

Has Misdiagnosis of Appendicitis Decreased Over Time?

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See the abstract, Tables I and II, and Figure.

Q.1 Why the focus in the Figure, in Table II, and on the abstract, on population based incidence (rather than the percent misdiagnosis in Table I)?

Q.2 The authors used two methods to deal with changes in the underlying population at risk. One of them is multiple regression. What is the other one?

Q.3 “The Poisson regression model was used to adjust for the sex and age of the patient” (Methods)

How exactly was this done? Explain as though you were setting up the data in SAS. Explain how one translates the output into changes in incidence per year.

Q.4 Is there any reason to think the Poisson regression model might not be appropriate here?

Q.5 “A test for trend was applied to evaluate significant changes over time in procedure-based rates of all appendectomies and incidental appendectomies (Table I) and frequencies of appendicitis, misdiagnosis and perforation.” (Figure and Table 2)

Explain how a test for trend is operationalized (a) in a “tabular” (non regression) framework, and (b) in a regression framework.

Q.6 How are the tests for trend carried out for Table 1?