Evolving the comprehensive management of rheumatoid arthritis: identification of unmet needs and development of practical and educational tools

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Abstract

Objective

Despite availability of efficacious treatments, unmet needs still exist, preventing optimal and comprehensive management of rheumatoid arthritis (RA). Evolving the management of RA (eRA) is a European-wide educational initiative aiming to support improved patient care through practical and educational tools addressing specific unmet needs.

Methods

A multidisciplinary Steering Committee (17 members, 12 countries) identified unmet needs within the management of RA and prioritised those with the greatest impact on patient outcomes. Practical educational tools addressing priority needs were then developed for dissemination and implementation by the rheumatology community across Europe.

Results

Five areas of priority need were identified: increasing early recognition of RA and treatment initiation; treating RA to target; optimal, holistic approach to selection of treatment strategy, including shared decision-making; improving identification and management of comorbidities; and non-pharmacological patient management. A suite of 14 eRA tools included educational slides, best-practice guidance, self-assessment questionnaires, clinical checklists, a multidisciplinary team training exercise, an interactive patient infographic, and case scenarios. By April 2020, rheumatology professionals in 17 countries had been actively engaged in the eRA programme; in 11 countries, eRA tools were selected by national leaders in rheumatology and translated for local dissemination. A web platform, with country-specific pages, was developed to support access to the translated tools (https://www.evolvingthemanagementofra.com/).

Conclusion

The eRA programme supports comprehensive management of RA across Europe through development and dissemination of practical educational tools. The eRA tools address priority needs and are available free of charge to the rheumatology community.

Key words

rheumatoid arthritis, medical education, delivery of healthcare, rheumatology, patient care team

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Introduction

Rheumatoid arthritis (RA) is a chronic inflammatory condition that requires comprehensive management. The care of RA patients is primarily managed by rheumatologists (1). In addition, several healthcare organisations recommend that RA patients have access to a multidisciplinary team (MDT) of healthcare professionals, which also includes specialist nurses, physiotherapists and occupational therapists, among others (2-4). Over the past 30 years, therapeutic developments have led to the availability of efficacious disease-modifying anti-rheumatic drugs (DMARDs) (2, 5). Nonetheless, only around 46–59% of patients with RA achieve Disease Activity Score (DAS) 28 remission (*i.e.* DAS28 ≤2.6), and only 20–22% achieve American College of Rheumatology (ACR)/European League Against Rheumatism (EULAR) Boolean-based remission (6-11). Even among those who become free from inflammatory joint symptoms, many experience other symptoms, such as pain, fatigue, impaired functioning and emotional difficulties (12, 13). Unmet needs also remain within the wider clinical care realm, for instance with regards to comorbidity management and patient-centred care (14). Moreover, between countries within and beyond Europe, there is variability in rheumatological care, resources and the organisational structure (15, 16). This variability can also impact the degree to which patient-centred approaches to care are utilised (17).

EULAR has published several evidence-based recommendations for RA management, including optimal use of DMARDs (1), management of early inflammatory arthritis (18), cardiovascular disease risk management (19), the importance of promoting physical activity (20), and pain management (21). The wide-ranging EULAR recommendations inspired us to consider how unmet needs within the comprehensive management of patients with RA might be addressed in clinical practice across Europe.

Thus, we initiated the 'Evolving the management of RA' (eRA) programme. The eRA programme is an ongoing, industry-sponsored, European-wide health-education initiative with the vision to enhance scientific knowledge and improve patient care in RA, and thereby improve outcomes. The programme is independently led by a multidisciplinary Steering Committee (SC) comprising European experts in rheumatology, and applies behavioural-change principles that have been validated for use in healthcare settings (22-24) to develop innovative, practical and educational tools designed to improve patient outcomes. Tools are made available free of charge and are developed for use by all health professionals routinely involved with the management of patients with RA (rheumatologists, specialist nurses, other MDT members), as well as trainees and patients.

In this article, we present the eRA programme, with aims including: i. the identification of unmet needs within the comprehensive management of RA that have the greatest impact on patient outcomes, from the perspectives of experts and patients; ii. the development of practical and educational eRA tools designed to address the identified needs; and iii. the dissemination and implementation of the eRA programme across Europe, which includes tailoring the content to ensure local relevance for individual countries.

Methods

The eRA SC (chaired by Gerd R. Burmester) was formed in early 2017 and comprises 17 members from 12 European countries (Austria, Belgium, Denmark, France, Germany, Italy, Hungary, the Netherlands, Portugal, Spain, Switzerland and the UK). In analogy to the 2014 update of the EULAR standardised operating procedures (25), the eRA SC consists of the Chair, a EULAR-certified methodologist (Sofia Ramiro), rheumatology clinical experts, and health professionals as well as a patient representative. The eRA SC was selected based on their experience and different perspectives on the management of RA, from various countries and with different roles in the rheumatology MDT (purposive selection), and the SC was established prior to commencement of the programme. The eRA programme

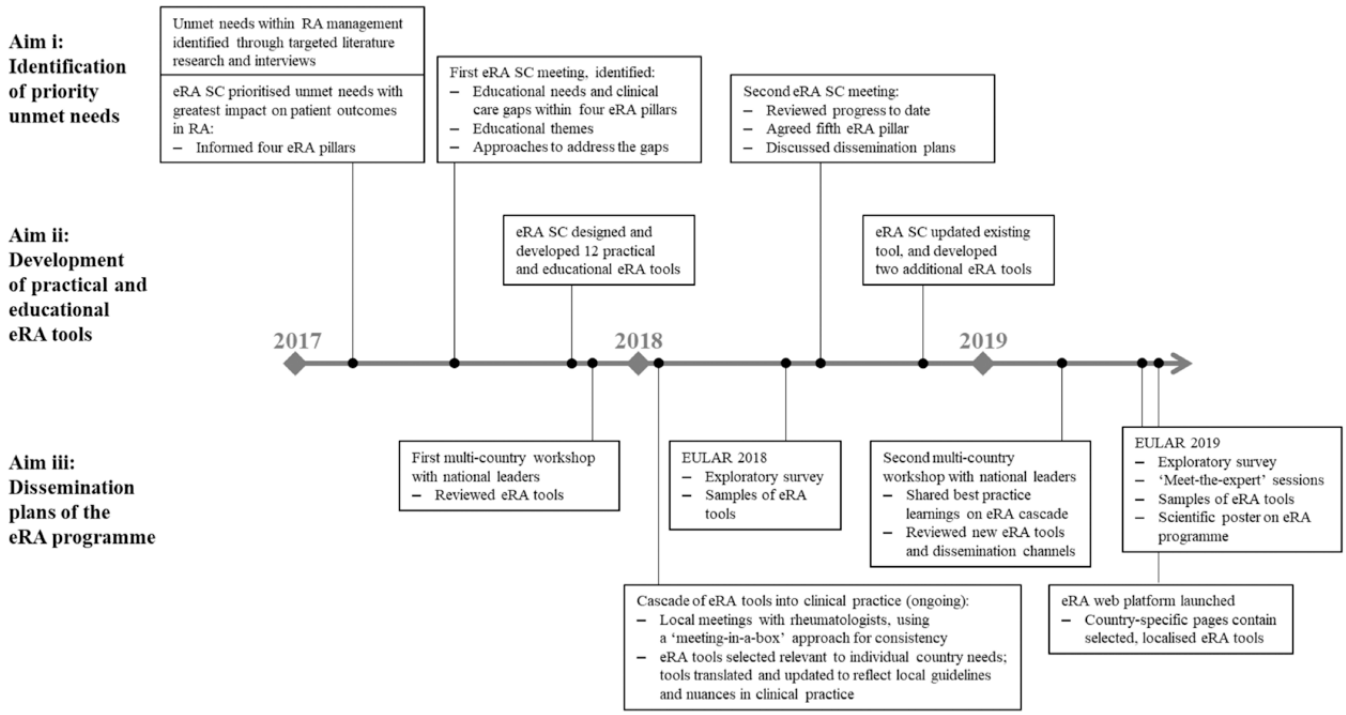

Fig. 1. eRA programme methodology and progress (January 2017 to October 2019).
eRA: Evolving the management of RA; EULAR: European League Against Rheumatism; RA: rheumatoid arthritis; SC: Steering Committee.

is supported by Sanofi Genzyme. Programme direction and content creation are driven by an independent SC, and Sanofi Genzyme did not have any influence on the content of the programme.
Fig. 1 summarises the eRA programme methodology and progress up to October 2019.

Aim i: Identification of priority unmet needs

As the first step, unmet needs within the management of RA were identified through a combination of 1 hour 1:1 telephone interviews with the eRA SC, with insight notes made during and after the interviews, supplemented with targeted literature searches based on EULAR recommendations. EULAR recommendations and their accompanying systematic literature reviews (2010 – present) were used to identify topics of interest and determine the evidence supporting them. Where recommendations covered wider arthritis populations, only evidence in RA was considered. For each topic, targeted PubMed literature searches were then performed using relevant terms in the title and abstract, alongside 'rheumatoid arthritis' in the title. Oxford 2011 levels of evidence were determined for each reference (Oxford Centre for Evidence-Based Medicine. https://www.cebm.ox.ac.uk/resources/levels-of-evidence/ocebm-levels-of-evidence). The eRA SC then prioritised the unmet needs to identify those with the greatest impact on outcomes, based on international recommendations (1, 2, 18-21), the wider literature and their own experiences. Behavioural-change principles were then applied to determine how these priority unmet needs might be addressed, with the aim of going beyond provision of information, which alone is not sufficient to change behaviour (23, 26).

Aim ii: Development of practical and educational eRA tools

Educational requirements and clinical care gaps were identified for each area of unmet need, and educational tools were designed and developed to address these gaps by (i) enhancing knowledge in the areas of unmet need and (ii) offering practical solutions that support daily clinical practice and improve patient care in RA. The tools drew upon the expertise and best practice from the perspectives of the SC, and the guidance was developed in line with current standards and international recommendations (1, 2, 18-21).

Aim iii: Dissemination plans of the eRA programme

Cascade of the eRA programme into clinical practice across Europe is ongoing and includes regional meetings, national meetings, congress activities and a dedicated eRA web platform.
National leaders in rheumatology were engaged in two multi-country workshops, led by the eRA SC. The workshops involved presentation of the eRA tools to national leaders by the eRA SC, with opportunities for national leaders to discuss the value and utility of each tool within individual country groups. Dissemination and implementation were further supported through local meetings with rheumatologists, hosted by the eRA SC and national leaders, using a 'meeting-in-a-box' approach with standardised meeting materials for consistency. The 'meeting-in-a-box' content included guidance for the organiser, templates for the invitation and agenda, and guidance on the eRA programme and tools. To ensure that the eRA tools met individual country needs, the national leaders in rheumatology worked

Table I. eRA pillars: priority unmet needs in RA management and educational themes.

Priority unmet needs in RA management	Educational themes
1: Increasing early recognition of RA and treatment initiation	
Delays in identification of RA in primary care, referral to rheumatology centres and initiation of DMARDs Variations across countries in early recognition and treatment of RA Lack of understanding that early treatment initiation impacts on patient outcomes	Early referral and initiation of DMARDs improves RA remission rates, slows disease progression and minimises joint damage
2: Treating RA to target	
Rheumatologist adherence to treat-to-target protocol declines over time	Consistent application of a treat-to-target approach using a validated composite measure of disease activity ensures an optimal RA outcome for each patient
3: Optimal, holistic approach to selection of treatment strategy, including shared decision-making	
Disconnect between patient and physician in prioritisation of treatment goals Lack of shared decision-making and patient engagement Poor communication among MDT	The treatment strategy for RA should aim at the best care for the individual and be based on a shared decision between the patient and MDT
4: Improving identification and management of comorbidity	
Suboptimal awareness of associated comorbidities in RA Lack of understanding of impact of comorbidities on patient outcomes Rheumatologist and GP do not communicate about a patient's comorbidities	Management of comorbid conditions in patients with RA helps to mitigate effects of these conditions on RA outcomes
5: Non-pharmacological patient management	
Lack of guidance to support evidence-based use of non-pharmacological interventions Lack of clarity regarding selection of non-pharmacological interventions on an individual patient basis	Evidence-based non-pharmacological management supports an optimal approach to patient care and should be tailored for each individual patient by engaging the entire MDT

DMARD: disease-modifying anti-rheumatic drug; eRA: Evolving the management of RA; EULAR: European League Against Rheumatism; GP: general practitioner; MDT: multidisciplinary team; RA: rheumatoid arthritis

alongside the eRA SC to select the relevant eRA tools; the selected tools were then translated, with an option to update content to reflect local guidelines and nuances in clinical practice if required. At the EULAR European Congress of Rheumatology in 2018 and 2019, the programme was evaluated within the international rheumatology community using an anonymised exploratory survey to gain feedback on the perceived value of the practical and educational tools provided, and was presented as a scientific poster (27), with short seminars led by eRA SC members.

An eRA web platform (https://www.evolvingthemanagementofra.com), with country-specific pages, is further supporting dissemination of the eRA programme. The pages provide information about the eRA programme and enable download of all eRA tools that were selected as locally relevant by the national rheumatology experts.

Results

Five eRA pillars of focus were defined, following identification of priority unmet needs within the comprehensive management of RA (Table I). To address the educational needs and clinical care gaps within these pillars, educational themes were defined (Table I), and a suite of 14 practical and educational eRA tools were designed and developed (Table II).

eRA pillar 1: Increasing early recognition of RA and treatment initiation

– Unmet needs

EULAR recommendations for the management of early inflammatory arthritis highlight that patients presenting with any joint swelling associated with pain or stiffness should be referred to, and seen by, a rheumatologist within 6 weeks of symptom onset, and that patients at risk of persistent arthritis should be started on DMARDs ideally within 3 months (18). However, a study of 482 patients with newly presenting RA from eight European countries suggested that time from symptom onset to rheumatologist assessment was a median 24 weeks (range 16–38 weeks). Only a proportion of patients (median 20.5%, range 8–42%) were seen within the therapeutic window of 12 weeks of symptom onset (28). There are considerable variations across countries, but delays can lie in the initial recognition of early inflammatory arthritis, referral from the general practitioner (GP), wait time from referral to the first rheumatologist visit, and time to initiation of appropriate treatment (28-36). The evidence indicates that delays in treatment initiation can impact on outcomes (18, 37). A delay in referral to secondary-care specialists is one of the most important causes of late diagnosis and late start of effective treatment (18). Therefore, discussing issues around early recognition of RA within the community of rheumatologists and other healthcare professionals caring for patients with early arthritis may be beneficial for patient outcomes (18).

– Supporting eRA tools

- *Educational slides* for this pillar highlight the status of patient referrals and treatment initiation across Europe, the positive effects that early intervention can have on long-term RA outcomes (38-41), and the importance of initiating DMARDs within a therapeutic window of opportunity

Table II. eRA tools: objective and use.

eRA tool (code)	Objective	Use
1: Increasing early recognition of RA and treatment initiation		
Educational slides	Slides that raise awareness of the importance of early recognition and treatment of RA	For presentation by rheumatologists or MDT in local meetings *PowerPoint presentation*
Best-practice guidance	Best-practice examples of approaches to early recognition and treatment of RA from across Europe	A reference piece for use during review of clinic performance *Print format; A4 1pp*
Self-reflection questionnaire	A self-audit of clinic performance *vs*. EULAR recommendations for early inflammatory arthritis (18)	Completion by rheumatologists at regular intervals to evaluate clinic performance *Print format; A5 4pp*
2: Treating RA to target		
Educational slides	Slides that raise awareness of declining rheumatologist adherence to treat-to-target recommendations, and the barriers	For presentation by rheumatologists in local meetings *PowerPoint presentation*
Self-reflection questionnaire	A self-audit for clinic performance *vs*. EULAR recommendations for treating RA to target (2)	Completion by rheumatologists at regular intervals to evaluate clinic performance *Print format; A5 4pp*
3: Optimal, holistic approach to selection of treatment strategy, including shared decision-making		
Educational slides	Slides on the importance of shared decision-making to patient outcomes, and how this is best achieved	For use by rheumatologists and MDT to encourage shared decision-making *PowerPoint presentation*
Treatment considerations checklist	Checklist to support regular tracking of a patient's clinical and lifestyle factors that may impact on treatment and management decisions	Nurse or support staff to document clinical and life style factors in checklist (to be filed alongside patient chart); for review by rheumatologists when making decisions *Print format; A4 4pp*
MDT training exercise	MDT crafts an appropriate management strategy for a fictional patient profile, based on a patient demographic, baseline disease feature, additional disease factor and patient lifestyle consideration	Training exercise for the MDT, led by an experienced rheumatologist with support from included facilitation guide *Print format; A7 cards in coloured bags with A4 facilitation guide*
4: Improving identification and management of comorbidity		
Educational slides	Slides that raise awareness of the association of RA with comorbidities, and the effects on out comes	For use by rheumatologists and MDT, and with GPs, to raise awareness of RA-associated comorbidities *PowerPoint presentation*
Comorbidity checklist	Checklist to support monitoring of common comorbidities in patients with RA	For use in patient consultations to ensure all applicable comorbid conditions have been reviewed by designated personnel *Print format; A4 2pp*
'Dear GP' comorbidity letter	To request GP vigilance with regards to comorbidities and encourage a collaborative approach to care	A template letter for use by rheumatologists when communicating with a patient's GP *Digital template; Word document*
5: Non-pharmacological patient management		
Educational slides	Slides providing evidence base for the use of different non-pharmacological interventions in RA	For use by rheumatologists and MDT, and with GPs, for evidence-based guidance *PowerPoint presentation*
Interactive patient infographic	An interactive infographic for patients with RA which features elements of daily life that might be important to them, with hyperlinks to online educational resources	For use in patient consultations to support education and shared decision-making; also, for independent patient use in waiting rooms or away from clinic *Digital interactive PDF format*
All eRA pillars		
Case scenarios	A series of case scenarios that follow a single hypothetical patient with RA across different stages of disease, outlining where the eRA tools can be used	For use with trainee health professionals and GPs to support education on the comprehensive management of RA *PowerPoint presentation*

DMARD: disease-modifying anti-rheumatic drug; eRA: Evolving the management of RA; EULAR: European League Against Rheumatism; GP: general practitioner; MDT: multidisciplinary team; RA: rheumatoid arthritis.

approximately 3 months from symptom onset (18, 42). The slides were designed to support rheumatologists and other members of the MDT, especially primary-care physicians, to highlight early recognition and treatment initiation of RA as an unmet need in local meetings with other healthcare professionals caring for patients with early arthritis.

- *Best-practice guidance* provides examples of optimal approaches to early recognition and treatment of RA from across Europe, including an early arthritis recognition clinic

in the Netherlands (34), a fast-track clinic and online consultations in Spain (Jaime Calvo Alén, eRA SC member, personal communication), and nurse-led clinics and a flare helpline in the UK (43; Peter Taylor, eRA SC member, personal communication).
- *A self-assessment questionnaire* on the early recognition of RA allows rheumatologists to track their clinic performance against the EULAR recommendations (18); completion of the self-reflection questionnaire at regular intervals enables consideration of whether areas of care might need adjustment.

eRA pillar 2: Treating RA to target – Unmet needs

International recommendations advocate a treat-to-target approach for RA, with clinical remission as the primary target, use of validated composite measures of disease activity, and frequent monitoring of disease activity with adjustment of therapy as required to meet and maintain the treatment target (2). In daily clinical practice, the correct application of a treat-to-target strategy in patients with RA can lead to higher rates of remission (44). However, evidence shows that rheumatologist adherence to a treat-to-target protocol can be suboptimal and declines over time in clinical practice (45-47). Recommendations on use of a validated composite measure of disease activity and frequency of monitoring are not always adhered to (48, 49). Rheumatologists may often accept low disease activity as a 'good enough' treatment goal, particularly in patients with a long disease duration (49).

– Supporting eRA tools
- *Educational slides* for this pillar raise awareness of the decline in rheumatologist adherence to treat-to-target recommendations over time and identify barriers to applying a treat-to-target approach.
- *A self-assessment questionnaire* on treating RA to target allows rheumatologists to quantify progress in their implementation of the international recommendations on treating RA to target (2); completion of the self-reflection questionnaire at regular intervals enables consideration of whether practical changes can be made to improve outcomes.

eRA pillar 3: Optimal, holistic approach to selection of treatment strategy, including shared decision-making – Unmet needs

EULAR recommendations emphasise that treatment of RA should aim at best care and must be based on a shared decision between the patient and rheumatologist (1, 18). Evidence shows that there is a disconnect between patients and physicians in their assessment of disease status and prioritisation of treatment goals, with patients generally valuing control of pain and fatigue, improved functioning and psychosocial well-being over joint counts and inflammatory markers (50, 51). Lack of alignment between the patient and physician may negatively affect shared decision-making and optimal RA management (51). Shared decision-making (SDM) is a process by which physicians collaborate with patients to provide high-quality care based on best available evidence and eliciting patients' values and preferences (52). Agreement of this principle was high among the EULAR task force (1), and other professional bodies including the ACR and Outcome Measures in Rheumatology (OMERACT) also recommend SDM (53, 54). Clinical experience of the eRA SC suggests that SDM and patient engagement are not always applied, and that communication among the MDT can be poor.

– Supporting eRA tools
- *Educational slides* for this pillar explain the importance of SDM between the patient and rheumatologist (1) and the MDT, how this is best achieved (1, 55), and potential benefits in terms of patient persistence with treatment, satisfaction and engagement (56).
- *A treatment considerations checklist* supports tracking of clinical factors (*e.g.* comorbidities) and lifestyle factors (*e.g.* alcohol consumption, frequent travel, occupation) that can be reviewed when making treatment decisions, to ensure a patient-centric approach to care.
- *An MDT training exercise*, facilitated by an experienced staff member (*e.g.* consultant rheumatologist), engages the team and encourages consideration of the patient perspective when crafting an appropriate management strategy for a fictional patient profile. Participants create the fictional patient profile by drawing one card from each of four sets (patient demographics, baseline disease features, additional disease factors, patient lifestyle considerations), and then devise an individualised treatment and management strategy for the patient.

eRA pillar 4: Improving identification and management of comorbidities – Unmet needs

RA is associated with a multitude of comorbidities, which may be related to age, systemic inflammatory effects of RA beyond the joint, smoking, lack of physical activity, and the effects of medications used in its treatment (57-61). Common comorbidities in RA include cardiovascular disease, pulmonary disorders, osteoporosis, infection, and depression (58, 60, 62, 63). Evidence demonstrates that comorbid cardiovascular disease, certain pulmonary disorders, and infection are associated with increased risk of mortality in patients with RA (64-66). Similarly, RA may have important implications on outcomes and prognoses in patients with comorbid malignancy (67). Presence of comorbidities can also impact on RA outcomes and patient functioning (68, 69). Clinical experience of the eRA SC suggests that rheumatologists and GPs do not always communicate about a patient's comorbidities.

– Supporting eRA tools
- *Educational slides* for this pillar raise awareness of the association of RA with comorbidities, by overviewing the common RA-associated comorbidities and their effects on outcomes. The slides also summarise the EULAR recommendations for cardiovascular risk management and for treatment/prevention of

glucocorticoid-induced osteoporosis (19, 70), and highlight lifestyle modifications that can help in managing risks of comorbidities (71).

- *A comorbidity checklist* supports the identification and monitoring of common comorbidities in patients with RA.
- *A 'Dear GP' comorbidity letter template* facilitates rheumatologists' communication with a patient's GP to request vigilance with regards to comorbidities and encourages a collaborative approach to care.

eRA pillar 5: Non-pharmacological patient management

– Unmet needs

There is growing recognition that non-pharmacological interventions are helpful to complement pharmacological management of RA, as supported by EULAR recommendations on the importance of physical activity (20), pain management (21) and management of early inflammatory arthritis (18). Non-pharmacological interventions are recommended as part of the management plan in both established and early RA (1, 18), but few studies have specifically investigated non-pharmacological therapy in early arthritis (72). While the few studies available support its use, recommendations in early RA to date largely extrapolate from the results of several RCTs in established RA (18, 72). A difficulty faced by the MDT is that a wide range of non-pharmacological interventions is available, but their use is not always supported by evidence. Guidance on the evidence-based selection of non-pharmacological interventions is lacking. Clinical experience of the eRA SC suggests a lack of clarity regarding selection of non-pharmacological interventions on an individual patient basis.

– Supporting eRA tools

- *Educational slides* for this pillar provide the evidence base to inform the use of different non-pharmacological interventions in clinical practice. EULAR recommendations highlight that use of non-pharmacological interventions (as with pharmacological interventions) should be based on a shared decision and tailored according to the individual patient's needs and characteristics (1, 18, 20, 21). Strong evidence, in terms of benefits on outcomes (such as pain, patient functioning or self-efficacy), supports use of the following non-pharmacological interventions in appropriate patients: physical activity (73–75); certain occupational therapy interventions (73,76); patient education and self-management interventions (73, 77); and certain psychosocial interventions (73, 78, 79). Other interventions (*e.g.* hand exercises, nutrition and diet) require additional evidence before findings can translate into routine practice (80, 81).
- *An interactive patient infographic*, in digital PDF format, enables patients to access best-practice educational material for living with RA, via hyperlinks to online educational resources.

Table III. eRA tools selected for dissemination according to local needs.

eRA tool	Country					
	BE	CH	DE	ES	NL	UK
1: Increasing early recognition of RA and treatment initiation						
Educational slides			x	x	x	x
Best-practice guidance			x	x	x	
Self-reflection questionnaire			x	x	x	
2: Treating RA to target						
Educational slides			x	x	x	
Self-reflection questionnaire			x	x	x	
3: Optimal, holistic approach to selection of treatment strategy, including shared decision-making						
Educational slides			x	x	x	
Treatment considerations checklist			x	x	x	
MDT training exercise	x	x	x	x	x	x
4: Improving identification and management of comorbidity						
Educational slides			x	x	x	x
Comorbidity checklist		x	x	x		x
'Dear GP' comorbidity letter			x	x	x	
5: Non-pharmacological patient management						
Educational slides						x
Interactive patient infographic	x					x
All eRA pillars						
Case scenarios			x	x	x	

BE: Belgium; CH: Switzerland; DE: Germany; eRA: Evolving the management of RA; ES: Spain; GP: general practitioner; MDT: multidisciplinary team; NL: the Netherlands; UK: United Kingdom.

eRA pillars 1–5: Case scenarios based on a hypothetical patient throughout their RA journey

To support all eRA pillars, *case scenarios* were developed that follow a single hypothetical patient throughout their RA journey. Cases were designed for use with trainee healthcare professionals and GPs to support education on the comprehensive management of RA. Four scenarios follow the same patient from pre-diagnosis RA, through early RA and established RA, to long-term RA. Educational needs and clinical care gaps are highlighted, with alignment to the eRA tools that could support an optimal approach to the comprehensive management of RA.

Dissemination of the eRA programme

To date, rheumatology professionals from 17 countries (Argentina, Austria, Belgium, Croatia, Denmark, France, Germany, Hungary, Ireland, Israel, Italy, the Netherlands, Portugal, Slovenia, Spain, Switzerland and the UK) have been actively engaged in the eRA programme by participating in regional and local meetings to discuss the programme. A total of 54 national leaders in rheumatology from 14 European countries attended two multi-country workshops.

As of April 2020, 11 countries (Argentina, Belgium, Croatia, Denmark, Ger-

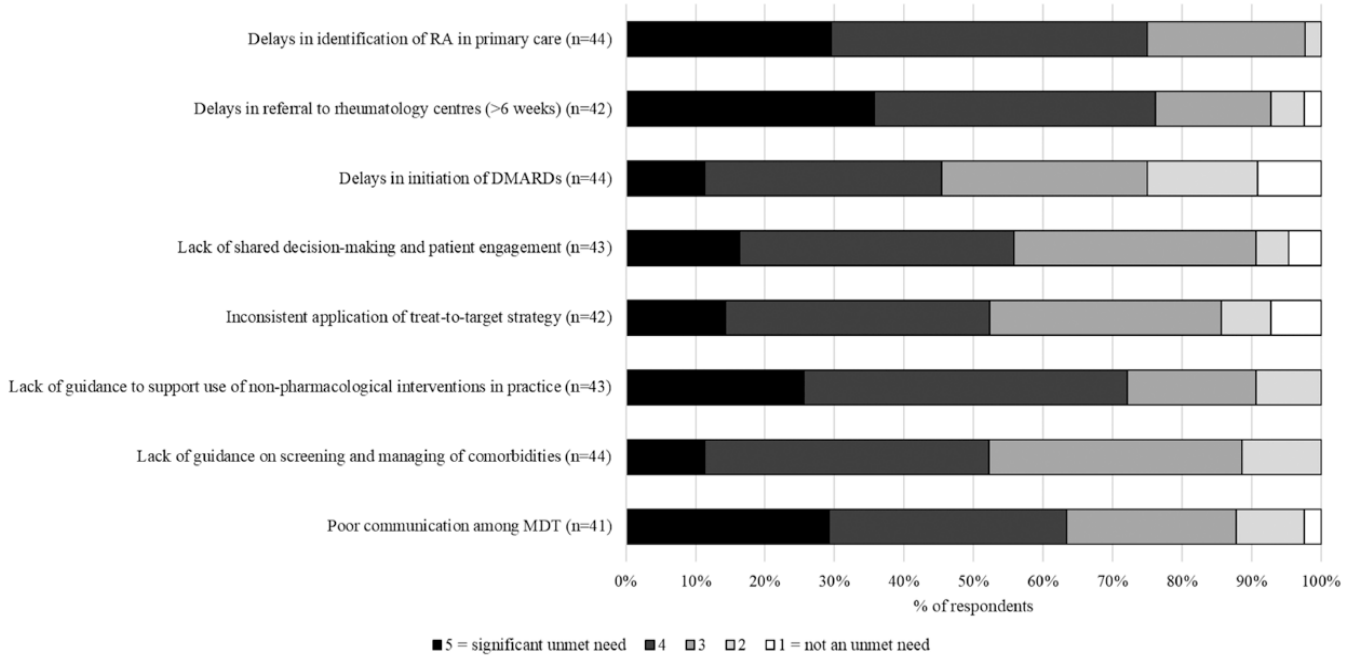

Fig. 2. Unmet needs in the management of RA: survey responses at EULAR 2019 (n=44).
DMARD: disease-modifying anti-rheumatic drug; EULAR: European League Against Rheumatism; MDT: multidisciplinary team; RA: rheumatoid arthritis.

many, Italy, the Netherlands, Slovenia, Spain, Switzerland and the UK) had initiated activities to disseminate the eRA programme. This included meetings to discuss local approaches to disseminating the eRA programme, for instance, which of the eRA pillars best fit local needs and interests. To date, these meetings have involved a total of 94 rheumatologists and rheumatology nurses. Seven countries completed selection of relevant eRA tools (Table III). Four countries (Argentina, Croatia, Spain and Switzerland) held activities to promote the programme locally, including regional launch meetings and symposia at national congresses, reaching approximately 370 healthcare professionals. eRA dissemination activity planning is under way in the other participating countries.

At EULAR 2018 and 2019, more than 160 USB sticks containing eRA tools were distributed to interested delegates. At EULAR 2019, three 'Meet-the-expert' sessions were delivered, featuring a short presentation from a member of the eRA SC and a demonstration of the eRA MDT exercise, with up to 20 delegates attending each session. An exploratory survey on the eRA programme and tools was conducted among a small number of interested congress delegates in 2019; all of the 44 respondents to this survey believed that there are still unmet needs in the management of patients with RA (Fig. 2 reports survey responses for specific unmet needs), and 98% of respondents believed that providing practical tools could help to address some of the unmet needs.

Table IV. Local eRA webpages and available tools.

Country and web address	Number of eRA tools available	Additional regional materials available (developed by eRA National Faculty)
Germany https://www.evolvingthemanagementofra.de/login	12	1
Spain https://www.evolvingthemanagementofra.com/es/login	12	1
UK https://www.evolvingthemanagementofra.com/uk/login	5	9

eRA: Evolving the management of RA; UK: United Kingdom.

By April 2020, local pages of the eRA web platform had been launched in three countries: Germany, Spain and the UK (Table IV). Additional local pages are under development in participating countries.

Discussion

The eRA programme's suite of 14 practical and educational tools has been developed in response to identified priority unmet needs within the comprehensive management of RA, grouped into five pillars. These tools include educational slides, best-practice recommendations, self-assessment questionnaires, clinical checklists, an MDT training exercise, an interactive patient infographic, and patient case scenarios.

The priority unmet needs identified in the eRA programme are reflective of the management topics covered in EULAR recommendations for RA (1, 18-21) and the unmet needs (beyond development of novel therapeutics) reported in the wider literature (2, 12, 14, 82, 83).

The eRA programme is innovative in its vision to evolve the comprehensive

management of RA through the development of practical and educational tools. Few practical and educational tools exist for use in clinical practice by rheumatologists and MDT members, with existing initiatives focusing on provision of education (*e.g.* training courses) alone (84, 85). In the eRA programme, tools are available free of charge across the five eRA pillars of focus; within each pillar, the tools are intended to be used alongside each other, to address the educational needs and clinical care gaps.

Dissemination of eRA is ongoing, and the programme is reaching clinical practice in countries across Europe. Various combinations of tools were selected by national leaders during cascade activities, with tools being selected according to the educational and contextual needs of each national healthcare system. Another feature of the programme is the freely accessible, simple-to-use format of the eRA tools; MDT members involved with the management of patients with RA have time pressures in clinical practice, and it is hoped that this accessible format will support provision of high standards of patient care. An eRA web platform with specific country pages, three of which are finalised at the time of writing, is enabling widespread download of the localised eRA tools (Table IV).

The eRA programme is an enduring initiative that will adapt over time to improve the comprehensive management of RA as the needs evolve. The programme has reached the stage where quantifiable behavioural-change outcome metrics can be collected, through surveys on the web platform. Metrics are being collected on the number of times the web platform is accessed and the eRA tools that are downloaded. Users are requested to share their perception of the eRA programme by completing two anonymised surveys: one when they first access the site and a second when they return at a later date. Future plans for eRA include the development of tools to support implementation of best-practice interventions in RA patient care, including management of comorbidities, and provision of practical guidance for clinicians to advance standards of care in their clinic. There are plans to extend the programme's reach to additional countries.

As the programme continues to evolve, the impact on clinical practice will be assessed by means of the web platform surveys, and the findings will be used to adapt the content to ongoing need. Although the results of the user survey conducted at EULAR 2019 are presented in Fig. 2, possible selection bias among the survey participants must be acknowledged as a potential limitation of the feedback to date.

Through its ongoing dissemination activities, and future progression, the eRA programme aims to provide impactful practical and educational tools to as many health professionals and healthcare providers as possible, thereby evolving the comprehensive management of patients with RA, with the intent to ultimately improve outcomes.

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