DEVELOPMENT AND VALIDATION OF MEDICATION ASSESSMENT TOOLS SPECIFIC FOR RHEUMATOID ARTHRITIS

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INTRODUCTION

Medication assessment tools are evidence-based instruments intended for the evaluation of prescribing trends and monitoring of adherence to established clinical management guidelines. To date medication assessment tools have been specifically designed and implemented in the management of a number of chronic conditions including heart failure, acute coronary syndrome, diabetes mellitus, pain management in cancer and asthma.

AIMS

To develop, validate and evaluate a novel pharmaceutical care model based on medication assessment tools specifically designed for rheumatoid arthritis.

METHOD

- **Guidelines, recommendations and standards on rheumatoid arthritis and its management as set out by the American College of Rheumatology (ACR), the European League against Rheumatism (EULAR), the British Society for Rheumatology (BSR) and the National Institute for Clinical Excellence (NICE) were used to develop a Rheumatoid Arthritis Medication Assessment Tool (RhMAT).**
- **The Summaries of Product Characteristics for each drug included in the RhMAT were used as reference for criteria related to pharmacological properties of the respective drugs.**
- **The RhMAT was validated by an expert panel consisting of 3 consultant rheumatologists, 2 pharmacists, a rheumatology practice nurse and an academic. The expert panel assessed the applicability of the tool to the practical scenario, presentation, robustness and validity of the information provided.**

RESULTS

- **The developed RhMAT (Table 1) was designed in the form of a table consisting of 11 separate sections, each of which addressed different criteria. Adherence to each criterion is determined by the researcher who can tick either not applicable; yes (criterion adhered to), no unjustified (not justified non-adherence), no justified (justified non-adherence), and insufficient data (to determine adherence). (Table 2)**
- **Following the expert panel review, two criteria were each split into 2 separate statements to increase specificity of the respective criteria.**
- **Following the pilot testing of the RhMAT in 10 rheumatoid arthritis patients, three criteria were amended so as to clarify reference to diagnosis of the condition.**

i. diagnosis of rheumatoid arthritis
ii. use of analgesics and nonsteroidal anti-inflammatory drugs
iii. use of methotrexate
iv. use of sulphasalazine
v. use of hydroxychloroquine
vi. use of leflunomide
vii. use of sodium aurothiomalate parenteral preparation
viii. general screening for biological therapies
ix. use of biological therapies,
x. use of glucocorticoids,
xi. remission cases

Table 1: The eleven sections of the RhMAT

	METHOTREXATE	YES	NO_U	NO_J	N/A	ID	Notes	REF
1	Used as a first line DMARD in absence of contraindications							
2	Pre-treatment screening							
3	Regular blood test monitoring							
4	Contraindications namely pregnancy, breastfeeding, active local or systemic infection, bone marrow suppression excluded							
5	The patient has been prescribed methotrexate at dose that is unambiguously expressed as a ONCE a WEEK administration							

Table 2: Extract from the RhMAT

CONCLUSION

The developed RhMAT was designed to be used in a busy adult rheumatology outpatient clinic as part of an ongoing multidisciplinary pharmaceutical care service. The implementation of the RhMAT enables the pharmacist to further improve medication use and rheumatoid arthritis management which is evidence-based according to international guidelines.

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