

CHARLES UNIVERSITY IN PRAGUE
FACULTY OF PHARMACY IN HRADEC KRALOVE
Department of Social and Clinical Pharmacy

Pharmacy

Review of diploma thesis

Student: **Konstantina Tsianou**

Mentor of the thesis: prof. RNDr. Jiří Vlček, CSc.,

Year of the defence:

Reviewer of the thesis: PharmDr. Kateřina Láďová, Ph.D.

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Title of diploma thesis:

Preliminary analysis of drug adherence of patients suffering with ulcerative colitis

Formal comments: number of pages: 122, number of graphs: 0, number of figures: 3,

number of tables: 32, number of references: 123

Type of work: Experimental

a) Aim of the thesis is: Fulfilled

b) Language and graphic level: Very good

c) Processing of theory: Very good

d) Methods description: Good

e) Results description: Very good

f) Discussion and conclusions: Very good

Reviewer comments: The topic of diploma thesis is very interesting and very actual in current research as well as clinical practice. Accurate assessment of adherence to the therapy and beliefs about medications in long-term diseases is really needed, as it may contribute to achieving of the effective and safe pharmacotherapy. Diploma thesis reflects this drug-related problem in case of ulcerative colitis, which is really comprehensively described in the theoretical part comprising almost 80 pages. This part is accompanied by short experimental section analyzing patients' attitudes toward medicines, as the accuracy of measurement is ensured by use of standard and validated method used in a questionnaire survey conducted in Greece.

I have several comments to the form and content of this work:

- Diploma thesis is divided into 6 chapters which is less clearly organized instead of more frequently used formatting into theoretical (i.e. 1-4 chapters) and experimental (i.e. 5-6 chapters) part. Additionally, the thesis content does not state on which pages individual chapters could be found. The list of tables and figures is also missing which would help to better orientation in the thesis.

- There are a few mistypes (e.g. choric disease, Linker scale), different formatting style (e.g. page 6 - list of abbreviations) as well as syntax/grammar problems, e.g. suffer with instead of suffer from (in the title of thesis). Abbreviations must be explained immediately after its occurrence in the text (e.g. IBD firstly described on page 51 instead of page 7).

- The aim of the survey is to investigate the role of beliefs about medicines and their adherence to prescribed medication using Beliefs About Medication Questionnaire (BMQ). This could be discussed, because even if BMQ has shown some correlations with medication adherence in previously published studies, especially when the Specific subscale focused on patient's concerns and necessity of used drugs was applied, BMQ was not originally

developed for "direct" measuring of adherence. The author also mentioned this fact, for instance on page 61. Good example is reflected in the results of the thesis, as the BMQ score is counted for all types of drugs used by patients in the analysis. However, while measuring the adherence, it is better to analyze different drugs or at least drug forms or dosing regimen separately to get more precised results.

- Further, the author mentioned other self-reported tools for measuring adherence which, based on my opinion, would be more appropriate in adherence measuring in the analysis, especially if combined with BMQ or any clinical outcome. The names of other questionnaires mentioned in diploma thesis are not correct in some cases (e.g. questionnaire from Morisky et al. 1986 is originally called Morisky Medication Adherence Scale, MMAS-4, not MAQ as mentioned on page 51).

- The methods of the analysis is not sufficiently described. There is not clear, how the data were collected, how was the questionnaire distributed, if there were any exclusion criteria, where did the sample of patients came from etc. The study was probably conducted according to the previous study mentioned in chapter 4.4, however, the own process should be properly described too.

- Indeed, even if the huge statistical analysis has been done, the results could be more in detail discussed as well as the limits of the study would be appreciated to report. For example, there was found only two statistically significant correlations between medication characteristics and BMQ General subscale, however, there is not mentioned what does it mean, especially in context of medication adherence.

- The conclusion does not summarize the obtained results. There are noted satisfactory psychometric/measurement properties of the Greek version of BMQ, however it was not the aim of the study.

- In the abstract, the introduction is missing, methods and results do not contain main information about survey procedures and data collection as well as description of study population.

- The title page translated in Czech language is missing. I recommend to supplement it.

- The reference list does not correspond with references mentioned in the text in most cases and this should be unified. Further, the citing style is correct until reference no. 70, then it is not uniform too. I also recommend unifying.

Questions: 1) The author was using terms adherence and compliance to the therapy and combine them in various ways, however, it is not clear from the text, if there is any difference between them. Can you explain these terms and the relationship between them?

2) You mentioned that one of the possible interventions for supporting medication adherence is pill-boxes. Can be pill-boxes used for all of the oral drugs using in ulcerative colitis treatment?

3) What was the reason to choose two age categories (20-45 and 46-65 years) in the analysis?

4) As it is shown in table 22, 36 patients were treated with azathioprine, 31 with infliximab, and 5 with methotrexate. Do you think, there are some differences in patient beliefs to this medications as well as medication adherence between those drugs?

5) In the conclusion you mentioned that BMQ is useful tool for the gastroenterologists. Based on the review and the analysis you did, can you report any potential advantages and disadvantages of BMQ for clinical practice?

Evaluation of diploma thesis: Very good, to defense: Recommended

In Hradec Kralove 21. 9. 2016

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