

Rheumatology Around the World

Establishing Centers of Excellence for Axial Spondyloarthritis in Latin America: Consensus Recommendations From the REAL-PANLAR Group

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ABSTRACT. *Objective.* Axial spondyloarthritis (axSpA) is a chronic inflammatory condition primarily affecting the sacroiliac joints and spine, often complicated by extramusculoskeletal manifestations such as uveitis, psoriasis, and inflammatory bowel disease. Delayed diagnosis due to nonspecific symptoms, coupled with regional disparities in healthcare infrastructure in Latin America, exacerbates disease burden, emphasizing the need for specialized care. This project aimed to develop a regional consensus for establishing Centers of Excellence (COEs) in axSpA management.

Methods. A Delphi methodology was employed, involving 16 rheumatology experts from 12 Latin American countries. A structured process included a systematic literature review, questionnaire validation, and consensus building during a virtual and in-person meeting. Criteria were categorized into initial premises, structure, processes, and outcomes, guided by the Donabedian quality evaluation framework.

Results. The consensus established 3 COE classifications—standard, optimal, and model—defined by resource availability and care standards. Human resources criteria highlighted multidisciplinary teams, including rheumatologists, physiatrists, and dermatologists, with agreement rates ranging from 70.6% to 100%. Structural requirements, such as electronic health systems for traceability and continuous training, achieved consensus levels between 81.3% and 100%. Process-related criteria emphasized comprehensive care models, treat-to-target strategy implementation, and validated clinimetric tools (eg, Ankylosing Spondylitis Disease Activity Score, Bath Ankylosing Spondylitis Disease Activity Index), with approval ratings of 70.6% to 100%.

Conclusion. This consensus establishes a scalable framework for COEs in axSpA in Latin America, balancing high-quality care standards with regional healthcare limitations.

Key Indexing Terms: ankylosing spondylitis, managed care programs, rheumatic diseases

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Axial spondyloarthritis (axSpA) is a chronic rheumatologic disease characterized by inflammation of the sacroiliac joints and the spine, which can lead to progressive structural damage and disability if not diagnosed and treated promptly.¹ Its diagnosis is particularly challenging due to the nonspecific nature of initial symptoms, such as inflammatory back pain, which can easily be mistaken for other musculoskeletal conditions.² This complexity is further compounded by the presence of extramusculoskeletal manifestations, such as uveitis, inflammatory bowel disease, and psoriasis (PsO), which not only complicate the diagnostic process but also necessitate a multidisciplinary approach to patient management.^{3,4} Additionally, the lack of specific biomarkers and the need for advanced imaging techniques, such as magnetic resonance imaging to detect sacroiliitis and spine lesions, contribute to diagnostic delays.⁵ Genetic factors, particularly the association with HLA-B27, play a significant role in its pathogenesis, although the prevalence of this marker varies considerably across populations, adding another layer of complexity to the disease's diagnosis and management.⁶

In Latin America, these diagnostic challenges are further exacerbated by region-specific factors. Healthcare systems are marked by disparities in infrastructure, limited access to rheumatology specialists and advanced diagnostic technologies, and economic barriers that impede adequate care for many patients.⁷ Health care in Latin America is provided through mixed systems (public, private, or hybrid), leading to fragmentation and inequities in access. In this context, establishing Centers of Excellence (COEs) may help standardize practices and reduce disparities, reinforcing their relevance in the region. The structural limitations mentioned above are coupled with additional challenges, such as insufficient training of primary care physicians in recognizing early signs of axSpA and low overall awareness of the disease. As a result, patients often receive delayed diagnoses, frequently after significant structural damage has already occurred, reducing the effectiveness of available therapeutic interventions.^{8,9}

In this regard, there is an urgent need to strengthen diagnostic capabilities at the primary care level and to enhance care models within specialized rheumatology services across the region.¹⁰ Building on the successful REAL (Red de Excelencia en Artritis para la América Latina)–Pan American League of Associations for Rheumatology (PANLAR) project for the accreditation of COEs for the management of rheumatoid arthritis (RA) in Latin America,¹¹ the PANLAR International Study and Research Group, composed of rheumatology specialists with a particular interest in axSpA, has prioritized the development of this consensus.¹² The primary objective of this document is to establish guidelines and criteria tailored to the region's realities for the creation of COEs for axSpA care. These centers aim to provide high-quality, comprehensive care that optimizes clinical outcomes and improves the quality of life for patients in Latin America.

METHODS

The coordinating core group was established within PANLAR and included members of the REAL initiative and the PANLAR

Study Group on axSpA, all of whom are coauthors of this manuscript. The expert panel consisted of rheumatologists from multiple Latin American countries selected for their recognized expertise in axSpA and quality-of-care initiatives, complemented by 1 international expert from outside the region. An independent consulting firm specialized in healthcare service accreditation, CENSIS Salud, participated only through its representative, who was responsible for preparing and administering the Delphi questionnaires without involvement in the scientific decisions.

A questionnaire was developed by the consulting firm and experts of the coordinating core group, with questions to be evaluated by the expert panel during a virtual round. Each quality criterion was rated on a scale from 0 to 10 in response to the question: "To what extent do you agree with the proposed response option?" with 0 indicating "strongly disagree," 5 indicating "neither agree nor disagree," and 10 indicating "strongly agree." Once the results were collected, an analysis was performed to determine the degree of consensus, considering only criteria that received approval ratings > 70% from the expert panel. The questionnaire was validated through iterative review by the core group and pilot testing with a subset of experts, ensuring clarity, relevance, and feasibility before its distribution in the Delphi rounds (Figure 1).

Subsequently, 16 rheumatology specialists from 12 Latin American countries, with a particular interest in axSpA care quality, participated in the consensus meeting (Table 1). To achieve consensus among the expert panel on defining superior quality criteria for the care of patients with axSpA, the Delphi methodology was employed¹³ and a Likert scale was used to measure the degree of agreement or disagreement with each proposed quality criterion (see steps outlined in Figure 1 and process described in Table 2).

Step 1. A narrative literature review was conducted by the consulting firm and experts of the coordinating core group using the following electronic databases: PubMed, MEDLINE, SciELO, EMBASE, and LILACS. The search focused on identifying quality criteria for axSpA patient care and reviewing literature on the establishment and accreditation of COEs in rheumatology. Key reference aspects included the quality standards established by the Assessment of SpondyloArthritis international Society (ASAS), an international expert group in axSpA, as well as other quality standardization experiences for rheumatologic patient care.¹⁴

These criteria were categorized into initial premises, structure, process, or outcomes, following the quality evaluation model developed by Avedis Donabedian.¹⁵ This model, widely used for establishing and evaluating COEs, allows for a comprehensive assessment of healthcare quality. Table 3 presents the human resource requirements proposed for COEs. To facilitate interpretation, we expanded the accompanying description in the text, highlighting the rationale for each domain and how these requirements aim to ensure multidisciplinary and comprehensive care.

Step 2. An electronic questionnaire outlining proposed quality criteria for axSpA care was distributed to the expert panel for

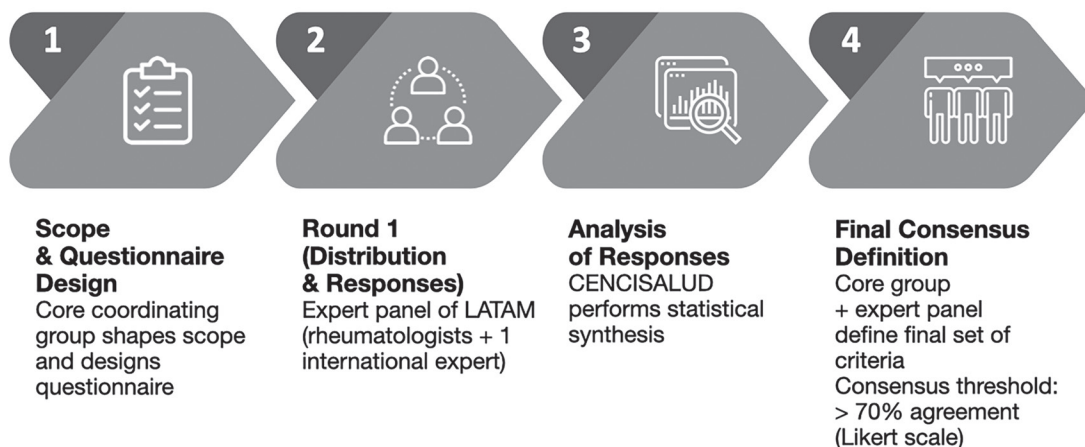


Figure 1. Delphi process. LATAM: Latin America.

Table 1. Nationalities of expert panel participants in the consensus.

Nationality	Virtual Round Participants	In-Person Round Participants
Argentina	3	3
Brazil	1	1
Chile	1	1
Colombia	2	3
Costa Rica	1	0
Ecuador	1	0
Mexico	1	1
Panama	1	1
Paraguay	1	0
Peru	2	3
Dominican Republic	1	1
Uruguay	1	1
Total	16	15

evaluation, focusing on their relevance and feasibility for implementation in COEs.

Step 3. The results of the questionnaire were collected and analyzed to determine the degree of consensus. A revised version of the questionnaire was developed, incorporating adjustments to the criteria based on the results of round 1 (step 1 and step 2). Consensus responses were identified, and contentious items were compiled for discussion during an in-person round.

Step 4. The consensus meeting was held during the 26th PANLAR Congress. The meeting began with a presentation of the results from the first discussion round, highlighting the literature search methodology, the categorization of each question based on the Donabedian model, the project's general context, and the importance of quality improvement strategies through certification of COEs. Unresolved responses from the questionnaires were discussed for consensus, focusing on technical variables, phrasing, and adjustments to align with best practices or to discard them if deemed unfeasible.

Step 5. The final consensus was established based on the percentage of experts who endorsed the recommendations, using

predefined thresholds on the Likert scale to determine agreement levels. Items with an agreement < 70% will not be included in the certification manual.

RESULTS

Initial premises. A framework was established defining the following 3 types of COEs for the care of patients with axSpA, categorized based on the level of available resources and standards of care¹⁶: (1) standard COEs (represent the basic level, with the minimum necessary resources to provide care for patients with axSpA), (2) optimal COEs (include additional resources and a more comprehensive approach to improve the quality of care), and (3) model COEs (constitute the most advanced level, with access to complete multidisciplinary teams and highly specialized processes).

Each evaluated criterion is detailed in Table 4 and Table 5, which specify the requirements for structure, process, and outcomes. These tables include the percentage of approval obtained for each criterion during the consensus process.

Structure.

- **Human resources.** The criteria related to human resources outline the required professional profiles for each COE level. In the model COE, a complete multidisciplinary team is required, including 2-3 rheumatologists.¹⁷ At the optimal and model levels, care must be comprehensive and multidisciplinary, following accepted clinical guidelines for both pharmacological and nonpharmacological treatments. Human resources criteria received approval ratings ranging from 70.6% to 100%.

- **Infrastructure.** This criterion includes infrastructure in general, information systems, and continuous training. Continuous training emphasizes the importance of training the medical team to improve early identification of axSpA and enhance the quality of care.

Processes. The processes established for COEs in axSpA focus on implementing standardized, evidence-based care strategies.^{18,19}

- **Care model.** The care model was designed as a framework to guide the development of COEs, structured around the following 4 main components: (1) comprehensive care, (2) accessi-

Table 2. Standards and quality criteria structure.

Type of Standard	Topics	Quality Criteria Evaluated
Initial premises	Aspects to include in the most appropriate definition for axSpA	Key aspects to consider in defining axSpA and criteria for its certification as a COE, categorized based on available resources, infrastructure, and human capital required for optimal patient care. How would a standard COE for axSpA be defined? How would an optimal COE for axSpA be defined? How would a model COE for axSpA be defined?
Structure	Human resources	Define the professional profiles required for a standard COE in axSpA care. Define the professional profiles required for an optimal COE in axSpA care. Define the professional profiles required for a model COE in axSpA care. Determine the need for continuous training programs for the care team, based on the type of center.
	Infrastructure	Identify the infrastructure required for a COE in axSpA care, regardless of its classification level. Define whether COEs applying for certification should have the necessary equipment and supplies for the services offered, according to their classification.
Information systems and medical records	Characteristics required for information systems to manage patients with axSpA	Define the minimum content of medical records to optimize axSpA management. Determine whether the disease meets specific diagnostic criteria for epidemiological purposes.
Process	Care model	Does the center have documented information (care model, process, or protocol) to provide standardized and unified care based on the best available evidence? Should the center have a multidisciplinary and comprehensive care model that includes key aspects to achieve therapeutic goals? Should the care model improve accessibility and early diagnosis to reduce the disease burden associated with axSpA?
Treatment	–	Is the T2T strategy the best available option for adequate control of axSpA?
Outcomes	Monitoring	Should a COE for axSpA track disease activity using standardized clinimetrics? Which aspects of timely care (waiting times for diagnosis and treatment) should be monitored in a COE for axSpA to promote continuous improvement? What periodic activities should be conducted to strengthen continuous improvement in a COE for axSpA? Should a COE for axSpA systematically analyze the collected information to produce knowledge?

axSpA: axial spondyloarthritis; COE: Center of Excellence; T2T: treat-to-target.

bility, (3) referral and early diagnosis, and (4) education and evidence generation. Each of these domains includes specific standards and measurable indicators that ensure COEs address both clinical and organizational aspects of axSpA management. By combining patient-centered care, timely access, efficient referral pathways, and a commitment to continuous education and research, the care model provides the backbone for the accreditation pathway proposed in this consensus.

- *Treatment.* The treat-to-target (T2T) strategy should be adopted as the optimal approach for effective disease control in axSpA, ensuring continuous assessment and treatment adjustments based on disease activity.
- *Clinical follow-up.* Regular monitoring using validated assessment tools such as Ankylosing Spondylitis Disease Activity Score (ASDAS), Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Functional

Index (BASFI), and Disease Activity Index for Psoriatic Arthritis (DAPSA) is recommended, depending on whether the SpA is axial or peripheral. Moreover, the inclusion of Bath Ankylosing Spondylitis Metrology Index (BASMI) measurement was revised. Experts noted that BASMI, although relevant, should not be mandatory in Latin America due to regional variations, the need for systematic measurement by trained professionals to ensure reliability, and concerns about the feasibility of its routine implementation given the time required for its assessment.

Outcomes. The outcomes criteria focus on evaluating the effectiveness of COEs through continuous monitoring and quality improvement measures.

- *Monitoring.* COEs should systematically track disease activity using standardized clinimetric tools to ensure accurate assessments and optimal management. The efficiency of referral-to-diagnosis and treatment initiation timelines must be assessed to enhance early intervention.

Table 3. Human resources criteria for COEs in axSpA care.

	Standard COE	Optimal COE	Model COE
Human resource profiles			
Rheumatologist	1	2-3	2-3
Physiatrist	0	1	1
Dermatologist	0	0	1
Gastroenterologist	0	0	1
Ophthalmologist	0	0	1
Orthopedist	0	0	1
General practitioner	0-1	0	0
Nurse/nurse practitioner	1	1	1
Physiotherapist	0	1	1
Occupational therapist	0	1	1
Psychologist	0	1	1
Pharmacist	0	1	1
Agreement, %	70.6	88.2	88.2
Basic functions of human resources	Compliance with the minimum standards of care for follow-up and pharmacological and nonpharmacological treatment, according to accepted clinical guidelines.	Compliance with an integral, multidisciplinary approach to follow-up and pharmacological and nonpharmacological treatment, according to accepted clinical guidelines.	Compliance with an integral, multidisciplinary approach to follow-up and pharmacological and nonpharmacological treatment, according to accepted clinical guidelines.
Agreement, %	82.4	100	88.2

axSpA: axial spondyloarthritis; COE: Center of Excellence.

Table 4. Structural standard criteria for COEs in axSpA care.

	Standard, Optimal, and Model COEs	Agreement, %
Continuous training infrastructure	Development of specific activities for axSpA, aimed at ensuring that the care team understands the relevance and importance of their activities and how they contribute to achieving quality objectives.	100
	Inclusion of tools in continuous training processes for basic care professionals to broaden disease knowledge and facilitate early patient diagnosis.	94.1
Information systems and medical records	The center must determine, provide, and maintain the necessary infrastructure to meet service requirements based on its classification and institutional care model. Infrastructure should include, where applicable (1) workspace and associated services, (2) equipment for processes (hardware and software), and (3) support services (eg, transportation, communication, or information systems).	94.1
	The center must determine, provide, and maintain the necessary supplies, equipment, and medications to meet service requirements based on its classification.	81.3
	Multidisciplinary care for patients with axSpA requires an electronic information system that ensures the security, integrity, and availability of recorded data.	94.1
	The system must enable traceability of each patient's care across the different stages and processes of the model pathway.	100
	The system must allow for systematic and periodic evaluation of care to facilitate continuous improvement of the model.	100

axSpA: axial spondyloarthritis; COE: Center of Excellence.

- *Continuous improvement.* Regular activities should be conducted to strengthen quality improvement, including the establishment of multidisciplinary committees and communication mechanisms for optimizing resource utilization.
- *Knowledge production.* COEs should systematically analyze and publish collected data to contribute to research, generate new insights, and develop educational materials to advance axSpA care (100% agreement).

The consensus also defined the accreditation pathway for COEs in axSpA, which is summarized in Figure 2. The process begins with an initial self-assessment, where institutions select their intended level of accreditation (standard, optimal, or model) and complete a structured evaluation form. This is followed by the submission of documentary evidence and a formal review of criteria covering human resources, infrastructure, clinical processes, and outcomes. Centers that meet the

Table 5. Process and outcome standard criteria for COE in axSpA care.

Standard, Optimal, and Model COEs in axSpA		Agreement, %
Care model	The COE must have a documented care model supported by the adoption, adaptation, or development of clinical practice guidelines based on the best available evidence. It should enable comprehensive care, including diagnosis, treatment, and follow-up, and aim for disease control with multidisciplinary health professionals. Leadership and continuous education mechanisms must be implemented.	100
Treatment effectiveness	Incorporate the T2T strategy and other approved strategies for monitoring treatment effectiveness. Treatment intensification should only occur when both the clinician and patient are convinced of residual inflammatory activity and no other factors hinder intensification.	100
Monitoring using clinimetrics	Always use ASDAS for axSpA monitoring.	94.1
	Always use BASDAI for axSpA monitoring.	82.4
	Always use BASFI for axSpA monitoring.	82.4
	Always use MASES for axSpA monitoring.	70.6
	Always use ASAS HI for axSpA monitoring.	82.4
	Always use TJC68 and SJC66 for peripheral SpA monitoring.	82.4
	Always use MASES for PsA/peripheral SpA monitoring.	82.4
	Always use DAPSA for PsA/peripheral SpA monitoring.	88.2
	Always use MDA for PsA/peripheral SpA monitoring.	76.5
	Always use PASI or BSA for PsO.	88.2
	Always use DLQI for PsO.	70.6
Timeliness of care monitoring	Quantify the time to access rheumatology consultation for patients suspected of having the disease from the moment of referral.	94.1
	Quantify the time between the initial rheumatology consultation, disease confirmation, and treatment initiation.	94.1
	Define the frequency of rheumatology consultations and mechanisms to ensure these timeframes are met based on disease activity.	94.1
Continuous improvement activities	Establish a multidisciplinary committee for periodic review of outcomes and timely implementation of improvement actions.	88.2
	Maintain open and systematic communication mechanisms between process participants for better resource utilization.	94.1
	Establish control mechanisms to monitor the different stages of healthcare delivery.	88.2
Systematic data analysis	COEs should generate reports on their outcomes to produce and disseminate new knowledge through scientific publications, educational materials, and informational documents.	100

ASAS HI: Assessment of SpondyloArthritis international Society Health Index; ASDAS: Axial Spondyloarthritis Disease Activity Score; axSpA: axial spondyloarthritis; BASDAI: Bath Ankylosing Spondylitis Disease Activity Index; BASFI: Bath Ankylosing Spondylitis Functional Index; BSA: body surface area; COE: Center of Excellence; DAPSA: Disease Activity Index for PsA; DLQI: Dermatology Life Quality Index; MASES: Maastricht Ankylosing Spondylitis Enthesitis Score; MDA: minimal disease activity; PASI: PsO Area and Severity Index; PsA: psoriatic arthritis; PsO: psoriasis; SJC66: swollen joint count of 66 joints; SpA: spondyloarthritis; T2T: treat-to-target; TJC68: tender joint count of 68 joints.

predefined requirements proceed to an on-site visit, which includes clinical audits, medical record review, and validation of interdisciplinary care protocols. Based on this evaluation, centers may be certified for a period of 3 years, partially certified with an improvement plan, or required to reapply after 24 months. The pathway also establishes mechanisms for continuous improvement and recertification, ensuring that COEs maintain quality standards over time.

DISCUSSION

PANLAR has successfully accredited COEs for RA, certifying 5 institutions across Latin America. This achievement has underscored the importance of institutional commitment and multidisciplinary collaboration in meeting high-quality standards in rheumatologic care. Previous experience has shown that COE certification not only enhances clinical outcomes for patients but also strengthens the organizational culture of institutions, fostering research and optimizing health-

care processes. However, establishing these centers presents challenges, including the need for rigorous documentation, structural adjustments, and the development of an efficient management model for chronic diseases. Despite these hurdles, the certification of COEs has built patient trust and propelled advancements in rheumatology across the region. This success sets a strong foundation for accrediting new centers focused on axSpA, following the same proven model implemented for RA.²⁰ Although there are limited published data demonstrating the effect of COEs in rheumatology within Latin America, the implementation of structured quality models in other regions has shown benefits in reducing time to diagnosis, improving patient-reported outcomes, and standardizing care. The present initiative aims to establish a framework to generate similar data in our region, allowing future benchmarking and evaluation.

The implementation of COEs for the management of patients with axSpA represents a significant advancement in addressing

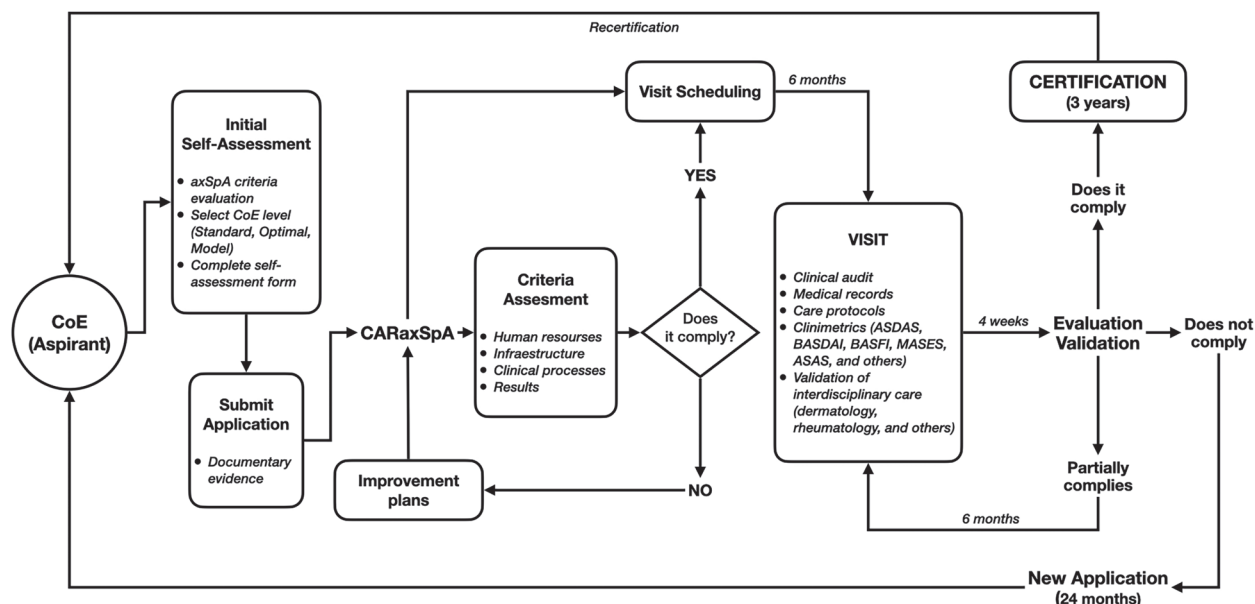


Figure 2. Accreditation process to obtain COE status. ASAS: Assessment of SpondyloArthritis international Society; ASDAS: Ankylosing Spondylitis Disease Activity Score; axSpA: axial spondyloarthritis; BASDAI: Bath Ankylosing Spondylitis Disease Activity Index; BASFI: Bath Ankylosing Spondylitis Functional Index; CARaxSpA: Center of Accreditation for Axial Spondyloarthritis; COE: Center of Excellence; MASES: Maastricht Ankylosing Spondylitis Enthesitis Score.

unmet healthcare needs across Latin America. This model aims to tackle challenges related to delayed diagnosis, fragmented care, and the lack of standardized clinical pathways, emphasizing a multidisciplinary approach to improve clinical outcomes and enhance patients' quality of life. An essential function of COEs will be education, both for patients and healthcare professionals. By providing structured training activities for general practitioners and primary care teams, COEs can directly address the problem of delayed referral, which remains one of the most relevant barriers in Latin America. Inspired by international recommendations, including those from ASAS, the COE framework outlines essential processes such as identification, diagnosis, treatment, and follow-up to ensure a comprehensive and continuous approach to disease management.¹⁴ The effect of COEs will be evaluated through measurable indicators, including time from first symptoms to referral, time to diagnosis, time to treatment initiation, achievement of T2T goals, and patient-reported outcomes.

The results from this consensus highlight the importance of adapting international standards to the unique sociodemographic and economic contexts of Latin America. Unlike high-income regions, healthcare systems in Latin America face significant limitations, including restricted access to advanced technologies and specialist training.²¹ To address this, the COEs were categorized into standard, optimal, and model levels, allowing for an inclusive progression where each level meets specific benchmarks in structure, process, and outcomes. This progressive framework, supported by the high consensus levels achieved during the model's design, reflects a tailored approach that balances aspirational goals with regional realities.²²

Comparisons with care models from countries with higher incomes than those in Latin America, such as Spain, emphasize

the necessity of a coordinated, patient-centered approach. The Spanish model prioritizes the comprehensive management of comorbidities and extraarticular manifestations, such as uveitis and inflammatory bowel disease—critical aspects also highlighted in our consensus.²³ Similarly, the integration of validated disease activity measures such as ASDAS and T2T strategies into the COE model aligns with international best practices for controlling disease activity.²⁴ It is important to note that the successful implementation of these tools in Latin America must take into account the availability of resources and the capacity of the workforce, which underscores the need for a gradual and adaptive strategy based on the training of health personnel.

Further, previous experiences, such as PANLAR's certification process for RA and European initiatives, underscore the importance of collaboration among scientific societies, healthcare institutions, and patients to ensure the sustainability and effectiveness of activities to improve health care.^{16,25,26} Such coordinated efforts not only improve care quality but also foster local research and evidence generation, contributing to the strengthening of healthcare systems and empowering patients across the region. The development of COEs for axSpA in Latin America represents not only a significant opportunity to improve disease-specific care, but also to establish a replicable framework for addressing other chronic diseases in resource-limited settings. Building on this approach, PANLAR is actively working on the development of consensus guidelines for the establishment and accreditation of COEs for other rheumatic and musculoskeletal diseases, such as psoriatic arthritis and osteoarthritis, among others. This initiative aims to expand access to high-quality, multidisciplinary care across the region, ensuring that more patients benefit from structured, standardized, and evidence-based management of their conditions. From

a health policy perspective, COEs may also have political and system-level value by providing benchmarks for quality, creating standardized accreditation processes, and facilitating resource allocation. In Latin America, where fragmentation of health-care systems is a major barrier, COEs could represent a visible commitment to improving access and quality, supporting advocacy at national and regional levels.²⁷

A potential limitation of this consensus is that it was informed by a narrative literature review rather than a systematic review. This choice was partly due to the scarce literature available in rheumatology regarding the development and accreditation of COEs. Although the narrative approach allowed contextualization to the realities of Latin America, it should nonetheless be acknowledged as a methodological weakness that may introduce bias in the evidence synthesis.

In conclusion, this consensus provides a scalable framework tailored to Latin America's sociopolitical and economic context, addressing unmet needs in axSpA care. Implementing COEs promotes early diagnosis, multidisciplinary management, and improved outcomes, aligning regional practices with international standards while accommodating resource limitations.

CONTRIBUTIONS

All authors contributed substantially to the conception and design of the work, as well as to the acquisition and interpretation of the data. PSM, RGS, and XB performed the data analysis and drafted the initial version of the manuscript. All authors contributed to the interpretation of findings, critical review of the content, and refinement of the manuscript. RGS and PSM coordinated the overall project and ensured consistency across the consensus process. All authors critically revised the article for important intellectual content, approved the final version to be published, and agreed to be accountable for all aspects of the work to ensure its accuracy and integrity. This work and authorship statement were developed in full accordance with the International Committee of Medical Journal Editors authorship criteria.

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DATA AVAILABILITY

Data are available upon request to the corresponding author.

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