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The UK Plan: Tackling Antimicrobial Resistance

By David Shlaes — January 31, 2019

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The United Kingdom recently released a 5-year [1] and a 20-year [2] plan for combatting antimicrobial resistance. These are both worth a careful read – especially if you are interested in efforts on stewardship and research support. (I sent several emails to colleagues within and outside the UK querying them on details on the UK plan, but have had no replies. The workings of the UK team seem to be shrouded in secrecy.)

Buried in the forward to the 5-year plan is this:

We are leading the way in testing solutions that will address our global failure to incentivize the development of new antimicrobials and alternative treatments. We will test a new model that will de-link the payments made to companies from the volumes of antibiotics sold, basing the payment on a NICE led assessment of the value of the medicines and supporting good stewardship.

There is a great deal in that paragraph – most of which I find opaque. The idea of testing solutions to incentivize the development of new approaches to anti-infective therapies comes from the AMR Review headed by Lord O'Neill and recently reiterated in a blog [3] post by him. The idea is to develop a global consortium to assemble the funding required for such a pull incentive. In their 5-year plan, the UK seems to be saying that they will "test" a model based on "value" of a new medicine to the health care of the nation. The first question is, how can one test an incentive that will surely not be an incentive since it will be unlikely to provide for global value to healthcare. The second question is, how will they determine "value." And finally, where will the money come from? If the money comes from an already underfunded NHS, how much money can this possibly be?

What is "value" in this case? Is it determined by things like decreased mortality, decreased length of hospital stay, decreased time of disability, increased quality life years . . . ? If it is any of these,

how will that be determined since this is not usually a robust part of our modern non-inferiority trials that are used to approve antibacterial products? Would we then turn to historical data – either contemporary observational studies, NHS data mining or data from the pre-antibiotic era? We await further information from the UK in this regard.

The UK population is around 66 million, the US is about 350 million and Europe is close to 500 million. Saying nothing about Asia and Africa, this makes the UK represent less than 8% of the population of the developed world. Let's say, for argument's sake, that the value of a new antibiotic on a global scale is on the order of $2 billion. Would the UK share then be $15 million? Regardless of how this is calculated, the plan by the UK seems to assure that the pull incentive they alone would provide would not be enough to pull anyone anywhere.

From a more positive perspective, perhaps their plan is to provide a method to determine value and come up for a number that would hypothetically be the UK share of some global incentive. Then, their idea is to lead the world to a value-based incentive where the cost would be shared among nations or regions. I think this is what they mean by "test."

This would be a valuable endeavor, but would probably not provide a significant pull incentive within 2019, which is the time frame many experts believe is critical to saving our antibacterial infrastructure and hence our pipeline of new products from oblivion.

We all agree that an incentive that provides companies for a reasonable return on their investment in anti-infective therapeutics is an absolute requirement at this point. Such an incentive should, logically, to one extent or another, decrease the reliance of companies on price and sales volume and will thus also support good stewardship for these new products. Given the current urgency, I strongly believe that our default position for 2019 is to provide a market entry reward (prize if you like) to be awarded for the approval of a high priority antibiotic (as defined by CDC or WHO) on the basis of a contractual agreement with the company involved to guarantee access, manufacturing and distribution and to decide on pricing etc. Other approaches, such as the one being undertaken by the UK, will take too much time but could inform the market entry reward at a later time.

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For more of David Shlaes' writings, as well as this posting, click here [4].

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