Possible patient overlap in studies

I read with great interest the article by Sandra Dial and colleagues, in which they reported an increased risk of *Clostridium difficile*-associated disease with exposure to proton pump inhibitors.[1] The cases in this study were recorded in the United Kingdom General Practice Research Database (GPRD) between Jan. 1, 1994, and Dec. 31, 2004. The authors claim that there was no overlap between the cases in this study and those in a study they published previously.[2] Interestingly, in the previous study conducted by Dial and colleagues, data were derived from the same database over the same time period.[2] The cases included in that study were instances of a first occurrence of *C. difficile*-associated disease defined on the basis of a positive *C. difficile* toxin assay or a clinical diagnosis by a general practitioner. How is it possible that the patients in the current study are not the same ones who were previously studied? It seems very likely that any of the patients treated with oral vancomycin who were included in the current study either would have had a positive *C. difficile* toxin result or would have received a clinical diagnosis of *C. difficile*-associated disease during the study period.

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[Two of the authors respond:]

We conducted our *CMAJ* study[1] using cases defined by prescription for oral vancomycin therapy in response to the criticism of the clinical diagnosis case definition that we used in our earlier paper published in *JAMA*,[2] as well as in response to the issues raised by van Staa and colleagues concerning changes in recording.[3] We wished to tighten the case definition by looking at patients who received a prescription for oral vancomycin for whom the only indication was treatment of *Clostridium difficile*-associated disease.

We found that for about 90% of patients for whom a *C. difficile* toxin assay was performed, the result was not entered in the laboratory results section of the database. We also found that there were 2 different coding systems for medical diagnoses: OXMIS and READ. In practices using the OXMIS coding system, there was no medical diagnostic code for *C. difficile*-associated disease, so these practices may have been missed in our original study. We believe that the laboratory results and clinical diagnosis may have been included in the free-text section of the database, to which we did not have access. In addition, if the test was done but no results were entered into the database, these patients were excluded from our original study if they did not have a clinical diagnosis,[2] and thus we possibly missed cases.

We believe that by defining cases by prescription for oral vancomycin in the present study, we were able to find patients from practices using the OXMIS coding system and possibly patients whose toxin assay results or clinical diagnoses might have been entered only in the free-text section of the database. As we indicated in our *CMAJ* article, when cases were defined on the basis of a prescription, the results were less likely to be affected by changes in data entry and recording over time.[3] Finally, as we demonstrated several times in the article, the cases in the 2 studies did not overlap.

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Health science research in Hungary

We read with great interest the paper by Judith Hall and associates on interdisciplinary health research in Canada.[1] In the 1990s, Canada contributed significantly to the development of education and research in the health sciences in Hungary after the social and political changes that occurred in Eastern Europe at the beginning of the decade. With the establishment of a health care management training centre in Dobogókõ with the assistance of McGill University, Hungarian health care leaders were able to acquire modern management skills. With the help of Douglas College (New Westminster, BC), bachelor's and master's level programs in nursing

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