axSpA-**ID** Query Set

A query set to help you minimize the
diagnostic delay for patients at risk for axSpA

axSpA = axial spondyloarthritis.

Inspired by **patients.**
Driven by **science.**

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Low back pain is a widespread and costly condition in the US

Percentage of adults in the US aged ≥18 years who had **LOWER BACK PAIN** in the past 3 months[1][*][†]

28%
MEN

32%
WOMEN
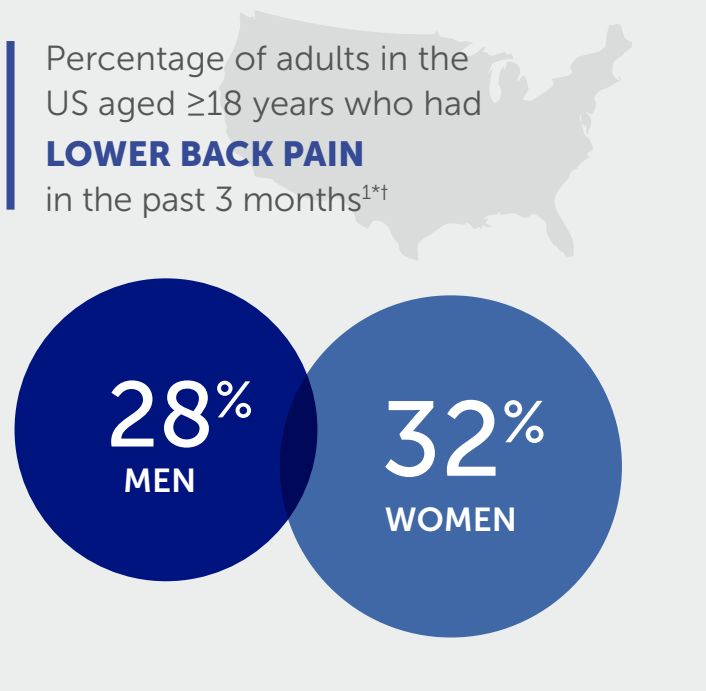
$**87.6 billion**

Estimated healthcare spending for **LOW BACK AND NECK PAIN**[2]

#3   **Back pain ranks third** in healthcare spending, behind diabetes and ischemic heart disease.[2]

Back pain causes **more disability** than any other condition and is among the most common reasons that **people miss work.**[3]

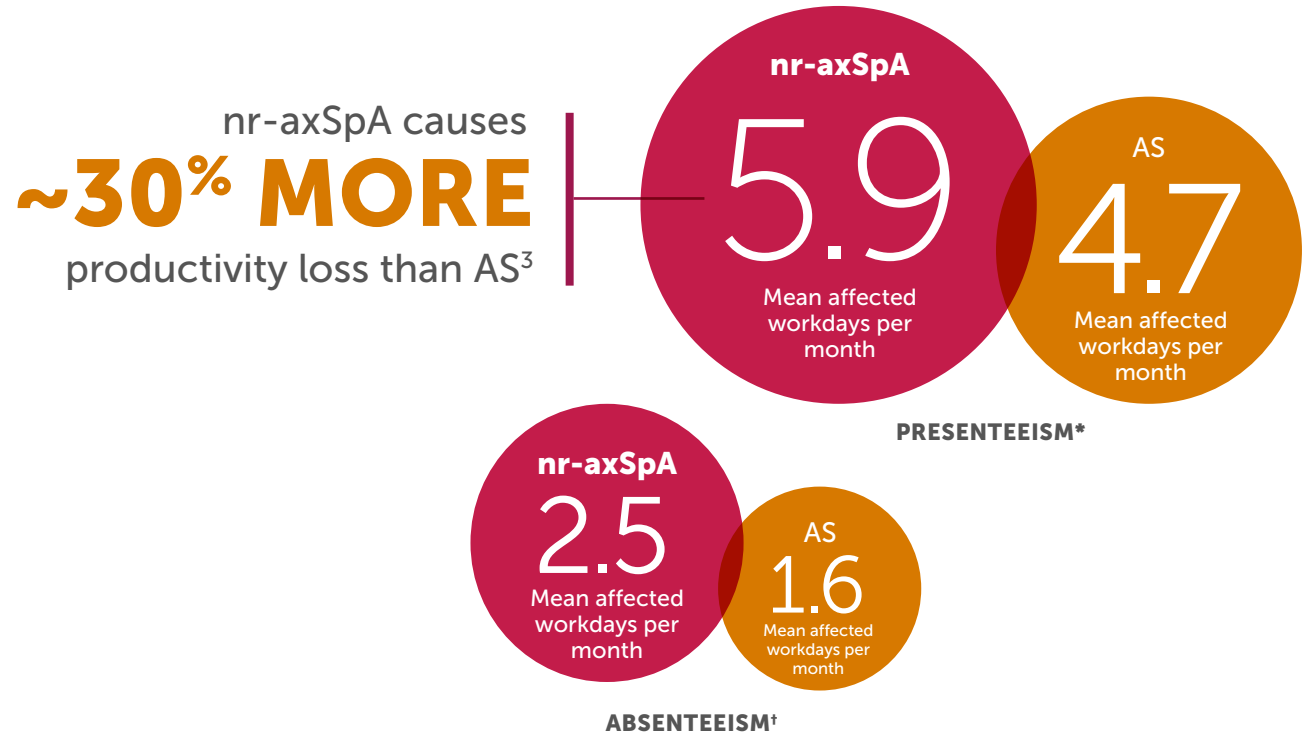*Based on responses to the question, "During the past 3 months, did you have lower back pain?"

†Estimates are based on household interviews of a sample of the civilian, noninstitutionalized US population and are derived from the National Health Interview Survey Sample Adult component.

References: 1. QuickStats: percentage of adults aged ≥18 years who had lower back pain in the past 3 months, by sex and age group — National Health Interview Survey, United States, 2018. *MMWR Morb Mortal Wkly Rep.* 2020;68(5152):1196. **2.** Dieleman JL, et al. US spending on personal health care and public health, 1996-2013. *JAMA.* 2016;316(24):2627-2646. **3.** Barnes MC, et al. A call for differential diagnosis of non-specific low back pain to reduce opioid abuse. *J Med Regul.* 2015;101(2):39-47.

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Differentiating back pain:

axSpA is an inflammatory disease affecting millions and can have a significant effect on productivity[1-3]

UP TO

3.3

MILLION
adults in the US
have axSpA[1,2]

nr-axSpA causes

~30% MORE

productivity loss than AS[3]

nr-axSpA

5.9

Mean affected
workdays per
month

AS

4.7

Mean affected
workdays per
month

PRESENTEEISM*

nr-axSpA

2.5

Mean affected
workdays per
month

AS

1.6

Mean affected
workdays per
month

ABSENTEEISM†

AS = ankylosing spondylitis; nr-axSpA = nonradiographic axial spondyloarthritis.

*Presenteeism was defined as days with work productivity reduced by at least 50% due to arthritis in the previous month (does not include days counted in absenteeism).

†Absenteeism was defined as workdays missed due to arthritis in the previous month.

References: 1. Reveille JD, et al. *Arthritis Care Res.* 2012;64(6):905-910. **2.** United States Census Bureau. U.S. and World Population Clock. https://www.census.gov/popclock/. Accessed March 5, 2021. **3.** van der Heijde D, et al. Improvements in workplace and household productivity with certolizumab pegol treatment in axial spondyloarthritis: results to week 96 of a phase III study. *RMD Open.* 2018;4(1):e000659.

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axSpA patients face diagnostic delays due to misdiagnosis, improper treatment, and other factors

axSpA has not been well recognized for a number of reasons, including[1]:

- **Difficulty distinguishing** patients with mechanical vs inflammatory back pain
- **Absence of** diagnostic criteria
- **Variability of disease manifestations** and clinical presentation

DIAGNOSIS CAN TAKE

5–8 years[2,3]

Patients may visit **MULTIPLE SPECIALISTS** before diagnosis[4]

28 is the **typical age of onset** across the spectrum of axSpA[5]

A delay in diagnosis leads to a delay in appropriate treatment[2]

References: 1. Deodhar AA. Understanding axial spondyloarthritis: a primer for managed care. *Am J Manag Care.* 2019;25(17):S319-S330. **2.** Seo MR, et al. Delayed diagnosis is linked to worse outcomes and unfavourable treatment responses in patients with axial spondyloarthritis. *Clin Rheumatol.* 2015;34(8):1397-1405. **3.** Masson Behar V, et al. Diagnostic delay in axial spondyloarthritis: a cross-sectional study of 432 patients. *Joint Bone Spine.* 2017;84(4):467-471. **4.** Yi E, et al. Clinical, economic, and humanistic burden associated with delayed diagnosis of axial spondyloarthritis: a systematic review. *Rheumatol Ther.* 2020;7(1):65-87. **5.** Deodhar A, et al. Frequency of axial spondyloarthritis diagnosis among patients seen by US rheumatologists for evaluation of chronic back pain. *Arthritis Rheumatol.* 2016;68(7):1669-1676.

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Introducing the axSpA-**ID** query set

A query set to aid earlier recognition and referral
of patients who may be at risk for axSpA

axSpA-**ID**

Designed to be **used with your electronic health record** (EHR) system*

Uses a **customizable clinical criteria set** to help identify patients who may be at risk for axSpA

Can be run regularly by clinicians and administrators **to address the needs of your specific patient population**

This is not a diagnostic tool and should not be used as a basis for treatment.

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The axSpA-**ID** query set is based upon clinical features that support earlier recognition of patients with a high likelihood of axSpA

Clinical parameters*

Back pain ≥3 months†
(including dorsalgia and sciatica)

Age <45 years†

Joint pain
(shoulder, elbow, wrist, hip, knee)

Buttock pain

Uveitis

Psoriasis

Elevated CRP
(higher than 1 mg/dL OR 10 mg/L)

HLA-B27
(positive result)

X-ray or MRI of spine/pelvis/sacroiliac joint

Long-term and/or current NSAID use ≥3 months

Specialty physician encounters

Physicians can customize the query set by selecting the most relevant parameters based on clinical experience

Studies have demonstrated the **importance of screening for many of the parameters** used in the axSpA-**ID** query set[1,2]

CRP = C-reactive protein; HLA-B27 = human leukocyte antigen B27; MRI = magnetic resonance imaging; NSAID = nonsteroidal antinflammatory drug.

*Adapted from the Assessment of SpondyloArthritis international Society (ASAS) classification criteria for nr-axSpA alone. It is important to note that diagnostic criteria for nr-axSpA have not been established. The classification criteria are standardized definitions, primarily intended to create well-defined, relatively homogeneous cohorts for clinical research; they are not intended to capture the entire universe of possible patients in the community.

†The clinical diagnosis of axSpA (nr-axSpA and AS) relies upon a combination of SpA features and imaging. For those with chronic inflammatory back pain with an age of onset of <45 years and features of SpA, the presence of objective signs of inflammation (such as elevated CRP and evidence of sacroiliitis by MRI) can help improve the confidence of an axSpA diagnosis.

References: 1. Deodhar A, et al. Frequency of axial spondyloarthritis diagnosis among patients seen by US rheumatologists for evaluation of chronic back pain. *Arthritis Rheumatol.* 2016;68(7):1669-1676. **2.** Poddubnyy D, et al. Evaluation of 2 screening strategies for early identification of patients with axial spondyloarthritis in primary care. *J Rheumatol.* 2011;38(11):2452-2460.

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The axSpA-**ID** query set can help identify appropriate potential patients for referral

Select/customize clinical parameters

The query set has over 10 clinical criteria to choose from, but **using 3-5[1] to help identify** patients is recommended

Set up query frequency

axSpA-**ID** can be set up to run at a **predetermined frequency**

(eg, quarterly)

View results and refer as appropriate

Refer or schedule patients with **clinical attributes** most relevant to your referral patterns and diagnostic pathway

Prioritize patients likely to benefit
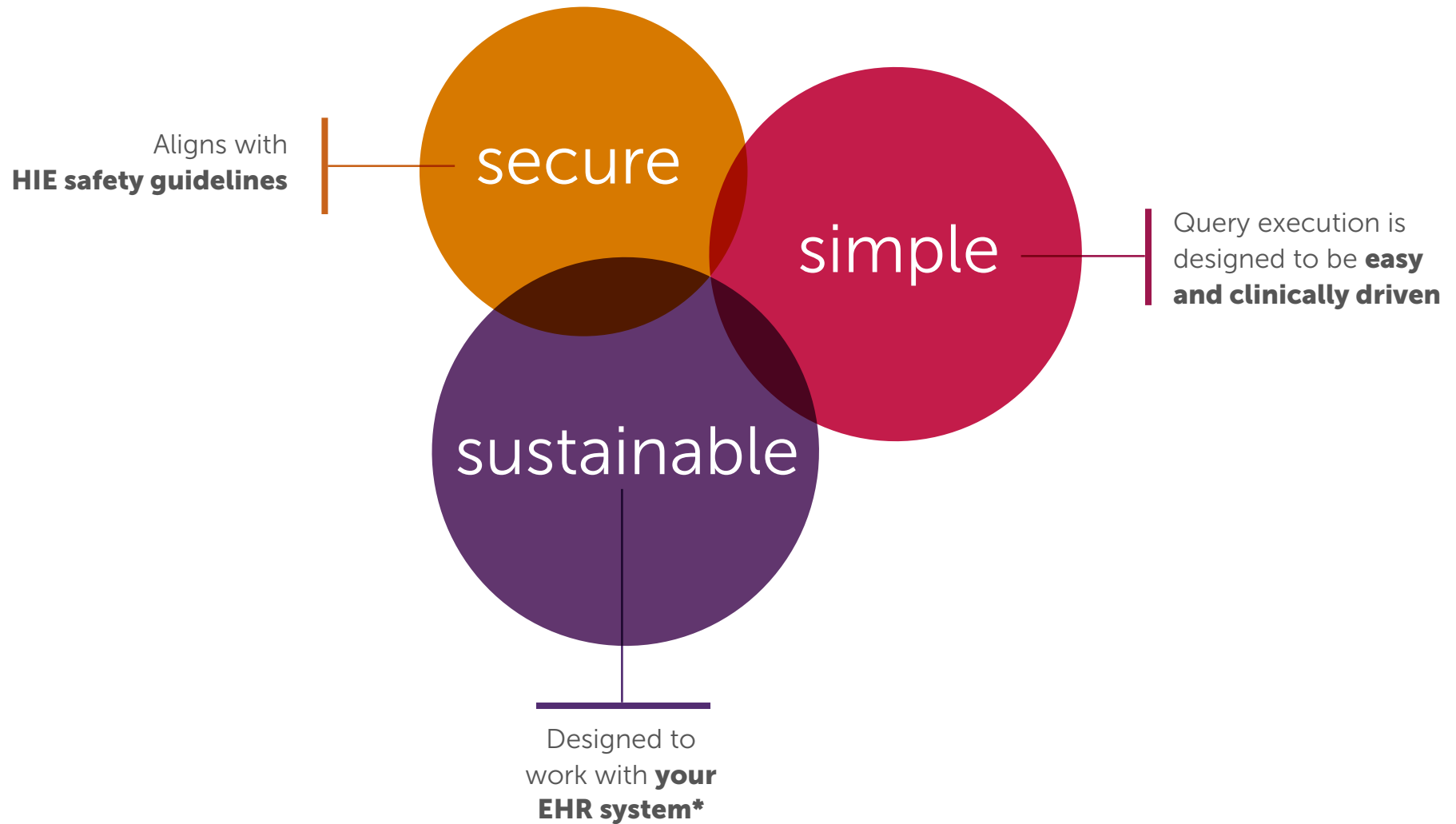
Schedule a rheumatology visit for further assessment, when appropriate

Conduct further assessments as required

Prioritize patients who need to be seen sooner

Reference: 1. Deodhar A, et al. Frequency of axial spondyloarthritis diagnosis among patients seen by US rheumatologists for evaluation of chronic back pain. *Arthritis Rheumatol.* 2016;68(7):1669-1676.

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axSpA-**ID** can be securely and easily implemented

Aligns with
HIE safety guidelines

secure

simple

sustainable

Query execution is
designed to be **easy
and clinically driven**

Designed to
work with **your
EHR system***

HIE = health information exchange.
*Epic, eClinicalWorks, NextGen, and Cerner.

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axSpA-**ID** is designed to shorten the patient journey to appropriate referral and further assessment

Supports early identification and aids disease management

Helps support timely patient referral to appropriate specialist

May help reduce costs for patients

Improving the patient experience

Earlier, more accurate diagnosis

- Could provide **clearer information around the causes** of a patient's lower back pain
- Can contribute to the likelihood of **faster identification** of appropriate patient treatment

Better ongoing patient care

- Appropriate treatment can bring symptom relief and **improved quality of life**
- Can provide information into **appropriate medication** for a patient's disease management
- May improve the **patient experience**

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axSpA-**ID** is designed to shorten the patient journey to appropriate referral and further assessment

Supports early identification and aids disease management

Helps support timely patient referral to appropriate specialist

May help reduce costs for patients

Improving the patient experience

Supports quality patient care

- Can help properly identify patients with inflammatory back pain for **appropriate care and treatment**

- May help to elevate the patient experience and contribute to **improved quality of care**

- Can improve **timely and accurate** patient diagnosis

- May **improve the coordination of patient care**, leading to higher patient satisfaction

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axSpA-**ID** is designed to shorten the patient journey to appropriate referral and further assessment

Supports early identification and aids disease management

Helps support timely patient referral to appropriate specialist

May help reduce costs for patients

Improving the patient experience

Early recognition impacts overall healthcare costs[1]

- **May reduce delays in patient treatment and costs** associated with longer-than-necessary referral processes

- More accurate diagnosis leads to appropriate treatment, which can **reduce patient costs**

- More efficient patient management may **improve patient outcomes**

Reference: 1. Yi E, et al. Clinical, economic, and humanistic burden associated with delayed diagnosis of axial spondyloarthritis: a systemic review. *Rheumatol Ther.* 2020;7(1):65-87.

axSpA-**ID** is designed to shorten the patient journey to appropriate referral and further assessment

Supports early identification and aids disease management

Helps support timely patient referral to appropriate specialist

May help reduce costs for patients

Improving the patient experience

Fewer complexities in patient care

- More efficient care may **increase cost-effectiveness for patients**

- axSpA-**ID fits seamlessly into the patient's EHR**, improving the patient experience through coordination of care

The goal of the axSpA-**ID** query set is to help support timely referral of appropriate patients for further assessment

Delays in accurate axSpA diagnosis can be addressed

- Current time to diagnosis is **5-8 years**[1,2]
- Patients face **misdiagnosis and improper treatment**[1]

axSpA-**ID** is designed to:

Decrease time to diagnosis and treatment

Improve patient care and **outcomes**

Reduce overall cost of care for patients

References: 1. Seo MR, et al. Delayed diagnosis is linked to worse outcomes and unfavourable treatment responses in patients with axial spondyloarthritis. *Clin Rheumatol.* 2015;34(8):1397-1405. **2.** Masson Behar V, et al. Diagnostic delay in axial spondyloarthritis: a cross-sectional study of 432 patients. *Joint Bone Spine.* 2017;84(4):467-471.