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Brief Report

Rheumatology manpower in the public system in Catalonia (Spain)[☆]

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ARTICLE INFO

Article history:

Received 21 December 2019

Accepted 17 June 2020

Available online 15 March 2021

Keywords:

Manpower
Workload
Rheumatology
Catalonia

ABSTRACT

Objective: To determine the current state of Rheumatology in Catalonia and to update the information regarding previous studies.

Material and methods Design: Observational, descriptive and cross-sectional study. Data collection from January to June 2017.

Sample: Rheumatologists practising public healthcare activity in Catalonia. An online questionnaire was sent to gather individual data and data from rheumatology services/sections.

Results: Information was obtained on 109 rheumatologists: 39 men and 70 women; mean age: 47 ± 9 years. The number of rheumatologists has increased by 8% over the past 5 years. One hundred and one (92.7%) doctors qualified as rheumatologists through the MIR. Rheumatology practice was mostly in a hospital setting: 68 (62.4%) physicians. Ninety-six (88.1%) rheumatologists were full-time practitioners. Fifty-four (50%) rheumatologists also practiced in the private sector. Clinical practice was predominant: 76% of daily time was devoted to this area. Of note, it was found that most of the rheumatology services, 24 (705), were dependent hierarchically on other services, namely internal medicine and orthopaedic surgery. There are still 6 hospitals in Catalonia without a rheumatologist.

Conclusions: The number of rheumatologists in the public health sector of Catalonia has increased over the past 5 years. The mean age of rheumatologists is advanced and there is a clear predominance of female practitioners in the specialty. Many rheumatology services depend on other services. Rheumatology activity is primarily focussed in the city of Barcelona.

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Estado actual de la reumatología en el sector sanitario público de Cataluña

RESUMEN

Objetivo: Determinar el estado actual de la reumatología en Cataluña y actualizar la información respecto a los estudios previos.

Material y métodos Diseño: Estudio observacional, descriptivo y transversal. Recogida de datos de enero a junio de 2017.

Muestra: Reumatólogos que ejercen actividad asistencial pública en Cataluña. Se envió un cuestionario en línea recabando información tanto de forma individual como colectiva de los servicios de reumatología.

Resultados: Se obtuvo información de 34 hospitales y de 109 reumatólogos: 39 varones y 70 mujeres;

Palabras clave:

Recursos humanos
Carga de trabajo
Reumatología
Cataluña

[☆] Please cite this article as: Grados Canovas D, Martínez-Morillo M, Olivé Marques A, Retamero A, Nolla JM, Guanyabens N. Estado actual de la reumatología en el sector sanitario público de Cataluña. Reumatol Clin. 2021;17:607–610.

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edad media: 47 ± 9 años. El número de reumatólogos aumentó un 8% en los últimos 5 años. La obtención del título fue en 101 (92,7%) casos por vía MIR. Noventa y seis (88,1%) facultativos tenían dedicación completa. Un 50% de los reumatólogos ejercían además en el sector privado. La actividad asistencial suponía un 76% de la jornada laboral. Se constató que 24 (70%) servicios de reumatología dependían jerárquicamente de otra especialidad. En 6 hospitales de Cataluña no dispone de reumatólogo.

Conclusiones: El número de reumatólogos aumentó respecto hace 5 años. La edad media de los reumatólogos es avanzada y existe un claro predominio femenino en la especialidad. Un gran número de Unidades de Reumatología dependen de otros servicios. La actividad reumatológica se centra en Barcelona.

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Introduction

Rheumatology has expanded during recent years, and innovations in immunology, epigenetics and bone metabolisms are constants.¹ For this reason, the *Societat Catalana de Reumatologia* (SCR) sponsors studies every 5–7 years which reflect the state of the specialty at that time, and allow us to compare it with previously undertaken studies, providing information and possibilities for improvement in later years.^{2–5}

Methods

An observational, descriptive and cross-sectional study, with data collection between January and June 2017. Rheumatologists who practise in the public healthcare system in Catalonia were the study object. Information was obtained using a list of centres included in the *Servei Català de la Salut* (SCS); *Institut Català de la Salut* (ICS) and *Xarxa Hospitalaria d'Utilització Pública* (XHUP).

An online questionnaire was dispatched, collecting individual and collective information (all hospitals were contacted.). Two surveys were carried out (Table 1), one individual and one to those responsible for each service. Each head of unit sent another electronic mail to all the rheumatologists on their team. The email was sent on 3 occasions.

Information was obtained about the number of inhabitants from the different health regions by means of the IDESCAT (statistical yearbook of Catalonia): the resident population in Catalonia from January 1st 2017 was 7,496,276 inhabitants.

Qualitative variables were expressed as absolute value and percentage. Quantitative variables were expressed as mean and standard deviation (SD) if they were normal, and median and interquartile range if they were not.

Given that the work was descriptive it was not considered necessary to go through the research/ethics committee and the professionals accepted participation in the study on completing the questionnaire.

Results

Through hospital lists and answers obtained during the study period it was estimated that 141 rheumatologists had been contracted in the public hospitals of Catalonia, with which we obtained an estimated 69.5% participation rate.

Individual results

Information was obtained from 109 rheumatologists (39 men/70 women) who practised in 34 hospitals. Mean age was 47 ± 9 years. Distribution by ages was: 8 (7.3%) under 35 years of age, 70 (64.2%) between 36 and 54 years of age and 31 (28.4%) over 54 years of age. The specialist title was obtained in 101 cases (92.7%) through the medical resident route and in 8 (6.4%) through other routes, with the oldest ones being 54 years of age.

In 68 cases (62.4%) rheumatology practice was developed in the hospital environment, 2 (1.8%) practised in primary care and 39 (35.8%) in both. Ninety six (88.1%) physicians were employed full-time (more than 30 h/week) and 13 (11.9%) worked part-time. Fifty four (49.5%) practised in both public and private sectors simultaneously.

Care took up 75.2% of the working day, research 9.2% and teaching 8.3%; 5.5% was dedicated to other functions.

Areas of interest were: rheumatoid arthritis (84%), spondyloarthritis (70%), bone metabolism (52%), systemic diseases (48%), ultrasound (46%), and arthritis by microcrystals (37%), osteoarticular infection (14%), paediatric rheumatology (12%) and fibromyalgia (10%).

Ninety three rheumatologists (85, 3%) considered they did not receive an appropriate salary. Half of them had needed to request unemployment benefit at some time.

Thirty one rheumatologists (28.4%) were linked to the university but they did not all practise as associate or permanent lecturers.

Results by centres

In ten of the 34 (30%) hospitals where there was at least one rheumatologist available the rheumatology departments were independent. In the remaining 24 (70.6%), the units depended on another service: 19 (79.1%) on internal medicine and 5 (20.8%) on orthopaedic surgery and trauma. Eight hospitals (2.5%) were accredited to train rheumatology resident physicians through the medical residency system. In over 80% of the centres other specialities were taught.

Regarding the complementary examination services, 29 (85%) had their own ultrasound machine, 20 (60%) capillaroscope and 22 (65%) polarised light microscope. In 16 of the units (53%) there was a rheumatology nurse. Eight centres (24%) were able to hospitalise patients; 32 units (94%) had a day hospital for intravenous treatments.

Monographic consultations were carried out: ultrasound (41%), psoriatic arthritis (38%) and fibromyalgia (29%), onset arthritis (21%), bone metabolism (21%), systemic diseases (21%), uveitis (21%), paediatric rheumatology (17%) and spondyloarthritis (17%).

In 29 hospitals (85.3%) it was possible to consult the primary care area of referral (online or over the phone); in 15 (44.1%) consultations were face-to-face and in 5 (14.7%) there was no possibility of direct contact, referrals were just received.

During the 2 years prior to the survey in 25 centres (73.5%) a clinical trial had been performed sponsored by the industry.

Regarding territorial distribution, 82 (75.2%) doctors practised in the province of Barcelona, 12 (11.0%) in Tarragona, 10 (9.2%) in Girona and 5 (4.6%) in Lleida. One rheumatologist practised in 2 provinces simultaneously.

The number of inhabitants per rheumatologist distributed by provinces was 47,896 in Barcelona, 79,018 in Tarragona, 85,442 in Lleida and 67,392 in Girona. It was of note that most rheumatologists are concentrated in large cities. In 6 hospitals in Catalonia

Table 1
Individual survey and heads of services.

<p>Individual responses</p> <ul style="list-style-type: none"> - Name - Date of birth - Speciality via medical residence system: Yes/No - Year qualification received - Since obtaining your qualification have you received unemployment benefit? Never/for under 6 months/between 6 months and one year/for over one year - Areas of interest (multiple response: paediatric rheumatology, fibromyalgia, bone metabolism, systemic diseases, rheumatoid arthritis, spondyloarthritis, arthritis by micro crystals, ultrasound, osteoarticular infection, others) - Do you think your salary is appropriate for the job you do? Yes/No - Do you give classes at the university? Yes/No. Indicate class and university - Do you practice rheumatology in a private consultation?: Yes/No - Type of contract: head of service, assistant physician with full-time contract, temporary assistant physician, occasional assistant physician, trainee collaborating physician, others - Where do you work? : hospital, primary care centre, research centre, others - Weekly contracted hours - Percentages of dedication: care/research/teaching/others <p>Responses from head of service/section</p> <ul style="list-style-type: none"> - Name of the centre - Number of rheumatologists /collaborators who work in this centre - How many positions have you filled in the last 5 years? - Is the rheumatology unit an independent service? If not, what service does it depend on? - is it an accredited centre for training rheumatology residences? And of other specialities? - Does it have? <ul style="list-style-type: none"> • Specialist nurse • Its own ultrasound machine • Capillaroscope • Polarised microscope • its own hospital floor • Polyvalent day hospital - What is the relationship with primary care? Face-to-face consultations; virtual consultations; no relationship (only inter-consultations) - Type of monographic consultations: uveitis, paediatric rheumatology, bone metabolism, onset arthritis, fibromyalgia, psoriatic arthritis, spondyloarthritis, ultrasounds, systemic, others - Have they conducted studies subsidized by the pharmaceutical industry in the last 2 years? - Do they do any type of research?: Yes/No; basic, cross-sectional, clinical

Table 2
Hospitals in Catalonia without a rheumatologist.

<p>Región Sanitaria Alt Pirineu/Arán Hospital Comarcal del Pallars Espitau Val D'aran Regió Sanitaria de Girona Hospital de Campdevànol Hospital Comarcal de Blanes Regió Sanitaria de Barcelona Fundació Hospital Comarcal Sant Antoni Abat Centre Hospitalari (Bages/Manresa)</p>

there was no rheumatologist and these were all provincial hospitals (Table 2).

Discussion

There is an increasing number of rheumatologists in Catalonia, amounting to 8.5% compared with a study conducted 6 years previously.⁵ It is of note that the growth curve is slower than in other studies: 40% (1997–2005) and 20% (1990–1997).^{3,4}

A progressive increase in the number of female rheumatologists was observed, a trend which had already been previously observed.⁵ There may be a selection bias due to lower participation of male rheumatologists in this study but we are unaware of the reason. Retirements were not recorded.

Regarding age, this progressively increased but stabilised in the last 5 years, staying at 47 years of age, equal to the study from the year 2012. Participation in the survey of those less than 35 years of age was low, probably due to them not having been contracted by a hospital.

In Canada^{6,7} similar surveys were conducted, obtaining 68% of responses, a similar percentage to this study. Mean age was 50, and 70% were working full-time in care. These data are similar to the present study.

It has been predicted that there will be a lack of rheumatologists in upcoming years, based on assessment of supply and demand. In the U.S.A. a series of factors have been identified which may impact the lack of rheumatologists: the growing number of rheumatologists who will retire; the increasingly number of females into the specialty and the fact that younger rheumatologists are contracted part-time.⁸

At present the only route available for obtaining the qualification as a specialist in rheumatology is through the medical residency system. In the next few years rheumatologists who were trained through other systems will retire, and it is predicted that in the next survey 100% of rheumatologists will be trained through the medical residency system.

In 2017 there were 56 medical residency places in rheumatology in the whole of Spain, 2 more than in 2012. In Catalonia there were 10 places, all of them in the province of Barcelona, which was the same number as the previous study.⁵

Private practice rheumatology was mainly exercised in Catalonia and Madrid.⁹ Fifty per cent of the rheumatologists who participated in our survey combined their profession in the public and the private healthcare systems. Those who only worked for the private sector were excluded. his data coincided with that published by the private practice commission of the SER,¹⁰ where it was estimated that 52% of Catalan rheumatologists worked in private rheumatology, and also with the data published by Alegre C¹¹ where 42% was obtained.

Like in other years, the activity focused on the province of Barcelona, most in Lleida, Tarragona and Girona (slight improvement). There were 6 hospitals without a rheumatologist, in 2012 there were 10 hospitals without this speciality.

The limitations of this study are inherent to the lack of a complete census of rheumatologists in Catalonia, to the presence of new questions which did not exist in previous studies and the inability to differentiate between types of hospitals/reference

area. The number of responses was poor, thereby debilitating the study.

Recently EULAR published an article¹² with the key points to be considered in the future for this type of survey. It was suggested that the balance between new rheumatologists compared with retired ones be considered, in addition to the type of rheumatic disease, the time used for the visits and the balance between supply and demand.

To conclude, the number of rheumatologists has increased, but only slightly in recent years. Mean age has advanced and rheumatologists are mainly women. A great number of rheumatology services depend on other services. In Catalonia the practice of rheumatology is centred in Barcelona. There are 6 hospitals without a rheumatologist.

Financing

Doctors Dolors Grados Canovas and Melania Martínez-Morillo received an internal grant in June in 2016 from the Societat Catalana de Reumatologia (Spain) of 6,000 Euros in total, for creation of this document.

Acknowledgements

We would like to thank all the participating rheumatologists for their collaboration, and also the Sociedad Catalana de Reumatología for conceding a grant to undertake the study.

References

1. YikLim S, Bolster MB. Challenges in optimizing medical education for rheumatologists. *Rheum Dis Clin North Am*. 2019;45:127–44.
2. Nolla JM. Estado de la reumatología asistencial en Cataluña. *Rev Esp Reumatol*. 1990;17:144–6.
3. Nolla JM, Gómez Vaquero C. Estado de la asistencia reumatológica en el sector sanitario público de Cataluña. *Rev Esp Reumatol*. 1997;24:298–301.
4. Ortiz-Santamaría V, Olivé A. Estado de la asistencia reumatológica en el sector sanitario público de Cataluña. *Reumatol Clin*. 2005;1:211–7.
5. Grados D, Olivé A, Marsal S. Asistencia reumatológica en el sector sanitario público de Cataluña: año 2012. *Reumatol Clin*. 2014;10:85–8.
6. Barber CE, Jewett L, Badley EM, Lacaille D. Stand up and be counted: measuring and mapping the rheumatology workforce in Canada. *J Rheumatol*. 2017;44:248–57.
7. Battafarano DF, Ditmyer M, Bolster MB, Fitzgerald JD, Deal C, Bass AR, et al. 2015 American College of Rheumatology Workforce Study: supply and demand projections of adult rheumatology workforce, 2015–2030. *Arthritis Care Res*. 2018;70:617–26.
8. Kílian A, Upton LA, Battafarano DF, Monrad SU. Workforce trends in rheumatology. *Rheum Dis Clin North Am*. 2019;45:13–26.
9. Lázaro y de Mercado P, Blasco Bravo AJ, Lázaro y de Mercado I, Castañeda S, López Robledillo JC. La Reumatología en la comunidad de Madrid: disponibilidad actual de reumatólogos y necesidades futuras aplicando un modelo predictivo. *Reumatol Clin*. 2013;9:353–8.
10. Yoldi Muñoz B, Gómez Centeno A, Moreno Muelas JV. Estado de la reumatología privada en España. *Reumatol Clin*. 2017;13:313–7.
11. Alegre C. Private rheumatology in Catalonia, Spain. *Reumatol Clin*. 2019;15:170–2.
12. DeJaco C, Putrik P, Unger J, Aletaha D, Bianchi G, Bilsmaa JW, et al. 2018EULAR' points to consider' for the conduction of workforce requirement studies in rheumatology. *RMD Open*. 2018;4:e000780.