In the world of antibiotics, stewardship means using drugs carefully to preserve what still works. Antibiotic R&D is the path to new antibiotics, which will (by necessity) result in a drug company (gasp!) making money. Some say that the two are mutually exclusive. ACSH advisor Dr. David Shlaes (pictured) argues otherwise.

In researching the current status of pull incentives for antibiotic research and development in Europe I came across an ongoing tension. There are those who apparently believe that we can rely on stewardship to preserve the antibiotics we already have and thus avoid the necessity of paying for new ones and those (like me) who believe that the need for new antibiotics will be without end even with good stewardship.
Some apparently believe that pull incentives are somehow an industry plot to make more money. They may even believe that good stewardship and having even temporary pull incentives for antibiotic R&D are somehow mutually exclusive. I believe that this idea is contagious and has infected the thinking of those responsible for funding decisions like health ministers in Europe, for example. The European Public Health Alliance may be representative [1] of this thinking. When I see this, I scratch my head wondering how rational, intelligent individuals can arrive at this conclusion and I become even more depressed about the future of our antibiotic pipeline. The choice between stewardship and financial incentives is a false one.

First, I should state that no one, especially me, can argue that good stewardship is not crucial in our approach to preserve the antibiotics we have now as well as those I hope we will have in the future. After all, I was the first author on the IDSA and SHEA guidelines on preventing the emergence of resistance in hospitals that suggested stewardship as a key tool for that purpose. But neither can one argue that appropriate use of antibiotics, and the majority of use in hospitals is appropriate, will not select for emerging resistance in time. Stewardship should slow down the process but will not prevent it.

The other key element to stewardship, that many people tend to forget or overlook, is the idea that patients should be treated with the right doses of the right antibiotics at the right time. We have been failing miserably at that in the modern era of new, effective and expensive antibiotics. But such an approach will mean spending more money on these new therapies (to save money in excess morbidity and mortality).

What is needed to provide an adequate pipeline to provide insurance against the inevitable emergence of resistance is a multipronged approach. Stewardship – in its one health entirety - including not using antibiotics at all unless clearly indicated, stopping antibiotics when they are no longer necessary, and assuring that patients are treated appropriately when they do require antibiotic therapy – is clearly one required approach. The second approach is providing both push and pull incentives where the latter is almost completely lacking today. The third may be to establish government-funded antibiotic research and development that is completely non-profit where all research, clinical development, manufacturing, and distribution are entirely funded by government.

An intermediate step might be to fund organizations like GARDP to partner with existing pharmaceutical (almost all small) companies that have promising new therapies in development. The ultimate goal of a publicly funded effort is to do away with the need for incentives to industry. Whether the government funding of such an institute will be less expensive than push and pull incentives for industry is certainly not clear to me given the inefficiencies of government funding.
I know a good deal about that having carried out research at the VA for 16 years. Don’t get me wrong – I am extremely grateful for all the support I received at the VA for all those years. But the yearly lack of a budget, the rush to spend a capital budget at the end of the year when the budget is finally approved, and the many restrictions on what and when you could spend were all issues I did not (mostly) have to deal with in industry.

To those stewardship enthusiasts – I am one of you. But I hope that we all realize that stewardship by itself will not be enough here. The choice between financial incentives and good stewardship is a false one. The answer to the question of which we should pursue is all of the above.