

PATRICK MALONE & ASSOCIATES, P.C.
From Tragedy To Justice - Attorneys For The Injured

We win exceptional verdicts and settlements for our clients in cases of brain injury, medical malpractice, wrongful death and other severe injuries.

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[Our firm's website](#)

[Read an excerpt from Patrick Malone's book: *The Life You Save: Nine Steps to Finding the Best Medical Care -- and Avoiding the Worst*](#)

The One Medical Statistic You Need to Know

Every single recommendation you will ever get for health care -- at least if it's grounded in science, not fantasy -- depends on numbers. How many people live, and how many people die, if they get Treatment A, and what difference if they get Treatment B? That's what most medical researchers do: Count human lives and compare groups to see what works and what doesn't work.

The trouble is that medical news is chock-a-block with intimidating numbers that are hard for a lay person to sort out. Worse, sometimes the sellers of new medical "breakthroughs" are actually trying to mislead and confuse you.

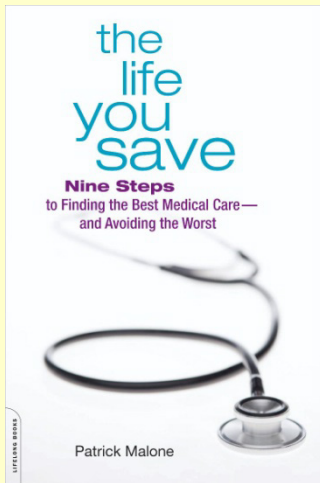
But now, we ride to the rescue with this: The One and Only Medical Statistic You'll Ever Need. It's called the Number Needed to Treat. This is a statistical idea that is simple and eye-opening. It will not only help you make truly intelligent health care decisions for yourself and your loved ones. It will also give you an idea of why American health care is so ruinously expensive. Read on for more.

"Number Needed to Treat:" The Simple Way to Understand What Works

Powerful ideas are usually simple. So with the medical statistic called Number Needed to Treat (NNT). It asks the question: How many people need to get this particular drug/test/treatment in order for ONE person to benefit?

The lower the number, the better. If the NNT of a treatment is one, that means everyone treated is helped. One person treated equals one person's life made better. But that's true only for imminently life-threatening conditions when everyone dies who is not treated: like an appendix about to burst or a heart that has stopped beating and needs to be shocked back into rhythm. For every other medical condition, the NNT is higher than one, sometimes a lot higher.

Screening tests for early detection of cancer frequently have NNT's in the thousands: one person's life saved for every few thousand tested. That can be worthwhile, as long as there is little harm inflicted on the thousands tested. But the reason the PSA test for prostate cancer was recently nixed by the US Preventive Services Task



Force is that it not only had a very high NNT -- 5,000 or even higher -- but also because the test inflicts a lot of harm in the downstream consequences when a man learns he may have early prostate cancer. For every life that may be saved, dozens of men are killed or maimed by the surgery.

Many drug treatments have NNT numbers that show they're great in some circumstances, not so great in others. (Aspirin for heart attack is one such drug. See the next story for more on that.)

This story is often repeated in American medicine, especially for lucrative drugs that are still patent-protected from generic competitors. A drug gets tested and proven to work for one condition, and then it gets used for many more conditions without good evidence of usefulness.

The Real NNT for Statins

One current example, that shows off the usefulness of the NNT, is prescribing statins (cholesterol-lowering drugs) for people who don't have high cholesterol but do have high levels of an inflammatory blood marker called C-Reactive Protein. As reported in Patrick Malone's patient safety blog in 2010, the statin drug makers like to tout a 50% reduction in heart attacks in the research group that took the statins. But careful examination of the numbers showed that what they meant was a reduction in heart attacks from four in 1,000 patients to two in 1,000 (a 50% drop in what's called the relative risk rate), but that's only a real drop of two in 1,000 total, or a **Number Needed to Treat of 500**. The point: if you look past the vague and deceptive boasts of "50% improvement" to the real NNT, you find that it takes 500 patients getting the drug every day for years to save one life, and that's not so impressive after all.

Learn More



Read our [Patient Safety Blog](#), which has news and practical advice from the frontlines of medicine for how to become a smarter, healthier patient.



How to Find the *Number Needed to Treat* for Just About Any Condition

To borrow a line from the late Steve Jobs, here is one "insanely great" website: [TheNNT.com](#).

It's all about the [Number Needed to Treat](#). The site [explains the NNT concept](#) and gives dozens of examples in many fields of medicine and disease, with new ones added regularly.

Aspirin's NNT: It All Depends on the What-For

Take a look at the different NNT's for using aspirin to treat or prevent heart attack. You can see the value all depends on how sick the patient is to start with, and what the drug is used for.

- Aspirin to *treat* heart attack: **NNT = 42**. A very good NNT, especially since we're talking about administering a drug with a unit cost of maybe ten cents.
- Aspirin to *prevent a second* heart attack: **NNT = 50**. Another excellent NNT.
- Aspirin to *prevent a first* heart attack or stroke: **NNT = 1,667**. You see how much less bang for the buck you get when healthy people use drugs, even cheap ones like aspirin, to try to prevent disease. This is still a decent NNT for the price, as long as you're not someone whose stomach bleeds from aspirin.

And here are a few more examples of NNT's crunched by the physicians on this website:

- CT scans to screen high-risk smokers for lung cancer: **NNT = 217**
- Defibrillation for cardiac arrest: **NNT = 2.5** (one of the best NNT's out there, highly effective if done in time for an otherwise fatal condition)

- Coumadin to prevent stroke in someone with atrial fibrillation: **NNT = 25**
[Get a list of more Numbers Needed to Treat here.](#)

Some Eye-Popping NNT Numbers for Breast Cancer Screening

Pop quiz: What do you suppose is the Number Needed to Treat for mammograms for women in their 40s? In other words, how many 40-ish women do you think have to get mammograms to save one life? Is it:

- A. Eight?
- B. Eighty-eight?
- C. 297?
- D. 5,130?

The answer is "D" -- more than 5,000 women in their 40s have to undergo mammograms to prevent a single breast cancer death. And the reason mammograms are controversial in this age group is not just the slim pickings in lives saved, but the many more women in this age group who are actively harmed by mammograms. They are subjected to biopsies, mastectomies, other cancer treatments and fear and anxiety because they receive a "false positive" test result that they may have cancer when they really don't.

If a woman waits to age 50 to get breast cancer screening, the odds of saving a life improve -- somewhat -- to a NNT of 2,970. That's because the older a woman gets, the greater the chances of getting breast cancer, and therefore the higher chance that the screening will catch something bad. The NNT is still not that great; that's because breast cancer screening is a lot less beneficial than its advocates claim.

If you want to read the technicalities of how these [NNT numbers for mammograms were calculated](#), [click on this link](#). Table 2 is where you will find the key numbers.

Special caveat: These figures only apply to average risk women. Those with a family history of breast cancer or tested positive for the BRCA gene abnormality have a lot higher risk and therefore a lot more benefit from regular screening.

And that raises a key general point for disease screening tests: High risk people should worry and should get tested. Low risk folks -- not so much. The numbers prove that the lower your risk is from the start, the less your chance of being helped by a screening test.

Past issues of this newsletter:

The truth about TV journalist doctors -- MDs who have given up medicine to sit in front of a camera and digest health news for the rest of us -- was the focus of our Issue No. 21. We found a lot of shortcomings in their advice, which trended toward the sensational and the new rather than tried and true.

Issue No. 20 of this [newsletter](#) focused on helping your doctor get to the right diagnosis or finding the right doctor to get there.

Issue No. 19 offered tips on finding the right hospital.

Issue No. 18 focused on rules of thumb for better health care, and the fascinating social science research that shows why intuitive, "gut" decisions often are based on quite rational reasons.

In the issues just before that, we had a three-part conversation about health care conversations. We started with the core idea of medicine: that [every patient can and should exercise the right to decide what happens with his or her own body](#). It's called "informed consent," and it's all about having a good conversation with the doctor or other provider, to help us form a bond and get the best care. Part two discussed how [good questions to the doctor can prevent misdiagnosis](#). These are conversations that can truly save a life: yours or a loved one's. [Part three concerned who speaks for you when you cannot speak for yourself](#). Living wills and health care powers of attorney are the tools to ensure that what happens to you in this all-too-common circumstance -- in an ICU or hospice -- follows your desires and dreams.

So those were issues 15, 16 and 17. Moving backwards: No. 13 and 14 focused on doing your own health care research on the Internet. No. 13 opened the discussion of "separating fact from hype" in health care advice with a piece on HealthNewsReview, plus articles on the five most overrated prescription medicines and the Miranda warning you see on a lot of so-called natural health products. Read No. 13 [here](#).

No. 14 featured a short list of reliable web sites for health care information. We also did a short expose of a very popular website that one writer memorably called "a hypochondriac time suck." As a bonus, one more click will give you an excellent food pyramid for a healthy diet. Read [No. 14 here](#).

Here's a rundown of our newsletters in 2010:

Our first newsletter focused on the problem of conflicts of interest in medicine -- what you need to know in general, and how to find out if your doctor has a conflict that might affect the quality of your care. [Click here](#) to see that newsletter again.

Newsletter No. 2 expanded the discussion into the related topic of why experience counts -- especially when choosing a surgeon. We focused on the story of minimally invasive prostate surgery with the device called the da Vinci robot. We explained how the lessons apply to any kind of surgery or medical procedure. To see newsletter No. 2 again, [click here](#).

Newsletter No. 3 talked about why "more is not always better" in modern medicine

We focused on cancer screening, especially for breast and prostate cancer, and why you can feel not so guilty if you're a little less aggressive about getting the test. (But if you have any symptoms, you shouldn't wait!) [Click here](#) to read it again.

Newsletter No. 4 talked about choosing a hospital, and why the best known rating systems such as U.S. News & World Report may not be all they're cracked up to be. I give some tips about other ways to make sure your hospital is up to par. [Click here](#) to read it again.

Newsletter No. 5 talked numbers -- how it's important for all consumers of health care who want to make informed choices to learn a little bit about how statistics are used - - and misused -- in health care. I introduced readers how to read medical statistics in a straightforward way. To read it again, [click here](#).

Newsletter No. 6: Back pain and heart disease: how less can be more. The simpler approaches can work just as well as or better than more complex kinds of surgery. [Here's the link](#) to see it again.

Newsletter No. 7: Preventive care: what every adult American needs. [Here's the link](#).

Newsletter No. 8: Colonoscopy: two questions you must ask to make sure you get a competent screening exam. These questions can be a real life-saver when you know how often colonoscopies miss life-threatening lesions. [Read more here](#).

No. 9: Why getting and reading your own medical records can save your life -- and how to do it. The link is [here](#).

No. 10: The joys of being a health care skeptic -- or, Why statisticians are our friends. And more on why most published research eventually turns out to be wrong. The link is [here](#).

No. 11: Part one of preventing injury in the hospital, discussing why 24/7 bedside coverage is essential, and focusing specifically on bedsores and falls. [Read it here](#).

No. 12: Part two of preventing injury in the hospital: infections, blood clots and wrong medicine/wrong dose problems. [Here is the link](#).

To your continued health!

Sincerely,

A handwritten signature in black ink that reads "Patrick Malone". The signature is fluid and cursive, with the first name "Patrick" being more prominent than the last name "Malone".

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