



## Hot flashes: Statistics and common sense

Evidence-based medicine sounds simple, but it is often fraught with difficulty.

Let's say we have two possible approaches to a condition. Which one works better? Which has less associated risk? And what does each one cost? Suppose a large controlled trial finds that one strategy is marginally more effective than the other, but the latter is marginally safer. But suppose the Europeans do a similar large trial with apparently trivial differences in design and find the opposite results, though the differences again are very small.

Controversies over thrombolytic agents, preventive strategies for osteoporosis, breast cancer screening, and others have been difficult to resolve because of these issues.

One problem is that statistics do not and probably cannot tell the whole story when the differences are small. Small differences in study design, populations, drug compounding, and, for subjective outcomes, expectations may explain all or part of the divergent findings. But in the end, we are comparing apples with oranges when we look at effectiveness vs risk vs cost. What's a year of life or a year free of symptoms worth, and what risk are we willing to take to get it? How can we use our hard-won data to see which is the better of the two approaches (totally aside from the consideration that there may be several other approaches that we didn't even look at)?

In this issue (page 578), Drs. Sikon and Thacker compare various methods of treating hot flashes and discuss the controversy over using hormone-replacement therapy vs less effective, more expensive, but possibly less dangerous treatments to prevent them. The hazards of hormone replacement are small increases in the risk of venous thromboembolism, stroke, gall bladder disease, and certain cancers. The authors lay out the findings of the various studies and then they apply common sense to the situation. That's what the statistics can't do for us; we have to provide it ourselves.

Furthermore, we have to include the patient in the process. Never having had a hot flash myself, it's hard for me to judge what I'd be willing to do to avoid one, and I would wager that not all fully informed patients would make the same choice. Bringing this critical bit of information into the decision-making process makes good, evidence-based medical care even better. After all, isn't that what we want for our patients?

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