Reviewer’s report

Title: Use of Common LRs: A Useful Tool for Taking Evidence Based Clinical History

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Reviewer: Kees van Boven

Reviewer’s report:

This is a very interesting and well written article!

My backgrounds: a family physician for more than 30 years and chair of the Transition project: http://www.transitieproject.nl

1 Major compulsory revision: working as a GP you "know" the prior probability of diseases/problems for many complaints and symptoms presented by the patient. The prior probability depends on the prevalence, sex, age etc. For example the if a patient has the complaint tiredness/ general weakness the top 20 end diagnosis will be different in the age and sex classes. Mostly the "diagnosis" stays tiredness but the older the population the higher the chance for having a depression. In my opinion you only consider broader categories of diseases when patients present unusual complaints, complaints with a very low frequency in family practice. And when you consider a serious disease as for example meningitis the common LR will not help the GP. But when you know the prior chance it is very important to know the posterior probability of a diagnosis in the presence of a complaint or symptom. When I use your table 1 you can see that the symptom fever does not contribute to the diagnosis otitis media (the what H. Lamberts called the posterior Odds = LR+/LR- = 0,7) and from other research the the symptom pain in the ear has a posterior Odds of 15,8 (LR+ = 7,8 and LR- = 0,5) and contributes a lot to the diagnosis. So my conclusion is that common LR are not very helpfull. But this is really something to discuss!! I am waiting for your answer.

The minimum level of clinical significance for an odds ratio will arbitrarily be taken as that which represents a standardised difference of at least 0.10 (10%), which translates to a relative risk of 2.0 or more. 13 Since the odds ratio tends to overestimate the relative risk, an arbitrary cut-off level of #3 (#2.45) for the odds ratio of a positive association, and #0.3 (#0.34) for the odds ratio of a negative association, will be taken as thresholds for clinical relevance. Odds ratios which are outside these limits as well as calculations based on cells with very small numbers will be ignored. Furthermore, odds ratios which are not at least as large as their confidence interval will be ignored as statistical unreliable. 8, 14

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.