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Quality standard for the management of patients with psoriatic arthritis: QUANTUM project☆

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ABSTRACT

Objective: To generate a quality standard for the management of patients with psoriatic arthritis (PsA).
Methods: We employed qualitative methodology that included: (1) Two focus groups (one with patients with PsA and another with non-rheumatologist specialists involved in the care of PsA patients); (2) A narrative literature review of published documents related to the quality of care in PsA; (3) A nominal group meeting in which 15 expert rheumatologists generated and reached a consensus on a series of quality criteria, as well as formulas or quantifiable objective measures to evaluate them; (4) The Delphi method to establish the feasibility, priority and agreement with the quality criteria; (5) A final generation of standards of care and their attributes. A descriptive analysis of the results was carried out.
Results: A total of 59 standards of care was generated, 18 of mandatory compliance, grouped into 4 blocks according to specific objectives: (1) early diagnosis ($n = 6$); (2) optimising the management of the disease ($n = 26$); (3) multidisciplinary collaboration ($n = 9$); (4) monitoring improvement ($n = 18$). To assess compliance with these standards of care, in many cases, the medical records will be reviewed. Other sources will be the records of the service and hospital and bibliographic databases. Regarding the level of compliance, for some of the standards of care this is yes/no; for others, compliance ranges from 50% to 100% and, in this range, in many cases, compliance was 80%.
Conclusions: This set of standards of care should help improve quality of care in PsA patients.

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Norma de calidad para el manejo del paciente con artritis psoriásica: proyecto QUANTUM

Palabras clave:
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Norma de calidad

RESUMEN

Objetivo: Generar una norma de calidad para el manejo del paciente con artritis psoriásica (APs).
Métodos: Metodología cualitativa que incluyó: 1) dos grupos focales (uno con pacientes con APs y otro con especialistas no reumatólogos implicados en su cuidado); 2) revisión de la literatura publicada sobre documentos en el ámbito de la calidad asistencial en APs; 3) reunión de grupo nominal donde 15 expertos reumatólogos generaron, de forma consensuada, una serie de criterios de calidad así como fórmulas o medidas objetivas cuantificables para evaluarlas; 4) Delphi para establecer la factibilidad, prioridad y grado de acuerdo con los criterios de calidad, y 5) generación de estándares de calidad y sus atributos. Se realizó un análisis descriptivo de los resultados.
Resultados: Se generaron 59 estándares de calidad, 18 de los cuales de cumplimiento obligatorio, agrupados en 4 bloques según unos objetivos específicos: 1) acortar el tiempo hasta el diagnóstico (n = 6); 2) optimizar el manejo de la enfermedad (n = 26); 3) mejorar la colaboración multidisciplinar (n = 9), y 4) mejorar la monitorización (n = 18). Para evaluar el cumplimiento de estos estándares en muchos casos se revisarán las historias clínicas. Otras fuentes serán la memoria del servicio y del hospital así como los buscadores bibliográficos. En cuanto al nivel de exigencia a la hora de considerar por cumplido el estándar, algunos son de tipo sí/no, otros están desde el 50 al 100%, y en este rango muchos en el 80%.
Conclusiones: Esta norma de calidad debe ayudar en la mejora de la calidad de atención para el paciente con APs.

Introduction

Psoriatic arthritis (PsA) is a chronic, progressive multi-organ disease that is potentially serious and complex. Patients with the disease should be assessed and correctly treated from their first visit, then indefinitely.[1–4] In routine clinical practice, it is recommended that these patients should be assessed and managed according to objective clinical data and involved in decision-making.[5,6] However, despite the many specific national and international guidelines, the emAR II study, carried out in our country,[7,8] showed that approximately 60% of medical records contained no assessment of joint involvement or overall evaluation of the patient; in 87% there was no record of a joint index, and in 84% no functional index.

Moreover, many of these patients with PsA are monitored by dermatologists and rheumatologists independently, in addition to their primary care (PC) visits; this means that the care process can be less than optimal from a clinical perspective for patients and even for the system.[9–11] This is why there have been various initiatives in recent years, such as the EULAR recommendations of 2012[12] or the implementation of multidisciplinary care models,[13,14] that seek to improve the quality of care for these patients.

Furthermore, it has been suggested that the quality of medical care should be measured by the development and implementation of quality standards.[15] A quality standard can be defined as a declaration or criterion that can be used by a professional or the general public to measure the quality of daily practice. These standards explicitly highlight expected and desired behaviour and are used as guidelines to assess performance and achieve continuous improvement. They are established to serve as a benchmark and to identify variations in daily practice for the necessary corrections to be made when appropriate. Once developed and implemented, for example, in a medical department, they can facilitate the performance of the service, provide a means for problem-solving and encourage collaboration between service members.[15–17]

Based on these principals, several related documents have been published recently in the area of rheumatology to improve quality of care and ensure equity, both nationally and internationally.[18,19] Although the number of initiatives has been increasing, there are still few.[20–25]

Based on all the above, the QUANTUM (Quality Initiative to Improve Outcomes) project was launched, generating, in a first phase, a quality standard that is described in this publication. In a second phase, this standard will be applied in several centres for subsequent accreditation.

Methods

The QUANTUM Project is based on qualitative methodology endorsed by the Spanish Society of Healthcare Directives (SEDISA). Its main objective was to develop a quality standard on the care of patients with PsA, to enable centres who so wish to be certified with this seal of quality.

Focus groups

Firstly, two focus groups were held, one with patients with PsA and the other with specialists (not rheumatologists, specifically: PC physicians, dermatologists, endocrinologists, cardiologists and nephrologists) involved in the care of these patients. They addressed the entire care process of patients with PsA in the Spanish healthcare system, from the onset of symptoms to treatment and follow-up. A typological box was created to identify the profiles of the participating patients that would guarantee their representativeness (associated and non-associated, different age groups, sex, with short and long disease courses). In the same way, another typological group specific to the specialists was created (different ages, sex and referral hospitals). A specific discussion map was drawn up for both groups, defining a series of priorities (the aspects of care that are especially important), as well as the barriers and facilitators that we face to provide maximum quality care. The participation of both patients and specialists from these focus groups in the QUANTUM Project was limited to this activity. The results of the focus groups were then considered by the experts(see below).

Review of the literature

Subsequently, a literature review was undertaken that involved a search for documents in the area of care quality, such as consensuses,[26] clinical practice guidelines and related projects, such as the international QUANTUM,[27] 2E,[25] NEXUS,[28] and ONLY

TOOLS projects.[29] The aim of this review was to compile quality indicators and standards relating to the management of patients with PsA. Medline was consulted from its creation to January 2017 using Mesh terms such as [Quality of Health Care], free-text terms, and the Clinical Queries tool was used.

Nominal group meeting and Delphi method

All the information gathered in the previous sections (focus groups and literature review) was presented and discussed in a nominal group meeting, where a total of 15 experts consensually generated a series of quality criteria and formulae or quantifiable objective measures to be assessed. These criteria covered the entire care process of patients with PsA, from onset of symptoms to long-term monitoring, and other related elements, such as post-graduate training. They were grouped into 4 categories according to several general objectives: (1) shortening the time until diagnosis; (2) optimising management of the disease; (3) promoting multidisciplinary collaboration, and (4) improving monitoring. After that, using a Delphi method, the feasibility and priority of the quality criteria generated were analysed along with the level of agreement with them

Development of the quality standard

With the collaboration of the Ad Qualitatem Foundation, experts in quality audits, the quality criteria were reformulated as quality standards to conform to one standard. A quality standard is a document established by consensus and approved by a recognised body (national or international), which provides for common and repeated use a set of rules, guidelines and characteristics for quality activities or their results, in order to achieve an optimal degree of order in the context of quality.

All these quality standards were developed with a common structure that includes: the requirement to be met, the justification for its selection, the quality standard indicator, the target level to be reached, evidence of compliance, a field of clarifications and the type of standard, which could be a mandatory compliance standard (essential requirement if a hospital later wishes certification) or non-compulsory (see results section). Standards with great impact on the quality of care of patients with PsA are considered compulsory, and that, in the opinion of the experts are "indispensable".

All this was circulated among the 15 experts for their final comments and approval.

Statistical analysis

A descriptive analysis of the standard's quality standards was undertaken.

Results

Finally, 59 standards were included in the quality standard that refer to the PsA patient's entire care process. We describe and summarise their principal attributes below (Tables 1–4).

Shortening time until diagnosis

Six quality standards were included in this block (Table 1)—none of them mandatory—aimed at facilitating a reduction in time until diagnosis of PsA. They refer to the coordination and collaboration with PC, for example, by developing advisory or consultancy services in the health centres, with rotations of family residents and PC physicians in the area of rheumatology or other training activities. They also refer to 2 relevant processes towards facilitating an early diagnosis in the dermatology services, namely the implementation of screening protocols and protocols for referral to rheumatology if there is a suspicion of PsA.

In terms of possible accreditation, various documents will be consulted to assess whether the quality standards are being met, such as appointment records, service reports and other clinical and administrative records.

Optimising management of the disease

Twenty-six quality standards were generated (Table 2), 7 of mandatory compliance to optimise management of PsA, some relating to the resources that influence delivery of the service of both infrastructures and human resources, training of professionals, and patient information and care protocols.

As we mentioned earlier, part of these standards refers to the structure of the centre and the service, both in terms of materials, provision and their characteristics as human resources. In this regard, we highlight that a specific quality standard was generated on nursing which is of mandatory compliance and according to which the centre must have a nursing clinic with the necessary time and materials. With regard to provision, it is suggested, for example, that the clinic providing care for patients with PsA must have (or have access to) a computer, microscope, access to ultrasound or MRI, and that the centre's pharmacy catalogue must keep all the therapeutic targets authorised for PsA accessible at all times.

In relation to staff training, we must highlight that this standard includes a mandatory compliance standard that the services must participate in and develop exclusive and continuous activities in PsA (and continuous training programmes on PsA). Another will state that there must be a team specifically dedicated to the locomotor apparatus in the radiology departments where patients with PsA are treated, although this is not mandatory.

Neither are several of the quality standards mandatory that refer to the provision of care protocols for patients with PsA, to the information given to patients, to continuity of care (that patients are always assessed by the same rheumatologist) or to the minimum assessment times for first and subsequent consultations.

Furthermore, these two mandatory compliance standards indicate that the patient's medical record should contain certain information, from the date of diagnosis or the specific form of the condition to their family history, smoking habit, and the presence of comorbidities. In addition, periodic updating is required of treatment at the time of the consultation. Likewise, another 3 mandatory standards were generated that indicate that for patients with PsA, serologies for hepatitis B and C viruses should be recorded on diagnosis and when treatment is initiated, X-rays of hands/feet, pelvis, thorax and symptomatic joints should be taken, and specifically, in patients with peripheral PsA, the rheumatoid factor should be recorded on diagnosis.

The medical records will often be reviewed to check compliance with these quality standards. Other sources will be the records of the service and of the hospital, and various directories.

The level of exigency when checking compliance with the quality standard varied greatly depending on the standard; one was 50%, another was 100%, but several were 70%-80%, or were yes/no in type.

Improving multidisciplinary collaboration

The quality standards that refer principally to the coordination and collaboration of rheumatology and dermatology services (other services as well, such as preventive medicine) were included in this block. There is a total of 9 (Table 3), 2 of which are mandatory in nature (if an accreditation is decided).

Table 1
Quality standards to shorten time to diagnosis.

#	Standard	Indicator	Objective level	Evidence of compliance	Type of standard
1	There should be an interlocutor or reference person in each PC health centre for diseases of the locomotor system/rheumatology service	The existence of an interlocutor in the health centre for locomotor system disease/rheumatology service	Yes/No	The certificate of appointment will be requested and its functions or other evidence to justify it	Not mandatory
2	Rotations will be facilitated for family residents and PC physicians by the rheumatology services	Number of rotations carried out per year	5 family physician residents/year	There should be evidence of undertaking these rotations, which should be of a duration of ≥1 month. This information should be gathered in the rheumatology service's annual report	Not mandatory
3	The rheumatology service should hold consultancy or advisory sessions in each health centre	The centre has established a methodology for consultancy or advisory sessions in health centres	Yes/No	Records of advice sessions undertaken	Not mandatory
4	The rheumatology service should undertake specific training activities on PsA, aimed at health centres, at least annually	Number of training sessions carried out per year	Minimum, one training session	These could be the list of attendees, documentation of the training given, the training plan, etc.	Not mandatory
5	The dermatology service should have a protocol to be followed for a suspected PsA	The existence of a referral protocol	Yes/No	The referral protocol should be implemented and known by the dermatology service	Not mandatory
6	The dermatology service should have a specific PsA screening protocol	The existence of a specific screening protocol	Yes/No	The specific screening protocol should be implemented in the dermatology service	Not mandatory

PC: primary care; PsA: psoriatic arthritis; N/A: not applicable.

This multidisciplinary collaboration includes, for example, rotations of dermatology and rheumatology residents in rheumatology and dermatology services, respectively, during their training. Likewise, the development of joint workshops specific to PsA and joint clinical sessions is assessed (the latter form part of one of the mandatory quality standards). The other mandatory standard states that 2 specialists must collaborate in patient assessment and follow-up. Other forms of multidisciplinary collaboration include creating joint protocols on the biological therapies and the participation of both services in a common research project.

Finally, it should be noted that a quality standard has been included which will assess duplicated (unnecessary and unjustified) tests performed on patients.

Again, different sources can be consulted to assess compliance with the standards, such as clinical and administrative records, or the departments' annual reports.

Improving monitoring

Eighteen quality standards were generated on monitoring patients with PsA (Table 4). Others were established relating to the number of publications, participation in clinical trials and patient satisfaction.

Several of these standards mean that data referring to patient assessment must be recorded in the clinical history, some with specific timing, both in dermatology and rheumatology. Quality standards, for example, are included in the general examination, skin or nail examination and locomotor apparatus symptom screening to be performed in the dermatology service, and the axial and peripheral examination for the rheumatologists (rheumatological examination is considered obligatory). Also included in this block are other actions that must be completed to improve patient monitoring, such as complementary tests (laboratory and radiological) and the use of questionnaires to evaluate pain, patient function and quality of life. It should be noted that a specific standard was generated for cardiovascular risk assessment. Half of the standards in this section were considered of mandatory compliance.

Moreover, in this block we selected 2 quality standards to evaluate the service's research activity. This measurement will be justified by a number of publications, articles in national journals, communications, posters at conferences and completed theses, as well as participation in clinical trials and PsA registers. In addition, there is a specific standard to assess patient satisfaction with the care received.

In most cases the medical records will be reviewed to evaluate compliance with these quality standards. Other sources will be the department's report and the literature search engines to establish the diffusion of the department's research papers. We highlight in this point the development and deployment of patient satisfaction surveys.

Finally, the level of exigency when considering a quality standard met will depend on the standard, but many require 70%–80% compliance.

Discussion

The main objective of the QUANTUM project was to define compliance criteria in care practice that will serve as a benchmark to ensure optimal management of patients with PsA. It is a question of identifying and prioritising strengths and areas for improvement in our centres attending this disease to ensure care quality and homogenise the care of these patients and reduce the clinical variability in how this disease is managed.[7,8] Other objectives of the project were to improve collaboration between professionals from the different specialities involved who care for these patients, collaboration and communication with PC to facilitate early diagnosis and access to a specialist, and to develop and promote a culture of quality in these centres.

Currently, in our healthcare system, the aim of guaranteeing the quality of the entire healthcare process has never been established more explicitly. To this end, we must identify the main gaps between best and routine practice and thus design strategies to close these gaps and develop policies to implement these strategies rapidly and cost-effectively.[15,18,19]

Table 2
Quality standards to optimise management of the disease.

#	Standard	Justification	Indicator	Objective level	Evidence of compliance	Clarifications	Type of standard
1	The centre should have a nursing clinic with the necessary time and resources (relevant and updated materials for patients with PsA)	The objective is to identify the time necessary for the individualised care of each patient and to ensure it is appropriately delivered.	The existence of a nursing clinic	Yes/No	It will be checked that time for the nursing consultation has been established and that the clinic has relevant and updated material.	The rheumatology service should have an allocated nurse and the time for the care of these patients should be ensured (20mins). Relevant material refers to the information that will be provided, which must be updated and be specific to PsA (this should be "generic" material whenever possible)	Mandatory
2	The clinic where care is delivered to patients with PsA should have or have permanent access to a computer, weighing scales, height gauge and microscope	The clinic should have the necessary technical resources to deliver the service correctly	The clinic should have access to all the resources listed	Yes/No	It will be checked that the clinics have the necessary resources and that the equipment is correctly maintained	N/A	Not mandatory
3	The outpatient clinics providing care to patients with PsA should be accessible and signposted	The objective is to ensure that rheumatology outpatient clinics have accessible facilities, since these patients can have reduced mobility, and these clinics must be clearly signposted	The area of the outpatient clinics should be accessible and clearly signposted	Yes/No	It will be checked that the outpatient clinics meet the accessibility requirements and are signposted	N/A	Not mandatory
4	Patients with PsA should have access to an administrative post allocated to patients from the rheumatology service, within the service's facilities to manage the rheumatology diaries	In order to facilitate the management that the patient needs to undertake in the outpatient clinics, the rheumatology service should have their own administrative post for these patients	The existence of a separate administrative post for rheumatology patients or any other means proposed by the service which facilitates these procedures for the patient	Yes/No	The existence of an administrative post or the means proposed by the service to facilitate these arrangements	N/A	Not mandatory
5	The centres that treat patients with PsA should have access to ultrasound and MRI	Performing these tests facilitates diagnosis of PsA	The centres should have access to ultrasound and MRI	Yes/No	It will be checked that the centre has ultrasound and MRI and that they are accessible	N/A	Not mandatory
6	In the radiology service of the hospitals that treat patients with PsA there must be a team specifically dedicated to the locomotor apparatus	Having a team (or person) in the radiology service dedicated to the locomotor apparatus will improve diagnosis of these patients	There is a team of radiologists dedicated to the locomotor apparatus who treat patients with PsA	Yes/No	It will be checked that there are people dedicated specifically to the locomotor apparatus	This will only be applied in the large hospitals	Not mandatory
7	All the authorised therapeutic targets for PsA must always be accessible in the centre's pharmacy catalogue	The objective is that all centres should have access to the authorised therapeutic targets on the market	The centre's pharmacy catalogue includes all the authorised therapeutic targets	Yes/No	The pharmacy catalogue will be audited	N/A	Not mandatory
8	The services must participate in and develop exclusive training activities on PsA and continuous training programmes on PsA	To update the knowledge of service members on PsA	Number of people who have participated in the training activities	One training activity	Certificates for the training undertaken will be requested	There should be planning of continuous training, such as one-off actions by service workers	Mandatory

Table 2 (*Continued*)

#	Standard	Justification	Indicator	Objective level	Evidence of compliance	Clarifications	Type of standard
9	It will be checked that PsA must form part of under- and postgraduate training	The objective is to stress the importance of training to treat PsA appropriately	The existence of under- and postgraduate training on PsA	Yes/No	It will be checked that, for rheumatology, specific undergraduate training on PsA has been included in the training delivered in the university hospitals. Postgraduate rheumatology residents will be considered to have specific training on PsA	N/A	Not mandatory
10	The rheumatology service should have a specific care protocol for patients with PsA	The management of patients with PsA should be standardised and undertaken according to a specific protocol that must be monitored and periodically updated	The existence of a specific protocol for patients with PsA	Yes/No	It will be checked that the protocol has been implemented in the rheumatology service	N/A	Not mandatory
11	The dermatology service should have some visible informative infographics (in the form of a poster/leaflet, etc.) in the clinic in order to help identify symptoms suggestive of PsA	The objective of creating graphic documents is to help in the detection of PsA	The existence of informative infographics in the clinic	Yes/No	The existence of infographics that must be placed in a visible place for patients	N/A	Not mandatory
12	The dermatology service must provide early access to information on the possible progression of their psoriasis and symptoms suggestive of PsA	The objective is to empower patients through information on their disease to improve self-care and decision-making	Provide patients with early access to information on the progression of their psoriasis and symptoms suggestive of PsA	Yes/No	There will be evidence of the information given to patients	It is recommended that written information should be given to patients on the possible progression of their psoriasis and symptoms suggestive of PsA and this should be recorded in their medical record	Not mandatory
13	Patients with PsA should be offered general advice in writing	This advice is aimed at improving quality of life and the management of comorbidities	There is information on general advice for patients with PsA	Yes/No	The information provided to patients will be reviewed	N/A	Not mandatory
14	Patients must be provided with information on patient associations	The aim of this indicator is to inform patients of the resources that can facilitate or improve their quality of life, which include patient associations	Information is provided about patient associations	Yes/No	Evidence will be requested on how this information is provided	This information can be provided through leaflets from the associations themselves in the clinics or in a specific section within the medical report given to patients. This indictor will only be assessed in centres that have a patients' association within their catchment area	Not mandatory
15	Truthful online information should be provided for patients, via the website of the hospital or by providing access to other websites such as that of SER (Spanish Society of Rheumatology)	The aim of this indicator is to provide patients with truthful online information on PsA, avoiding their accessing sources of erroneous information	Truthful online information will be provided to patients	Yes/No	Depending on the system chosen by the centre to provide online information, it will be checked how this information is provided	N/A	Not mandatory

Table 2 (*Continued*)

#	Standard	Justification	Indicator	Objective level	Evidence of compliance	Clarifications	Type of standard
16	The minimum assessment times established in the rheumatology diaries should be 30 min for the first consultations and 20 min for subsequent consultations	These times are considered advisable for good delivery of care	The first consultations should last 30 min. Subsequent consultations should last 20 min	100%	Rheumatology clinic diaries will be audited to provide evidence that these minimum assessment times have been established	N/A	Not mandatory
17	Patients with PsA must always be assessed by the same rheumatologist	Patients always being assessed by the same rheumatologist will help ensure that the specialist has the best information on the progression of their PsA and also improve care	Patients should be allocated one rheumatologist	80%	The medical records will be audited to ensure that each patient has their own allocated rheumatologist, and this is maintained in the different clinics	It is assumed that there might be changes, such as losses of specialists or holidays, but the general trend is that patients would have an allocated rheumatologist maintained over time	Not mandatory
18	The date the articular diagnosis was made, onset of symptoms and the specific form of the condition (peripheral, axial, mixed, etc.) should be recorded in the patients' medical records	The aim of this indicator is to ensure and standardise the information to be included in the medical records	Record, in the medical records, of the date of the articular diagnosis, onset of symptoms and form of psoriasis	80%	The medical records will be audited	N/A	Mandatory
19	Assessment of the "indexation" of patients with PsA	The aim of assessing indexation of patients is to look at new diagnoses	The diagnosis should be coded	Yes/No	Medical records will be audited	This refers to the coding and recording of PsA with different names to enable the centre to extract and analyse this information	Not mandatory
20	Medical records must include family history, tobacco and alcohol consumption, frequency of physical exercise (type and approximate number of hours per week), employment situation, comorbidities and periodic updating (at least weekly) of the treatment that patients are receiving during the consultation	The aim of this indicator is to ensure and standardise the information to be included in the medical record and establish how often the patients' treatment is to be reviewed	Recording family history, tobacco and alcohol consumption, daily physical activity, employment situation, comorbidities and review of treatment in patients' medical records	70%	The medical records will be audited	All the above-mentioned items must be clearly documented in the medical records	Mandatory
21	The existence of a register or database of patients with PsA will be assessed that includes diagnosis, the form of clinical presentation and its treatment	Services must have a register or database with patient data that includes diagnosis, form of clinical presentation and treatment	The existence of a register or database with the data of patients with PsA	Yes/No	The existence of a database or register of patients with PsA	N/A	Not mandatory
22	For patients with peripheral PsA, RF should be recorded on diagnosis	These complementary tests are requested to assess other biomarkers	Recording RF on diagnosis	80%	The medical records will be audited	N/A	Mandatory
23	For patients with PsA, hepatitis viruses B and C serologies should be recorded on diagnosis and when treatment is initiated	Complementary tests are requested to assess the situation regarding certain viral infections	Recording hepatitis B and C serologies on diagnosis and when treatment is initiated	80%	The medical records will be audited	N/A	Mandatory
24	For patients with PsA, X-rays should be taken of hands/feet, pelvis, chest and symptomatic joints	The aim of these radiological studies is to facilitate a diagnosis of PsA	Taking X-rays of hands/feet, pelvis, chest and symptomatic joints	70%	The medical histories will be audited	N/A	Mandatory

Table 2 (*Continued*)

#	Standard	Justification	Indicator	Objective level	Evidence of compliance	Clarifications	Type of standard
25	For patients with peripheral PsA MDA, DAPSA or any other validated global activity index, recording all the sections of this index in the medical record annually	The MDA is a method of assessing a status of remission, or minimal activity, that is appropriate for decision-making and for use in a treat-to-target regimen	Annually undertaking an MDA, DAPSA or any other validated global activity index	50%	The medical histories will be audited	Although the final result is not included, all the items that make it up must be recorded, to achieve their final result.	Not mandatory
26	The rheumatology service will have a protocol for access to the area mental health service for care of the patients that need psychological support	The objective of this indicator is to ensure the support of a clinical psychologist due to the prevalence of anxiety and depression in these patients	The existence of an access protocol	Yes/No	A protocol for access to the area mental health service will be audited	N/A	Not mandatory

PsA: psoriatic arthritis; DAPSA: Disease Activity in Psoriatic Arthritis; RF: rheumatoid factor; MDA: Minimal Disease Activity; N/A: not applicable; MR: magnetic resonance; SER: Spanish Society of Rheumatology.

Table 3
Quality standards to improve multidisciplinary collaboration.

#	Standard	Indicator	Objective level	Evidence of compliance	Type of standard
1	Rotations of a minimum of one month will be provided for dermatology residents in the rheumatology service to train them on PsA. Likewise, rheumatology residents will be provided rotations for a minimum of one month in dermatology	Number of residents undertaking rotations in the rheumatology service to train them in PsA. Number of residents undertaking rotations in the dermatology service to train them in PsA	At least one resident a year	Recording of the rotation undertaken	Not mandatory
2	It is recommended that multidisciplinary hospital workshops are held on the management of PsA	Number of workshops undertaken	Undertaking an annual workshop	Look at the programme of the workshop undertaken	Not mandatory
3	Joint sessions will be held with the dermatology and rheumatology services at least quarterly.	Number of sessions undertaken	Minimum of 3 sessions per year	The centre will be asked, among others, to provide records showing that these joint sessions have been held, such as the calendar of derma-rheumatology sessions	Mandatory
4	The dermatology and rheumatology services must collaborate in a structured and regular manner to assess and monitor patients with PsA	There is a methodology of collaboration between the 2 services	Yes/No	Evidence of the methodology of collaboration between the 2 services and the minutes of the meetings of the commission on biological therapies	Mandatory
5	The collaborative work between the rheumatology and dermatology services must be evidenced by the records of the admissions service	The rheumatology and dermatology services work collaboratively	Yes/No	This will depend on the organisation of the centre; some have joint clinics, others have multidisciplinary PsA clinics. In any case, there must be a record held in admissions	Not mandatory
6	The dermatology and rheumatology services will develop joint protocols, for decision-making and pooling the use of biological therapies	The existence of protocols for the use of biological therapies	Yes/No	The development of protocols for the use of biological therapies and their implementation	Not mandatory
7	The existence will be assessed of a vaccination protocol in the service and the referral circuit with preventive medicine to update the vaccination calendar in patients with PsA	There is a referral circuit with preventive medicine for updating the vaccination calendar and there is a vaccination protocol in the rheumatology service	Yes/No	The existence of a referral circuit with preventive medicine and a vaccination protocol in the service	Not mandatory
8	Duplication of the same tests in several services will be assessed in an interval of one month	Number of duplicated tests per patient in one month	0	The medical records will be audited	Not mandatory
9	The dermatology and rheumatology services must undertake at least one joint research on PsA	Developing a joint research project	A research project	The project documentation will be audited, and recorded in the research report	Not mandatory

PsA: psoriatic arthritis; N/A: not applicable.

In the case of PsA, more than enough data has been published urging a review of the care circuit and the generation of a quality standard to improve this situation.[7,8] Based on this, we have established and described in this article a series of quality standards to define the optimal care of these patients. There is more than enough published data on PsA urging a review of the disease's care circuit and the generation of a quality standard to improve the situation.[7,8] Based on this, we have established and described in this article a series of quality standards to define the optimal care for these patients.

In our set of quality standards, there are some that require comment. As for those aimed at shortening the time to diagnosis, we consider that the different proposals generated are feasible, both for PsA and for dermatology. Several of them are of a formative nature and will require great involvement on the part of the rheumatology service. Others relate to screening and rheumatology referral protocols for suspected PsA, which will also require close collaboration with dermatology. Bearing in mind that diagnostic delay (even of 6 months) is associated with progression of damage and poorer function in the long term,[30,31] and current data show that there is still a delay in diagnosing the disease in Spain,[32] we consider it essential to work on these aspects.

In the area focussed on optimising disease management, we found 6 quality standards considered mandatory. One of them refers to nursing, specifically that the centre should have a nursing clinic with the necessary time and resources, as has been recommended.[25] Aware of the great healthcare pressure to which many medical clinics are subjected, their collaboration is essential to ensure our quality objectives.[33] As in the previous section, it is clear that training plays a fundamental role in these standards. A mandatory compliance standard has been generated whereby services must participate in and develop exclusive training activities and continuous training programmes on PsA. As with other diseases, we are convinced that these types of initiatives clearly improve the outcomes for these patients.[34] Other mandatory compliance standards are related to data collection in the patients' medical records. In different projects undertaken in our country, it has been shown that the collection of fundamental data on the

Table 4
Quality standards to improve monitoring.

#	Standard	Justification	Indicator	Target level	Evidence of compliance	Clarifications	Type of standard
1	The medical record of patients with PsA must record at least annually a general physical examination, with auscultation, abdominal circumference, weight and height	The aim of this indicator is to ensure and standardise the information to be recorded in the medical records in the annual review	Annual record of general physical examination with auscultation, abdominal circumference, weight and height	80%	The medical records will be audited	All the above-mentioned items must be clearly recorded in the medical records with the indicated periodicity	Not mandatory
2	The medical records of patients with psoriasis in the dermatology service must record that specific questions have been asked about the locomotor apparatus at least annually	The aim of this indicator is to ensure that the dermatology service asks specific questions about the locomotor apparatus at least annually	Asking and recording specific questions about the locomotor apparatus	80%	The medical records will be audited	This can be evidenced through answers such as no pain, no inflammation	Not mandatory
3	The medical records of patients with PsA must record at least from 2 consecutive scheduled annual visits of 6 months or more, a general skin examination referring to skin and nail involvement	The aim of this indicator is to ensure and standardise the information to be included in scheduled annual visits	Undertaking and recording a general skin examination referring to skin and nail involvement at the scheduled annual visits	80%	The medical records will be audited	All the above- mentioned items must be clearly recorded in the medical records with the indicated periodicity	Not mandatory
4	The NPJ, NSJ or presence or otherwise of dactylitis and enthesitis (and their number) should be recorded in the medical records of patients with peripheral articular involvement at least in 2 consecutive visits of 6 months or more	The aim of this indicator is to ensure and standardise the information to be included in the medical records in the 2 scheduled annual visits of patients with PsA with peripheral articular involvement	Recording the information requested at the 2 scheduled annual visits	70%	The medical records will be audited	All the above-mentioned items must be clearly recorded in the medical records	Mandatory
5	A physical examination of the hips, chest expansion, cervical rotation and Schöber or modified Schöber tests should be recorded in the medical records of patients with Axial PsA at least annually	The aim of this indicator is to ensure and standardise the information to be included annually in the medical records of patients with axial PsA	Record of the information requested annually	80%	The medical records will be audited	All the above- mentioned items must be clearly recorded in the medical records	Mandatory
6	A complete blood count and general biochemistry must be undertaken as complementary tests for patients with PsA, at least in the 2 consecutive visits of 6 months or more.	These complementary tests are requested to determine the patients' general condition	Undertaking complete blood counts and general biochemistry in the 2 scheduled visits	80%	The medical records will be audited	N/A	Mandatory
7	A lipid and uricaemia profile should be performed in patients with PsA	These complementary tests are requested to evaluate possible comorbidities	Undertaking a lipid and uricaemia profile annually	80%	The medical records will be audited	N/A	Mandatory
8	The CRP levels of patients with PsA must be recorded in 2 consecutive visits of 6 months or more and their ESR should be recorded annually	These complementary tests are requested as acute phase reactants.	Recording CRP levels in the 2 scheduled annual visits and ESR annually	80%	The medical records will be audited	N/A	Mandatory

Table 4 (*Continued*)

#	Standard	Justification	Indicator	Target level	Evidence of compliance	Clarifications	Type of standard
9	X-rays of the affected joints should be taken at least every 3 years for patients with PsA with peripheral involvement	X-ray checks are necessary for patients with PsA with peripheral involvement of the affected joints, to monitor their progression	X-rays of affected joints at least every 3 years	80%	The medical records will be audited	The presence or otherwise of erosions and the number of joints with erosions must be recorded. If erosions are detected, they must be quantified, or the phalanges identified	Not mandatory
10	X-ray checks should take place every 2–5 years in patients with axial PsA	X-ray checks are necessary for patients with axial PsA to monitor its progression	Undertaking X-ray checks	80%	The medical records will be audited	N/A	Not mandatory
11	Patients with mixed PsA should undergo x-ray checks at least every 5 years	X-ray checks are required for patients with mixed PsA to monitor its progression	Undertaking X-ray checks	70%	The medical records will be audited	The recommendation is that these are undertaken every 3–5 years	Mandatory
12	Function should be assessed using the HAQ index if the patient has peripheral involvement or the BASFI if involvement is axial, on at least an annual basis	The aim is to use indices to check the general and axial (in the case of this involvement) functional situation	Assessing patients with peripheral involvement using the HAQ index. Using the BASFI index to assess patients with axial involvement	Yes/No	The medical records will be audited	N/A	Mandatory
13	The physician's global VAS, the patient's global VAS and the pain VAS must be performed at least once a year	The objective is to determine the physician's overall VAS, the patient's overall VAS and the pain VAS	Performing the physician's overall VAS, the patient's overall VAS and the pain VAS annually	Yes/No	The medical records will be audited	N/A	Mandatory
14	The quality of life of patients with PsA will be assessed using the PsAID at least annually	The aim is to determine the result of periodic evaluation of quality of life	Using the PsAID to assess patients' quality of life	70%	The medical records will be audited	This indicator will begin to be assessed in medical records from2017	Not mandatory
15	The specific cardiovascular risk of patients with PsA must be assessed at least every 2 years	Given the comorbidity of patients with PsA, the aim is to establish their cardiovascular risk profile	Undertaking a specific cardiovascular risk assessment	80%	The medical records will be audited	This will be assessed according to the patients with a cardiovascular risk factor	Not mandatory
16	Number of publications, articles in national journals, communications, posters in conferences and completed theses on PsA in the past 5 years	The aim of this indicator is to encourage and acknowledge research work on PsA undertaken in the centre	Number of publications, articles, communications and posters in conferences and theses completed	3	Publications, articles, posers, communications and completed theses will be reviewed	N/A	Not mandatory
17	Participation in clinical trials and registers of PsA in the past 5 years will be quantified	The aim of this indicator is to promote and acknowledge research work on PsA undertaken in the centre	Number of clinical trials undertaken in the past 5 years. PsA registers made in the past 5 years	Minimum one	The research study report will be reviewed.	N/A	Mandatory
18	Assessment of patient satisfaction with the care received, at least annually	The aim of undertaking an assessment of patient satisfaction, is to detect weaknesses and areas for improvement requiring work	Developing and evaluating a patient satisfaction survey	Yes/No	Developing patient satisfaction surveys	In addition to creating the patient satisfaction survey the results must be analysed and action taken based on these results.	Not mandatory

PsA: psoriatic arthritis; BASFI: *Bath Ankylosing Spondylitis Functional Index*; VAS: visual analogue scale, HAQ: *Health Assessment Questionnaire*; N/A: not applicable; NPJ: number of painful joints; NSJ: number of swollen joints; PCR: C reactive protein; PsAID: *Psoriatic Arthritis Impact of Disease*; ESR: erythrocyte sedimentation rate.

disease and its progression is deficient,[7,8] a fact that may have a negative effect on the quality of care provided.

Moreover, in the block of standards developed to improve multidisciplinary standards, we focussed particularly on collaboration between dermatology and rheumatology through various training and research activities and processes. Several models of multidisciplinary care have already been implemented in our country and are a support tool for specialists in the care of patients with PsA who have problems with diagnosis and/or control of the disease. The standards have also been shown to improve collaboration between dermatology and rheumatology, which has resulted in the creation of a teaching programme and the development of several joint projects.[28,35]

Finally, with respect to the standards proposed to improve patient monitoring, apart from the standards that will evaluate whether this is carried out correctly as stated in numerous guidelines,[6,12] we would like to highlight, as a novelty, that in this block we have selected 2 quality standards to evaluate the research activity of the service. This, as we mentioned, will be carried out by assessing the number of publications, articles in national journals, communications, posters at conferences and completed theses, as well as participation in clinical trials and PsA registers. If we want to ensure the best quality of care, there must also be a specific standard for the assessment of patient satisfaction with the care they receive. This is an absolute maxim, especially considering that, in the opinion of the patients with PsA themselves, there are many areas for improvement in their care.[36,37]

The next stage of the QUANTUM project will be to evaluate the quality standards of this quality standard in different hospitals. This must provide us with a set of advantages, such as being able to detect strengths, weaknesses and opportunities for improvement, optimisation of resources, increased efficiency and effectiveness of processes, the organisation of work based on rigorous procedures, action protocols and best scientific evidence and reducing the variability of clinical practice, among many others.

Compliance with these standards will result in a reduction of non-quality costs, a culture change and commitment to continuous improvement, improved internal communication and teamwork, along with advances in the development, motivation and involvement of the professionals.

The aim will be to focus attention on our patients, their needs and expectations, and greater participation in the decisions that affect them, among other objectives.

In summary, to ensure the highest quality of care for patients with PsA, service providers as well as patients and healthcare professionals must work together to develop a framework for the correct care of these patients. We are convinced that the standard generated in the QUANTUM project will help achieve this goal.

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Conflict of interests

The authors have no conflict of interest to declare.

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