

EBM Stats Calc: there's a stat for that

Quantifying the value of a specific test or intervention for a patient is no easy feat. Even when the value of a given test or intervention has been established, there may be additional case-specific factors to consider that are not easy to calculate. In the absence of a specific tool, physicians may be left with little more than estimates and educated guesses.

EBM Stats Calc is an app that aims to help physicians better quantify their decision-making processes. Clinicians can input likelihood ratios, sensitivity / specificity values, or raw data to calculate number needed to treat (NNT), post-test probability and positive / negative predictive value.

For anyone in need of a stats refresher, NNT calculates the number of patients who would need to be treated for one patient to benefit. It can be used to compare the usefulness of a given intervention to a control or to another intervention. On the app, clinicians can input known rates, percentages, or event and patient numbers to calculate the NNT. Post-test probability is the probability that a disease is present or absent after a specific test has been performed. It can be calculated through the app by inputting the pre-test probability along with known sensitivity and specificity values, or likelihood ratios. You can also calculate positive and negative predictive values, which represent the likelihood that the obtained test result (positive / negative) is correct.

EBM Stats Calc was developed by Dr Josh Steinberg, a physician who has developed a number of apps that make it possible to consult evidence-based resources at the point of care. In addition to its value as a resource for medical decision-making, Dr Steinberg has correctly pointed out the potential value of *EBM Stats Calc* as an educational resource. For example, educators can demonstrate the impact of pre-test probability on the overall usefulness of a test: students can use the slider tool to adjust the pre-test probability and then watch to see the impact of those adjustments on the calculated values. Users can also click on 'more info' to access detailed information about the calculations available in each section of the app.

The interface for *EBM Stats Calc* is simple and user-friendly, perfect for busy physicians who need answers as quickly as possible. The app is available for free via the Apple App Store.

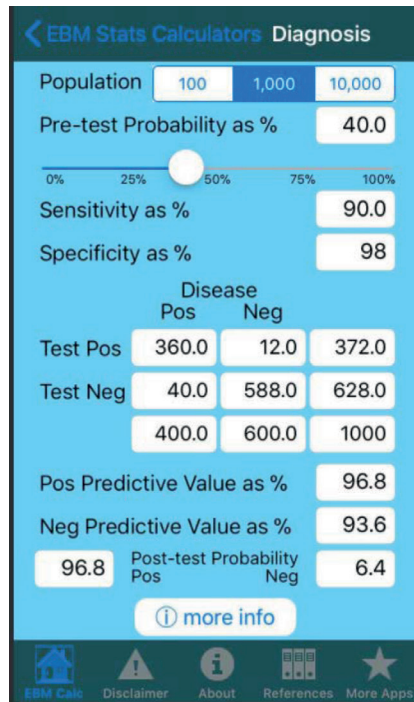


Figure 1

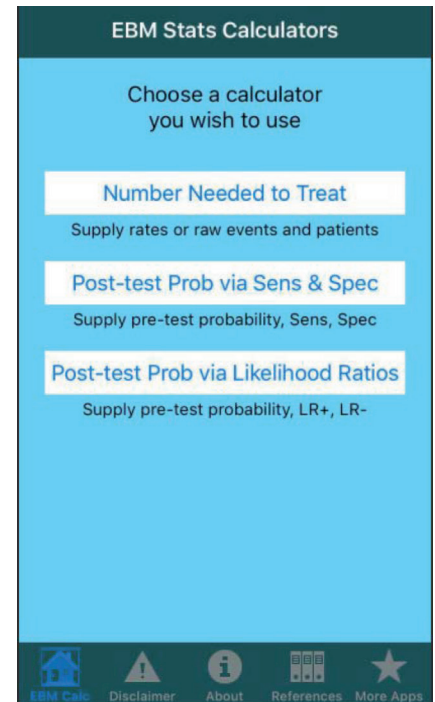


Figure 2

“Educators can demonstrate the impact of pre-test probability on the overall usefulness of a test: students can use the slider tool to adjust the pre-test probability and then watch to see the impact of those adjustments on the calculated values.”

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