

Patient-Reported Outcomes in Rheumatoid Arthritis

Over the past 2 decades, disease markers have improved, yet PROs have worsened.¹

Relying solely on traditional disease activity targets may risk underestimating the true burden of disease for many patients.^{2,3}

To achieve patient well-being, manage flares, and improve health outcomes, it may be beneficial to utilise PROs in selecting the appropriate management choice for each patient.^{2,4}

This resource contains information and tools that may be used to more deeply understand your patients' perspective.

3 Important Disease Impacts^{2,3,5}:

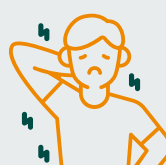
1

FATIGUE



2

PAIN



3

DEPRESSION



1/ FATIGUE^{6,7}

- Rarely discussed with physicians: patients accept it as part of RA or fear dismissal of their complaint⁸



- Prevalence: 40% to 80% of patients with RA experience fatigue^{7,9}



- Negative impact on QoL, including mental health symptoms and physical and social functioning problems^{7,10}



PROs

BRAF MDQ⁷

- 20-item tool specifically designed for RA
- Measures multiple dimensions of fatigue
- Higher score = more fatigue

BRAF NRS⁷

- 3-item tool specifically designed for RA
- Measures fatigue severity, impact, and coping
- Higher severity or impact score = more fatigue; higher coping score = better

FACIT-F^{7,9}

- 13-item tool used in several rheumatic conditions and other chronic illnesses
- Higher score = better

SF-36 VT^{7,9}

- 4-item, widely used tool
- Measures energy and fatigue in general and clinical populations
- Higher score = better

VAS⁷

- Customisable number of items; widely used tool not specifically designed for RA
- Can be used to measure a variety of fatigue constructs
- Higher score = more fatigue

RAID-F⁷

- 1-item tool specifically designed for RA
- Measures fatigue using a VAS
- Higher score = more fatigue

MAF⁷

- 15-item tool specifically designed for RA
- Measures fatigue in the context of disability
- Higher score = more fatigue

PROMIS-Fatigue SFs¹¹

- 4-, 7-, and 8-item tools
- Measure fatigue experience and impact
- Higher score = more fatigue



2/ PAIN⁶

- Primary reason patients seek care: 68% to 88% rank improving pain as one of their main priorities^{12,13}



- Most patients are dissatisfied with their pain levels: <30% are satisfied¹⁴



- Patients in remission continue to experience pain (5.7% to 12.5% of patients at 1 year)¹⁵



PROs¹⁶

VAS

- Unidimensional, 1-item, self-administered tool
- Measures pain intensity using a horizontal or vertical line
- Higher score = greater pain intensity

MPQ

- Multidimensional, 79-item, interviewer-administered tool
- Measures sensory, affective, and evaluative aspects of pain and pain intensity
- Higher score = worse pain

SF-MPQ

- Multidimensional, 15-item, interviewer-administered tool
- Measures perceived pain intensity
- Higher score = worse pain

CPGS

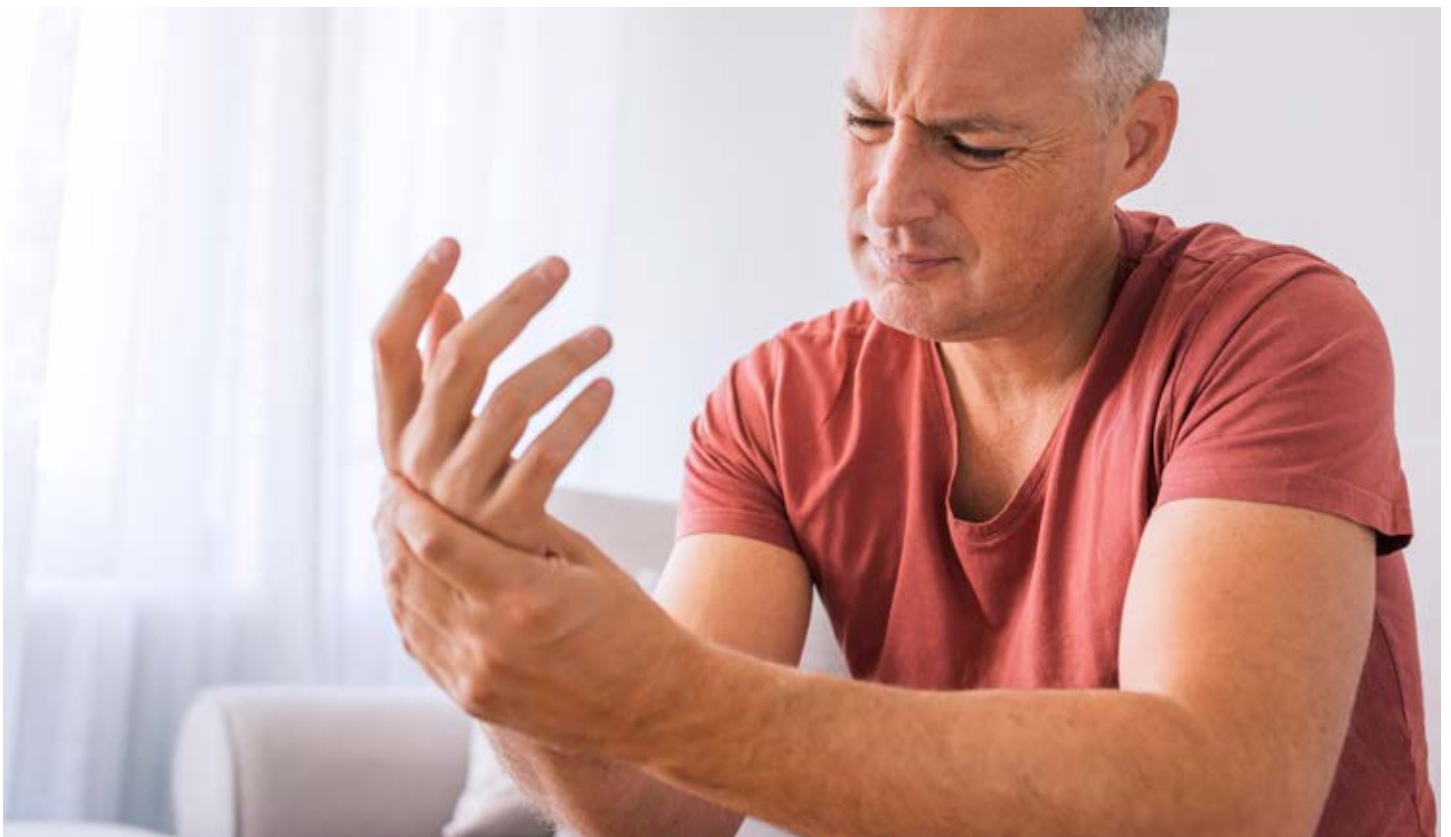
- Multidimensional, self- or interviewer-administered tool
- Measures pain severity by considering pain intensity and pain-related disability
- 3 subscale scores classify patients into 1 of 5 pain severity categories (from 0 = no pain to IV = high disability-severely limiting)

NRS

- Unidimensional, 1-item, self- or interviewer-administered tool
- Measures pain intensity using a horizontal line with 11 numeric segments
- Higher score = greater pain intensity

SF-36 BPS

- 2-item, self-, computer-, or interviewer-administered tool
- Measures pain intensity and interference with normal activities
- Higher score = lack of body pain



3/ DEPRESSION¹⁷

- Prevalence: 13% to 42% of patients with RA have major depressive disorder (2X to 4X higher than in the general population)¹⁸



- Increases mortality and the risk of CVD and MI^{18,19}



- Only 1% of patients with RA are screened for depression²⁰



PROs¹⁷

BDI-II

- Measures depression severity with high sensitivity and specificity in patients with RA
- Cutoff point on the scale should be higher in patients with chronic pain

DASS

- Measures depression, anxiety, and stress in patients with RA

HADS

- Measures depression and anxiety in patients with RA

SF-36

- Measures depression with high sensitivity but low specificity in patients with RA



Galapagos

BDI-II, Beck Depression Inventory Scale II; BRAF MDQ, Bristol Rheumatoid Arthritis Fatigue Multi-Dimensional Questionnaire; BRAF NRS, Bristol Rheumatoid Arthritis Fatigue Numerical Rating Scales; CPGS, Chronic Pain Grade Scale; CVD, cardiovascular disease; DASS, Depression, Anxiety and Stress Scale; FACIT-F, Functional Assessment Chronic Illness Therapy (Fatigue); HADS, Hospital Anxiety and Depression Scale; MAF, Multidimensional Assessment of Fatigue; MI, myocardial infarction; MPQ, McGill Pain Questionnaire; NRS, numeric rating scale; PRO, patient-reported outcome; PROMIS-Fatigue SF, Patient-Reported Outcomes Measurement Information System Fatigue Short Form; QoL, quality of life; RA, rheumatoid arthritis; RAID-F, Rheumatoid Arthritis Impact of Disease Fatigue Subscale; SF-36, Short Form 36; SF-36 BPS, Short Form 36 Bodily Pain Scale; SF-36 VT, Short Form 36 Vitality Subscale; SF-MPQ, Short-Form McGill Pain Questionnaire; VAS, visual analogue scale.

References: 1. Nieuwenhuis WP, de Wit MP, Boonen A, van der Helm-van Mil AH. *Ann Rheum Dis.* 2016;75(11):2054-2056. 2. Michaud K, Pope J, van de Laar M, et al. *Arthritis Care Res (Hoboken).* 2020;10.1002/acr.24369. 3. Mistry J, Sharif M, Prideaux A, et al. *Rheumatol Adv Pract.* 2020;4(2):rkaa013. 4. Fautrel B, Alten R, Kirkham B, et al. *Rheumatol Int.* 2018;38(6):935-947. 5. Kekow J, Moots R, Khandker R, Melin J, Freundlich B, Singh A. *Rheumatology (Oxford).* 2011;50(2):401-409. 6. Gossec L, Dougados M, Dixon W. *RMD Open.* 2015;1(1):e000019. 7. Santos EJJ, Duarte C, da Silva JAP, Ferreira RJO. *Rheumatology (Oxford).* 2019;58(Suppl 5):v3-v9. 8. Repping-Wuys H, van Riel P, van Achterberg T. *Rheumatology (Oxford).* 2009;48(3):207-209. 9. Stebbings S, Treharne GJ. *Int J Clin Rheumatol.* 2010;5(4):487-502. 10. Rupp I, Boshuizen HC, Jacobi CE, Dinant HJ, van den Bos GAM. *Arthritis Rheum.* 2004;51(4):578-585. 11. Bingham III CO, Gutierrez AK, Butanis A, et al. *J Patient Rep Outcomes.* 2019;3(1):14. 12. Lee YC. *Curr Rheumatol Rep.* 2013;15(1):300. 13. van Tuyl LHD, Sadlonova M, Hewlett S, et al. *Ann Rheum Dis.* 2017;76(5):855-861. 14. Taylor P, Manger B, Alvaro-Gracia J, et al. *J Int Med Res.* 2010;38(4):1213-1224. 15. Lee YC, Cui J, Lu B, et al. *Arthritis Res Ther.* 2011;13(3):R83. 16. Hawker GA, Mian S, Kendzerska T, French M. *Arthritis Care Res (Hoboken).* 2011;63 Suppl 11:S240-S252. 17. Lwin MN, Serhal L, Holroyd C, Edwards CJ. *Rheumatol Ther.* 2020;7(3):457-471. 18. Margaretten M, Julian L, Katz P, Yelin E. *Int J Clin Rheumatol.* 2011;6(6):617-623. 19. Jacob L, Rockel T, Kostev K. *Rheumatol Ther.* 2017;4(1):195-200. 20. Laday J. Only 1% of patients with RA screened for depression despite increased adverse event risk. Heallo. August 29, 2018. Accessed March 4, 2021. <https://www.heallo.com/rheumatology/rheumatoid-arthritis/news/online/%7Bf3ea737f-f043-4a55-a1e7-9da97b73f954%7D/only-1-of-patients-with-ra-screened-for-depression-despite-increased-adverse-event-risk>

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GL-RA-FIL-202104-00005 04/21