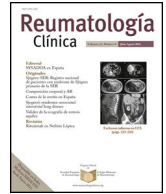




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Original Article

Delphi consensus on the use of telemedicine in rheumatology: RESULTAR study



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ABSTRACT

Background and objectives: There is growing interest in the potential of telemedicine (TM) as an alternative to physical consultation. Although numerous studies prove the benefits of TM in rheumatology, there are no recommendations on its implementation in Spain. The aim of this study was to analyze the application of TM in rheumatology consultations in Spain.

Materials and methods: Qualitative, cross-sectional, multicenter study with Delphi methodology in two rounds of queries. A structured ad hoc questionnaire was designed that included statements on teleconsultation, nursing teleconsultation, telecare, telerehabilitation, teleradiology, telehealth tele-education, main barriers, advantages and disadvantages of telehealth tele-education and TM in rheumatoid arthritis. The participants were rheumatology specialists practicing in Spain.

Results: The participating rheumatologists ($N=80$) had a mean age of 42.4 (± 9.0) years, with 12.6 (± 8.4) years of experience. Some of the aspects of TM that obtained the greatest consensus were: TM is useful for follow-up of some patients, to help determine if a face-to-face consultation is necessary, or to assist patients with rheumatoid arthritis if they present low activity or in remission; certain patients, such as those in their first consultation or those who present digital barriers or cognitive deterioration, should be seen face-to-face; TM presents some technical and patient access barriers; TM can be useful in nursing and in continued medical education.

Conclusions: TM can be beneficial for the treatment and follow-up of patients with rheumatic diseases, as well as for alleviating the face-to-face care burden in rheumatology.

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Consenso Delphi sobre el uso de la telemedicina en reumatología: estudio RESULTAR

RESUMEN

Antecedentes y objetivos: Existe un interés creciente en el potencial de la telemedicina (TM) como un medio alternativo a la consulta física. Aunque numerosos estudios prueban los beneficios de la TM en reumatología, no existen recomendaciones sobre su implementación en España. El objetivo de este estudio fue analizar la aplicación de la TM en consultas de reumatología en España.

Materiales y métodos: Estudio cualitativo, transversal, multicéntrico con metodología Delphi en dos rondas de consultas. Se diseñó un cuestionario *ad hoc* estructurado que incluía enunciados sobre teleconsulta, teleconsulta de enfermería, teleasistencia, telerehabilitación, teleradiología, teleeducación sanitaria, principales barreras, ventajas e inconvenientes de la teleeducación sanitaria y TM en artritis reumatoide. Los participantes fueron especialistas en reumatología que ejercían su labor asistencial en España.

Palabras clave:

Telemedicina
Reumatología
Artritis reumatoide
Teleconsulta
Telerehabilitación
Enfermería

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Resultados: Los reumatólogos participantes (N=80) tenían una edad media de 42,4 ($\pm 9,0$) años, con 12,6 ($\pm 8,4$) años de experiencia. Algunos de los aspectos de la TM que obtuvieron un mayor consenso fueron: La TM es útil para el seguimiento de algunos pacientes, ayudar a determinar si es necesaria una consulta presencial, o asistir a pacientes con artritis reumatoide si presentan baja actividad o en remisión; ciertos pacientes, como aquellos en su primera consulta o aquellos que presentan barreras digitales o deterioro cognitivo, deben ser atendidos presencialmente; la TM presenta algunas barreras técnicas y de acceso de los pacientes; la TM puede ser útil en enfermería y en la formación médica continuada.

Conclusiones: La TM puede ser beneficiosa para el tratamiento y seguimiento de los pacientes con enfermedades reumáticas, así como para aliviar la carga asistencial presencial en reumatología.

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Introduction

Telemedicine (TM) witnessed a tremendous surge in the field of rheumatology during the COVID-19 pandemic, driven by the need to care for patients safely, as has been evidenced by a number of studies around the world.^{1–4} TM facilitated both patient care and clinician–clinician relationships, administrative activities, as well as healthcare training/ education.⁵ TM can significantly reduce both the time and transportation-related costs and is now considered a strategic factor in improving health care in both rural and urban settings.⁶ TM currently includes aspects as diverse as electronic medical records, remote visits, mobile health, portable technology, digital therapeutics, and artificial intelligence applied to medicine.⁵ Nevertheless, the World Health Organisation recommends that studies be carried out to determine the benefits, harms, acceptability, feasibility, resource use, and considerations regarding equality as they pertain to TM.^{5,7}

The application of TM to rheumatology has been the focus of many studies in the last decade, and is presently an area that is of great interest and development.^{8,9} Systematic reviews, including those prior to the pandemic, have demonstrated that TM can be effective in managing inflammatory rheumatic diseases, in addition to being cost-effective.^{2,10,11} The vast majority of patients are extremely satisfied with TM.^{12,13} One study revealed that, during the pandemic, those patients who lived furthest away from the rheumatologist's clinic were the ones who were most likely to use TM.¹ Another study has revealed that there are no significant differences in health status between patients with rheumatic illnesses who used TM and those who were seen at hospital visits, which suggests that TM has obvious advantages in the follow-up of these individuals.³ TM can be applied to the management of people suffering from rheumatoid arthritis (RA), who often find it difficult to access specialist care when they are experiencing a flare up, as well as to tailoring treatments to the stage of the disease so as to bring about remission.¹⁴

Despite the abundance of studies, the real evidence of the benefits or harm that TM may cause is scarce, and we do not know its impact on healthcare in rheumatology. In Spain, there have been few studies evaluating the use of TM in rheumatology, and they were mainly focused on the effects of the COVID-19^{15,16} pandemic and on primary care.^{17,18} The existence of many and varied applications of TM and its great potential for future development make it advisable to evaluate its development and current use in the clinical practice of rheumatology in our country. For all these reasons, this study aims to analyse the use of TM in rheumatology consultations and to evaluate proposals for its implementation by a large group of specialists in the Spanish clinical practice setting.

Materials and methods

This qualitative, multi-centre study relied on the Delphi methodology to arrive at a consensus of Recommendations for

the Use of Telemedicine in Rheumatology (RESULT, its acronym in Spanish). The Delphi method was chosen as the formal approach to consensus, as it maximises the advantages of expert group-based methods and minimises their disadvantages.¹⁹ The Delphi method was applied in two rounds of nationwide consultations. The first round took place in May–June 2022 and the second one in October–November 2022. Three specialists in rheumatology, who acted as scientific coordinators of the study, were in charge of the development of the study protocol (NOR NUL-2021-01) and the questionnaire. In addition, the R + D department of the Saned Group and an expert statistician participated in the study. To conduct this study, a search was carried out in PubMed for recent articles on TM applied to rheumatology (search terms: *telemedicine rheumatoid arthritis, telemedicine rheumatology, telehealth rheumatology, remote consultation rheumatology, telerheumatology, virtual rheumatology*).

Similarly, an invitation leaflet was sent to specialist rheumatologists at medical centres in Spain included in the Saned database (N=561), informing them of the nature of the study, as well as the URL where the study was hosted and the password required to access it. On accessing the questionnaire, they were asked for their consent to participate. Those who were not involved in healthcare activities and those who did not treat patients with rheumatic disorders were excluded.

The final questionnaire consisted of 80 items (Supplementary information, Appendix A Table S1) and was divided into nine sections: teleconsultation, diagnosis, treatment, and follow-up (8 items); nursing teleconsultation (2 items); telecare (1 item); telerhabilitation (2 items); teleradiology (1 item); physician and patient telehealth tele-education (1 item); the major barriers to TM (4 items); tele- of telehealth education (8 items), and TM in RA (2 items). Sociodemographic data relating to all participants were likewise collected.

Once admitted and registered for the study, the researchers completed the questionnaire and their responses were automatically entered into a standardised and secure database. Participants were asked to rate their degree of agreement or disagreement with the questionnaire statements on a 5-point Likert scale (“1 = totally disagree,” “2 = strongly disagree,” “3 = indifferent,” “4 = strongly agree,” and “5 = totally agree”). No free-text fields were included in the questionnaire.

The Delphi consultation was conducted in two rounds.¹⁹ All statements were evaluated by the participants in the initial round of the Delphi consultation. In the second round, only those questions were included for which no consensus had been reached in the first round, together with the results of the first round for those questions. To evaluate the various items in the questionnaire as to the degree of agreement, the score was aggregated as follows:

- Scores of between 1 and 2: disagree,
- A score of 3: indifferent,
- Scores of between 4 and 5: agree.

Table 1
Participants' sociodemographic characteristics.

Variable	Participants (N=80)
Age (years), mean \pm SD	42.4 \pm 9.0
Years of professional practice, mean \pm SD	12.6 \pm 8.4
Participation in TM training programmes, n (%)	14 (17.5)
Medical societies to which they belong, n (%)	
Spanish Society of Rheumatology	79 (98.8)
European Alliance of Associations for Rheumatology	15 (18.8)
Spanish Society of Paediatric Rheumatology	4 (5.0)
American College of Rheumatology	3 (3.8)
Others	46 (57.5)
None	1 (1.3)
Use of Internet at work, n (%)	
<10 times per day	27 (33.8)
10–25 times per day	29 (36.3)
25–50 times per day	16 (20.0)
>50 times per day	8 (10.0)
Consider Internet to be a useful source of information, n (%)	
Not very useful	1 (1.3)
Quite useful	22 (27.5)
Very useful	57 (71.3)
Type of healthcare centre	
Public	78 (97.5)
Private	19 (23.8)
Mixed	1 (1.3)
Rheumatologists working in the service, mean \pm SD	7.6 \pm 4.7
Environment where the healthcare centre is located	
Semi-rural (5000–15,000 inhabitants)	1 (1.3)
Urban (>15,000 inhabitants)	79 (98.8)
Number of patients seen in the past week, n (%)	
25–75	23 (28.8)
76–150	50 (62.5)
>150	7 (8.8)
Availability of own nurses, n (%)	50 (62.5)

SD: Standard deviation; TM: Telemedicine.

Consensus was assumed to have been reached when at least 75% of the panellists agreed (scores of 4–5) or disagreed (scores of 1–2) with the given statement. For those statements that generated consensus in the first round, the results reflect the results obtained in that round; for statements that failed to achieve consensus in the first round, the results of the second round are given.

Statistical analysis

Given that this was a qualitative study, the number of researchers selected was not established on the basis of probabilistic error.²⁰ A descriptive analysis of the data pertaining to the researcher and the centre was performed by generating frequency tables for the nominal variables and measures of central tendency and dispersion for the continuous variables. All the statistical analyses of the study were performed with the SAS statistical package version 9.1.3 Service pack 3.

Results

Characteristics of the participating rheumatologists

Eighty rheumatologists who practised all over Spain, with the exception of the Principality of Asturias and the Valencian Community, participated in this study (Supplementary information, Appendix A Figure S1). Andalusia (18% of the respondents), Catalonia (18%), and Madrid (14%) accounted for the majority of the participating physicians. Table 1 displays the socio-demographic characteristics of the rheumatologists who took part in the survey. Sixty-two and a half per cent (62.5%) were female and the mean age was 42 years, with a mean experience in rheumatology of 12.6 years. A total of 97.5% of the respondents worked at public cen-

tres located in cities having a population of >15,000 inhabitants, and with a mean of eight rheumatologists in their department. Of the participants, 62.5% indicated that they saw between 76 and 150 patients per week. A total of 62.5% of the centres where the participants worked had their own nursing staff. Ninety-nine per cent (99%) reported that they belonged to the Spanish Society of Rheumatology (SER, its acronym in Spanish). Eighteen per cent (18%) of the panellists had attended a TM training programme in the preceding year. Thirty-six per cent (36%) of the people who took part stated that they consulted the Internet between 10 and 25 times a day, but 34% did so <10 times a day. The vast majority (71%) felt that the Internet was a highly useful source of information.

Teleconsultation: diagnosis, treatment, and follow up

Out of 23 questions related to the role of teleconsultation for patient diagnosis, treatment, and follow up, consensus was reached on 17 items after both rounds of the Delphi consultation (Fig. 1). A high degree of general agreement was found in the sense that teleconsultation is valuable to follow up some patients, to resolve many care queries (especially bureaucratic ones), and to determine whether or not a face-to-face consultation is necessary. Despite the fact that most felt that teleconsultation should last at least as long as face-to-face consultation, there was no consensus on this point.

Consensus was achieved with respect to the fact that the consultation should be face-to-face when it is the first appointment with a patient, in all patients presenting with active inflammation, or if the patient has digital barriers, cognitive impairment, or sensory difficulties. Likewise, there was agreement that the visits at which results were being given to the patients, such appointments would not necessarily have to be face-to-face, but could be carried out by teleconsultation. No agreement was reached as to whether patients with inflammatory pathology in remission, osteoporosis, with mechanical-vegetative pain, or with mobility difficulties would require a face-to-face visit.

While most of the panellists (73%) believed that digital tools made it possible for doctors to interact with their patients beyond the appointment itself and provided added value, there was no consensus on this point. In contrast, there was a consensus that these tools are suitable for use with questionnaires or quality-of-life surveys.

Consensus was achieved in that TM can be helpful in communication at all health-care levels: between rheumatologists or between the rheumatologist and their patients, guardians, primary care, the laboratory, or other specialists. It can also be of use between nursing staff and patients.

Teleconsultation in nursing, tele-healthcare, telerehabilitation, and teleradiology

The use of teleconsultation in nursing was explored in eight questions (Fig. 2). A consensus was reached that nursing staff could conduct teleconsultations and that such consultations could enhance treatment compliance, facilitate health education, expedite the detection of side effects, clear up any questions promptly, lighten the physician's workload, bolster confidence, and also carry out drug monitoring functions. In addition, there was a consensus in that chronic patients will be contacted by telephone or video-call whenever. In the case of rehabilitation, no consensus was reached on the usefulness of conducting rehabilitation sessions via video-call platforms. Consensus was also found on sending radiological images telematically when they need to be reviewed at a specialised diagnostic imaging centre.

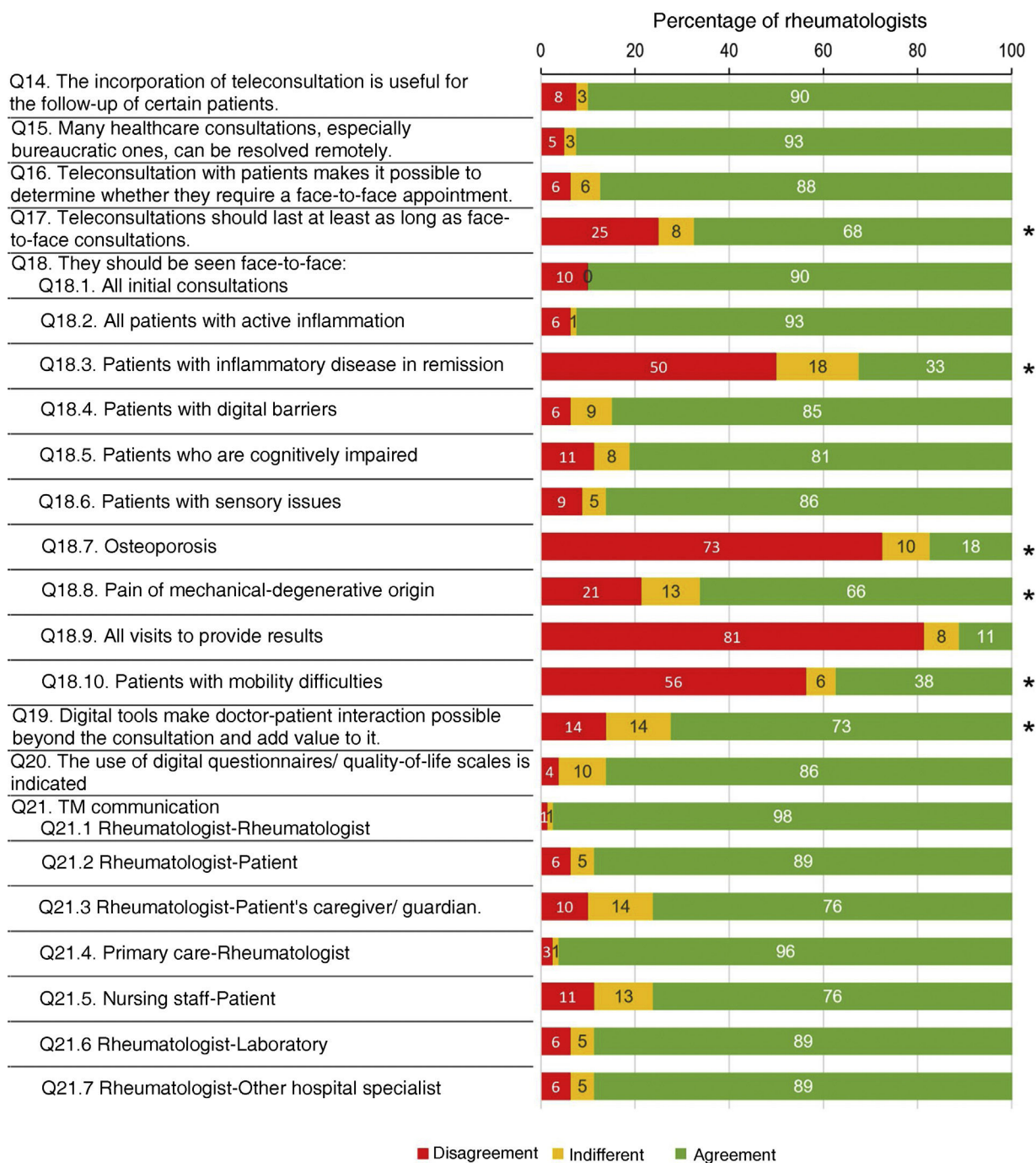


Figure 1. Teleconsultation: diagnosis, treatment, and follow-up. Results after the second round of the Delphi method. The percentage of responses for which there was disagreement (scores 1 or 2 on the Likert scale) is indicated in red; the percentage of indifferent responses (score 3), in yellow, and those for which there was agreement (scores 4 or 5), in green. The asterisk indicates those questions for which there was no consensus (<75% agreement or disagreement) after the second round. TM: telemedicine.

Physician and patient telehealth education, main barriers to TM, tele- of telehealth education

The third section of questions had to do with physician and patient telehealth education, as well as the barriers to TM (Fig. 3).

The participants agreed that attending educational webinars is advisable if the sponsor is a recognised physician, a hospital or hospital service, or a medical society. Nevertheless, they were largely indifferent if the sponsor was a non-medical society, and no consensus was expressed if the sponsor was the pharmaceutical industry.

With regard to the main barriers that hinder the development of TM, the panelists agreed that new computer hardware will have to

be purchased, and that data security systems will have to be put in place. There was also consensus that low bandwidth Internet connections could hinder the use of some of the technologies, and that certain technologies may not be universally applicable as patients may lack the necessary technical understanding.

There was no consensus around the issue of replacing pre-pandemic face-to-face meetings with videoconferencing to save time and money, although a majority disagreed. Likewise, there was no consensus on whether the healthcare professional's reputation in digital media was essential to maintain the trust of patients and colleagues.

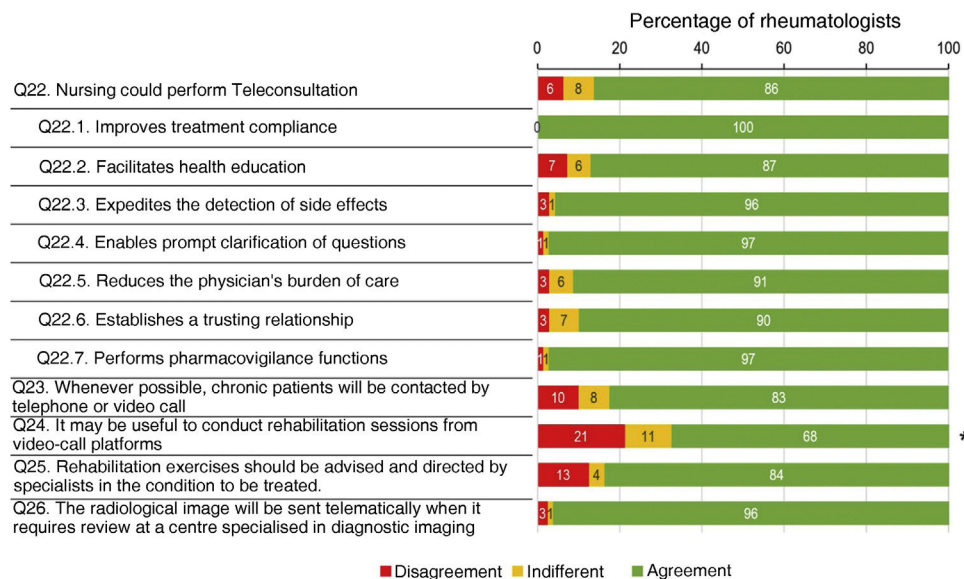


Figure 2. Teleconsultation in nursing, telecare, telerehabilitation, and teleradiology. Results after the second round of the Delphi method. The percentage of responses for which there was disagreement (scores 1 or 2 on the Likert scale) is indicated in red; the percentage of indifferent responses (score 3), in yellow, and those for which there was agreement (scores 4 or 5), in green. The asterisk indicates those questions for which there was no consensus (<75% agreement or disagreement) after the second round.

A large majority considered it advisable to have a strategy concerning the objectives and the messages to be conveyed on digital platforms. Consensus was reached concerning the use of digital tools in continuing medical education, the search for treatment information, contact with other specialists, and the calculation of doses or dosing schedules. In contrast, no consensus was attained regarding the need to use these tools for contact with patients. There was also no consensus as to whether TM improves the quality of the service provided, establishing closer and more personalised communication, or that it promotes healthcare irrespective of the resources available. On the other hand, a consensus was reached concerning TM eliminating geographic barriers.

TM in rheumatoid arthritis

In the last section of questions, the use of TM in individuals with RA was explored (Fig. 4). There was consensus that some RA patients could benefit from TM consultations, and that the patient should be given this option, although they should be able to choose to attend in person. There was also agreement that remote check-ups are suitable for individuals with RA experiencing a low level of active disease or remission; that face-to-face and virtual check-ups should be alternated; that the patient should be given an information sheet about this option, and that a prompt consultation should be guaranteed if necessary. Equally, an agreement was reached in that TM enables rheumatologists to have contact with other specialists and that, in this case, it makes it possible to calculate doses or dosage guidelines.

There was agreement that patient training in the *Rheumatoid Arthritis Impact Disease (RAID)* and *Routine Assessment Patient Index Data 3 (RAPID3)* questionnaires is necessary, and also that these are insufficient for a remote check-up. In contrast, no consensus was achieved regarding whether patients must be trained in self-examination of the number of painful joints or the number of swollen joints. All agreed that patients' electronic medical records (therapies and analyses) should be available in the TM consultation.

The participants were in agreement that the patient should undergo an analysis prior to the teleconsultation, and that a system by which to identify the patient is required. In this sense, there was consensus that video-consultation is capable of identifying the

patient, although there was no consensus that it should be able to interpret body language.

The panelists also attained consensus on the convenience of a digital platform for patient reported outcomes (PROs).

Discussion

The aim of the two-round Delphi consultation described in this paper was to explore the application of TM in rheumatology practices, as well as to evaluate and agree on recommendations for its use and development. Overall, this Delphi consultation revealed that rheumatologists believe that the incorporation of TM could be useful in many aspects of patient diagnosis, treatment, and follow-up, as well as to stimulate communication between specialists, nursing staff, and continuing medical education (Table 2), although there are clear impediments to implementing it in Spain.

Rheumatologists reached a high degree of consensus concerning the value of using TM in the follow-up of certain patients. Many healthcare consultations can be resolved remotely, in particular the bureaucratic ones. They also achieved a consensus that first appointments and those of individuals with active inflammation, digital barriers, sensory difficulties, or cognitive impairment could be attended to in person. In this respect, a Canadian study has found that, indeed, difficulty in using a telephone, the need for another person to be present to assist them, or new appointments (versus routine follow-up), were the main issues identified by patients with regard to teleconsultations.¹³ Another study has indicated that older age and lack of internet access, poor health, and lack of digital literacy decrease trust in and satisfaction with TM.²¹ In our study, 88% of rheumatologists believed that whether or not a patient requires a face-to-face consultation could be determined by means of teleconsultation. Other studies have suggested implementing a triage system to decide which type of consultation is the most appropriate for each patient.²¹

Numerous studies have demonstrated the effectiveness of nursing TM when treating rheumatic diseases.^{22–25} On the whole, the rheumatologists consulted in our study were positive about the potential teleconsultation has in nursing. All participants were of the opinion that teleconsultation improves treatment compliance.

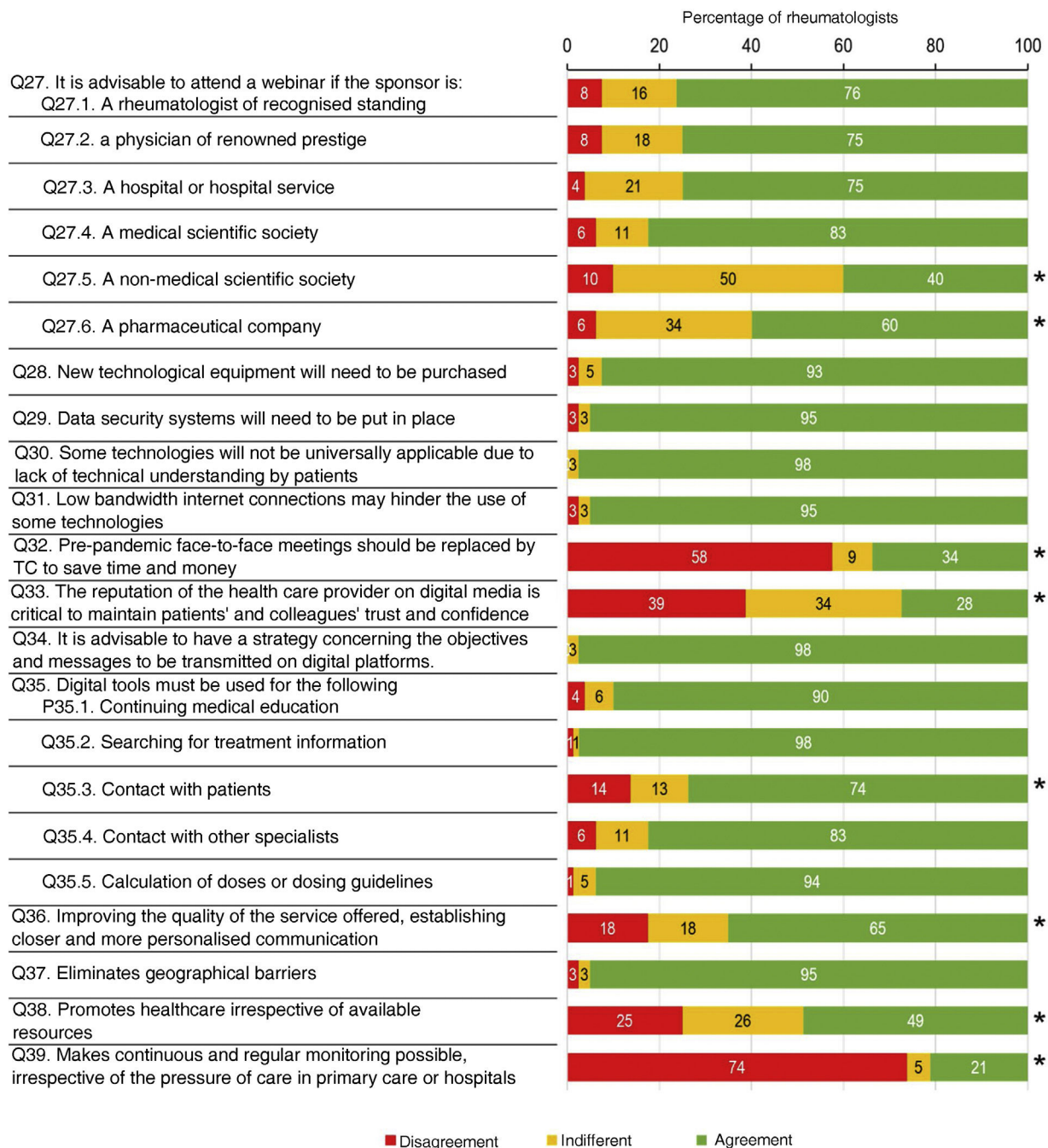


Figure 3. Physician and patient telehealth education, main barriers to telemedicine, advantages and disadvantages of telehealth tele-education. Results after the second round of the Delphi method. The percentage of responses for which there was disagreement (scores 1 or 2 on the Likert scale) is indicated in red; the percentage of indifferent responses (score 3), in yellow, and those for which there was agreement (scores 4 or 5), in green. The asterisk indicates those questions for which there was no consensus (<75% agreement or disagreement) after the second round. TC teleconference.

This was corroborated by a recent study among rheumatologists in France, which revealed that the use of TM increased adherence.²⁶

While the majority of rheumatologists considered that video-call platforms may be beneficial for rehabilitation, no consensus was reached in this regard. Nevertheless, one study found that, in patients with mild to moderate osteoarthritis of the knee, telerehabilitation via video call was superior to self-treatment.²⁷ A review of studies that have addressed the effectiveness of telerehabilitation supports these results.²⁸

The Delphi consultation showed that rheumatologists view TM education positively for continuing medical education, searching

for up-to-date information, or for being in contact with other specialists. Several previous studies have corroborated the utility of TM in medical education, and these results further endorse the integration of digital competencies in medical education, as well as practical training for healthcare professionals. A study carried out in Germany showed that professionals' knowledge about TM and the actual use of TM correlate closely, highlighting that TM education must address the multidimensionality of the barriers that still exist to its implementation.²⁹ Some of these obstacles were identified in the Delphi study, such as data security, technical problems, the need to purchase new technological equipment, and connectivity issues. The existence of these barriers was noted with broad

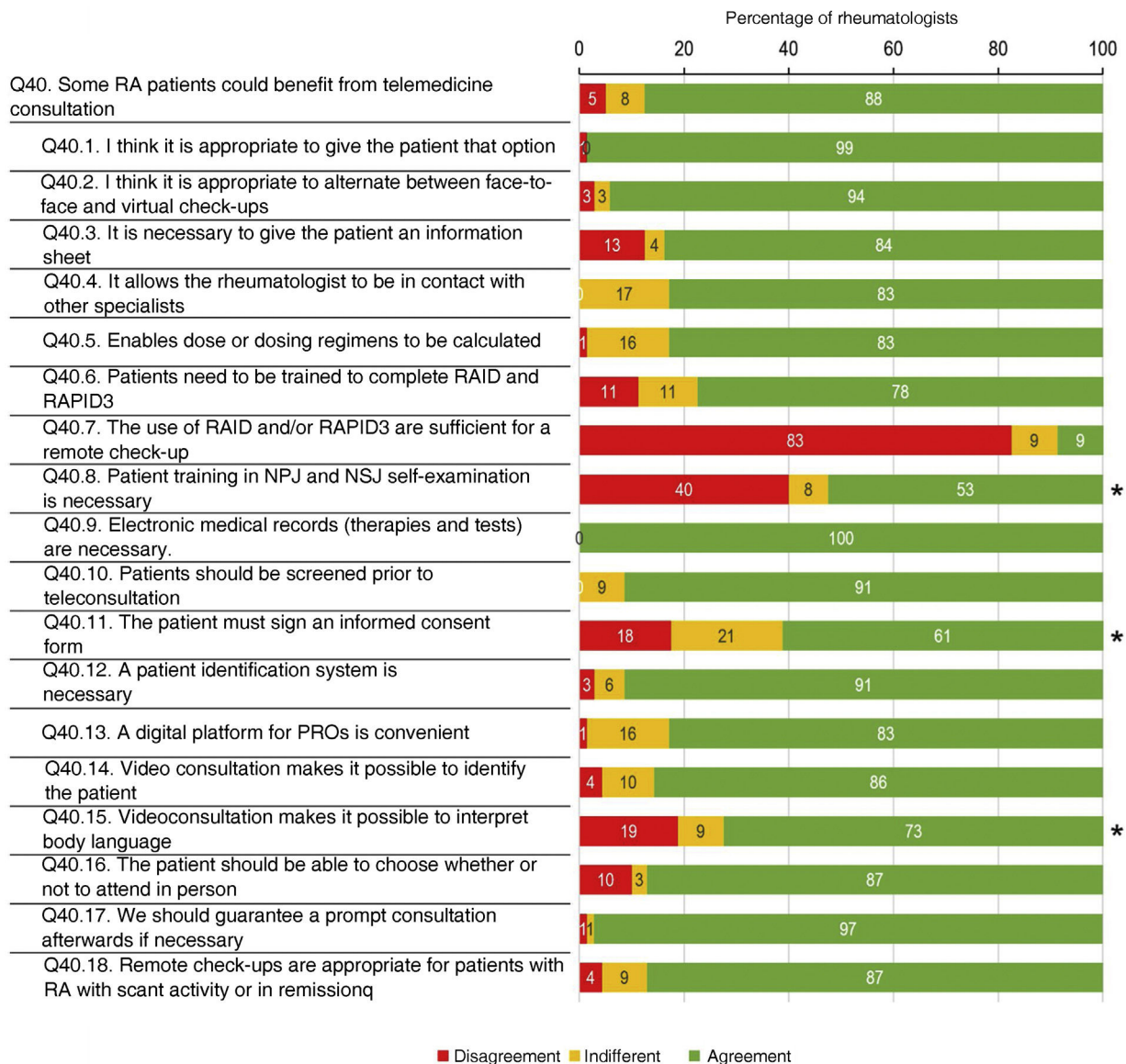


Figure 4. Telemedicine in rheumatoid arthritis. Results after the second round of the Delphi method. The percentage of responses for which there was disagreement (scores 1 or 2 on the Likert scale) is indicated in red; the percentage of indifferent responses (score 3), in yellow, and those for which there was agreement (scores 4 or 5), in green. The asterisk indicates those questions for which there was no consensus (<75% agreement or disagreement) after the second round. RA: rheumatoid arthritis; NPJ: number of painful joints; NSJ: number of swollen joints; PROs: patient reported outcomes; RAID: *Rheumatoid Arthritis Impact Disease*; RAPID3: *Routine Assessment Patient Index Data*.

consensus by the participants. In this sense, a recent study pointed out that some of the main limitations in the use of TM were specifically administrative/ technical, the lack of suitable equipment, or poor internet connection.³⁰

Data security is a challenge that has been highlighted in a number of previous studies.³¹ In our study, 95% of the respondents felt that data security systems for TM will need to be put into place. Further studies are needed concerning how factors such as data confidentiality and patient privacy issues might affect the development of TM.⁷

It is noteworthy that the rheumatologists were not in agreement as to whether TM increases the quality of the service, by establishing closer and more personalised communication, or that it promotes healthcare, regardless of resources or of the pressure of care. In this sense, a recent review has revealed that TM consultations are a significant risk factor that contribute to there being no changes in treatment, which fosters what is known as therapeutic inertia.²¹

In the RA section of the questionnaire, 88% of the panelists believe that TM could be beneficial for certain patients, and a large majority (99%) are of the opinion that this option should be offered, especially for patients with scant active disease or in remission. Future studies will have to determine more precisely which patients may benefit most from TM. Nonetheless, most respondents expressed the opinion that a patient identification system and a patient data platform must be included. No agreement was achieved regarding how to assess disease activity by self-examination. That being said, some recent studies have demonstrated that there is no statistically significant difference between RA patients receiving care via TM and those visiting the hospital.²¹ Importantly, one study found that the RA patients with the highest degree of disease activity were more likely to use TM.¹⁴ In fact, another study identified patient-reported RA flare ups as a red flag in teleconsultation, independently associated with treatment modification or the need for prompt face-to-face consultation.³²

Table 2
Benefits of TM in rheumatology and barriers to its implementation that reached consensus in this study.

Benefits	Barriers
Patient follow-up	Digital gap for some patients
Remote appointments, especially bureaucratic ones	Cognitive impairment or sensory issues in some patients
Determination of the need for face-to-face consultation	New equipment must be purchased
Use of quality-of-life scales	Requires data security systems to be implemented
Facilitates communication between rheumatologists and patients, between rheumatologists, and between rheumatologists and other specialists or the laboratory	Requires greater Internet bandwidth
Facilitates the work of nursing staff in education, detection of adverse effects, treatment compliance, drug surveillance, and decrease of burden of care	Need to have patient identification system available
Sending radiological images to specialised centres	
Attending webinars by physicians	
Help in calculating drug dosing and searching for treatment information	
Eliminates geographical barriers	

The importance of PROs in routine clinical follow-up is increasingly acknowledged. Over the past two decades, rheumatology practice has benefited from the widespread and increasing use of a wide range of PROs (e.g., measures of disease activity, functional status, mental health, and quality of life) to manage chronic rheumatic disease. In this study, most of the rheumatologists (83%) indicated that it would be beneficial to have a platform for PROs. In this regard, a systematic review has documented the effectiveness of TM for PRO communication, improving disease remission, functional impairment, and progression of radiographic joint damage.¹¹ Another recent review of the literature reported that most RA patients held a positive perception of the use of TM in PROs.²¹ It has also been suggested that electronic PROs could facilitate epidemiology research, which would contribute to the development of future therapies.³³

Ninety-one percent (91%) of the rheumatologists considered that RA patients should undergo pre-testing prior to teleconsultation. A similar idea was advanced by the British Rheumatology Society following the COVID-19 pandemic, launching an online PRO questionnaire platform that proved effective in collecting important data prior to (rather than during) the teleconsultation, which contributes to the teleconsultation itself, as well as saving time.³⁴

This Delphi study has some limitations that need to be taken into account in order to properly interpret the results. The sample of rheumatologists selected may not be fully representative of the medical population being studied. Still, all the panelists treated patients with rheumatic conditions (>10 years of experience), and almost all were members of one or more medical societies. Moreover, the results should be interpreted considering the observational and exploratory nature of all questionnaires, reflecting the participants' subjective perceptions. Another possible limitation was the use of a structured questionnaire without free-text fields that could elicit qualitative insights from the participants. To this end, all of the wording was intended to be clear and not open to interpretation. Finally, it is possible that the recent experience from the COVID-19 pandemic may have affected the respondents' opinions and may not be a reflection of their opinion of TM in another situation.

In Spain, recent studies have evaluated TM for the treatment and management of type 1 diabetes,³⁵ inflammatory bowel disease,³⁶ lymphoma,³⁷ haematological disorders,³⁸ headache,³⁹ and infectious diseases,⁴⁰ among many others. However, more research is

needed in the field of rheumatology to better understand the effectiveness of different TM interventions in the treatment of RA and other rheumatic diseases.^{15–18} Furthermore, studies are needed to identify the most promising TM interventions for patients with rheumatoid arthritis and other rheumatic diseases. Recently, the European Alliance of Associations for Rheumatology (EULAR) published a manifesto containing four principles to be considered when implementing TM in the field of rheumatology:⁴¹ 1, The use of TM should be tailored to the patient's needs and preferences; 2, The healthcare team should have the appropriate equipment and training and be skilled in telecommunication; 3, TM can be used for screening for rheumatic and musculoskeletal diseases as a pre-assessment in the referral process, for disease management and medication dose regulation, and in some non-pharmacological interventions, and 4, people with rheumatic and musculoskeletal diseases should be offered training in the use of telehealth and barriers should be resolved whenever possible. The Delphi study reported here addresses all these points in an attempt to reach a consensus on recommendations to improve TM in Spain. In conclusion, we believe that TM can be a valuable tool for monitoring patients with rheumatic diseases, as well as alleviating the burden of face-to-face care in rheumatology. Likewise, we regard it as necessary for scientific societies and healthcare providers to coordinate initiatives and interests through working groups on telematic medicine to design secure interactive platforms with the content and solutions to the problems discussed in this article.

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Conflict of interests

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The authors' contribution has consisted of:

- 1 Participating in the conception/conceptualisation and design of this study, or data acquisition, or analysis and interpretation of the data.
- 2 Participating in the draft of this article or the critical review of its intellectual content.
- 3 Final approval of the submitted version.

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Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.reuma.2024.01.005>.

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