**Appendix S1**: Example of posterior probability calculation.

Suppose we want to calculate the posterior probability of an adverse event, given that 14 out of 30 reviewers assigned a positive rating:



We calculate this probability using a straightforward application of Bayes’ rule:



and the binomial formula:



From the latent class analysis, the prevalence of an adverse event is , common sensitivity is  and

1-specificity==1-0.8264=0.1736.

Thus, using Bayes’ rule:



First calculate the numerator using the binomial formula:



Then calculate the denominator:



This yields the result:

