Reviewer's report

Title: General practitioner practices in requesting laboratory tests for patients with gastroenteritis in the Netherlands, 2001-2002

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Reviewer: ron winkens

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General
The study addresses some interesting issues, such as the use of health care resources in daily practice and the adherence to guidelines.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
What would be welcomed is something like a hypothesis about what adherence to guidelines would mean. Now, the conclusion is that GPs do not adhere to diagnostic recommendations as tests are ordered in one in 8 cases. Are these too many? Is the glass half full or half empty? Although the test patterns are considerably lower than those outside the Netherlands, they are still considered as reflecting poor adherence to guidelines? The comparison with the national guidelines is quite crucial. I suggest the authors include the comparison briefly in the methods section (which, if any, criteria or parameters are used?), together with specific information about the contents of the guidelines. Direct comparison with quality indicators would give more specific insight. Some recommendations in the guidelines are very specific and can be used as such, while others are unspecific and rather vague.

How is the study cohort selected? The GPs involved work in average practices, but what about their professional skills and views? Could this influence external validity of the results? This should be addressed.

In my view, the conclusion that the national guideline needs to be improved is not relevant within the scope of this paper. The paper addresses test use and adherence to the guideline, not the contents of the guideline. Moreover, this conclusion on the quality of the guidelines is not supported by evidence, neither evidence from the present study nor evidence from literature.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

From literature, test patterns from other countries suggest more requests in the UK and the US. Is there some evidence that these situations are comparable or not? A misunderstanding may be present on page 10. The difference in test patterns between the US and the Netherlands addressed on page 10 is not necessarily explained by the type of physician. Especially in the American cities primary care is usually provided by general internists and pediatricians. Their work in primary care is often comparable with that of Dutch GPs and to some extent they even act as gatekeeper for secondary care.

Discretionary Revisions (which the author can choose to ignore)
In the paper test requests for viruses are not considered non-rational, whereas the guidelines gives
general recommendation that testing is only indicated in very specific cases and the relevance of test results in the absence of diagnostic consequences is questioned in the guideline. This seems different in the paper. Is there evidence from primary care supporting the relevance of testing for viruses?

A considerable amount of tests is not in line with recommendations. Can the authors provide information about the role of pressure by the patient? In my own experience, requests by patients are common.

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No

**Declaration of competing interests:**

No competing interests