week 24, patients knew they were taking the active treatment but remained blind to the dose until after 1 year and were assessed up to 2 years[21]
- Study population was mixed: more than two-thirds of patients were anti-TNFα–naive and less than one-third were anti-TNFα–experienced (patients could have been exposed to up to 3 different TNFα inhibitors)[19]

Selected Baseline Characteristics	COSENTYX 300 mg (n=222)	COSENTYX 150 mg (n=220)	COSENTYX 150 mg No Load (n=222)	Placebo (n=332)
Time since PsA diagnosis, mean, y	6.7	6.7	6.2	6.6
Age, mean, y	48.9	48.4	48.8	49.0
Female, %	51.4	49.5	45.9	51.5
Anti-TNFα–experienced, %	30.7	29.5	28.8	29.5
Biologic-naive, %	69.4	70.5	71.2	70.5
Concomitant MTX, %	50.5	49.1	54.1	47.9
Concomitant glucocorticoids, %	15.3	20.0	16.7	16.0
TJC, mean	19.8	21.2	21.8	21.2
SJC, mean	10.0	12.1	11.9	11.7
Enthesitis (LEI ≥1), %	63.1	64.1	58.1	57.8
Dactylitis (LDI ≥1), %	36.9	36.4	46.4	37.3
PsO ≥3% of BSA, %	49.5	56.8	52.7	48.8
HAQ-DI score, mean	1.2	1.3	1.3	1.3

ACR, American College of Rheumatology; BSA, body surface area; HAQ-DI, Health Assessment Questionnaire-Disability Index; LDI, Leeds Dactylitis Index; LEI, Leeds Enthesitis Index; mTSS, modified Total Sharp Score; MTX, methotrexate; PsA, psoriatic arthritis; R, randomization; SJC, swollen joint count; TJC, tender joint count; TNFα, tumor necrosis factor-α.

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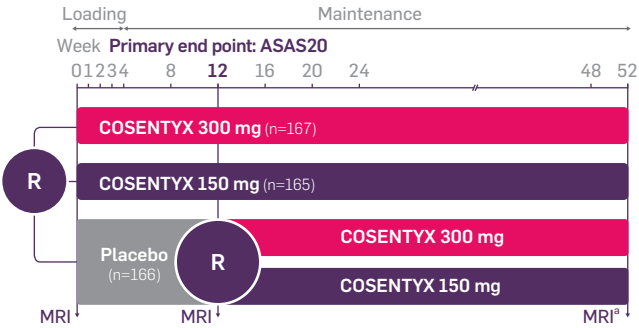
MAXIMISE[22]



[a]MRI was used to assess radiological features of disease over 52 weeks and the ability of COSENTYX to reduce signs of axial skeleton inflammation.

- At week 12, patients who received placebo were rerandomized to either COSENTYX 150 mg or 300 mg every 4 weeks. After week 12, patients knew they were taking the active treatment but remained blind to the dose
- Patients received their last treatment at week 48 and the final study assessment was completed at week 52

MAXIMISE is a multicenter, randomized, double-blind, placebo-controlled phase 3 trial that evaluated 498 adult patients with axial PsA.

- All patients had a diagnosis of PsA classified by CASPAR criteria and active spinal disease as defined by the BASDAI greater or equal to 4 despite the use of at least 2 NSAIDs over a 4-week period and spinal pain as measured by VAS ≥40. Patients in the MAXIMISE population met key inclusion criteria for FUTURE 2 and FUTURE 5. Patients previously exposed to biologics were excluded from this trial
- The primary end point was ASAS20 response with COSENTYX 300 mg vs placebo at week 12. Key secondary end point was ASAS20 response with COSENTYX 150 mg vs placebo at week 12. Other evaluated outcomes for both doses included ASAS40, BASDAI50, and ACR20 responses, reduction in spinal pain, SPARCC enthesitis index, HAQ-DI, FACIT-fatigue, ASAS health index, as well as safety and tolerability

Select Baseline Characteristics Mean (SD) unless specified	COSENTYX 300 mg (n=167)	COSENTYX 150 mg (n=165)	Placebo (n=166)
Age, y	46.2 (12.3)	46.9 (11.5)	46.6 (11.5)
Male, n (%)	77 (46.1)	81 (49.1)	88 (53.0)
Body mass index, kg/m^2	27.3 (4.8)	29.0 (6.8)	28.3 (5.5)
Evidence of current psoriasis, n (%)	152 (91.0)	147 (89.1)	153 (92.2)
Time since first axial symptoms, y	6.8 (7.7)	7.4 (7.6)	7.7 (9.5)
Time since symptoms of peripheral arthritis, y	7.0 (7.1)	7.8 (8.4)	7.9 (8.4)
HLA-B27 positive, n/M* (%)	31/85 (36.5)	24/82 (29.3)	26/74 (35.1)
Total back pain score, VAS, mean (SD)	72.5 (13.8)	73.6 (15.3)	74.0 (13.7)
Inflammatory back pain parameters, n (%)			
Onset of back pain is insidious	150 (89.8)	147 (89.1)	152 (91.6)
Back pain improving with exercise	148 (88.6)	139 (84.2)	146 (88.0)
Back pain worsening with rest	152 (91.0)	151 (91.5)	157 (94.6)
Night pain with improvement upon getting up	147 (88.0)	147 (89.1)	143 (86.1)
Awakening due to back pain in 2nd half of night	143 (85.6)	145 (87.9)	137 (82.5)
Alternating buttock pain	102 (61.1)	98 (59.4)	101 (60.8)
Back pain improved after NSAID intake in past	136 (81.4)	134 (81.2)	138 (83.1)
Patient's global assessment of disease activity	71.7 (14.4)	74.5 (14.2)	72.4 (15.6)
Physician global assessment of disease activity	62.6 (15.7)	62.2 (19.5)	64.0 (17.6)
BASDAI score, mean (SD)	7.3 (1.2)	7.2 (1.4)	7.3 (1.2)
TJC/SJC	15.3 (15.3)/6.1 (8.7)	14.9 (14.5)/5.9 (7.7)	15.6 (15.0)/ 6.2 (9.0)
HAQ-DI score	1.2 (0.6)	1.2 (0.6)	1.3 (0.6)
FACIT-Fatigue	28.5 (7.7)	28.6 (8.4)	29.3 (7.9)

ACR, American College of Rheumatology; ASAS, Assessment of SpondyloArthritis international Society; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; CASPAR, CLASsification criteria for Psoriatic ARthritis; FACIT, Functional Assessment of Chronic Illness Therapy; HAQ-DI, Health Assessment Questionnaire-Disability Index; HLA-B27, human leukocyte antigen B27; MAXIMISE, Managing AXIal Manifestations in Psoriatic Arthritis with SEcukinumab; MRI, magnetic resonance imaging; NSAID, nonsteroidal anti-inflammatory drug; PsA, psoriatic arthritis; R, randomization; SJC, swollen joint count; SPARCC, SpondyloArthritis Research Consortium of Canada; TJC, tender joint count; VAS, visual analog scale.

*Data are based on reported information by the investigator; M, number of patients with available HLA-B27 status.

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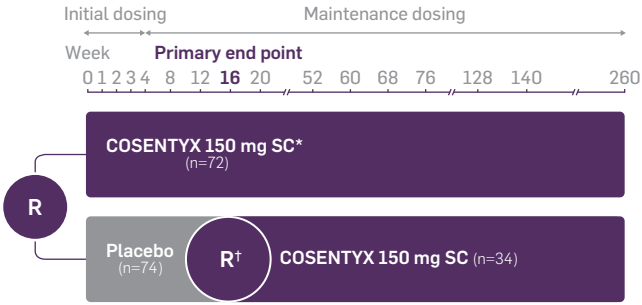
Please see the front cover and page 36 for Important Safety Information.
Click here for full Prescribing Information, including Medication Guide.

MEASURE 2[1,23,24]



MEASURE 2 is a multicenter, randomized, double-blind, placebo-controlled trial that evaluated 219 adult patients with active AS.[1,23]

- All patients had active disease as defined by the BASDAI greater or equal to 4 despite NSAID, corticosteroid, or DMARD therapy. At baseline, up to 12% and 14% used concomitant MTX or sulfasalazine, respectively. Overall, 39% of patients discontinued previous treatment with biologic agents due to either lack of efficacy or intolerance[1,23]
- The primary end point was the percentage of patients achieving an ASAS20 response at week 16[1]
- Other evaluated outcomes included the proportion of patients achieving an ASAS40 response at week 16, reduction from baseline in BASDAI and hsCRP, mean improvement from baseline in BASFI, BASMI, and ASQoL. Results are available up to year 5[1,24]
- At week 16, patients who received placebo were rerandomized to either COSENTYX 75 mg or 150 mg every 4 weeks. After week 16, patients knew they were taking the active treatment but remained blind to the dose[23]
- After 1 year, patients were unblinded and continued to receive the same active dose as open-label treatment and were assessed every 8 weeks through 2 years and then every 12 weeks through 5 years. As with other uncontrolled extension studies, this phase of the study has limitations (eg, no placebo comparison and patients responding better are more likely to stay in the study over time)[23]
- A 75-mg arm was included in this study, but not shown here as it is not an approved dose[1]

Selected Baseline Characteristics	COSENTYX 150 mg (n=72)	Placebo (n=74)
Mean age, y	42	44
Mean time since AS diagnosis, y	7	6
Male gender, %	64	76
Mean BASDAI score	6.6	6.8
Mean hsCRP, mg/L	26	16
HLA-B27 positive, %	79	78
Anti-TNFα naive, %	61	61
MTX use at baseline, %	11	12
Sulfasalazine use at baseline, %	14	12
Corticosteroid use at baseline, %	6	10

AS, ankylosing spondylitis; ASAS, Assessment of SpondyloArthritis international Society; ASQoL, ankylosing spondylitis quality of life; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; BASFI, Bath Ankylosing Spondylitis Functional Index; BASMI, Bath Ankylosing Spondylitis Metrology Index; DMARD, disease-modifying antirheumatic drug; HLA-B27, human leukocyte antigen B27; hsCRP, high-sensitivity C-reactive protein; MTX, methotrexate; NSAID, nonsteroidal anti-inflammatory drug; R, randomization; SC, subcutaneous; TNFα, tumor necrosis factor-α.

*Initial dosing: once weekly for 5 weeks; maintenance: once every 4 weeks, week 8 through 256.[23,24]

†At week 16, patients who received placebo were rerandomized to either COSENTYX 75 mg or 150 mg every 4 weeks.[23]

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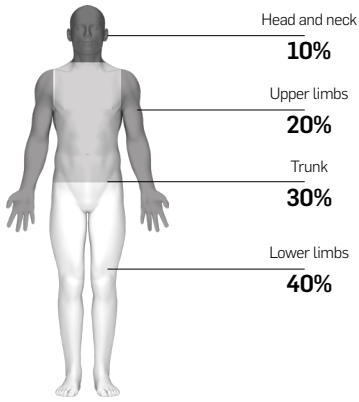
Description of end points assessed in clinical trials

Psoriasis Area and Severity Index (PASI) Score[25,26]



The PASI is traditionally used to assess psoriasis activity in psoriasis studies and has been effectively used in studies of patients with PsA. The PASI incorporates the degree of erythema, induration, and scale, as well as the area of skin involved, in the head, trunk, and upper and lower extremity.

Steps in generating the PASI score

- Divide the body into 4 areas: head, arms, trunk to groin, and legs to top of buttocks
- Generate an average score for the erythema, thickness, and scale for each of the 4 areas and add the scores for each area
  - The average degree of severity of each symptom in each region is scored 0 (clear) to 4 (most severe)
- Estimate the percentage of the total area of each region that is affected and convert the percentage to a 0 to 6 scale
- The total PASI score is weighted according to the respective size of each area
  - For example, the lower limbs contribute 40% of the total PASI score compared with 10% for the head and neck
- PASI scores range from 0 (no disease) to 72 (maximal disease)

Elements of the PASI	Head	Upper Extremities	Trunk	Lower Extremities
1. Redness[a]				
2. Thickness[a]				
3. Scale[a]				
4. Sums of rows 1-3				
5. Area score[b]				
6. Score of row 4 x row 5 x the area multiplier	Row 4 x row 5 x 0.1	Row 4 x row 5 x 0.2	Row 4 x row 5 x 0.3	Row 4 x row 5 x 0.4
7. **PASI score = sum of each column in row 6**				

[a]Erythema, induration, and scale are measured on a 0 to 4 scale (none, slight, mild, moderate, severe).
[b]Area score is determined based on percent involvement according to the following criteria: 0 = 0% (clear); 1 = <10%; 2 = 10% to <30%; 3 = 30% to <50%; 4 = 50% to <70%; 5 = 70% to <90%; 6 = 90% to 100%.

PsA, psoriatic arthritis.

The Investigators' Global Assessment (IGA) modified 2011[2]

Score	Short Description	Detailed Description
0	Clear	No signs of psoriasis. Postinflammatory hyperpigmentation may be present
1	Almost clear	Normal to pink coloration of lesions; no thickening; no to minimal focal scaling
2	Mild	Pink to light red coloration; just detectable to mild thickening; predominantly fine scaling
3	Moderate	Dull to bright red, clearly distinguishable erythema; clearly distinguishable to moderate thickening; moderate scaling
4	Severe	Bright to deep dark red coloration; severe thickening with hard edges; severe / coarse scaling covering almost all or all lesions

Response was defined as: ppIGA score of 0 or 1 + ≥2-point reduction from baseline

Palmoplantar Investigator's Global Assessment (ppIGA)[5]

Score	Short Description	Detailed Description
0	Clear	No signs of PsO; postinflammatory hyperpigmentation may be present
1	Almost clear	Normal to pink coloration of lesions; no thickening; no to minimal focal scaling
2	Mild	Pink to light red coloration; just detectable to mild thickening; predominantly fine scaling with or without pustules
3	Moderate	Dull to bright red, clearly distinguishable erythema; clearly distinguishable to moderate thickening; moderate scaling, with or without pustule formation
4	Severe	Bright to deep dark red coloration; severe thickening with hard edges; severe/coarse scaling covering almost all or all lesions and numerous fissures with or without pustules

Response was defined as: ppIGA score of 0 or 1 + ≥2-point reduction from baseline

Psoriasis Scalp Severity Index (PSSI)[13]

The scalp is assessed for 3 clinical symptoms	
Erythema (E) • Redness	0 = None 1 = Slight 2 = Moderate 3 = Severe 4 = Very severe
Induration (I) • Hardening • Thickening • Plaque elevation	0 = None 1 = Slight 2 = Moderate 3 = Severe 4 = Very severe
Desquamation (D) • Scaling	0 = None 1 = Slight 2 = Moderate 3 = Severe 4 = Very severe

Scalp Surface Area (SSA) score – extent of scalp PsO as a percentage of total scalp surface area

1 = <10%
2 = 10% to 29%
3 = 30% to 49%
4 = 50% to 69%
5 = 70% to 89%
6 = 90% to 100%

PSSI score:

(E + I + D)
x
Scalp Surface Area Score

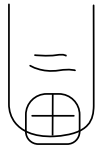
PSSI scores range from:
- 0 (corresponding to no signs of scalp PsO) to
- 72 (theoretical maximum)

Nail Psoriasis Severity Index (NAPSI)[27]

To calculate the NAPSI score, each nail is divided into quadrants, with imaginary horizontal and longitudinal lines.

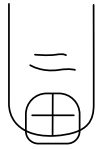
- Each quadrant is given a score for nail matrix PsO (0-4) and nail bed PsO (0-4), depending on the presence of any of the features of nail PsO in that quadrant
- Each nail receives a nail matrix score and a nail bed score, the total of which is a NAPSI score for that nail from 0 to 8
- All 10 fingernails are assessed, giving a total NAPSI score ranging from 0 to 80

The target nail is graded from nail matrix PsO and nail bed PsO. The sum of these 2 scores is the total score for that nail.



Score for **matrix** psoriasis _____
0 = none
1 = present in 1/4 of the nail
2 = present in 2/4 of the nail
3 = present in 3/4 of the nail
4 = present in 4/4 of the nail

Nail Matrix Psoriasis consists of any of the following: pitting, leukonychia, red spots in the lunula, and nail plate crumbling.



Score for **nail bed** psoriasis _____
0 = none
1 = present in 1/4 of the nail
2 = present in 2/4 of the nail
3 = present in 3/4 of the nail
4 = present in 4/4 of the nail

Nail Bed Psoriasis is the presence or absence of any of the following: onycholysis, splinter hemorrhages, oil drop (salmon patch) discoloration, and nail bed hyperkeratosis.

Total for nail _____ (0-8)

PsO, psoriasis.

Modified Nail Psoriasis Severity Index (mNAPSI)[28]

Evaluated feature	Scoring
Nail pitting	0 (none) 1 (1%-10%) 2 (11%-49%) 3 (>50%)
Nail onycholysis or oil-drop dyschromia	0 (none) 1 (1%-10%) 2 (11%-30%) 3 (>30%)
Nail crumbling	0 (none) 1 (1%-25%) 2 (26%-50%) 3 (>50%)
Nail leukonychia	0 (absent) or 1 (present)
Splinter hemorrhages	0 (absent) or 1 (present)
Hyperkeratosis	0 (absent) or 1 (present)
Red spots in the lunula	0 (absent) or 1 (present)

13 for each nail x 10 fingers: Total score range 0-130

ACR Response[29]

- To achieve an ACR20 response, patients needed to experience ≥20% improvement in the number of tender and swollen joint counts and in 3 of 5 individual parameters: patient's assessment of PsA pain, physician's and patient's global assessment of disease activity, disability (HAQ-DI score), and acute-phase reactant (hsCRP or ESR)
  - ACR50 and ACR70 in the mixed population were secondary and exploratory end points, respectively
    - To achieve an ACR50 response, patients needed to experience ≥50% improvement in the parameters listed above
    - ACR70 indicates ≥70% improvement in the parameters listed above

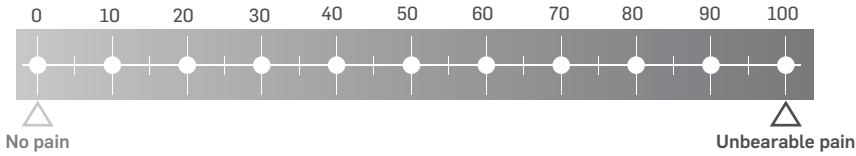
1.  ≥20% reduction in the TJC
2.  ≥20% reduction in the SJC
3. ≥20% reduction in 3 of 5 additional measures including:
a.  Patient's assessment of PsA pain
b.  Patient's global assessment of disease activity
c.  Physician's global assessment of disease activity
d.  HAQ-DI
e.  Acute phase reactants—ie, ESR and hsCRP

ACR, American College of Rheumatology; ESR, erythrocyte sedimentation rate; HAQ-DI, Health Assessment Questionnaire-Disability Index; hsCRP, high-sensitivity C-reactive protein; PsA, psoriatic arthritis; SJC, swollen joint count; TJC, tender joint count.

ACR Components[29]

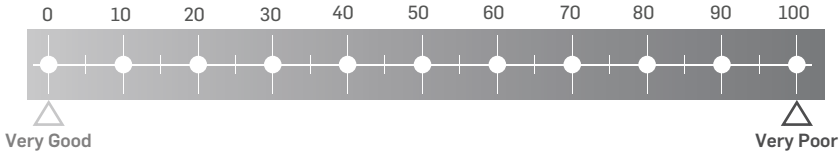
Patient Assessment of PsA Pain Intensity

The patient's assessment of pain is performed using a 100-mm VAS, ranging from "no pain" to "unbearable pain" after the question "Please indicate with a vertical mark (|) through the horizontal line the most pain you had from your psoriatic arthritis today."



Patient Global Assessment of Disease Activity

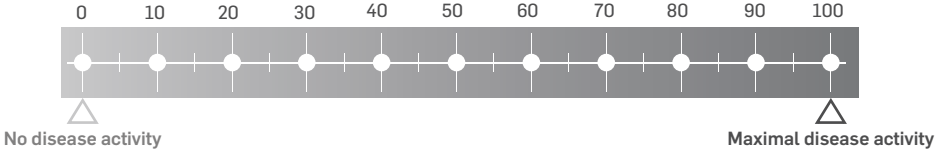
The patient's global assessment of disease activity is performed using a 100-mm VAS, ranging from "very good" to "very poor" after the question "Considering all the ways psoriatic arthritis affects you, please indicate with a vertical mark (|) through the horizontal line how well you are doing today."



Physician Global Assessment of Disease Activity

The physician's global assessment of disease activity is performed using a 100-mm VAS, ranging from "no disease activity" to "maximal disease activity" after the question "Considering all the ways the disease affects your patient, draw a line on the scale for how well his or her condition is today."

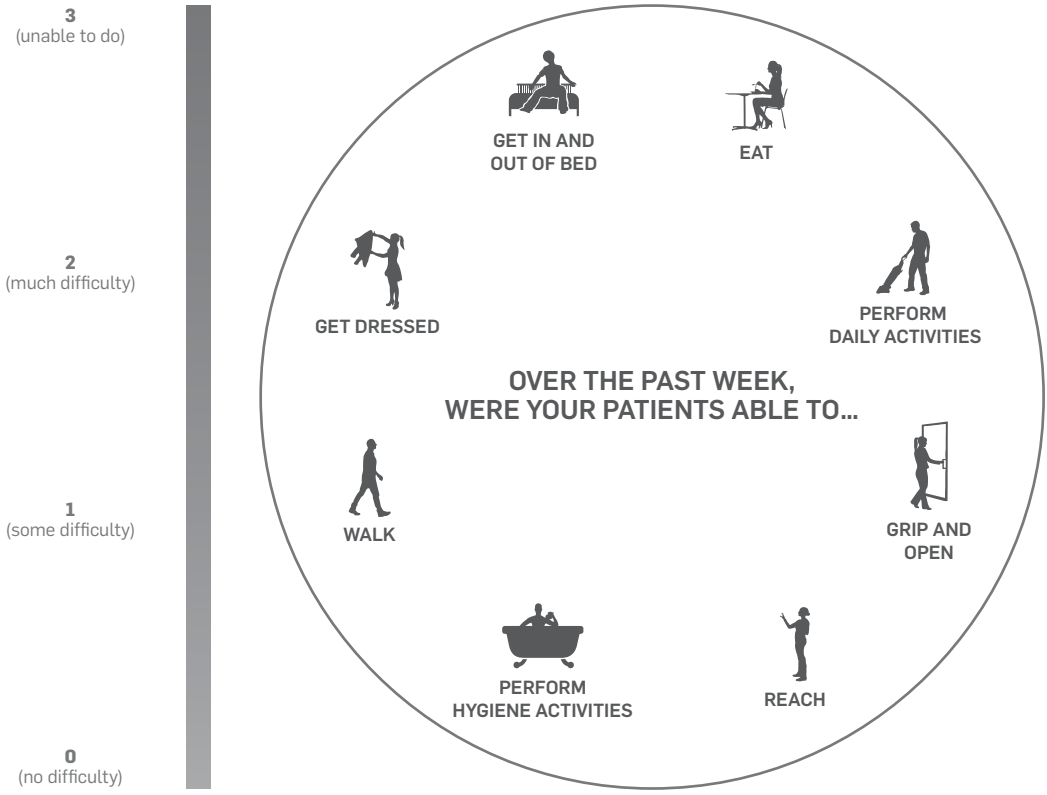
To enhance objectivity, the physician should not be aware of the specific patient's global assessment of disease activity when performing his or her own assessment on that patient.



ACR, American College of Rheumatology; PsA, psoriatic arthritis; VAS, visual analog scale.

Health Assessment Questionnaire-Disability Index (HAQ-DI)[19]

The HAQ-DI measures patients' functional abilities to perform daily activities.



- The HAQ-DI includes questions of fine movements of the upper extremity, locomotor activities of the lower extremity, and activities that involve both upper and lower extremities
- There are 20 questions in 8 categories of functioning
- Each item is scored on a 4-point scale from 0 to 3
  - 0 = "No difficulty"
  - 1 = "Some difficulty"
  - 2 = "Much difficulty"
  - 3 = "Unable to do"

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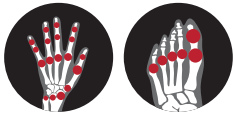
Modified Total Sharp Score (mTSS)[30]

mTSS	=	Erosion score (hands [0-5] and feet [0-10])	+	Joint-space narrowing (0-4)	▶	Total radiographic score
		Maximum score: **320**		Maximum score: **208**		Range: **0-528**

Sites used to evaluate erosion and joint-space narrowing scores



Higher scores indicate more articular damage

Using the x-ray images of the hands and feet, the following sites are graded separately:

- **Each hand:** all metacarpal phalangeal, proximal interphalangeal, and distal interphalangeal; 6 wrist joints
- **Each foot:** the first interphalangeal joint and all metatarsal phalangeal joints

- The mTSS for PsA is a detailed scoring method evaluating erosions and joint-space narrowing as observed on x- ray

Erosion score:

- 0=no erosions
- 1=discrete erosion
- 2=large erosion not passing the midline
- 3=large erosion passing the midline
- A combination of the above scores may lead to a maximum of 5 per entire joint in the hands, and 5 at each site of the joint (for the entire joint a maximum of 10) in the feet

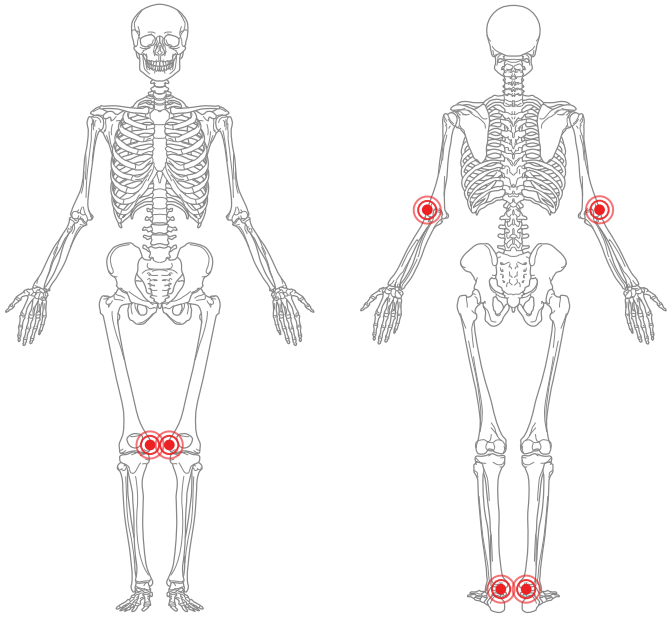
Joint-space narrowing score:

- 0=normal
- 1=asymmetrical or minimal narrowing up to a maximum of 25%
- 2=definite narrowing with loss of up to 50% of the normal space
- 3=definite narrowing with loss of 50% to 99% of the normal space or subluxation
- 4=absence of a joint space, presumptive evidence of ankylosis, or complete luxation (ie, dislocation)

PsA, psoriatic arthritis.

Leeds Enthesitis Index (LEI)[31]

The LEI is a quick and validated measurement that evaluates tenderness at 6 sites.



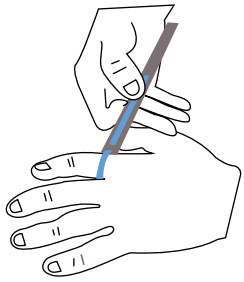
The LEI consists of 6 sites:

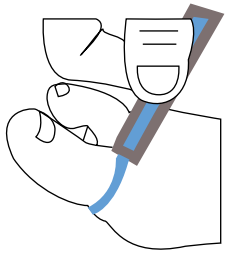
- Bilateral Achilles tendon insertions
- Medial femoral condyles
- Lateral epicondyles of the humerus

0 means nontender, and 1 means tender at each of the 6 sites.

Leeds Dactylitis Index (LDI)[32]

- The LDI measures finger circumference using a dactylometer and tenderness is assessed by applying moderate pressure on the affected digits





How to use the Leeds dactylometer:

1. The fingers and toes are visually inspected by the examiner. Those digits which look dactylitic are measured
2. Slip the loop of the dactylometer around the base of the digit adjacent to the web space. Pull the indicator strip tight so that the base of the digit blanches slightly. The collar of the device should be firmly pressed against the base of the digit, as illustrated
3. Record the circumference in mm on the dactylometer record sheet
4. Repeat the procedure on the contralateral digit
5. If both ipsilateral and contralateral digits are thought to be dactylitic then use the reference range (given at the foot of the sheet) as the comparator
6. Squeeze the digit at the level of the proximal phalanx and record the tenderness score as indicated
7. Calculate the total score as indicated or enter the values in the Excel spreadsheet

Minimal Disease Activity (MDA)[33]

Minimal disease activity reflects a satisfactory state of PsA disease activity.

- As a specific measure for PsA, MDA requires that patients achieve 5 of the following 7 criteria

≤1 tender joint count

≤1 swollen joint count

Tender entheseal points ≤1

PASI ≤1 or BSA ≤3%

HAQ-DI ≤0.5

Patient Global Assessment of Disease Activity VAS (≤20)

Patient pain VAS ≤15

BSA, body surface area; HAQ-DI, Health Assessment Questionnaire-Disability Index; PASI, Psoriasis Area and Severity Index; PsA, psoriatic arthritis; VAS, visual analog scale.

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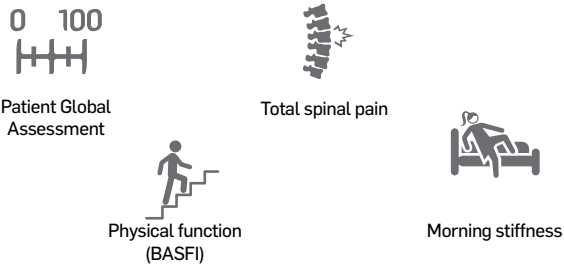
ASAS Response[23]

ASAS components include:

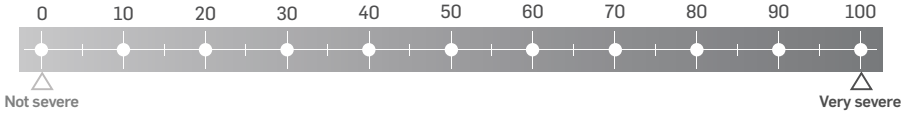


- An **ASAS20** response is defined as:
  - An improvement of **≥20%** and an absolute improvement of ≥1 unit on a scale of 10 in at least 3 of the 4 ASAS domains
  - Plus, no worsening by ≥20% and ≥1 unit on a scale of 10 in the remaining domain
- An **ASAS40** response was defined as an improvement of **≥40%** and absolute improvement of ≥2 units on a scale of 10 in at least 3 of the 4 main domains with no worsening in the remaining domain

ASAS Components

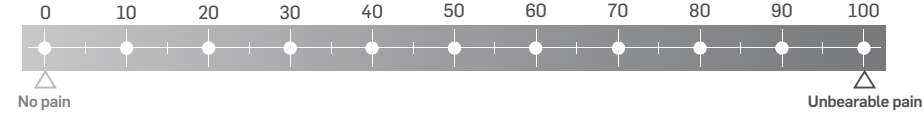
Patient Global Assessment of Disease Activity

The patient global assessment of disease activity is performed using a 100-mm VAS ranging from "not severe" to "very severe," in response to the question "How active was your disease on average during the last week?"



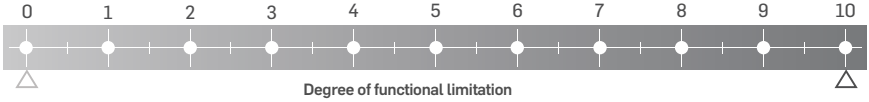
Patient Assessment of Inflammatory Spinal Pain Intensity

The patient assessment of inflammatory spinal pain is performed using a 100-mm VAS ranging from "no pain" to "unbearable pain," in response to the question "Based on your assessment, please indicate what was the amount of back pain at any time that you experienced during the last week?" and "Based on your assessment, please indicate what was the amount of spinal pain at night that you experienced during the last week?" The total back pain is used for ASAS calculations.



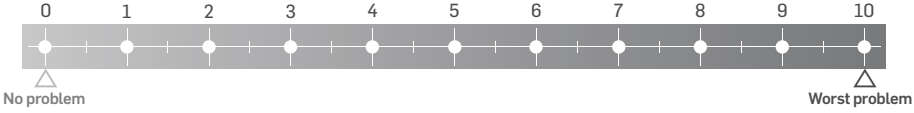
BASFI

The BASFI is a set of 10 questions designed to determine the degree of functional limitation in those patients with AS. The 10 questions were chosen with major input from patients with AS. The first 8 questions consider activities related to functional anatomy. The final 2 questions assess the patient's ability to cope with everyday life. A 0 through 10 scale (captured as a continuous VAS) is used to answer the questions. The mean of the 10 scales gives the BASFI score – a value between 0 and 10.



Inflammation (average of BASDAI questions 5 and 6)

The BASDAI consists of a 0 through 10 scale (0 being no problem and 10 being the worst problem, captured as a continuous VAS), which is used to answer 6 questions. Questions 5 and 6 pertain to morning stiffness duration and morning stiffness severity. The average of the 2 scores relating to morning stiffness are used to assess inflammation.



ASAS, Assessment of SpondyloArthritis international Society; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; BASFI, Bath Ankylosing Spondylitis Functional Index; VAS, visual analog scale.

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High-Sensitivity C-Reactive Protein (hsCRP)

- Patient blood samples are obtained for hsCRP assessments in order to identify the presence of inflammation, to determine its severity, and to monitor response to treatment[23]
- CRP is a biomarker of inflammation. Plasma CRP concentrations increase rapidly and dramatically (100-fold or more) in response to tissue injury or inflammation. Using hsCRP is more precise than using standard CRP when measuring baseline (ie, normal) concentrations, and it enables a measure of chronic inflammation[34]

CRP, C-reactive protein.

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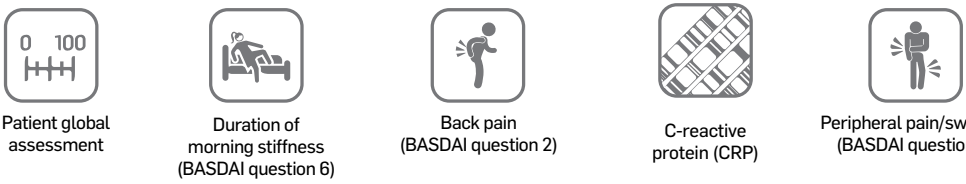
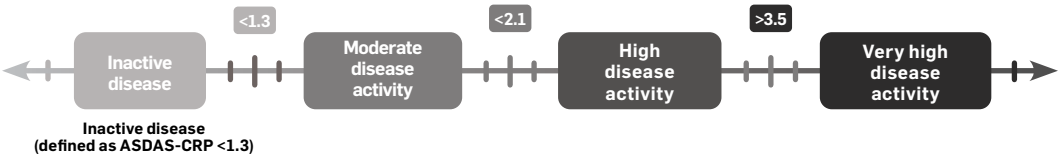
Ankylosing Spondylitis Disease Activity Score–C-reactive protein (ASDAS-CRP)

- ASDAS-CRP is a composite score to assess disease activity in AS[23]

ASDAS-CRP consists of the following 5 components[23]:



ASDAS-CRP scale[35]:



- Parameters used for the ASDAS-CRP include[23]:
  - The patient global assessment of disease activity
  - Total back pain (BASDAI question 2)
  - Peripheral pain/swelling (BASDAI question 3)
  - Duration of morning stiffness (BASDAI question 6)
  - CRP
- Disease activity states are defined as[23,35]:
  - Inactive disease if ASDAS-CRP <1.3
  - Moderate disease activity if ASDAS-CRP <2.1
  - High disease activity if ASDAS-CRP ≤3.5
  - Very high disease activity if ASDAS-CRP >3.5
- The ASDAS-CRP is distinct from the ASAS, since it includes CRP as an objective lab measure[36]

AS, ankylosing spondylitis; ASAS, Assessment of SpondyloArthritis international Society; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index.

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Bath Ankylosing Spondylitis Disease Activity Index (BASDAI)[23]

Measures of BASDAI include patient assessment of 5 major symptoms of AS:

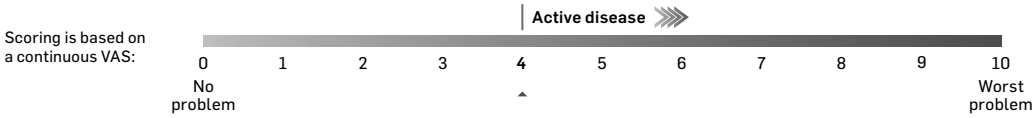
Fatigue
(Question 1)

Total spinal pain
(Question 2)

Joint pain/swelling
(Question 3)

Enthesitis
(Question 4)

Morning stiffness
(Questions 5 and 6)



BASDAI scores ≥4 indicate active disease.

- The BASDAI consists of a 0 through 10 scale (0 being no problem and 10 being the worst problem, captured as a continuous VAS), which is used to answer 6 questions pertaining to the 5 major symptoms of AS:
  1. Fatigue/tiredness
  2. Total spinal pain
  3. Joint pain/swelling
  4. Areas of localized tenderness (called enthesitis, or inflammation of tendons and ligaments)
  5. Morning stiffness duration
  6. Morning stiffness severity
- The average of the 2 scores relating to morning stiffness (questions 5 and 6) is taken in order to give each symptom equal weight
  – The resulting 0 to 10 score is added to the score for questions 1 through 4
- The resulting 0 to 50 score is divided by 5 to give a final BASDAI score between 0 and 10
  – Scores of 4 or greater suggest suboptimal control of disease
- The BASDAI is distinct from the ASAS, since it includes questions about fatigue and enthesitis

AS, ankylosing spondylitis; ASAS, Assessment of SpondyloArthritis international Society; VAS, visual analog scale.

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IMPORTANT SAFETY INFORMATION (cont)

WARNINGS AND PRECAUTIONS (cont)

Pre-treatment Evaluation for Tuberculosis

Evaluate patients for tuberculosis (TB) infection prior to initiating treatment with COSENTYX. Do not administer COSENTYX to patients with active TB infection. Initiate treatment of latent TB prior to administering COSENTYX. Consider anti-TB therapy prior to initiation of COSENTYX in patients with a past history of latent or active TB in whom an adequate course of treatment cannot be confirmed. Patients receiving COSENTYX should be monitored closely for signs and symptoms of active TB during and after treatment.

Inflammatory Bowel Disease

Caution should be used when prescribing COSENTYX to patients with inflammatory bowel disease. Exacerbations, in some cases serious, occurred in patients treated with COSENTYX during clinical trials in plaque psoriasis, psoriatic arthritis, and ankylosing spondylitis. In addition, new onset inflammatory bowel disease cases occurred in clinical trials with COSENTYX. In an exploratory study in 59 patients with active Crohn's disease, there were trends toward greater disease activity and increased adverse events in the secukinumab group as compared to the placebo group. Patients who are treated with COSENTYX should be monitored for signs and symptoms of inflammatory bowel disease.

Hypersensitivity Reactions

Anaphylaxis and cases of urticaria occurred in patients treated with COSENTYX in clinical trials. If an anaphylactic or other serious allergic reaction occurs, administration of COSENTYX should be discontinued immediately and appropriate therapy initiated.

The removable cap of the COSENTYX Sensoready® pen and the COSENTYX prefilled syringe contains natural rubber latex which may cause an allergic reaction in latex-sensitive individuals. The safe use of the COSENTYX Sensoready pen or prefilled syringe in latex-sensitive individuals has not been studied.

Vaccinations

Prior to initiating therapy with COSENTYX, consider completion of all age appropriate immunizations according to current immunization guidelines. Patients treated with COSENTYX should not receive live vaccines.

Non-live vaccinations received during a course of COSENTYX may not elicit an immune response sufficient to prevent disease.

MOST COMMON ADVERSE REACTIONS

Most common adverse reactions (>1%) are nasopharyngitis, diarrhea, and upper respiratory tract infection.

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