

EULAR
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Kilchberg,
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NEW: EULAR PUBLICATION ON THERAPEUTIC DRUG MONITORING IN PEOPLE WITH RHEUMATIC DISEASE

EULAR ‘points to consider’ published in the *Annals of the Rheumatic Diseases*

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Therapeutic drug monitoring (TDM) refers to the principle of using blood concentrations of biopharmaceuticals to guide therapeutic decisions. EULAR – the European Alliance of Associations for Rheumatology – has developed a set of new ‘points to consider’ to support TDM in people with inflammatory rheumatic and musculoskeletal diseases (RMDs). This publication appears in the May 2022 issue of the *Annals of the Rheumatic Diseases*. The new points are evidence- and consensus-based statements addressing the clinical utility of TDM in RMDs. In general, proactive use of TDM is not recommended, but reactive TDM could be considered in certain clinical situations.

Interest in TDM is increasing in rheumatology. This is supported by a growing body of evidence that TDM could be useful in several clinical situations, such as loss of response to therapy, interpretation of side effects, and to help determine dose adjustments. However, there are also knowledge gaps around the potential use of TDM, and many rheumatologists are unaware of the pharmacokinetic properties of the biopharmaceuticals that they prescribe.

Although biopharmaceuticals typically have a dose recommendation in their label, research has shown that individual patients have variation in the levels of the drug found in their blood. This finding suggests a potential benefit for dose optimization. However, the new points highlight that – despite an association with clinical response – the use of blood concentrations to guide dosing is not recommended due to the lack of an identified optimal range for most biopharmaceuticals in most indications.

The new EULAR points-to-consider were developed by a multidisciplinary task force from eight European countries, with health care professionals from rheumatology, bioanalytical science, health economics, and clinical pharmacy. There was also a partner from EULAR’s EMEUNET program, and three patient representatives. The work was completed in line with EULAR standardized operating procedures. All information included in the final paper was based on a systematic literature review and expert consensus.

Overall, 6 overarching principles and 13 points were formulated. The principles define two broad categories of TDM: *proactive* (scheduled testing irrespective of clinical situation) and *reactive* (testing in response to particular scenarios). The principles also reinforce key underlying pharmacokinetic and pharmacodynamic principles, which are relevant to all biopharmaceutical classes. An important consideration is that TDM should be part of a shared decision-making process between the patient and health care professionals, incorporating the patient’s individual experiences and preferences.

The points-to-consider highlight the clinical utility of the measurement and interpretation of

biopharmaceutical blood concentrations – as well as anti-drug antibodies in specific clinical scenarios. They stress that measurements should be performed in a validated laboratory, preferably using a consistent assay over time when measuring anti-drug antibodies.

This new publication highlights the potential clinical utility of the measurement and interpretation of biopharmaceutical blood concentrations and anti-drug antibodies, but places this alongside factors that influence these parameters such as dose, administration interval, body weight, methotrexate cotreatment, disease activity, and adherence to treatment.

As the field rapidly progresses, it is anticipated that more data will become available, which may prompt an update of these points-to-consider in the years ahead. Future research should focus on providing evidence on the effectiveness and safety of TDM, as well as a robust economic evaluation of its utility in patients with various RMDs.

Source

[Krieckaert CL, van Tubergen A, Gehin JE, et alEULAR points to consider for therapeutic drug monitoring of biopharmaceuticals in inflammatory rheumatic and musculoskeletal diseasesAnnals of the Rheumatic Diseases Published Online First: 12 May 2022. doi: 10.1136/annrheumdis-2022-222155](#)

About EULAR

EULAR is the European umbrella organisation representing scientific societies, health professional associations and organisations for people with rheumatic and musculoskeletal diseases (RMDs). EULAR aims to reduce the burden of RMDs on individuals and society and to improve the treatment, prevention and rehabilitation of RMDs. To this end, EULAR fosters excellence in education and research in the field of rheumatology. It promotes the translation of research advances into daily care and fights for the recognition of the needs of people with RMDs by the EU institutions through advocacy action.

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