

# Treating Rheumatoid Arthritis to Target: multinational recommendations assessment questionnaire

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## ABSTRACT

**Aim** To measure the level of agreement and application of 10 international recommendations for treating rheumatoid arthritis (RA) to a target of remission/low disease activity.

**Methods** A 10-point Likert scale (1=fully disagree, 10=fully agree) measured the level of agreement with each of 10 recommendations. A 4-point Likert scale (never, not very often, very often, always) assessed the degree to which each recommendation was being applied in current daily practice. If respondents answered 'never' or 'not very often', they were asked whether they would change their practice according to the particular recommendation.

**Results** A total of 1901 physicians representing 34 countries participated. Both agreement with and application of recommendations was high. With regard to application of recommendations in daily practice, the majority of responses were 'always' and 'very often'. A significant percentage of participants who were currently not applying these recommendations in clinical practice were willing to change their practice according to the recommendations.

**Conclusion** The results of this survey demonstrated great support of 'Treating RA to Target' recommendations among the international rheumatology community. Additional efforts may be needed to encourage application of the recommendations among certain clinicians who are resistant to changing their practice.

## INTRODUCTION

Treating to therapeutic targets has become a standard of care for many chronic conditions.<sup>1–4</sup> In order to set similar standards for rheumatoid arthritis (RA), an international task force was established consisting of 68 rheumatologists and patients with RA from 25 countries.<sup>5</sup> The first phase of this Treat to Target (T2T) initiative focused on defining therapeutic targets and establishing paths to optimal outcomes. Based on a systematic literature review<sup>6</sup> and expert opinion, a consensus on a set of 10 recommendations was formulated (see appendix 1 in online supplement).<sup>5</sup> The goal of these 10 recommendations is to provide rheumatologists, patients and other stakeholders with clear approaches as to how to reach the set targets

and provide patients with RA with the best quality of care available.

The second phase of the T2T initiative aims at acceptance and implementation of these recommendations in daily rheumatology practice. It was deemed important to learn to what extent individual components of the T2T recommendations are accepted (or acceptable) by rheumatologists of individual countries. Here we provide the results from an international survey of rheumatologists performed to this end.

The objectives of the survey were: (1) to evaluate the level of agreement with T2T recommendations on a global scale; (2) to determine whether and to what degree these recommendations were currently applied in daily practice; and (3) to assess the willingness of those clinicians not already applying these recommendations to modify their practice.

## METHODS

Recruitment was determined by the steering committees of individual countries. Rheumatologists were contacted by email or fax and asked to anonymously complete a paper- or web-based questionnaire. The first part of the questionnaire gathered demographic information. A 10-point Likert scale (1=fully disagree, 10=fully agree) measured the level of agreement with each of the 10 recommendations. The degree to which each recommendation was being applied in current daily practice was assessed on a 4-point Likert scale (never, not very often, very often, always). Those who answered that they have 'never' or 'not very often' applied a specific recommendation in their practice were asked whether they would change their practice according to the particular recommendation. Data are presented using standard summary statistics including analysis of variance and  $\chi^2$  analysis.

## RESULTS

### Demographic data

A total of 1901 rheumatologists participated, representing 34 countries, nine from Western Europe (n=722, 38%), nine from Eastern Europe (n=403, 21%), six from Latin America (n=436, 23%), Australia, Canada and New Zealand (n=107, 6%),



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Japan and Korea (n=156, 8%) and five from the Middle East (n=75, 4%). The response rates were highly variable between the countries and dependent on the means of survey distribution. For example, in Japan where 131 university-based rheumatologists were contacted, the response rate was 100%. In contrast, in countries such as Italy where potential participants were selected and contacted using national directories, the response rates were significantly lower at approximately 3%.

Practices in university hospitals, general hospitals and private clinics were represented with 41%, 33% and 18% of respondents, respectively. The mean number of participants' years in practice was 17.4 (range 3 months to 52 years). The average number of patients with RA seen per month was 81 (range 1 to 600).

**Agreement with the recommendations**

Agreement with T2T recommendations<sup>5</sup> was very high, with each of the 10 recommendations receiving a score of >8.0 (figure 1). Recommendations 1 and 10 received the highest agreement scores (9.2 and 9.3, respectively). The level of agreement with these two recommendations was relatively high (>8) across all countries and regions. Recommendations 5 and 3 received the lowest overall agreement scores (8.5 and 8.6, respectively).

The largest variations in agreement scores between countries were noted for recommendations 5 and 6, with scores ranging from 9.6 to 6.9 for both. The agreement with recommendations 5 (7.1), 6 (7.4) and 8 (7.6) was significantly lower for the Canada–New Zealand–Australia group than for any other region.

**Application of T2T recommendations to daily practice**

The majority of responses were 'always' and 'very often', ranging from 97.7% for recommendation 2 to 87.3% for recommendation 5 (figure 2). Recommendations 5 (regular documentation of disease activity) and 6 (use of composite activity measures that include joint counts) received the highest number of 'never' or 'not very often' responses (12.7% and 10.0% for recommendations 5 and 6, respectively).

For recommendation 5,  $\chi^2$  analysis indicated that, based on the null hypothesis (ie, no difference between groups), the Canada–New Zealand–Australia group had more than expected 'never' and 'not very often' responses (29.9%,  $p<0.0001$ ) whereas Eastern Europe and Latin America had fewer than expected

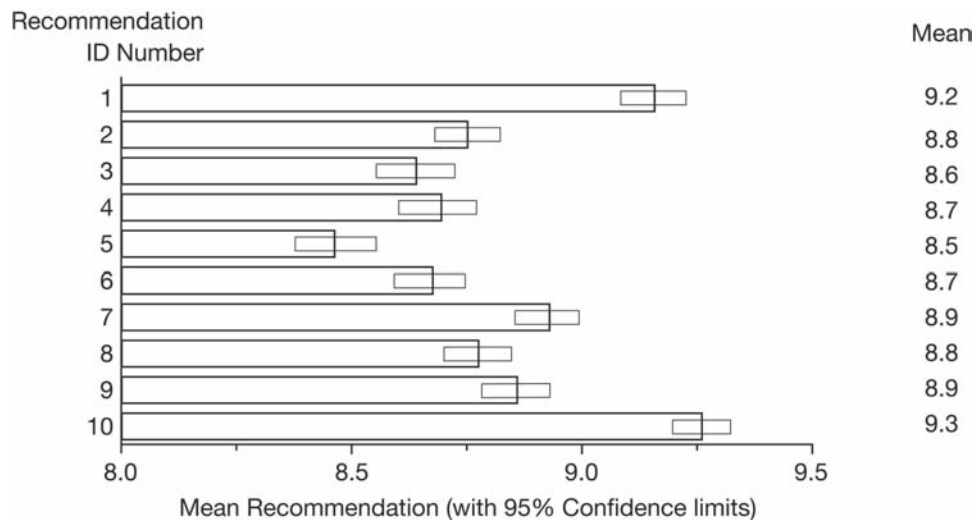
'never' or 'not very often' responses (8.1% and 7.4%, respectively,  $p<0.0001$ ). Similarly, for recommendation 6,  $\chi^2$  analysis indicated that the Canada–New Zealand–Australia group had more than expected 'never' and 'not very often' responses (32.7%,  $p<0.0001$ ). For recommendation 6, participating rheumatologists from the Middle East also showed a relatively low level of application in daily practice (27.78% indicating 'never' or 'not very often',  $p<0.0001$ ). Middle Eastern countries had more than expected 'never' or 'not very often' responses for recommendations 7 (18.6%,  $p<0.0001$ ) and 9 (13.9%,  $p=0.0012$ ).

Subgroup analysis revealed no statistically significant differences in acceptance or application of T2T recommendations between rheumatologists in academic institutions and those in community clinics (data not shown). For both academic and community practice-based participants, the level of agreement was highest for recommendation 10 (9.2) and lowest for recommendation 5 (8.4 for academic and 8.5 for community-based participants). In addition, the results did not change significantly when clinicians who see <30 patients/month (n=522) were excluded from the analysis. The agreement with recommendations 10 and 5 were 9.3 and 8.5, respectively.

**Willingness to change practice according to the recommendations**

A significant proportion of responders who were currently not applying T2T recommendations were willing to change their practice according to the recommendations (figure 3). However, 43.1% and 32.8% of participants who were currently not applying recommendations 5 and 6, respectively, indicated that they would not change their practice according to these recommendations. Furthermore, although only 6.7% and 6.5% of participants indicated that they were not applying T2T recommendations 3 and 4, respectively, a high percentage of these (30.5% for recommendation 3 and 45.4% for recommendation 4) indicated that they were unwilling to change their practice to accommodate these recommendations.

Although there were no clear regional differences in terms of willingness to change practice for recommendations 3, 5, 8, 9 and 10, the Canada–New Zealand–Australia group showed greater than expected 'not willing to change practice' responses for recommendations 1 ( $p<0.05$ ), 2 ( $p<0.05$ ), 4 ( $p<0.0001$ ), 6 ( $p<0.0001$ ) and 7 ( $p=0.0017$ ).



**Figure 1** Average disagree/agree scores for the 10 individual recommendations. The response rate was >99%.

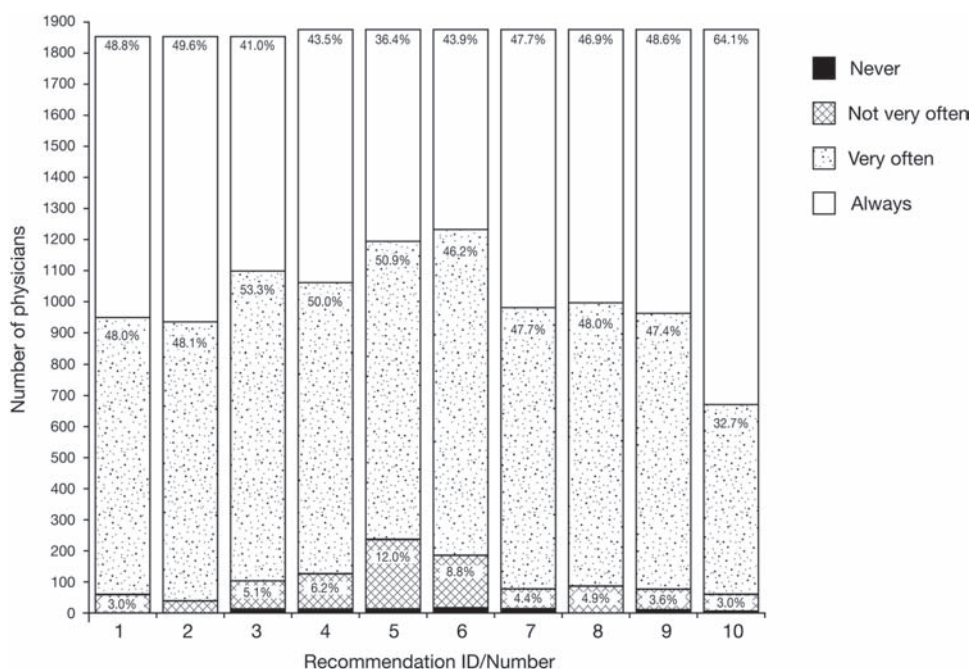


Figure 2 Application of each of the 10 recommendations in daily practice.

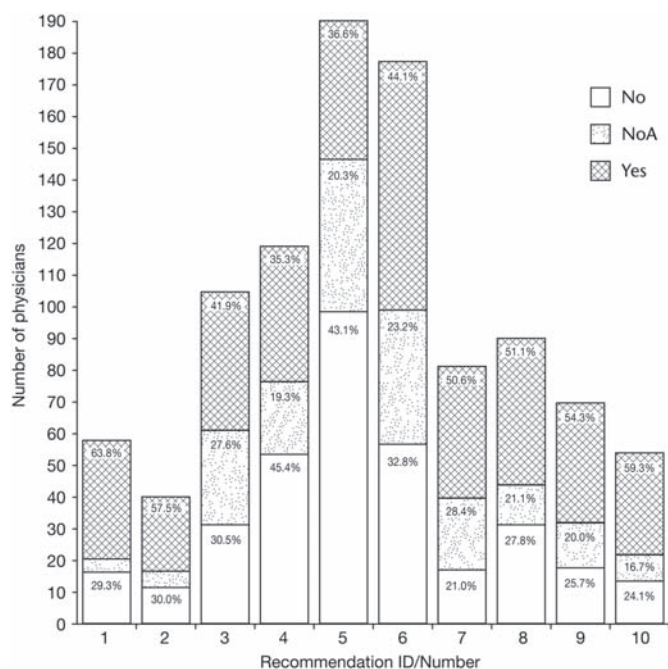


Figure 3 Willingness to change practice. NoA, no answer.

**DISCUSSION**

The results of this multinational recommendations assessment questionnaire indicated that the majority of responders were current with the latest developments in the management of RA and were presumably treating their patients accordingly. They also revealed a high level of support and interest in the T2T initiative and, where this was not the case, a willingness to change practice to meet these recommendations. Furthermore, attitudes toward individual recommendations pointed to the areas where additional effort may be needed in order to provide optimal care to all patients with RA.

Two elements of the T2T recommendations received the most objections: recommended frequency of monitoring and the use of validated composite measures of disease activity in routine clinical practice to guide treatment decisions. While certain logistical aspects of clinical practice (ie, high patient volume, lack of support, etc) may influence clinicians' attitudes towards these two aspects of the T2T recommendations, some participants also commented that a tight monitoring schedule is not necessary as long as the patient is showing improvement (data not shown). These attitudes may inadvertently undermine the quest for remission as a treatment goal, since remission is defined using various individual measures or indices.<sup>7</sup> Thus, efforts should be deployed to help clinicians integrate these validated tools into their routine clinical practice, especially since simple tools like the Simplified Disease Activity Index and Clinical Disease Activity Index are available, which can also be used to define remission according to the American College of Rheumatology (ACR) and European League against Rheumatism (EULAR).<sup>7</sup>

In this regard, it is interesting to note that recommendation 3 received one of the lowest mean scores, which is somewhat at odds with most strategic trials which aimed for low disease activity.<sup>6,8,9</sup> One possible explanation is that clinicians strive towards remission, and low disease activity is a second-best outcome.

The data collected from this questionnaire should be interpreted in the context of the survey sample and data collection methodology. One limitation was that the method of survey dissemination was determined by the steering committees of individual countries and was not standardised. It is therefore difficult to ascertain the precise number of rheumatologists from each country who received the survey and consequently the response rates. It is also important to recognise that a selection bias towards rheumatologists more positive towards the T2T recommendations is possible, and responses might not be representative of the global rheumatology community. Finally, determination whether and to what extent these recommendations are currently applied in daily practice might not be accurately assessed with the chosen methodology; practice audits such as



the Assessment in Rheumatology (AIR) project are better suited to answer the question.<sup>10</sup> The survey nonetheless identified resistance towards certain aspects of the recommendations and the results can serve as a preliminary guide for future global, national and regional programmes.

These survey results may contribute to: (1) increasing awareness of the T2T concept which is being recommended and advocated by the main organisations EULAR, ACR and several national societies; (2) identifying specific local issues that need to be addressed in order to advance patient care; (3) demonstrating to non-responders to the survey, regardless of the reason for lack of participation, where they stand in comparison to their peers; and (4) focusing on the identification of the specific national basis for the disagreement with certain aspects of the T2T recommendations by steering committees from individual countries and the development of programmes that could address them in a manner that best fits local practices.

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