

OPINION

by Prof. Svetlana Fotkova Georgieva, Ph.D., Department of Pharmaceutical Chemistry, Dean of the Faculty of Pharmacy at the Medical University

"Prof. Dr. Paraskev Stoyanov" - Varna

(Internal member of the Scientific Jury, approved by Order No. R-109-94/12.02.2026 of the Rector of MU-Varna)

of a dissertation for the award of the educational and scientific degree "doctor", field of higher education 7. Health and sports
professional field 7.3. Pharmacy
Doctoral program "Pharmacoeconomics and Pharmaceutical Regulation"

Author: Lada Alexandrova Andreeva

Form of doctoral studies: independent form of study

Department: " Organization and Economics of Pharmacy " at the Faculty of Pharmacy at the Medical University - Varna

Subject: "Investigating the potential of pharmaceutical care to improve therapeutic outcomes and prevent complications in patients with ankylosing spondylitis "

Scientific supervisor: Assoc. Prof. Anna Hristova Todorova, M.A., Ph.D.

Scientific consultant: Prof. Valentina Petkova-Dimitrova, Ph.D.

1. General presentation of the procedure and the doctoral student

The presented set of materials on electronic media is in accordance with Section. Acquisition of the educational and scientific degree "DOCTOR" and the scientific degree "DOCTOR OF SCIENCES" at MU-Varna; Regulations of MU-Varna and includes a complete set of documents.

Lada Alexandrova Andreeva graduated with a Master's degree in Pharmacy from the Medical University of Sofia in 2007 with full honors and is a winner of the Golden Galen award. Since 2023, she has been an assistant professor at the Angel Kanchev University of Ruse, Faculty of Public Health and Healthcare. Since 2024, she has been a doctoral student in the Department of Organization and Economics of Pharmacy.

She has significant professional experience in open-type pharmacies. A total of five scientific publications are attached to the documents, one of which was published in a journal with an impact factor.

2. Relevance of the topic.

The topic of the dissertation is "Investigating the possibilities of pharmaceutical care for improving therapeutic outcomes and preventing complications in patients with ankylosing spondylitis". The relevance of the study is determined by the growing importance of chronic inflammatory diseases and the need to apply a multidisciplinary approach in their treatment.

Ankylosing spondylitis is a chronic, progressive disease of the spondyloarthritis group, which affects mainly young individuals and leads to a significant deterioration in the quality of life, functional disability and significant socio-economic consequences. Despite advances in modern therapy, including the use of biological medicinal products, challenges remain in achieving optimal disease control, adherence to therapy and prevention of complications.

In this context, pharmaceutical care is being established as an essential component of the patient-centered approach in healthcare. The role of the pharmacist includes monitoring drug therapy, identifying and preventing drug interactions and adverse drug reactions, as well as limiting problems related to the improper use of medicinal products. By actively participating in patient education and increasing their health culture, prerequisites are created for improving therapeutic adherence and reducing the risk of complications.

The importance of the topic is also determined by the need to optimize healthcare costs, as ineffective treatment and insufficient disease control lead to an increased frequency of hospitalizations and additional medical interventions. The implementation of effective

pharmaceutical care can contribute to improving clinical outcomes and more rational use of resources in the healthcare system.

In this regard, exploring the possibilities of pharmaceutical care in patients with ankylosing spondylitis is justified and necessary, as it has the potential to increase the quality of life of patients, reduce the incidence of complications, and support the sustainable development of healthcare.

The aim of the dissertation is clearly formulated and consists of studying the attitudes and competencies of pharmacists in providing pharmaceutical care to patients with ankylosing spondylitis, as well as analyzing the possibilities for integrating the pharmacist into the multidisciplinary approach with a view to preventing complications and optimizing therapeutic outcomes.

The overview is up-to-date and structured in three main sections, which sequentially examine the nature and characteristics of ankylosing spondylitis, modern therapeutic approaches, and the principles of good pharmaceutical practice.

The in-depth analysis of the scientific literature shows that the doctoral student has a very good knowledge of the issues under consideration. A well-reasoned author's opinion is also presented, combined with a critical analysis of the existing problems, which justifies the formulation of the goal and objectives of the dissertation work.

3. Research methodology.

The methodology is adequately selected and corresponds to the set goals and objectives. A complex scientific approach has been applied, including documentary analysis, sociological methods (surveys and interviews) and statistical processing with modern tools (SPSS).

The logical sequence in the application of the methods ensures the fulfillment of the research tasks and presupposes the obtaining of valid and reliable results. The inclusion of two main groups – pharmacists and patients – guarantees a comprehensive analysis of the research problem.

The use of validated instruments (BASDAI, EQ-5D-5L, MMAS-8) and an appropriate sample size confirms the scientific validity and reliability of the results obtained.

4. Characterization and evaluation of the dissertation work and contributions.

The dissertation is composed of 145 pages. It is illustrated with 38 tables and 4 figures. 254 contemporary literary sources are cited.

The dissertation contains clearly defined scientific contributions, which can be divided into the following areas:

1. Scientific and theoretical contributions.

1.1. Enrichment of theoretical knowledge regarding the role of the pharmacist in early recognition and comprehensive care for patients with ankylosing spondylitis by identifying gaps in knowledge and factors influencing professional readiness. 1.2. Implementation of a comprehensive characterization of patients with ankylosing spondylitis on a regional scale, including socio-demographic indicators, comorbidities, health-behavioral factors, applied therapies, disease activity, quality of life and degree of therapeutic adherence. 1.3. Establishment of significant relationships between modifiable health-behavioral factors (smoking, physical activity, sleep) and disease activity, contributing to a deeper understanding of the clinical course of the disease.

2. Scientific and practical contributions .

2.1. Development of practical algorithms, screening checklist and training materials, tailored to the identified needs of pharmacists and applicable in pharmacy practice for early referral to a rheumatologist and provision of pharmaceutical care for patients with ankylosing spondylitis. 2.2. Identification of factors of practical importance for the control of disease activity, creating prerequisites for an individualized approach to care. 2.3. Identification of an increased risk of low adherence to prescribed therapy and emphasizing the role of educational interventions for its improvement. 2.4. Argumentation of the need for active participation of the pharmacist in the multidisciplinary approach to the complex care of patients with ankylosing spondylitis.

The results obtained have both theoretical and practical significance. Gaps in pharmacists' knowledge and confidence regarding ankylosing spondylitis and the provision of pharmaceutical care

were identified, as well as major barriers related to lack of time, training, and appropriate organizational conditions.

A relationship has been proven between the degree of adherence to therapy and clinical outcomes in patients.

Algorithms for pharmaceutical care and screening applicable in pharmacy practice have been developed.

The results have been correctly analyzed and interpreted, and practically applicable conclusions have been formulated.

The cited literature has been used adequately and in accordance with the purpose and objectives of the dissertation.

5. Assessment of the doctoral student's publications and personal contribution.

The doctoral student has presented 5 publications, one of which is IF. 3 participations in international conferences have been presented.

6. Abstract.

The abstract is prepared according to the requirements and reflects the main results presented in the dissertation. The abstract is 68 pages long.

CONCLUSION

The dissertation work *contains scientific, scientifically applied and applied results that represent an original contribution to science* and meet all the requirements of the Act on the Development of the Academic Staff in the Republic of Bulgaria (ADSRB), the Regulations for the Implementation of the ADSRB and the Regulations of MU - Varna. The presented materials and dissertation results fully comply with the specific requirements adopted in connection with the Regulations of MU - Varna for the Implementation of the ADSRB.

Because of the above, I confidently give my *positive opinion evaluation* and *I propose to the esteemed scientific jury yes awarded the educational and scientific degree "doctor"* to Lada Alexandrova Andreeva in Doctoral program in Pharmacoeconomics and Pharmaceutical Regulation, field of higher education 7. Health and Sports, professional field 7.3. Pharmacy.

06.04.2026

Prepared the opinion :
/Prof. Svetlana Fotkova Georgieva, Ph.D./

Заличено на основание чл. 5, §1, б. „В“ от Регламент (ЕС) 2016/679
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