

# The Value of Achieving Remission in Inflammatory Rheumatic Conditions

**An Evidence Glossary** 

2025 update





#### **About**

This evidence glossary summarizes recent research on inflammatory rheumatic conditions and the value of pursuing remission.

This document is an update to the glossary the Global Alliance for Patient Access released in 2024 entitled The Value of Achieving Remission in Inflammatory Rheumatic Conditions.

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The Global Alliance for Patient Access partnered with Patvocates to compile the research highlighted in this glossary.

#### The 2025 edition of the Evidence Glossary introduces new data to:



Deepen understanding of remission—what it truly means to patients, how transformative its impact can be and how evolving treatment guidelines should increasingly reflect the patient perspective and support treatment access to multiple types of medication when needed.



Highlight the impact across all age groups, noting that rheumatoid arthritis and gout are becoming more common among adolescents and young adults, with potentially lifelong consequences if not addressed early.



Emphasize the link between rheumatic and musculoskeletal (MSK) conditions\* and chronic pain, underscoring the wide-ranging and long-term effects of chronic pain on individuals and society.



Stress the importance of early intervention in the workplace, including structured return-to-work strategies to prevent transitions into long-term unemployment and sickness or disability benefits dependency.



<sup>\*</sup>Within the context of this evidence glossary, when we speak of MSK conditions, inflammatory rheumatic conditions are included.



#### What is Remission?

Remission means that a disease's activity—its signs and symptoms—disappear: "Disease activity as good as gone." For rheumatologists, remission or low disease activity (LDA) might too often only be viewed as the outcomes of blood tests, MRI scans, and inflammation scores—based on ACR/EULAR remission criteria. For patients, remission means much more. People who reach remission often experience a transformation in their daily lives: less pain, less fatigue and a return to normal routines. Remission can trigger a chain of positive changes:

- Less pain means more freedom to move, which improves physical ability
- Better physical ability allows for more daily activities and daily achievements
- These achievements build a sense of success and self-confidence
- Confidence supports social interaction, finding a job, and doing well at work
- A social life and employment boost autonomy, independence, financial stability, and mental health
- All of this leads to a more fulfilling and higher-quality life<sup>3</sup>

OMERACT has worked to define and measure remission from the patient's point of view. They identified three key areas that matter most: pain, fatigue, and independence. Independence is hard to measure. Most tools focus only on physical function, which is just one part of independence. Patients describe independence through four main themes:

- A return to a state before their rheumatic disease
- Being physically and functionally able
- A sense of freedom without needing to rely on others
- Having control over the organization of one's life

This can be summed up as: "Being able to do what you want, when you want, in the way you want to do it" and

"Almost forgetting you have a disease". 4.5.6 Because pain, fatigue, and loss of independence have such a detrimental impact, every patient should have the right to pursue remission.



- 1 OMERACT. Remission in RA Patient Perspective Overview Video. https://omeract.org/working-groups/remission-in-ra-pt-perspective/
- 2 Felson et al. American College of Rheumatology/European League Against Rheumatism provisional definition of remission in rheumatoid arthritis for clinical trials. Ann Rheum Dis. 2011. PMID: 21292833
- 3 The Pursuit of Remission and Improved Quality of Life in axSpA: Personal Experiences and the Scientific Evidence. Webinar, April 3, 2025. https://www.youtube.com/watch?v=o5-qu5i9Vss
- 4 OMERACT. Remission in RA Patient Perspective Overview Video. https://omeract.org/working-groups/remission-in-ra-pt-perspective/
- 5 Khoo et al. Defining independence: A scoping review by the OMERACT patient perspective of remission in rheumatoid arthritis group. Semin Arthritis Rheum. 2023 Feb:58:152152.
- 6 Flurey et al. "It means almost forgetting that you've got a disease": An OMERACT study to define independence in the context of rheumatoid arthritis remission from the patient perspective. Seminars in Arthritis and Rheumatism 68 (2024) 152526.



# **Equitable Access**to the Full Range of Treatment Options

The EULAR treatment recommendations for **rheumatoid arthritis** (**RA**)<sup>1</sup> and **psoriatic arthritis** (**PsA**),<sup>2</sup> have evolved to include both the **patient's and society's perspectives.** 

For example:

#### Overarching principle D for PsA:

The primary goal of treating patients with PsA is to maximize health-related quality of life, through control of symptoms, prevention of structural damage, normalization of function and social participation; abrogation (stopping) of inflammation is an important component to achieve these goals (unchanged).<sup>2</sup>

#### Overarching principle E for RA:

RA incurs high individual, medical and societal costs, all of which should be considered in its management by the treating rheumatologist.<sup>1</sup>

<sup>1</sup> Smolen et al. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease- modifying antirheumatic drugs: 2022 update. doi:10.1136/ard-2022-223356.

<sup>2</sup> Gossec et al. EULAR recommendations for the management of psoriatic arthritis with pharmacological therapies: 2023 update. Ann Rheum Dis 2024:83:706–719.

In line with these principles, the recommendations emphasize the importance of pursuing remission: Treatment should be aimed at reaching the target of remission or, where this is not possible for the patient, low disease activity, by regular disease activity assessment and appropriate adjustment of therapy. Because RA and PsA can vary greatly between individuals, patients may need **access to multiple types of medication** with different mechanisms of action. Over time, they may also need to switch treatments (Principle D for RA<sup>2</sup>).

Both sets of recommendations call for more research on treatment switching. For PsA, switching to another biologic (bDMARD – biologic Disease–Modifying Antirheumatic Drug) or targeted synthetic DMARD (tsDMARD) is recommended in case of inadequate response or intolerance. This includes one switch within the same drug class.<sup>1</sup>

Emerging evidence shows that **switching between drug classes** (e.g., from a TNF inhibitor to a JAK inhibitor) often leads to better outcomes than switching within the same class. Evidence shows that patients who switch drug classes are:

- 1.7 times more likely to reach remission
- 2.2 times more likely to be pain-free
- 1.8 times more likely to demonstrate better adherence<sup>3</sup>

For patients in sustained remission, reducing the dose of DMARDs (called tapering) may be considered. This means lowering the dose—not stopping the medication entirely, as stopping often leads to flares.¹ In RA, the idea that DMARDs must always be continued has been questioned. This belief is mostly based on data from patients using biologics (bDMARDs), a group that is generally harder to treat and less likely to achieve drug–free remission. However, for patients who do not need biologics, DMARD–free remission is possible. Studies show that 20–38% of these patients can stop treatment without the disease returning.<sup>4,5,6</sup>

DMARD-free remission is **possible.** 



- 1 Gossec et al. EULAR recommendations for the management of psoriatic arthritis with pharmacological therapies: 2023 update. Ann Rheum Dis 2024;83:706–719.
- 2 Smolen et al. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease- modifying antirheumatic drugs: 2022 update. doi:10.1136/ard-2022-223356.
- 3 Caporali et al. A Real-World Comparison of Clinical Effectiveness in Patients with Rheumatoid Arthritis Treated with Upadacitinib, Tumor Necrosis Factor Inhibitors, and Other Advanced Therapies After Switching from an Initial Tumor Necrosis Factor Inhibitor. Adv Ther (2024) 41:3706–3721.
- 4 Heutz et al. Sustained DMARD-free remission in subgroups of patients with rheumatoid arthritis: an analysis of two prospective cohorts with early arthritis. DOI: 10.1016/S2665-9913(24)00234-0.
- 5 Mulligen. Tapering conventional synthetic DMARDs towards sustained drug-free remission in rheumatoid arthritis. Lancet Rheumatol. 2024 May:6(5):e254-e255.
- 6 Kjørholt et al. Effects of tapering conventional synthetic disease-modifying antirheumatic drugs to drug-free remission versus stable treatment in rheumatoid arthritis (ARCTIC REWIND): 3-year results from an openlabel, randomised controlled, non-inferiority trial. Lancet Rheumatol. 2024 May;6(5):e268-e278.

# Prevalence

#### **Prevalence Will Rise Substantially**

We do not have exact global numbers for how many people live with **inflammatory rheumatic conditions.** But if we use the lowest estimate from Germany and apply it to the world's adult population, it suggests that around **135 million people** may be affected.<sup>1</sup>

#### Rheumatoid Arthritis (RA)

RA is a chronic inflammatory disease that mainly affects the joints. It causes pain, swelling, and stiffness in the joints, and over time, it can lead to joint damage and deformity. RA can also affect other parts of the body, including the skin, eyes, lungs, muscles, nerves and heart.

- Over 18 million people currently live with RA worldwide<sup>2,3</sup>
- RA is 2 to 3 times more common in women than in men<sup>4,5</sup>
- By 2050, the number of people with RA is expected to rise to nearly 32 million—an 80% increase, according to the Global Burden of Disease Study<sup>3</sup>
- Certain regions are expected to see increases of over 200%:
- Eastern, Central, and Western sub-Saharan Africa
- South Asia
- Oceania
- Southern Sub-Saharan Africa<sup>3</sup>

#### Spondyloarthritis (SpA)

Spondyloarthritis (SpA)\* is a group of chronic inflammatory diseases that mainly affect the spine and sometimes other joints. It causes pain, fatigue, stiffness, and reduced mobility. Other parts of the body–like the eyes, skin and gut–can also be affected.

- The global prevalence of SpA is not well known. It has been estimated to vary from 0.20% in Southeast Asia to 1.61% in Arctic regions.
- Estimated numbers of people living with SpA:
  - 13.1 million in East Asia
  - 4.5 million in the U.S.
  - 4.0 million in Europe<sup>6</sup>

While these estimates suggest around **65 million people globally** have SpA, data on axial SpA (axSpA), a common form of SpA, indicate the number could be even higher. About 1 in 150 people worldwide have axSpA, or roughly 50 million individuals. Since axSpA makes up about half of all SpA cases, the total number of people affected may be **closer to 100 million.**<sup>7</sup> Even in developed countries like the UK, axSpA may be underdiagnosed—by more than threefold, according to some studies.<sup>8</sup>

\*SpA includes axial SpA (axSpA), both radiographic and non-radiographic, enteropathic SpA, peripheral SpA, psoriatic arthritis, and reactive arthritis. Radiographic axSpA was previously called ankylosing spondylitis (AS).

<sup>1</sup> Albrecht et al. Systematic review to estimate the prevalence of inflammatory rheumatic diseases in Germany. ZRheumatol2024:83(Suppl1):S20-S30.

<sup>2</sup> World Health Organization. Rheumatoid arthritis: key facts, 28 June 2023. https://www.who.int/news-room/fact-sheets/detail/rheumatoid-arthritis

<sup>3</sup> GBD 2021 Rheumatoid Arthritis Collaborators. Global, regional, and national burden of rheumatoid arthritis, 1990–2020, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021. Lancet Rheumatol. 2023;5(10):e594-e610.

<sup>4</sup> Cross M, et al. The global burden of rheumatoid arthritis: estimates from the global burden of disease 2010 study. Ann Rheum Dis. 2014;73(7):1316-22.

<sup>5</sup> Gravallese and Firestein. Rheumatoid Arthritis - Common Origins, Divergent Mechanisms. N Engl J Med. 2023 Feb 9;388(6):529-542.

<sup>6</sup> Stolwijk C, et al. Global prevalence of spondyloarthritis: a systematic review and meta-regression analysis. Arthritis Care Res. 2016;68(9):1320-31

<sup>7</sup> ASIF Report. The Burden of Axial Spondyloarthritis: A global patient perspective. Exploring the results from the International Map of Axial Spondyloarthritis (IMAS). January 2024. https://asif.info/imas-global-report/

<sup>8</sup> Hamilton et al. The prevalence of axial spondyloarthritis in the UK: a cross-sectional cohort study. BMC Musculoskeletal Disorders (2015) 16:392.



# Rheumatic and Musculoskeletal Conditions are Debilitating

#### A Major Global Health Challenge

- Inflammatory rheumatic conditions are members of the larger family of musculoskeletal (MSK) conditions. MSK conditions affect over 1.5 billion people worldwide and cause 150 million years lived with disability.<sup>1</sup>
- Between 2000 and 2015, the global burden of MSK conditions rose sharply—from 80 million to 108 million DALYs (disability-adjusted life years), according to a systematic analysis of the World Health Organization's burden of disease database, which covers 183 countries.
- By 2019, MSK conditions became the leading cause of disability worldwide, responsible for 17% of all years lived with disability (YLDs).<sup>2,3</sup>
- The rise in burden is particularly stark in high-income countries due to aging populations. Similar trends are expected in lower-income countries, as healthcare improves and lifestyle-related risks—such as smoking, obesity, and reduced physical activity—increase.<sup>4</sup>

#### **MSK Conditions and Chronic Pain**

- 85% of chronic pain cases are linked to MSK conditions. Addressing MSK conditions therefore means addressing chronic pain and its impact on people, populations, the healthcare system and the economy.<sup>5</sup>
- The impact of pain is far-reaching, being the dominant predictor of psychosocial health,<sup>6</sup> independently predicting work disability,<sup>7</sup> and being associated with worse quality of life, functioning, mental health, fatigue and well-being.<sup>8,9,10,11,12</sup>
- In England, over 15 million people (34%) live with chronic pain. 13

- 1 WHO webinar series. Addressing musculoskeletal conditions: an opportunity for health systems globally. https://www.who.int/news-room/events/detail/2024/01/31/default-calendar/addressing-musculoskeletal-conditions--an-opportunity-for-health-systems-globally. Webinar 1: Global burden of MSK conditions.
- 2 WHO webinar series. Addressing musculoskeletal conditions: an opportunity for health systems globally. https://www.who.int/news-room/events/detail/2024/01/31/default-calendar/addressing-musculoskeletal-conditions--an-opportunity-for-health-systems-globally. Webinar 2: Life-course approach to addressing MSK conditions.
- 3 Vos, et al. Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019, Lancet 2020; 396: 1135–59
- 4 Sebbag E, et al. The world-wide burden of musculoskeletal diseases: a systematic analysis of the World Health Organization Burden of Diseases Database. Ann Rheum Dis. 2019;78(6):844-48.
- 5 WHO webinar series. Addressing musculoskeletal conditions: an opportunity for health systems globally. https://www.who.int/news-room/events/detail/2024/01/31/default-calendar/addressing-musculoskeletal-conditions--an-opportunity-for-health-systems-globally. Webinar 3: Health promotion and prevention.
- 6 Courvoisier et al. Pain as an important predictor of psychosocial health in patients with rheumatoid arthritis. Arthritis Care Res (Hoboken), 2012 Feb;64(2):190-6.

- 7 Wolfe and Hawley. The long-term outcomes of rheumatoid arthritis: Work disability: a prospective 18 year study of 823. J Rheumatol. 1998 Nov;25(11):2108-17.
- 8 Conaghan et al. Relationship of pain and fatigue with health-related quality of life and work in patients with psoriatic arthritis on TNFi: results of a multi-national real-world study. Rheumatology (Oxford). 2021 Jan 5:60(1):316-321.
- 9 Hirano et al. Determinants of the patient global assessment of well-being in early axial spondyloarthritis: 5-year longitudinal data from the DESIR cohort. Rheumatology (Oxford). 2021 Jan 5;60(1):316-321.
- 10 Euesden et al. The Relationship Between Mental Health, Disease Severity, and Genetic Risk for Depression in Early Rheumatoid Arthritis. Psychosom Med. 2017 Jul/Aug;79(6):638-645.
- 11 Pollard et al. Fatigue in rheumatoid arthritis reflects pain, not disease activity. Rheumatology (Oxford). 2006 Jul;45(7):885-9.
- 12 Scott et al. Pain management in people with inflammatory arthritis: British Society for Rheumatology guideline scope. Rheumatology Advances in Practice, Volume 8, Issue 4, 2024.
- 13 Ellis et al. Chronic Pain in England: Unseen, Unequal and Unfair. Versus Arthritis. https://versusarthritis.org/media/23739/chronic-pain-report-june2021.pdf

#### All Age Groups are Affected

- While MSK conditions can occur at any age, including in childhood, incidence begins to rise more markedly around the age of 10 and continues to increase steadily across the life course. It is not 'just' a disease of the elderly.1
- In England and Scotland, 2% of children under 16 have a long-term MSK condition<sup>2,3,4</sup>
- Among adolescents and young adults (15-39 years), MSK conditions have emerged as the third-leading cause of global DALYs, with a 39% rise in prevalence over the past 30 years<sup>5</sup>
- Conditions like RA and gout are increasingly common in this age group,<sup>5</sup> impacting important life events such as education, career advancement, relationship formation and parenthood; potentially limiting the life goals of young people

#### Impact in the European Union and the UK

- In Europe, by 2030, up to 50% of working-age people could be diagnosed with a chronic MSK condition<sup>6</sup>
- MSK conditions account for half of all work absences and 60% of permanent work disabilities<sup>7</sup>
- In the UK, MSK conditions are one of the top causes of disability.8
- In the UK, an example of a high-income country, MSK conditions are part of the Major Conditions Strategy, emphasizing early diagnosis, early intervention and quality treatment.8
- In the UK's political debate, it is recognized that, besides the humanistic impact of MSK conditions, they can lead to unemployment and impoverishment, as well as substantial costs to the state in the form of social security and NHS spending. 'It is a matter of economic vitality'."



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- 1 WHO webinar series. Addressing musculoskeletal conditions: an opportunity for health systems globally. https://www.who.int/news-room/events/detail/2024/01/31/default-calendar/addressing-musculoskeletal-conditions--an-opportunity-for-health-systems-globally. Webinar 1: Global burden of MSK conditions.
- 2 Scottish Government. Scottish Health Survey 2021. https://www.gov.scot/collections/scottish-health-survey/
- 3 Moody, et al. Health Survey for England 2018: Longstanding conditions. 2019 Health and Social Care Information Centre. National Health System, United Kingdom.
- 4 Versus Arthritis. The State of Musculoskeletal Health 2024. Arthritis and other musculoskeletal conditions in numbers. https://www.versusarthritis.org/media/tffdkiax/va\_state-of-msk-report-nov2024-1.pdf
- 5 Guan, et al. Global burden and risk factors of musculoskeletal disorders among adolescents and young adults in 204 countries and territories, 1990–2019, Autoimmunity Reviews, Volume 22, Issue 8, 2023, 103361, ISSN 1568-9972.

- 6 Cross M, et al. The global burden of rheumatoid arthritis: estimates from the global burden of disease 2010 study. Ann Rheum Dis. 2014;73(7):1316-22
- 7 Why early management of chronic disease in the EU workforce should be a priority: a call for action for the Latvian presidency of the EU & member states.
- 8 Department of Health & Social Care. Major conditions strategy: case for change and our strategic workforce. 21 Aug 2023. https://www.gov.uk/government/publications/major-conditions-strategy-case-for-change-and-our-strategic-framework/major-conditions-strategy-case-for-change-and-our-strategic-framework--2
- 9 UK Parliament. Musculoskeletal conditions and employment. 10 Jan 2024. https://researchbriefings.files.parliament.uk/documents/CDP-2023-0236/CDP-2023-0236.pdf



# Acting Early Prevents Long-Term Disability

- Acting early in inflammatory MSK conditions can prevent irreversible damage. In 2010, RA alone caused 4.8 million DALYs globally.<sup>1</sup>
- In the UK, RA accounts for over 50,000 YLDs.<sup>2</sup>
- Inflammatory rheumatic conditions impact both physical and mental health. One in 3 people with RA in the UK experience mental health issues like anxiety or depression, with depression being 2-3 times more common than in the general population.<sup>2,3,4</sup>
- RA increases the risk of death, with a US study showing 27% excess mortality, even when other health conditions are accounted for.<sup>5,6</sup>
- Thanks to better treatments, people with RA today are living longer than ever before—but often spending many years with disability. Indeed, most of the 4.8 million DALYs are due to years lived with disability, not early death. That is equivalent to 4,800,000 healthy life years lost.<sup>1</sup>

- Though early intervention is crucial, too few patients recognize this fact. In the UK, 50%-75% of people with RA wait over 3 months before seeking help. After that, patients visit their general practitioner on average 4 times before being referred to a specialist. On average, it takes 9 months from symptom onset to treatment.<sup>7</sup>
- With axSpA being a deeply misunderstood and under-recognized disease, it takes on average 7.4 years to receive the diagnosis—ranging from 4.2 years in Asia to 10.8 years in South Africa.
   Women wait 2 years longer than men. During this time, damage accumulates, and a person's prognosis worsens considerably. Since axSpA often begins in a person's 20s, delayed diagnosis can mean a lifetime of largely preventable disability.<sup>8,9</sup>



- 1 Cross M, et al. The global burden of rheumatoid arthritis: estimates from the global burden of disease 2010 study. Ann Rheum Dis. 2014;73(7):1316-22.
- 2 Versus Arthritis. The State of Musculoskeletal Health 2024. Arthritis and other musculoskeletal conditions in numbers. https://www.versusarthritis.org/media/tffdkiax/va\_state-of-msk-report-nov2024-1.pdf
- 3 Marrie et al. Increased Burden of Psychiatric Disorders in Rheumatoid Arthritis. Arthritis Care Res (Hoboken). 2018 Jul;70(7):970–978.
- 4 Hoek et al. Long-term physical functioning and its association with somatic comorbidity and comorbid depression in patients with established rheumatoid arthritis: a longitudinal study. Arthritis Care Res (Hoboken), 2013 Jul;65(7):1157-65.
- 5 Gabriel SE, et al. Survival in rheumatoid arthritis: a population-based analysis of trends over 40 years. Arthritis Rheum. 2003;48(1):54-58.

- 6 Navarro-Cano G, et al. Association of mortality with disease severity in rheumatoid arthritis, independent of comorbidity. Arthritis Rheum. 2003;48(9):2425-33.
- 7 NAO. Services for people with rheumatoid arthritis. 15 Jul 2009. https://www.nao.org.uk/reports/services-for-people-with-rheumatoid-arthritis/
- 8 ASIF Report. The Burden of Axial Spondyloarthritis: A global patient perspective. Exploring the results from the International Map of Axial Spondyloarthritis (IMAS). January 2024. https://asif.info/imas-global-report/
- 9 The Pursuit of Remission and Improved Quality of Life in axSpA: Personal Experiences and the Scientific Evidence. Webinar, April 3, 2025. https://www.youtube.com/watch?v=o5-gu5i9Vss

# Benefits of Remission

# Achieving Remission is a Game-Changer for Patients and Healthcare Systems

Approaching inflammatory rheumatic conditions only from a broad MSK angle is not doing right by those with inflammatory conditions. Such strategies focus on issues like lower back pain or osteoarthritis, emphasizing physical therapy, surgery or workplace adjustments.

#### People with RA currently are not given optimal care:

- Treatment is frequently not started within the critical 12-week therapeutic window<sup>1</sup>
- Even among those receiving treatment, 70% do not achieve remission<sup>2</sup>

#### The outlook is worse for SpA:

- Even with a diagnosis, which may commonly take as long as 7 years, 75% of axSpA patients report that their disease is sub-optimally controlled (Bath Ankylosing Spondylitis Disease Activity Index, BASDAI ≥ 4), leading to significantly increased levels of pain, fatigue, stiffness and difficulty carrying out routine tasks.<sup>3</sup>
- People with sub-optimally controlled disease report an average number of 2.4 comorbidities, compared to 1.4 reported by those with controlled disease.<sup>3</sup>

For inflammatory conditions, **the aim should be prevention through early diagnosis and a 'treat-to-remission' approach.** Achieving remission is a game-changer for both individuals and healthcare systems and should be a goal for public health officials.



The aim should be **prevention through early diagnosis** and a 'treat-to-remission' approach.

- 1 NAO. Services for people with rheumatoid arthritis. 15 Jul 2009. https://www.nao.org.uk/reports/services-for-people-with-rheumatoid-arthritis/
- 2 Yu C, et al. Remission rate and predictors of remission in patients with rheumatoid arthritis under treat-to-target strategy in real-world studies: a systematic review and meta-analysis. Clin Rheumatol. 2019;38(3):727-38.
- 3 ASIF Report. The Burden of Axial Spondyloarthritis: A global patient perspective. Exploring the results from the International Map of Axial Spondyloarthritis (IMAS), January 2024. https://asifinfo/imas-alobal-report/

#### **Benefits of Remission**



#### **Work Productivity**

37%-75% gain<sup>1,2,3</sup>



#### **Medical Care Expenditures**

19%-52% savings<sup>3</sup>



- 1 Radner H, et al. Remission in rheumatoid arthritis: benefit over low disease activity in
- burden. Acta Reumatol Port. 2012;37(2):134-42.
- 3 Ostor AJ, et al. value of remission in patients with rheumatoid arthritis: a targeted review. Adv Ther. 2022;39(1):75-93.
- 4 Curtis JR, et al. Patient perspectives on achieving treat-to-target goals: a critical examination of patient-reported outcomes. Arthritis Care Res (Hoboken).
- 5 Ishida M, et al. Residual symptoms and disease burden among patients with rheumatoid arthritis in remission or low disease activity: a systematic literature review.
- 6 Kekow J, et al. Improvements in patient-reported outcomes, symptoms of depression and anxiety, and their association with clinical remission among patients with moderate-to-severe active early rheumatoid arthritis. Rheumatology (Oxford). 2011:50(2):401-409.
- 7 Son CN, et al. Sleep quality in rheumatoid arthritis, and its association with disease

**Improved Outcomes** better physical health, i.e., less pain and fatigue, and improved mental status<sup>1,4,5,6,7</sup> patient reported outcomes and costs. Arthritis Res Ther. 2014;16(1):R56. 2 Miranda LC, et al. Finding Rheumatoid Arthritis Impact on Life (FRAIL Study): economic Mod Rheumatol. 2018;28(5):789-99. activity in a Korean population. Korean J Intern Med. 2015;30(3):384-90.

The Value of Achieving Remission in Inflammatory Rheumatic Conditions

#### **BENEFIT #1**

#### Remission Allows People to Work

One of the most compelling benefits of remission is how it enables people to be more productive in daily life.

When people are no longer burdened by the debilitating effects of inflammatory rheumatic disease, they can participate more fully in the workforce. In contrast, those who do not achieve remission may find themselves caught in a cycle of disability benefits and unemployment. This not only affects their financial independence but also places a strain on public assistance programs.

Increasing remission rates empowers people to lead fulfilling and economically productive lives, benefitting both individuals and society. The UK's National Audit Office has noted: "Delay in treatment (of RA) is detrimental to patients' health, their quality of life and, with three quarters of people of working age when diagnosed, the economy."

There are several ways to assess productivity: productivity impairment, workdays lost, and work disability. Work disability, or illness-induced early retirement, is the main driver of productivity losses.

Avoiding or delaying early retirement can therefore result in substantial cost savings. Several studies have quantified productivity losses due to inflammatory rheumatic conditions:

- A large review of the economic burden of RA found that when work disability was measured instead of just sickness absence, indirect costs (non-medical) made up a much larger share of total costs than direct (medical) costs. The balance of direct/indirect costs ranged from 15%/85% in Australia to 95%/5% in Italy, the differences largely driven by methodology rather than real-world variation.<sup>2</sup>
- In the UK, the cost of working days lost due to osteoarthritis and RA was estimated at £2.6 billion in 2017, with projections rising to £3.4 billion by 2030.<sup>3</sup> People with arthritis are 20% less likely to be employed than those without the condition.<sup>4,5</sup>



<sup>1</sup> NAO. Services for people with rheumatoid arthritis, 15 Jul 2009. https://www.nao.org.uk/reports/services-for-people-with-rheumatoid-arthritis/

<sup>2</sup> Hsieh et al. Economic burden of rheumatoid arthritis: a systematic review of literature in biologic era. Ann Rheum Dis. 2020 Jun;79(6):771-777.

<sup>3</sup> UK Parliament. Musculoskeletal conditions and employment. 10 Jan 2024. https://researchbriefings.files.parliament.uk/documents/CDP-2023-0236/CDP-2023-0236.pdf

<sup>4</sup> Versus Arthritis. The State of Musculoskeletal Health 2024. Arthritis and other musculoskeletal conditions in numbers. https://www.versusarthritis.org/media/tffdkiax/va\_state-of-msk-report-nov2024-1.pdf

<sup>5</sup> Rajah et al. How does arthritis affect employment? Longitudinal evidence on 18,000 British adults with arthritis compared to matched controls. Soc Sci Med. 2023 Mar;321:115606.

<sup>6</sup> Young et al. Which patients stop working because of rheumatoid arthritis? Results of five years' follow up in 732 patients from the Early RA Study (ERAS). Ann Rheum Dis. 2002 Apr;61(4):335-40.

- Also in the UK, the total work-related costs of axSpA—including early retirement, absenteeism, and presenteeism—are estimated at £11,943 per person per year.¹ The National Axial Spondyloarthritis Society estimated that a 26-year old patient who waits 8.5 years for a diagnosis could lose around £187,000 over their lifetime, mostly due to reduced employment.² In one study, 24% of men with radiographic axSpA retired early, and 45% switched to less physically demanding jobs.¹,3,4
- People with axSpA are up to three times more likely to leave the workforce compared to the general population.<sup>5</sup> Nearly half (46%) said axSpA influenced their job choice, and 71% reported difficulties in finding employment due to their condition.<sup>6</sup>
- A study in Argentina found that people with active RA had 2.3 times higher indirect costs from lost workdays than those in remission, using the best score group on the Health Assessment Questionnaire as a proxy for remission.<sup>7</sup>
- Studies from Austria and Japan found that RA patients in remission had significantly less productivity impairment than those with low (LDA) or moderate/high disease activity (M/HDA).<sup>8,9</sup>

Compared to someone without RA:

- A person in remission is only 8%-12% less productive
- Those with LDA are 21%-27% less productive
- Those with M/HDA are 30% 46% less productive<sup>8,9,10</sup>

Remission can significantly reduce indirect costs, including work productivity losses:

- In Portugal, annual work productivity loss—in terms of workdays lost, including that of family members—was reduced by 75% (namely, from €540 to €135).<sup>11</sup>
- In Austria, remission was associated with a reduction in annual indirect costs from €14,273 to €9,023. This included early retirement, with 34% of retired participants citing RA as the reason.<sup>10</sup>

Returning to the UK's National Audit Office's point: investing in health, prevention, and ability yields a positive return by reducing welfare spending. The case is clear—£11 million invested in health could save £31 million in welfare costs. Yet, cross-ministry coordination challenges have hindered action.<sup>12</sup>

<sup>1</sup> Versus Arthritis. The State of Musculoskeletal Health 2024. Arthritis and other musculoskeletal conditions in numbers. https://www.versusarthritis.org/media/tffdkiax/va\_state-of-msk-report-nov2024-1.pdf

<sup>2</sup> NASS. Driving down diagnostic delay in axial SpA. First impact report of the Act on Axial SpA campaign. October 2022. https://nass.co.uk/wp-content/uploads/2022/10/NASS-Impact-Report\_DIGITAL-WEB-FRIENDLY-FINAL.pdf

<sup>3</sup> Strand and Singh. Patient Burden of Axial Spondyloarthritis. J Clin Rheumatol. 2017 Oct;23(7):383-391.

<sup>4</sup> Cakar et al. Work disability in ankylosing spondylitis: differences among working and work-disabled patients. Clin Rheumatol. 2009 Nov;28(11):1309-14.

<sup>5</sup> Martindale et al. The impact of ankylosing spondylitis/axial spondyloarthritis on work productivity. Best Pract Res Clin Rheumatol. 2015 Jun;29(3):512-23.

<sup>6</sup> ASIF Report. The Burden of Axial Spondyloarthritis: A global patient perspective. Exploring the results from the International Map of Axial Spondyloarthritis (IMAS). January 2024. https://asif.info/imas-qlobal-report/

<sup>7</sup> Secco A, et al. Epidemiología, uso de recursos y costos de la artritis reumatoidea en Argentina. Rev Peru Med Exp Salud Publica. 2020;37(3):532-40.

<sup>8</sup> Ostor AJ, et al. Value of remission in patients with rheumatoid arthritis: a targeted review. Adv Ther. 2022;39(1):75-93.

<sup>9</sup> Kim D, et al. Importance of obtaining remission for work productivity and activity of patients with rheumatoid arthritis. J Rheumatol. 2017;44(8):1112-17.

<sup>10</sup> Radner H, et al. Remission in rheumatoid arthritis: benefit over low disease activity in patient reported outcomes and costs. Arthritis Res Ther. 2014;16(1):R56.

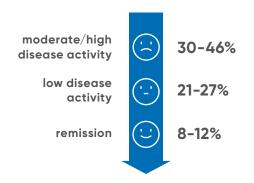
<sup>11</sup> Miranda LC, et al. Finding Rheumatoid Arthritis Impact on Life (FRAIL Study): economic burden. Acta Reumatol Port. 2012;37(2):134-42.

<sup>12</sup> Bevan S. Reducing temporary work absence through early intervention: the case of MSDs in the EU. Fit for Work. The Work Foundation (part of Lancaster University)

#### **Annual Impact per Person on Productivity**

#### Presenteeism and Productivity Impairment<sup>1,2,3</sup>

'working while sick with lower productivity'



#### Work Disability and Early Retirement Costs<sup>1</sup>

€14,273

no remission



#### Absenteeism and Workdays Lost<sup>4</sup>

'habitually being absent from work'



<sup>4</sup> Miranda LC, et al. Finding Rheumatoid Arthritis Impact on Life (FRAIL Study): economic burden. Acta Reumatol Port. 2012;37(2):134-42.



<sup>1</sup> Ostor AJ, et al. Value of remission in patients with rheumatoid arthritis: a targeted review. Adv Ther. 2022;39(1):75-93.

<sup>2</sup> Kim D, et al. Importance of obtaining remission for work productivity and activity of patients with rheumatoid arthritis. J Rheumatol. 2017;44(8):1112-17.

<sup>3</sup> Radner H, et al. Remission in rheumatoid arthritis: benefit over low disease activity in patient reported outcomes and costs. Arthritis Res Ther. 2014;16(1):R56.

#### BENEFIT #2

## Remission Reduces Medical Care Expenditures

- There is a stark contrast in medical costs and healthcare resource utilization between patients who achieve remission and those who do not. Reaching remission can therefore ease the burden on already overstretched healthcare systems. This highlights that suboptimal care should be viewed as wasteful.<sup>1</sup>
- In the era following the introduction of biologic treatments for RA, a significant decline in hospital and surgical costs was observed, based on 72 studies, in 28 countries, across Europe, North America, Asia, Latin America and Australasia. Whereas before 2002, inpatient care contributed 75% to direct costs (i.e. costs within the healthcare system), in more recent data this share dropped between 5% to 45%.
- A recent review in RA of 16 studies across 12 countries and 3 continents found that patients in remission consistently had lower direct medical costs and used fewer healthcare resources than those not in remission.<sup>2</sup>



Reaching remission can ease the burden on already overstretched healthcare systems.

- Remission was associated with savings of 19%-52% in direct medical costs.<sup>2</sup>
- Median annual medical costs for patients in remission were €2,464 (range €821 to €11,272), compared to €4,717 (range €1,042 to €16,879) for those not in remission.²
- Cost savings associated with remission were reported as €285 (20%) compared to low disease activity, and €3,804 (51%) compared to medium-high disease activity.<sup>2</sup>
- Compared to individuals with medium-high disease activity, those in remission experienced 64% fewer hospitalizations, 53% fewer joint surgeries, 24% fewer radiographs.<sup>3</sup>



Hospitalizations

**64%** √ reduction



**Joint Surgeries** 

53% ↓
reduction



Radiographs

**24**% √ reduction

<sup>1</sup> The Pursuit of Remission and Improved Quality of Life in axSpA: Personal Experiences and the Scientific Evidence. Webinar, April 3, 2025. https://www.youtube.com/watch?v=o5-gu5i9Vss

<sup>2</sup> Ostor AJ, et al. Value of remission in patients with rheumatoid arthritis: a targeted review. Adv Ther. 2022;39(1):75-93.

<sup>3</sup> Boytsov N, et al. Increased healthcare resource utilization in higher disease activity levels in initiators of TNF inhibitors among US rheumatoid arthritis patients. Curr Med Res Opin. 2016;32(12):1959-67.

- A study in **Argentina** found that hospital costs for RA patients were 20 times higher among those with a Health Assessment Questionnaire score of 2.6-3.0, compared to those with a score of 0.0-0.5, the latter serving as a proxy for remission.<sup>1</sup>
- In Austria, annual medical costs for RA patients were 20% higher for those with low disease activity and 71% higher for those with medium-high disease activity, compared to patients in remission.<sup>2</sup>
- A Colombian study reported that direct medical costs were 2.1 times greater for patients with severe RA disease activity than for those in remission.<sup>3</sup>
- A global review on axSpA found that individuals with sub-optimally controlled disease (BASDAI ≥ 4) had 92% more primary care visits, 71% more physiotherapy visits, and 58% more visits to a psychologist or psychiatrist, compared to those with controlled disease (BASDAI < 4).<sup>4</sup>
- A U.S. registry analysis of psoriatic arthritis (PsA) and radiographic axSpA found that patients without disease control were 3.0 (PsA) to 7.7 (radiographic axSpA) times more likely to require inpatient care, compared to those with controlled disease.<sup>5</sup>
- Inpatient costs per patient per year were 3.5 times higher for patients with uncontrolled PsA compared to those with controlled disease.<sup>5</sup>

 In Central and Eastern Europe, patients with radiographic axSpA who achieved low disease activity after 12 months saw up to an 83% reduction in the number and length of hospitalizations, along with fewer healthcare provider visits.<sup>6</sup>

Additionally, it is worth noting that out-of-pocket expenses are substantial for people with uncontrolled inflammatory disease<sup>7</sup> and can consume close to 20% of the household income (US, 2009).<sup>8</sup> Achieving remission therefore not only reduces direct medical costs but also substantially alleviates financial burden on households.

Achieving remission substantially alleviates financial burden on households.

<sup>1</sup> Secco A, et al. Epidemiología, uso de recursos y costos de la artritis reumatoidea en Argentina. Rev Peru Med Exp Salud Publica. 2020;37(3):532-40.

<sup>2</sup> Radner H, et al. Remission in rheumatoid arthritis: benefit over low disease activity in patient reported outcomes and costs. Arthritis Res Ther. 2014;16(1):R56.

<sup>3</sup> Santos-Moreno P, et al. Centers of excellence implementation for treating rheumatoid arthritis in Colombia: a cost-analysis. Clinicoecon Outcomes Res. 2021;13:583-91.

<sup>4</sup> ASIF Report. The Burden of Axial Spondyloarthritis: A global patient perspective. Exploring the results from the International Map of Axial Spondyloarthritis (IMAS). January 2024. https://asif.info/imas-global-report/

<sup>5</sup> Bergman MJ, et al. Clinical and economic benefit of achieving disease control in psoriatic arthritis and ankylosing spondylitis: a retrospective analysis from the OM1 Registry. Rheumatol Ther. 2023;10:187–99.

<sup>6</sup> Opris-Belinski D, et al. Impact of adalimumab on clinical outcomes, healthcare resource utilization, and sick leave in patients with ankylosing spondylitis: an observational study from f ive Central and Eastern European countries. Drugs Context. 2018;7:212556.

<sup>7</sup> UK Parliament. Musculoskeletal conditions and employment. 10 Jan 2024. https://researchbriefings.files. parliament.uk/documents/CDP-2023-0236/CDP-2023-0236.pdf

<sup>8</sup> Wolfe F, et al. Out-of-pocket expenses and their burden in patients with rheumatoid arthritis. Arthritis Rheum. 2009;61:1563-70.

#### **BENEFIT #3**

#### **Improved Outcomes**

Improved outcomes and physical functioning in patients achieving remission translate into significant humanistic benefits—even when compared to those with low disease activity. 1,2,3

- RA patients in remission report higher quality of life (QoL) scores on both the EQ-5D and the 36-Item Short Form Health Survey (SF-36), which assess various QoL domains.<sup>4</sup>
- Specifically, remission is associated with better physical health (e.g., reduced pain and fatigue, <sup>2,5,6</sup>), improved mental well-being (e.g., better sleep quality, less depression and anxiety <sup>5,6,7,8</sup>), and enhanced work productivity.<sup>2,5,9</sup>
- Early remission in patients with early RA treated with conventional synthetic DMARDs (csDMARDs) is linked to clinical and functional benefits.<sup>10</sup> Even among patients requiring additional targeted therapies (bDMARDs or tsDMARDs), those achieving remission within 12 weeks (28% of patients) experienced less pain and fatigue, and better physical functioning and QoL for at least one year compared to those who did not.<sup>11</sup>
- The ability to engage in paid work itself has been shown to positively impact QoL, as measured by the SF-36 in a **Norwegian** RA study that controlled for demographics and disease severity.<sup>9</sup>



Improved outcomes and physical functioning in patients achieving remission translate into **significant humanistic benefits.** 

- 1 Klarenbeek NB, et al. Association with joint damage and physical functioning of nine composite indices and the 2011 ACR/EULAR remission criteria in rheumatoid arthritis. Ann Rheum Dis. 2011;70(10):1815-21.
- 2 Radner H, et al. Remission in rheumatoid arthritis: benefit over low disease activity in patient reported outcomes and costs. Arthritis Res Ther. 2014;16(1):R56.
- 3 Van Tuyl LH, et al. Evidence for predictive validity of remission on long-term outcome in rheumatoid arthritis: a systematic review. Arthritis Care Res (Hoboken). 2010;62(1):108-17.
- 4 Ostor AJ, et al. Value of remission in patients with rheumatoid arthritis: a targeted review. Adv Ther. 2022;39(1):75-93.
- 5 Ishida M, et al. Residual symptoms and disease burden among patients with rheumatoid arthritis in remission or low disease activity: a systematic literature review. Mod Rheumatol. 2018;28(5):789-99.
- 6 Curtis JR, et al. Patient perspectives on achieving treat-to-target goals: a critical examination of patient-reported outcomes. Arthritis Care Res (Hoboken). 013;65(10):1707-12.

- 7 Kekow J, et al. Improvements in patient-reported outcomes, symptoms of depression and anxiety, and their association with clinical remission among patients with moderate-to-severe active early rheumatoid arthritis. Rheumatology (Oxford). 2011;50(2):401-409.
- 8 Son CN, et al. Sleep quality in rheumatoid arthritis, and its association with disease activity in a Korean population. Korean J Intern Med. 2015;30(3):384-90.
- 9 Grønning K, et al. Paid work is associated with improved health-related quality of life in patients with rheumatoid arthritis. Clin Rheumatol. 2010;29(11):1317-22.
- 10 Klooster et al. Long-term clinical, functional, and cost outcomes for early rheumatoid arthritis patients who did or did not achieve early remission in a real-world treat-to-target strategy. Clin Rheumatol. 2019 Oct;38(10):2727-2736.
- 11 Gossec et al. POS0643 Association of Early Remission on Clinical and Patient-Reported Outcomes in Patients with Rheumatoid Arthritis: Post-hoc Analysis of Data from the Select-Compare Study. Poster. https://doi.org/10.1136/annrheumdis-2024-eular.1469.

- A Turkish study involving 962 individuals with radiographic axSpA found significantly lower QoL among those with poor disease control. Patients with BASDAI < 4 reported an ASQoL score of 4.6, while those with BASDAI ≥ 4 reported a score of 11.2 (on a scale from 0 to 18, where higher scores indicate worse QoL).<sup>12,3,4</sup>
- In a multinational clinical study of PsA, patients achieving minimal disease activity showed significantly greater improvements across all SF-36 domains, the SF-36 summary score, EQ-5D-5L, and EQ-5D VAS compared to non-responders.<sup>5</sup>
- A 20-year follow-up study<sup>6</sup> found that patient-reported outcomes, such as those reported on the Health Assessment Questionnaire (HAQ), were stronger predictors of mortality in RA than laboratory, radiographic, or physical examination data, highlighting the importance of collecting and acting on patient-reported data.
  - A global study on axSpA revealed a clear link between diagnostic delay and physical outcomes. Patients without spinal stiffness had a mean time to diagnosis of 3.7 years, while those with severe stiffness had a delay of 9.1 years. Since spinal stiffness is often irreversible, early diagnosis is critical.<sup>7</sup>

RA and its comorbidities quickly lead to disability.

- A Polish study of 1,000 participants found that 53% of RA patients had disability confirmed by law.<sup>8</sup>
- Mental health comorbidities are common: depression affects 17%-42% of RA patients, and 53%-71% experience either depression or anxiety, or both.<sup>9</sup>

#### Patients in Remission Have Better Quality of Life



Less pain and fatigue



Improved mental status



**Greater work productivity** 

- 1 Garrett S, et al. A new approach to defining disease status in ankylosing spondylitis: the Bath Ankylosing Spondylitis Disease Activity Index. J Rheumatol. 1994;21(12):2286-91.
- 2 Doward LC, et al. Development of the ASQoL: a quality of life instrument specific to ankylosing spondylitis. Ann Rheum Dis. 2003;62:20-26.
- 3 van der Heijde DM, et al. Physical function, disease activity, and health-related quality-of-life outcomes after 3 years of adalimumab treatment in patients with ankylosing spondylitis. Arthritis Res Ther. 2009;11:R124.
- 4 Bodur H, et al. Quality of life and related variables in patients with ankylosing spondylitis. Qual Life Res. 2011;20(4):543-49.
- 5 Coates LC, et al. Achieving minimal disease activity in psoriatic arthritis predicts meaningful improvements in patients' health-related quality of life and productivity. BMC Rheumatol. 2018;2:24.

- 6 Wolfe F, et al. Out-of-pocket expenses and their burden in patients with rheumatoid arthritis. Arthritis Rheum. 2009;61:1563-70
- 7 ASIF Report. The Burden of Axial Spondyloarthritis: A global patient perspective. Exploring the results from the International Map of Axial Spondyloarthritis (IMAS). January 2024. https://asif.info/imas-global-report/
- 8 Grygielska J. The impact of rheumatoid arthritis on the economic situation of Polish households. Rheumatology. 2013;51(5):348-354.
- 9 Isik A, et al. Anxiety and depression in patients with rheumatoid arthritis. Clin Rheumatol. 2007;26(6):872-78.

### Proven Solutions



Several cost-effective solutions have been put forth and proven in practice. Some important strategies identified by the Fit for Work Coalition (2009-2018) include:

- **1. Early diagnosis and intervention,** ideally within 12 weeks of symptom onset, are key to the successful treatment of inflammatory arthritis. 1,2,3 These 12 weeks constitute the so-called 'therapeutic window. 4,5,6 The only predictive factor in achieving remission in RA is early diagnosis and initiation of effective treatment, 7 with chances of remission doubling if this happens. 8,9 Early diagnosis starts with awareness, and public awareness needs to improve.
  - Awareness of the benefits of remission should be strengthened through improved medical education for general practitioners. Too often debilitation is seen as inevitable.<sup>10</sup>
  - In axSpA, physiotherapists, orthopedic doctors, ophthalmologists, dermatologists and gastroenterologists may see undiagnosed patients. Their awareness and recognition of signs and symptoms needs to improve.<sup>11</sup>
  - National strategies need to be developed regarding best practices and implementation of early diagnosis and intervention, including agreed-upon standards of care and quality indicators.<sup>10</sup>
- 1 NAO. Services for people with rheumatoid arthritis. 15 Jul 2009. https://www.nao.org.uk/reports/services-for-people-with-rheumatoid-arthritis/
- 2 Suresh E. Diagnosis of early rheumatoid arthritis: what the non-specialist needs to know. J R Soc Med. 2004;97(9):421-24.
- 3 Grätzel P. Rheuma-Verdacht: Welche Patienten müssen zum Spezialisten? Das entscheidet der Hausarzt [Suspected rheumatoid arthritis: which patient must be referred to a specialist? The family physician decides]. MMW Fortschr Med. 2014;156(6):20.
- 4 Raza K, et al. Timing the therapeutic window of opportunity in early rheumatoid arthritis: proposal for definitions of disease duration in clinical trials. Ann Rheum Dis. 2012;71(12):1921-23
- 5 Cush JJ. Early rheumatoid arthritis—is there a window of opportunity? J Rheumatol Suppl. 2007;80:1-7.
- 6 Raza K, et al. The therapeutic window of opportunity in rheumatoid arthritis: does it ever close? Ann Rheum Dis. 2015;74(5):793-94.
- 7 Gremese E, et al. Very early rheumatoid arthritis as a predictor of remission: a multicentre real life prospective study. Ann Rheum Dis. 2013;72(6):858-62.
- 8 Akdemir G, et al. Predictive factors of radiological progression after 2 years of remission-steered treatment in early arthritis patients: a post hoc analysis of the IMPROVED study. RMD Open. 2016;2(1):e000172.
- 9 Heimans L, et al. Two-year results of disease activity score (DAS)-remission-steered treatment strategies aiming at drug-free remission in early arthritis patients (the IMPROVED-study). Arthritis Res Ther. 2016;18:23.
- 10 Global Alliance for Patient Access. The value of achieving remission in inflammatory rheumatic conditions. April 2024. https://gafpa.org/wp-content/uploads/2024/04/GAfPA-Remission MeetingReport-April-2024.pdf
- 11 ASIF Report. The Burden of Axial Spondyloarthritis: A global patient perspective. Exploring the results from the International Map of Axial Spondyloarthritis (IMAS). January 2024. https://asif.info/imas-alobal-report/



#### LATIN AMERICA

In **Latin America**, a care model for early SpA clinics has been developed. The model consists of three types of centers, according to the level of complexity of the specific institution. The model defines indicators of structure, processes, and results, and focuses on comprehensive, multidisciplinary, patient-centered care.<sup>1</sup>



#### **POLAND**

In Poland, a national program was set up specifically for the prevention and early detection of RA (2016-2020).<sup>2</sup> Poland has the longest diagnostic delays in Europe; the time from first symptoms to treatment initiation can be as long as 35 weeks.<sup>3</sup> The program implemented education of medical staff and patients, screening tools, and validation of diagnosis by a rheumatologist in ambulatory care.

- To save 1 day of temporary work disability,
   \$12 had to be invested in healthcare
- Each \$1 invested generated a benefit of \$2



#### **SPAIN**

The most pioneering program to date is the Early Intervention Clinic at the Hospital Clinico San Carlos in Madrid, Spain,<sup>4</sup> which focused on early intervention in MSK-related work disability, involving 13,000 patients (1998–1999).

The program accepted patients referred after 5 days of absence from work, and it included patient education program.

- Temporary work disability was 39% lower and permanent work disability 50% lower compared with standard care
- To save 1 day of temporary work disability, \$6 had to be invested.
   Patient satisfaction was high
- For every \$1 of expenditure, \$11 was saved on lost productivity and healthcare costs
- The program's net benefit was in excess of \$5 million (2003 USD)

If this approach were implemented across Spain, 81,000 additional people would be fit for work rather than taking sick leave.

- 46 M working days lost to MSK conditions each year in Spain
- 39% reduction in temporary work disability
- 50% reduction in permanent work absence in study
- 81,000 additional Spanish workers would be available for work each day in Spain
- 11-euro savings made in societal costs for every 1 euro of expenditure

<sup>1</sup> Santos-Moreno P, et al. Engagement process for patients with spondyloarthritis: PANLAR early SpA clinics project — centers of excellence. Clin Rheumatol. 2021;40: 4759–66.

<sup>2</sup> Program polityki zdrowotnej. Nazwa programu: ogólnopolski program profilaktyki pierwotnej i wczesnego wykrywania reumatoidalnego zapalenia stawów. Okres realizacji: 2016–2020

<sup>3</sup> Raza K, et al. Delays in assessment of patients with rheumatoid arthritis: variations across Europe. Ann Rheumatic Dis. 2011;70(10):1822-25.

<sup>4</sup> Abásolo L, et al. A health system program to reduce work disability related to musculoskeletal disorders [published correction appears in Ann Intern Med. 2005 Dec 6;143(11):W165]. Ann Intern Med. 2005;143(6):404-14.

- **2. Appropriate referral** and patient journey standardization<sup>1</sup> are required, including the provision of quick response appointments in the event of a flare-up. In addition, access to psychological services needs to be improved, as depression is common among people with inflammatory arthritis.
  - About 20% of axSpA patients are not being managed by a rheumatologist, suggesting that these patients may not be receiving care from teams with appropriate knowledge and training in axSpA.<sup>2</sup>
  - Getting the appropriate medicine prescribed is crucial. Performancebased risk-sharing arrangements, as for instance those implemented for RA in Argentina, may take down payer barriers.<sup>3</sup>



- 1 Santos-Moreno P, et al. Engagement process for patients with spondyloarthritis: PANLAR early SpA clinics project centers of excellence. Clin Rheumatol. 2021;40: 4759–66.
- 2 ASIF Report. The Burden of Axial Spondyloarthritis: A global patient perspective. Exploring the results from the International Map of Axial Spondyloarthritis (IMAS). January 2024. https://asif.info/imas-alobal-report/
- 3 di Giuseppe LA, et al. Experience of the performance-based risk-sharing arrangement for the treatment of rheumatoid arthritis with certolizumab pegol. Value Health. 2020;21:P201-P204.
- 4 Taylor PC, et al. Cost-effectiveness analysis of upadacitinib versus alternative treatment strategies for rheumatoid arthritis with inadequate response to TNFi in the United Kingdom; European Congress of Rheumatology 2024 (in press).

- Whereas TNF cycling may seem a good solution to contain drug costs, it likely does not lessen overall expenditure on medical costs. Switching to a treatment with a different mechanism of action may be more effective and less expensive.<sup>4,5</sup>
- There is also a pressing need for evidence-based guidance on pain management in inflammatory arthritis. Long-term opioid use remains common among patients, despite absence of trial evidence supporting their efficacy. In response, The British Society for Rheumatology (BSR) has initiated the development of a new guideline on pain management for people with inflammatory arthritis, covering also non-drug pain care—such as physiotherapy—which is currently underused. The guideline is expected to be published in 2026. Successful implementation will require addressing the decline in multidisciplinary team (MDT) capacity within rheumatology services, where many departments no longer include all the necessary allied health professionals.



There is a pressing need for evidence-based guidance on pain management in inflammatory arthritis.

- 5 Bergman et al. HSD47 Treatment Response, Healthcare Resource Use, and Economic Outcomes Associated With Tumor Necrosis Factor Inhibitor Cycling Versus Switching to an Advanced Therapy With Different Mechanism of Action in Rheumatoid Arthritis. ISPOR Europe 2024. DOI: 10.1016/j.jval.2024.03.1270.
- 6 Scott et al. Pain management in people with inflammatory arthritis: British Society for Rheumatology guideline scope. Rheumatology Advances in Practice, Volume 8, Issue 4, 2024.
- 7 Ndosi et al. National variation in the composition of rheumatology multidisciplinary teams: a cross-sectional study. Rheumatol Int. 2017 May 27;37(9):1453–1459.



#### THE UK

In the UK, only 20% of people with RA are seen by a rheumatologist within the first 3 months, while in Austria the proportion is 38%.

There is extra triaging of waiting lists in the UK to make sure the right people are on the waiting list to see a rheumatologist.<sup>3</sup>



#### **COLOMBIA**

In Colombia, an innovative disease management program for RA took a multidisciplinary approach, involving rheumatology, nutrition, psychology, physical and occupational therapy, physical medicine, and rehabilitation according to the patient's RA activity status.

In a real-world comparison to standard of care, they increased the proportion reaching remission from 21% to 59% and reduced the proportion with HDA from 18% to 5%.<sup>4</sup> Moreover, the authors estimated the efficiency of using centers of excellence and estimated cost savings of up to \$223,874 per patient per year (USD 2017).<sup>5</sup>



- 1 Stack RJ, et al. Delays between the onset of symptoms and first rheumatology consultation in patients with rheumatoid arthritis in the UK: an observational study. BMJ Open. 2019;9:e024361
- 2 Puchner R, et al. Efficacy and outcome of rapid access rheumatology consultation: an office based pilot cohort study. J Rheumatol. 2016;43(6):1130-35.
- 3 Global Alliance for Patient Access. The value of achieving remission in inflammatory rheumatic conditions. April 2024, https://gafpa.org/wp-content/uploads/2024/04/GAfPA-Remission MeetingReport-April-2024.pdf
- 4 Santos-Moreno P, et al. Clinical outcomes of patients with rheumatoid arthritis treated in a disease management program: real-world results. Open Access Rheumatol. 2020;12:249-56.
- 5 Santos-Moreno P, et al. Centers of excellence implementation for treating rheumatoid arthritis in Colombia: a cost-analysis. Clinicoecon Outcomes Res. 2021;13:583-91.

#### 3. Healthier working lives

- Initiatives to underscore the benefits employers stand to reap from investing in a healthy workforce should be implemented. It is not only in the interest of employers to promote a healthy work environment, but also their responsibility.<sup>1</sup>
- In the UK, 29% of employers offer little or no health-related support, and only 45% of workers have access to occupational health or rehabilitation services. Moreover, sick pay is often too low to provide financial security, forcing many to work while unwell or leave employment entirely.<sup>2</sup>
- The personal impact of losing employment can be profound, ranging from falling into poverty and deteriorating health to a loss of identity and social connections. It is therefore essential to prevent long-term sickness leave from turning into long-term benefit dependency, where possible.<sup>2</sup> Once individuals enter the unemployment benefits system, it can be difficult to exit. Many perceive returning to (even adjusted) work as a significant risk, potentially jeopardizing both their health and financial stability if it results in the loss of benefit entitlements.<sup>2</sup>

- Countries such as the Netherlands, Denmark, Norway and Sweden have implemented early intervention strategies that support structured return-to-work efforts before individuals transition to long-term unemployment benefits.
- In the Netherlands, employers are legally required to take proactive steps during sickness absences. This includes developing tailored return-to-work plans in collaboration with occupational health professionals.
- In **Norway** the Agreement for a More Inclusive Working Life is a tripartite framework involving the government, employers and trade unions. Employers commit to maintaining close contact with absent employees and adapting tasks or schedules to prevent prolonged absences. In return, they receive support and guidance from the Norwegian Welfare and Labor Administration. Evaluations indicate that this approach has reduced the duration of sickness absence and increased the likelihood of return to work.<sup>3</sup>
- In Sweden, every worker on long-term sick leave is assigned an individual case officer. These officers coordinate efforts between the employee, employer, and relevant health and support services to ensure a structured and supported return-to-work process.<sup>2</sup>



The personal impact of losing employment can be profound, ranging from falling into poverty and deteriorating health to a loss of identity and social connections.

<sup>1</sup> Europe staying true to values 'enshrined in EU health strategy.' Parliament Magazine. 22 Sept 2014.

<sup>2</sup> The Health Foundation. Action for healthier working lives. Final report of the Commission for Healthier Working Lives. https://www.health.org.uk/reports-and-analysis/reports/action-for-healthier-working-lives.

<sup>3</sup> Hoff et al. An initiative for a more inclusive working life and its effect on return-to-work after sickness absence: a multistate longitudinal cohort study. BMJ Open 2022;12:e062558.

#### 4. Self-management

- In some countries or communities, inflammatory arthritis is unfortunately stigmatized. To allow patients to properly self-manage their condition, the stigma should be addressed through broad citizen education.<sup>1</sup>
- Patient organizations should be embraced as part of the care team. In the UK, there is a pilot with rheumatologists referring patients to a patient organization, i.e., setting up an appointment. The organization can proactively inform and empower patients and make them understand their own role in disease management. The better patients understand their condition, the better they can make informed decisions—not only about their healthcare, but also about how to live well with a chronic illness.<sup>2</sup>
- Care plans should be individualized to maximize long-term quality of life, recognizing an individual's treatment goals and their physical, psychological, and socioeconomic needs. This requires shared decision-making, where the patient plays an active role in shaping their own care. Notably, success may look different for each patient and can evolve over time.<sup>3</sup>
- There is a program in Switzerland that covers physical therapist led exercise to address the physical activity component.<sup>1</sup>
- Digital tools can be a great support in self-management, but in some countries, patients can be overwhelmed by the number of apps without guidance or accreditation; in other countries, no apps are available in the local language.

#### **Benefits of Remission**



Earlier diagnosis and intervention



**Appropriate referral** 



**Healthier working lives** 



**Self-management** 

<sup>1</sup> Global Alliance for Patient Access. The value of achieving remission in inflammatory rheumatic conditions. April 2024. https://gafpa.org/wp-content/uploads/2024/04/GAfPA-Remission MeetingReport-April-2024. pdf

<sup>2</sup> The Pursuit of Remission and Improved Quality of Life in axSpA: Personal Experiences and the Scientific Evidence. Webinar, April 3, 2025. https://www.youtube.com/watch?v=o5-gu5i9Vss

<sup>3</sup> ASIF Report. The Burden of Axial Spondyloarthritis: A global patient perspective. Exploring the results from the International Map of Axial Spondyloarthritis (IMAS). January 2024. https://asif.info/imas-global-report/

#### Closing

#### What societies do not spend on health, on prevention, on ability, they will spend on disability.

Spending on ability allows people to live a fruitful life and have a good quality of life. The cost of inaction is high and only likely to grow.<sup>1</sup>

People with inflammatory arthritis who achieve remission can experience a profound transformation in quality of life, feeling less pain, diminished fatigue, and the ability to engage in activities that bring joy. In essence, remission can empower individuals to live the life they choose.

The financial burden of uncontrolled inflammatory arthritis extends beyond hospitalization costs, including frequent medical visits, lost productivity, and early retirement. Achieving remission can ease these costs for both individuals and society. However, rigid and slow welfare systems often 'trap' people on long-term unemployment benefits.¹ Rising ill health reduces tax revenue, increases benefit spending, and strains healthcare systems. Welfare reforms are needed to support people in managing their health and returning to work. This support must also include the self-employed, who are often overlooked.¹

Urgent action is to achieve remission for more patients. Joint damage cannot be reversed. It is key to stopping the disease process early.

Health investments are not a drain on public resources; they are an investment.<sup>2</sup> It's clear that investing in remission for inflammatory arthritis is not only a matter of personal health but also a step towards a stronger and more sustainable society.

The Global Alliance for Patient Access thanks AbbVie for sponsor support of this evidence glossary.



Urgent action is to achieve remission for more patients.

Joint damage cannot be reversed. It is key to stopping the disease process early.

<sup>1</sup> The Health Foundation. Action for healthier working lives. Final report of the Commission for Healthier Working Lives, https://www.health.org.uk/reports-and-analysis/reports/action-for-healthier-working-lives.

<sup>2</sup> NAO. Services for people with rheumatoid arthritis. 15 Jul 2009. https://www.nao.org.uk/reports/services-for-people-with-rheumatoid-arthritis/

#### **Abbreviations**

**ACR:** American College of Rheumatology

**AS:** Ankylosing spondylitis, nowadays called radiographic axSpA

**ASQoL:** AS Quality of Life Questionnaire

**axSpA:** Axial spondyloarthritis

**BASDAI:** Bath Ankylosing Spondylitis Disease

Activity Index

**bDMARD:** Biologic Disease-Modifying

Antirheumatic Drug

**BSR:** British Society for Rheumatology

csDMARD: Conventional synthetic Disease-

Modifying Antirheumatic Drug

**DALY:** Disability-adjusted life year

**DMARD:** Disease-Modifying

Antirheumatic Drug

**EU:** European Union

**EULAR:** European Alliance of Associations for

Rheumatology

**EQ-5D:** EuroQoL 5-dimension questionnaire

**HCRU:** Healthcare resource utilization

**HAQ:** Health Assessment Questionnaire

**HDA:** High disease activity

**JAK:** Janus kinase

**LDA:** Low disease activity

**MDA:** Minimal disease activity

**MDT:** Multidisciplinary team

**MRI:** Magnetic resonance imaging

MSK: Musculoskeletal

**OMERACT:** Outcome Measures in

Rheumatology

**PsA:** Psoriatic arthritis

QoL: Quality of life

**RA:** Rheumatoid arthritis

**SF-36:** 36-Item Short Form Health Survey

**SpA:** Spondyloarthritis

TNF: Tumour necrosis factor

tsDMARD: Target synthetic Disease-

Modifying Antirheumatic Drug

**UK:** United Kingdom

**US:** United States

**VAS:** Visual analogue scale

**YLDs:** Years lived with disability

**YLLs:** Years of life lost due to premature

death



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