Published online 22 December 2006 | Nature | doi:10.1038/news061218-14

Column

Premature medication

Handing out experimental drugs to desperate patients is not a good idea, says Apoorva Mandavilli.

Apoorva Mandavilli

At first glance it seems only kind and right to let people with serious illnesses take whatever medicines they want. Some have campaigned so hard for this that the US Food and Drug Administration agreed on 11 December to let patients buy experimental drugs direct from the manufacturer when there are no other options available.

But this could have some terrible consequences.

Yes, the humanitarian argument for giving access is compelling. And yes, on an individual basis, it seems cruel to deny a medicine to someone who is suffering. But if the drug hasn't been properly tested, how do we know it won't aggravate the illness or, worse still, prove fatal to the people who take it? It may even actively discourage companies from investing in proper trials for those drugs where the only customers are desperate patients.

Some untested drugs, such as those for AIDS and cancer, have been available under 'compassionate use' programmes since the 1970s — but only in emergencies and only to those who are expected to die within months of a terminal disease.

The new rule, by contrast, gives anyone with a serious condition that affects "functioning" or "quality of life" — schizophrenia and rheumatoid arthritis, for example, but not allergies or minor pain — access to drugs that have only been through a phase I trial, provided there are no viable alternatives. At that stage, the drug has been tested in as few as 10 healthy volunteers — not in people with the illness – and scientists may know little about its safety and nothing about its effectiveness.

Consider this: 70% of drugs make it past this first stage of trials, but only 8% are approved in the end.

Winners and losers

Some groups that have sued the FDA for access cite the example of Erbitux, which was promising from the start and went on to be approved for head, neck and colon cancers. Patient groups vigorously campaigned for early access to this drug, and won their case in court this May.

But here's another example: earlier this month, development of Pfizer's torcetrapib, a cholesterol drug that was expected to work miracles, was halted after it contributed to the death of people taking it. It was only in a large phase III trial that this effect became obvious.

The fact is that drug development is wildly unpredictable. For every Erbitux that makes it, there are about 10 torcetrapibs that dash expectations.

You might still argue that it's up to each individual — a constitutional right, as some groups argue — to make that decision. After decades of fighting against this issue, the FDA, now under new management, seems to think so too. As Janet Woodcock, the FDA's deputy commissioner for operations, told reporters: "Some people definitely want to take that risk and we want to give them that choice."

But is it an informed choice? The grim statistics of failed drugs are not widely known. It is the success stories that usually grab headlines, but the chance of success is slim. Offering the drugs may seem like a lifeline to those who have lost hope, but it will probably put their lives, and the lives of many others, at risk.

Second chance

Imagine this scenario: a seriously ill patient takes a promising drug, hoping against hope for a miracle. Even the best drugs can have nasty side effects, particularly in a small subset of people, and the drug in this case kills the patient. After the hue and cry that follows, would anyone give the drug a second chance? Would a healthy volunteer, let alone someone who is sick, enrol in a clinical trial to test it further?

And there's another serious consideration: if the drug is available under compassionate use before approval, what incentive does anyone ever have to enrol in a clinical trial where there is no guarantee —if they end up in the placebo group — that they will receive it?

What incentive does the company have to develop it, knowing they can sell the untested drug?

The FDA says it plans to make sure none of these things happen, but it's not yet clear how. The rules aren't set in stone yet – there is a public comment period of 90 days.

Let's assume that companies won't exploit the situation, that the FDA will make sure they play fair, and that the companies will continue to test the drug further. Putting untested drugs in the hands of desperate people is still a recipe for disaster.

Visit our newsblog to read and post comments about this story.