

PCR77 Factors to Consider in Deciding on b/ts DMARDs to Manage Inflammatory Arthritis from a Patient Perspective: A Systematic Review

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BACKGROUNDS

As innovative treatments used to manage inflammatory arthritis, such as rheumatoid arthritis (RA), ankylosing spondylitis (AS), axial Spondyloarthritis (axSpA), psoriasis, and psoriatic arthritis (PsA), biological or target synthetic disease-modifying antirheumatic drugs (b/ts DMARDs) achieve superior efficacy by targeting specific steps in the inflammatory process. However, patients are restricted in their choice of these promising drugs.

In practice, the high cost of b/ts DMARDs as well as the rigorous treatment and reimbursement requirements imposed negatively influence the availability of b/ts DMARDs for patients. Inequality in access to b/ts DMARDs might be further exacerbated by the low-income⁴ and other socio-economic statuses.

It is imperative to gather real-world evidence for policymakers to support the healthcare system in promoting patients’ access to b/ts DMARDs. Nonetheless, there is lack of systematic global evidence in the understanding of demands, unmet needs and barriers of using b/ ts DMARDs from patients’ perspective.

OBJECTIVES

- To investigate factors concerning patients with regard to b/ts DMARDs in treating inflammatory arthritis by conducting a global systematic review of literature;
- To learn the trend in patient’s choice throughout the decision making process with regard to initiation, preference and discontinuation of b/ts DMARDs.

STRENGTHS

- expanded focus to five types ofinflammatory arthritis sufferers inboth Western countries and Asiancountries
- quantified information retrievedand provided a chance to comparepatients’ different perceptions indifferent contexts
- synthesized evidence from discretechoice event studies which hadonly been explored in terms ofmethodology of conducting DCE inthe prior systematic review

CONCLUSIONS

Medicine characteristics and Social aspects, compared to Financial aspects and Clinical aspects, were more likely to be considered by patients related to the use of novel DMARDs. The trend in patients’ consideration from initiating to discontinuing b/t's DMARDs informs to improve treatment choice by an efficient health care system optimising management of inflammatory arthritis with multi-factor commitments.

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METHODS

A systematic review of literature following PRISMA was conducted on PubMed, Web of Science, Cochrane and Embase between January 1 2000 and January 1 2022. Content analysis was conducted to summarize factors grouped by four themes - Social aspects, Clinical aspects, Medicine characteristics and Financial aspects in the decision-making process. The frequency of each theme reported in the initiation-related, preference-related, discontinuation-related studies was calculated, respectively. A heat map was generated for an implicit expression of the frequency.

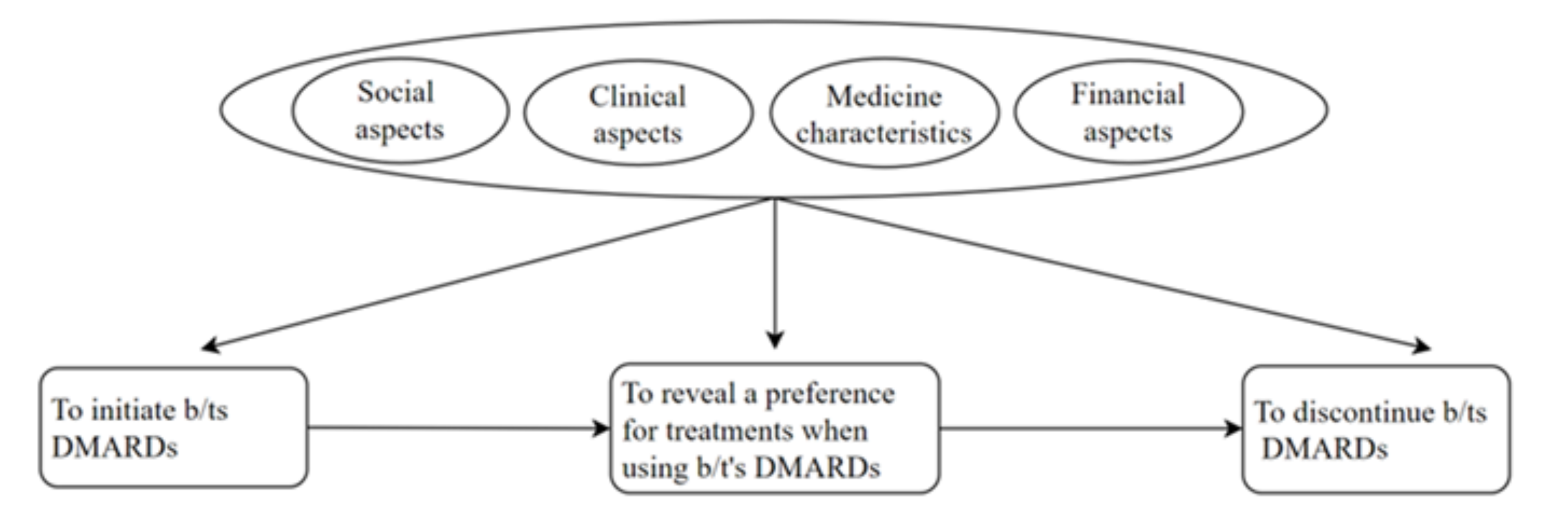


Figure 1. Decision process diagram for b/ts DMARDs to manage inflammatory arthritis

RESULTS

- 2261 studies were searched and 34 papers were included and assessed for content analysis
- 4 studies for initiation; 8 for preference: 8 for discontinuation: 13 for initiation/preference: and 1 for initiation/discontinuation
- 9 studies are qualitative studies while 25 are quantalitive including 16 conjoint analyses
- 16 studies were carried out in patients with RA, 8 in patients with psoriasis, 1 in patients with axSpA, 2 in general population and 7 in mixed patients
- 31(91%) of studies were conducted in western countries, while the others were conducted in Asia (1 from China and 2 from Japan)

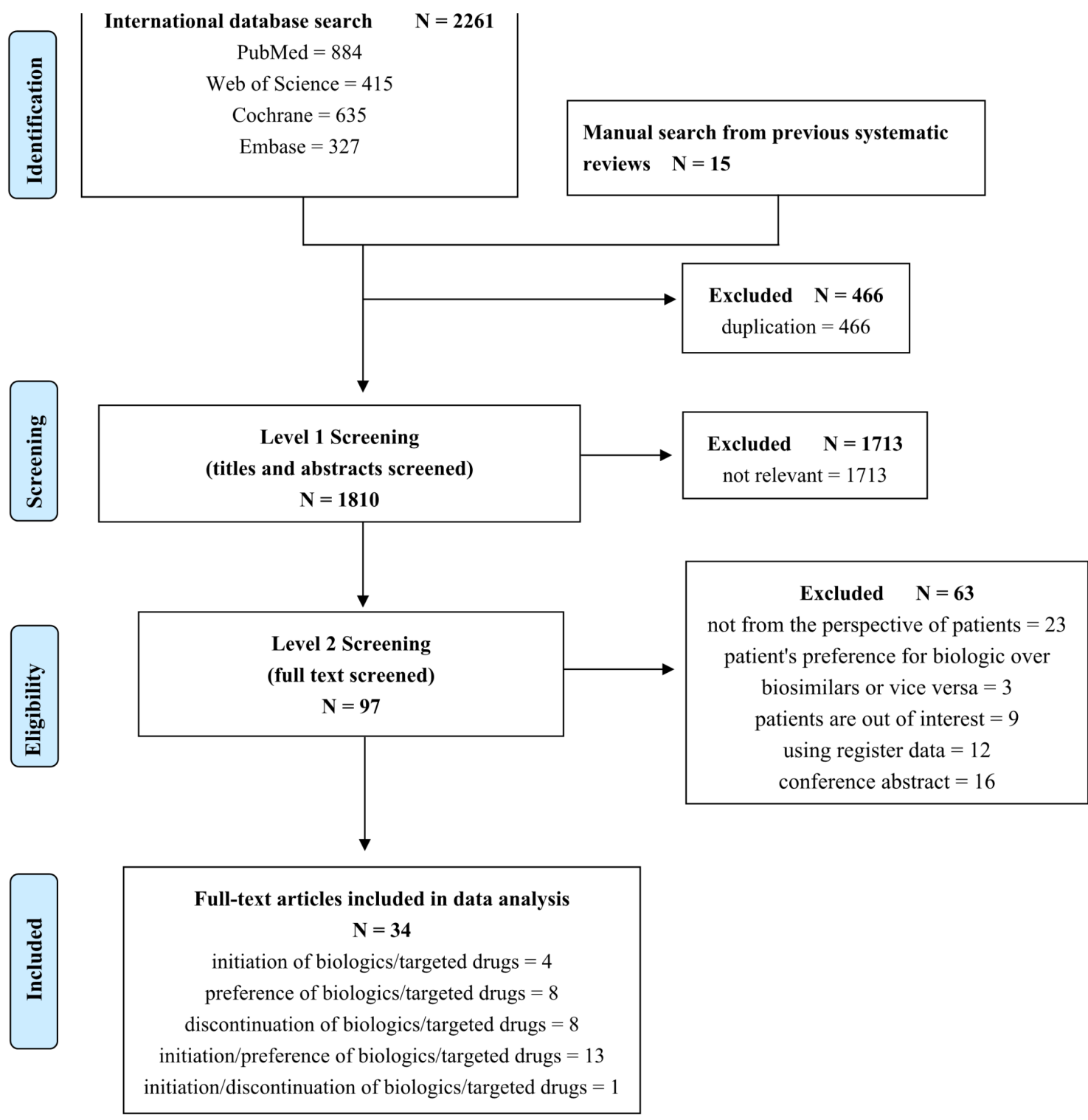


Figure 2. PRISMA diagram of systematic review

Themes	Sub-themes
Social aspects	information/ knowledge/ awareness, peer support, drug distribution/stock, beliefs/ concerns, patient support programs, personal health planning ¹
Clinical aspects	instruction/ experience from clinical staff ²
Medicine characteristics	safety, efficacy, method of administration, years on market, supplementary treatment
Financial aspects	high-cost of drugs, insurance approval and coverage, out-of-pocket treatment cost per month

Footnote:
1. Personal planning refers to the desire to be pregnant, the need to limit alcohol, the need to change diet and exercise, the requirement for another drug prescription and the change of health plan due to the self-reported disease progression.
2. Instruction/experience from clinical staff refers to physician’s experience with the product, clinic staffs’ personal preference for product, problems with the pharmacy in filling the prescription, and the follow-up and medical assistance during the injection.

Table 1. Identified themes and sub-themes from the selected studies of the globel systematic review

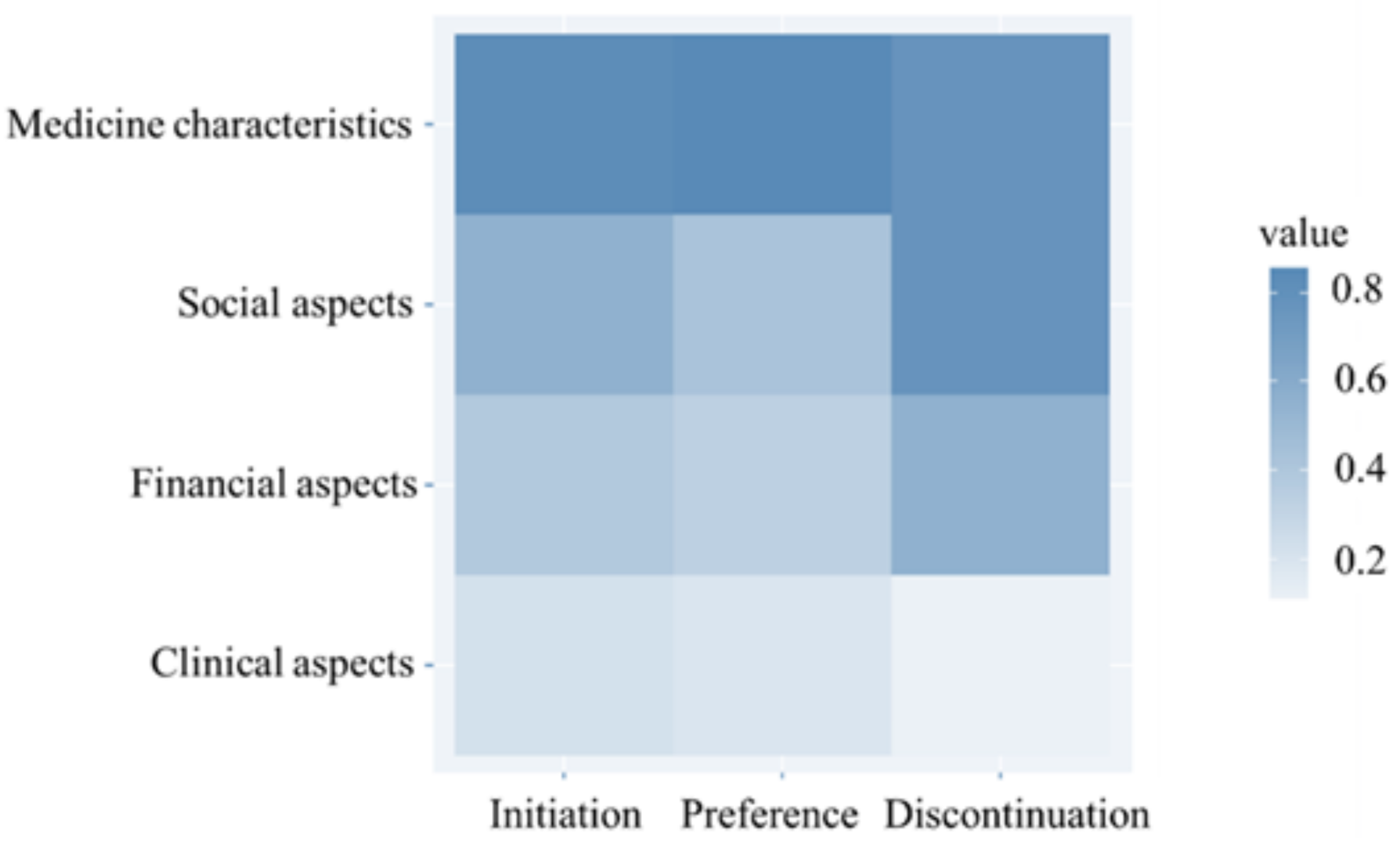


Figure 3. The frequency of four themes in three decision making processes

DISCUSSIONS

- Key findings**
 - Medicine characteristics and Social aspects were the two most frequently mentioned factors
 - Financial concerns were less frequently reported whereas Clinical aspects, despite its cruciality, were studied at the lowest frequency
- Clinical implications**
 - To create an environment where advantages and disadvantages of b/ts DMARDs are realistically displayed by rasing public awareness and knowledge
 - To establish sophisticated professionals and a professional way to provide information on treatment to patients.
 - To encourage eligible patients to use innovative drugs as soon as possible an
 - To consider more about routine disease management and patients' requirements
- Policy implications**
 - To address patients' financial burden and alliviate private pharmacy strikes, the complex process and bureaucracy involved in reimbursing bDMARDs