

The High Price of Success

Douglas McCormick



Douglas McCormick is editor in chief of *Pharmaceutical Technology*. dmccormick@advanstar.com

Beyond the inevitable debate over profit margins, the increasing range and effectiveness of modern medicine leave us with one core issue: the high price of success.

And while we're on the subject of the politicoeconomics of healthcare reform, it's worth considering this good news—bad news equation:

The good news is that scientific medicine is tremendously effective in preserving life and quality of life, successfully treating an increasing number of conditions that were untreatable just a few decades ago.

The bad news is that, thanks to this success, healthcare costs are climbing, will climb, and can do nothing but climb. There may be nothing we can do to have cost control and medical progress at the same time.

Consider, too, these trends:

Multiplying indications. Thanks to 30 years of molecular biology, we have learned that diseases once treated as monolithic are actually multiple conditions, with distinctive chemical or genetic markers. Diseases from diabetes to dwarfism, from cancer to hemophilia to depression, have resolved into multiple conditions with distinct markers and distinct treatments.

Decreasing patient populations. Multiplying the number of indications divides the number of patients with any single indication. This means that drug-makers must recover the costs of discovery, clinical trials, and marketing from smaller and smaller populations.

More expensive trials. We've done the easy things. Or, more accurately, we've done the things we know how to do. This leaves two classes of tasks remaining: "Pioneering" drugs, which tackle increasingly complex biological control systems. Trials for these are tricky, and results may be influenced by factors we haven't thought to control for. And "me-too" drugs, with modified thera-

peutic approaches to systems we understand. The trial protocols and endpoints are much easier to develop here, but there's an added problem: we must show not merely safety and efficacy, but *improved* safety and efficacy. That is, we need to detect smaller effects, and the smaller the measured effect, the larger the study.

More lives, longer lives. Clearly, healthcare spending will increase as populations increase. If medicine prolongs a patient's life and activity, that patient will survive to develop additional medical conditions. Treat these successfully, and even more conditions will develop. We can only fight a holding action: Entropy will always win in the end. But we can stave off the inevitable longer and longer, as long as money and imagination hold out.

The upshot is this: the healthcare "cost space" is expanding on three axes at once—more conditions that we can treat, higher costs per treatment, and more condition-years per patient. So the optimist says that nothing can stop our scientific progress; the pessimist says that nothing—short of healthcare rationing or death—can stem the rising tide of costs. The optimist and pessimist are both correct, of course. As we enjoy longer, more active lives thanks to modern medicine, medicine will consume an ever-larger share of our income.

Now, it's inhumane to force patients to choose, as they sometimes must today, between food and shelter on the one hand, and medical treatment on the other. One can, however, foresee a day when we must—as individuals and nations—spend every spare nickel on healthcare.

And this clearly is a political issue that won't go away as long as we continue to increase our knowledge, population, and lifespans. Beyond the inevitable debate over profit margins (the trimming of which will ultimately have measurable but relatively small impact on overall price growth), we are left with the core issue: the high price of success. **PT**