Antimicrobial resistance: paradox, actions and economics

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The threat from antimicrobial-resistant organisms is accumulating and accelerating. One strand of the action that an adequate response to this threat demands is good clinical governance through management and audit of antimicrobial prescribing in hospitals. This is the subject of another article in this issue of the Journal, which describes the guidelines developed by the Scottish Medicines Consortium and Scottish Health Executive to tackle this problem. However, the problems posed by resistant organisms are wider still. In a period of increased threat, innovation (new drugs and technologies) seems to be in decline. There are grounds for serious concern that the current economic model is not capable of responding adequately. Governments need to acknowledge and address this fact. Patient outcomes will suffer increasingly if governments do not act to change the status quo.

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What should developed societies be doing in the face of the accumulating and accelerating threat from antimicrobial resistance? Many countries around the world have action plans and strategies which, sadly, are often broad in vision but limited in the practicalities of implementation. Scotland was one of these in 20021 but now has published an all important implementation plan.2 In the plan the authors quite correctly state that potentially controlling antimicrobial resistance is a clinical governance issue and they stress the importance of auditing the management of antimicrobial prescribing. They acknowledge the major problems facing any such initiative, the wide variation in prescribing practices, the important role of the pharmacist in the hospital, the need for local surveillance (of both usage and resistance) and the all important need for both more and continuing education of healthcare professionals. However, they go further.

Unless a strategy is implemented it is, of course, a hollow exercise. The Scottish Medicines Consortium is offering welcome and practical advice which if taken can add teeth to their vision of more prudent hospital prescribing. Their suggestion that the hospital Chief Executives take responsibility for the implementation of the action plan would be a major innovation. It should give the ‘antibiotic team’ more voice and power. Acknowledging that training is indeed inadequate at all levels is realistic and it is to be hoped that Deans of medical schools will listen and act. Sensible advice is given on the minimum amount of data that laboratories should collect (but perhaps I can hear some groans from microbiologists), and how this should inform policy and be assessed in relation to consumption data should lead to more accurate information on the dynamics of resistance and usage.

Of particular importance are the views on how to implement audit in order to assess performance. The proposal explores practical ways to develop relationships between clinical governance, risk management, infection control committees, and Drugs and Therapeutics Committees together with senior management, and suggestions include the use of the Glasgow Antimicrobial Audit Tool.

So the Scots are again showing us the way! There are, however and not unreasonably, a number of issues that are outside their remit which, I believe, should be actively explored. The lack of new technologies to assist in the struggle must be considered alongside more practical and local problems. This was the subject covered in a Department of Health/BSAC sponsored European Union meeting in Birmingham in December 2005 (which will be fully reported in this Journal in the coming months). In essence, I believe that there is a paradox. Why as antimicrobial resistance increases and hence drugs become less effective (and patients die) does innovation decline? By innovation I refer both to new drug development as well as new technologies to remove diagnostic uncertainty. These questions have been addressed by others.3–5 Developed societies have become too complacent and seem to believe in the economic approach of Mr Macawber, that of waiting for ‘something to turn up’. My belief, which may prove unpalatable to some, is that we are going to have to acknowledge that the era of cheap anti-infectives is over. Currently we seem prepared to countenance paying large sums for therapeutics of a more arguable benefit to society (I have in mind activated protein C at a cost of £10 000 a course6) yet antimicrobials costing more than a few pounds a day are greeted with horror. It is also probable that expensive antimicrobials would be used more prudently than currently. Perhaps we forget at times that antibiotics have had an enormous impact on human health in the past 50–60 years. Governments will have to

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subsidize research and development, either directly through assistance to industry or by being prepared to pay more for their products (be it diagnostics or new agents). There needs to be a frank debate on this.

Setting out more precise instructions to antimicrobial users, as in the Scottish report, and identifying actions that policy-makers should undertake (as the IDSA have in the ‘New Bugs, No Drugs’ statement’) are significant moves forward. Complacency is not an option.

Transparency declarations

None to declare.

References


