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ACADEMIC STATEMENT OF OPINION

on a dissertation submitted for the award of the educational and scientific degree "Doctor" (PhD)

prepared by Assoc. Prof. Alexander Katzarov, md, Military Medical Academy - Sofia
(academic position, full name, academic degree and academic institution)

Professional field	7.1 Medicine
Doctoral programme	Gastroenterology
Author	Dr Konstantin Ivanov Zhelyazkov
Mode of doctoral study	Independent study
Department	Second Department of Internal Medicine, Section of Gastroenterology, Faculty of Medicine, Medical University of Plovdiv
Title	"Assessment of the Frequency and Malignant Potential in Patients with Barrett's Oesophagus"
Academic supervisor	Prof. Vladimir Andonov, MD, PhD, Medical University of Plovdiv

1. Overview of the Procedure and the Doctoral Candidate

The academic dossier submitted for review contains the materials required to assess the dissertation and the completion of the individual study plan. It includes the documents certifying enrolment, training and completion of the doctoral programme with the right to defend, the records of the examinations and departmental review, the dissertation, the dissertation abstract, the declaration of originality and the publication documentation. I find no administrative obstacle to a substantive assessment.

Dr Konstantin Ivanov Zhelyazkov conducted the research as a doctoral candidate pursuing independent study at the Second Department of Internal Medicine, Section of Gastroenterology, under the supervision of Prof. Vladimir Andonov, MD, PhD. The doctoral training was conducted from 15 February 2023 to 15 February 2026. The doctoral qualifying examination in the specialty was passed on 12 June 2025 with a grade of Excellent 6.00, and the submitted dissertation was approved by the extended Departmental Council on 27 November 2025 by the unanimous positive vote of all 24 members present.

The dissertation comprises 151 pages and includes 15 tables, 44 figures and a bibliography of 200 sources. Its scope permits a comprehensive account of the theoretical background, clinical material and results. The candidate's professional profile and publication activity demonstrate sustained engagement with upper gastrointestinal endoscopy and premalignant lesions of the oesophagus.

2. Relevance of the Topic

The selected topic lies at the intersection of early cancer prevention and everyday gastroenterological practice. Barrett's oesophagus is recognised as a condition associated with an increased risk of oesophageal adenocarcinoma, but that risk is not uniform across all patients. The clinical value of the diagnosis therefore depends not only on establishing it, but

also on reliably identifying the patients who require more intensive surveillance or timely treatment.

Differences in endoscopic definitions, biopsy techniques and histological criteria make direct comparison of published data difficult. This gives particular importance to studies that describe real-world clinical practice while considering morphology, dysplasia and comorbidities. The dissertation provides data from two clinical settings in Plovdiv and adds to the still limited Bulgarian evidence base. Its aim and objectives are clinically motivated and address a current medical problem.

3. Knowledge of the Research Problem

The literature review demonstrates a thorough command of current concepts relating to gastro-oesophageal reflux disease, metaplastic transformation, dysplasia and adenocarcinoma. It discusses diagnostic standards, the role of endoscopic techniques and biopsy protocols, morphological verification, risk factors, screening options and the principal therapeutic approaches. In this way, the candidate establishes a clear conceptual basis for the original study.

The literature is used critically: the reasons for divergent results between individual series are identified, and established associations are distinguished from claims that remain under debate. The discussion does not treat the candidate's findings in isolation, but places them in an international context and considers possible explanations for the differences. This demonstrates the required theoretical proficiency and the ability to interpret scientific information rather than merely reproduce it.

4. Research Methods

The study is retrospective and includes 880 patients who underwent upper gastrointestinal endoscopy between 2017 and 2024. Within this source cohort, 183 cases of Barrett's oesophagus were identified. Data on age, sex, symptoms, comorbidities, endoscopic findings and histological findings were used, allowing a comprehensive clinical analysis.

The endoscopic method combines a description of visible lesions, application of the Prague C&M Classification, and targeted and systematic four-quadrant biopsy sampling. The morphological assessment includes the type of metaplasia and the presence and grade of dysplasia. The statistical plan covers descriptive measures, comparisons of proportions and categorical variables, and logistic regression analysis. Comparisons by sex account for the sizes of the respective groups among all patients who underwent endoscopy.

The selected design is appropriate for describing the hospital cohort and assessing associations between the recorded characteristics. It is not, however, designed to estimate prevalence in the general population or an individual's probability of malignant progression. The retrospective design, selection of patients for endoscopy and unequal duration of follow-up must be considered when generalising the findings. Within these limits, the methods address the stated objectives.

5. Characteristics and Assessment of the Dissertation and Its Contributions

The dissertation has a coherent internal structure. The research question is translated into measurable clinical and morphological variables, the results are presented in appropriate tables and figures, and the discussion compares them with the scientific literature. A particular strength is that Barrett's oesophagus is considered not as an isolated endoscopic finding, but as part of the patient's overall clinical profile.

In the endoscopy cohort, 183 cases were identified, corresponding to 20.8% of the 880 individuals examined. This figure describes the specific selected cohort. Barrett's oesophagus was identified in 87 of 406 men and 96 of 474 women; the similarity between the sexes is supported by the absence of a statistically significant difference ($p = 0.668$). The mean age was 57 ± 15.81 years and the median was 59 years; the analysis indicates a stronger age-related association in certain groups.

Dysplasia was found in five of the 183 patients - four cases of low-grade dysplasia and one of high-grade dysplasia. One case each of oesophageal and gastric adenocarcinoma was reported. These findings have descriptive value for the cohort, but should not automatically be regarded as two proven cases of progression from Barrett's oesophagus. Histologically, gastric-type columnar metaplasia was recorded in 178 patients and specialised intestinal metaplasia in five; the result highlights the need for the diagnostic criteria to be stated unambiguously.

The clinical profile is further characterised through an analysis of comorbidities. At least one comorbidity was identified in 156 patients and more than one in 98 (53.55%). These data indicate that patient surveillance should take overall health status into account. They do not establish causality, but provide a useful basis for planning more precise future analyses.

Assessment of the Contributions

The scientific contribution is primarily confirmatory and descriptive, but it is based on a substantial body of original clinical material. For the first time within the presented local series, data have been integrated on the proportion of Barrett's oesophagus among all patients undergoing endoscopy, demographic distribution, morphological variants, dysplasia and a broad range of comorbidities. This provides a more complete profile of the affected patients.

The scientific and practical contribution lies in supporting standardised endoscopic assessment, systematic biopsy sampling and mandatory correlation of endoscopic and histological findings. The dissertation defines the limits of data from a retrospective hospital series and provides a basis for a subsequent prospective study. The findings may help refine local diagnostic and surveillance algorithms without being presented as a ready-made population programme.

6. Assessment of Publications and the Candidate's Personal Contribution

The results and subject matter of the dissertation are reflected in nine publications: five review articles and four clinical reports. The topics include current challenges in the diagnosis and surveillance of Barrett's oesophagus, its association with reflux disease, risk factors for oesophageal carcinoma, novel biomarkers and screening strategies, as well as rare clinical associations. The publication portfolio is thematically aligned with the dissertation and demonstrates sustained work on the research problem.

Dr Konstantin Ivanov Zhelyazkov is first author on all nine publications. His authorship position, the correspondence between the publications and the dissertation, and the submitted declaration of originality support the conclusion that he made the leading personal contribution to the collection and systematisation of clinical information, endoscopic diagnosis, analysis of results and preparation of the dissertation. No evidence of independent citations has been submitted; I therefore do not attribute to the publications any bibliometric impact not documented in the materials.

Critical Comments and Recommendations

My critical comments concern the precision of interpretation, not the validity of the collected material. The term "frequency" should always be explicitly linked to the group of patients

undergoing endoscopy, because the result does not measure population prevalence. Malignant potential may be discussed in terms of the identified dysplasia and neoplasia; however, quantitative estimation of progression would require a predefined and consistently documented follow-up period for each patient.

If the research is continued, I recommend a prospective multicentre design, a uniform definition of Barrett's oesophagus, systematic recording of segment length and risk factors, and confirmation of dysplasia by a second experienced pathologist. A final technical cross-check between the dissertation and its abstract regarding terminology, numerical values, bibliography and numbering would also be useful. These recommendations define a natural next stage of the research and do not diminish the value of the present work.

7. Dissertation Abstract

The dissertation abstract comprises 35 pages and presents the structure and rationale of the dissertation in concise form. It includes the relevance of the topic, the aim and objectives, the study design, the principal results, the discussion, the conclusions, the contributions and the publications related to the topic. Nine publications are listed, consistent with the separate publication list submitted.

The key numerical findings and the limitations on their interpretation are communicated clearly, and the conclusions follow from the data presented. The abstract provides an independent and accurate overview of the study without replacing the detailed account in the dissertation. Subject to routine final editorial checking, I consider it fit for purpose and compliant with academic requirements.

CONCLUSION

The submitted dissertation is a complete, independent research study with demonstrable scientific and applied value. The candidate has analysed a substantial body of clinical material, applied methods appropriate to the objectives, and formulated conclusions supported by the findings and framed within the limitations of the design.

In content, scope and publication record, the dissertation complies with the requirements of the Development of Academic Staff in the Republic of Bulgaria Act, its Implementing Regulations and the Regulations of the Medical University of Plovdiv. Dr Konstantin Ivanov Zhelyazkov demonstrates in-depth training in gastroenterology, clinical competence, and the ability to plan, conduct and present independent scientific research.

My final assessment is positive. I recommend that the esteemed Scientific Jury award Dr Konstantin Ivanov Zhelyazkov the educational and scientific degree "Doctor" (PhD) in the doctoral programme in Gastroenterology, professional field 7.1 Medicine.

Заличено на основание
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28.09.2026, Plovdiv

Opinion prepared by: .....

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(academic position, name and surname, academic degree)