



HM Government

Government response to the recommendations of the Health and Social Care Committee's inquiry on antimicrobial resistance

Eleventh Report of Session 2017–19

Presented to Parliament by the Secretary of State for Health and Social Care by Command of Her Majesty

January 2019

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Introduction

On 22 October 2018, the House of Commons Health and Social Care Committee published its report on antimicrobial resistance (AMR). The report set out conclusions and recommendations across five areas.

The Committee launched its inquiry to examine the results of the UK AMR Strategy (2013-18) and determine the key actions and priorities for the government's next AMR strategy.

The government recognises the global threat posed by AMR. In response to this threat, we published the UK Five Year AMR Strategy at the end of 2013, taking a fully integrated One-Health approach across humans and animals. AMR is a complex challenge requiring comprehensive action introducing a wide range of sectors to tackle it effectively both domestically and internationally.

The goal of our last strategy was to slow the development and spread of resistance; we recognise that it will take more than a single five-year strategy to achieve that goal.

We welcome the inquiry's report, timed to inform the strategy's refresh. Our new strategy, in the form of two documents, will be published at the same time as this response:

- *Contained and controlled: The UK's 20-year vision for AMR sets out where we see the world in 2040, and*
- *Tackling antimicrobial resistance (2019-2024): The UK's five-year national action plan* builds on the progress made over the last five years to set out the changes needed toward delivery of the vision.

While we can count many significant achievements in the last five years, we are in no doubt that we still have a long way to go. We have structured our new plan using the United Nations Ad-hoc Inter-Agency Coordination Group's Framework for Action on AMR. The Framework puts AMR in the wider context of the Sustainable Development Goals, helping to align political agendas and provide a common language and dynamic structure for all sectors to work from, while respecting countries' endorsement of the Global Action Plan. Using the Framework and taking a coordinated approach, we have set out our commitments and challenging new ambitions across humans, animals, food and the environment for the next five years.

AMR is, and will remain, a government priority. The UK has taken a leading role in strengthening international cooperation to tackle AMR with considerable global success. We will continue to do so by showing the way domestically, implementing new initiatives, demonstrating their impact and sharing our good practice with global partners, as well as

continuing to support low and middle-income countries to strengthen their health systems and develop their capacity and capability to tackle AMR.

Priority and political leadership

1. Two of the Government's key advisers on AMR have independently called for 'more visible and active Government leadership' on this issue. We therefore urge the Prime Minister to work closely with her relevant ministers to raise the profile of AMR both at home and on the international stage. Given the severity of the threat, AMR needs to be firmly established as a 'top five policy priority' for the Government as a whole, drawing together the work of DHSC, DEFRA, DFID, the Foreign Office and BEIS. A dedicated budget should be made available to enable work in this area to make more rapid progress across all relevant departments. [Paragraph 24]

Delivery of the previous AMR strategy was overseen and driven by a cross government High Level Steering Group chaired by the Chief Medical Officer, with representation from all relevant government departments, human and animal health agencies and the devolved administrations.

The government made a commitment to continue to be a world leader on AMR in its 2017 Manifesto. The UK has demonstrated strong leadership internationally through ministers, the Chief Medical Officer (CMO) and senior officials' promotion of the need for coordinated action on AMR at key international fora and events. The CMO has personally championed AMR and remains a leading global advocate on the issue.

The Prime Minister has raised the need for accelerated implementation of global commitments on human health, animal health and the environment on the world stage, including through the G7 and G20.

Recent UK participation at the G20 Health Ministers summit in Argentina, World Health Assembly, the High-Level Meeting on tuberculosis and co-chairing of the 2017 Call to Action on AMR underlines the active role that ministers are taking in efforts to tackle AMR internationally.

We will continue to take a cross government approach to the implementation of the new national action plan. Ministers and senior officials will be closely involved in driving progress towards our ambitions over the coming five years.

Pharmaceutical market failure

2. We expect to see tangible and rapid progress in this area within six months. Efforts to pilot the Government and industry's current preferred option of an upfront payment scheme should not be delayed. Both government and industry should invest in this scheme. We recommend that other options to address market failure, including changes to patent law for antimicrobials and Lord O'Neill's 'play or pay' proposals, should also be considered by Government. [Paragraph 37]

A headline ambition of our vision for AMR in 2040 is to have new diagnostics, therapies, vaccines and interventions in use, together with a full AMR research and development pipeline for antimicrobials, alternatives, diagnostics, vaccines and infection prevention across all sectors.

It is increasingly critical we find a solution to the market failure in antimicrobials as pharmaceutical companies continue to pull out of the antibacterial and antiviral market, leaving a stark gap in the pipeline. The Committee rightly points out that industry could do more to invest in new products. All sectors have a role to play in tackling AMR and industry needs to step up and play its part, not least because of the 'insurance' value that antimicrobials play in terms of pharmaceutical companies' wider drug portfolios.

Over the life of the previous strategy we considered a range of options to address market failure, including changes to patent law. Lord O'Neill's Independent Review on AMR (2016) indicated that a system of 'market entry rewards' would be the most effective way of encouraging antimicrobial investment, by offering lump sum payments to developers who bring new products to market. "Pay or play" was one of the options for funding such rewards recommended by the O'Neill review. We are considering a range of options, in terms of market incentives and how these might be funded, ensuring that any such incentives are coordinated as much as possible on a global scale. We will carefully consider the underpinning access and stewardship conditions that might accompany such interventions.

The UK represents only a small proportion of the global market for antimicrobials and we will not stimulate drug and product development on our own. We continue to work through international fora, such as G20, to develop globally-coordinated solutions. Delivering the commitment made by G20 leaders in 2017 to "further explore practical market incentive options" remains a priority and we are working with Japan, who currently hold the G20 presidency and our fellow G20 members on next steps. In parallel, we are proactively supporting the work of both the new Global AMR Research and Development Hub (on whose Board the UK sits) and the Inter-Agency Coordination Group's work on research and development. Both groups have the consideration of 'pull' incentives in their respective mandates.

Alongside these global conversations, we want to demonstrate to the rest of the world what can be done to change the way we purchase antimicrobials and have been working closely with industry, NHS England and NICE to develop proposals. We are developing plans to test an evaluation and reimbursement model which could, potentially, delink company revenues from sales. The value would ideally be measured through NICE's Healthcare Technology Assessment (HTA) programme; antimicrobials do not lend themselves to evaluation by traditional HTA. We recognised the need for a new methodology to fully assess the value of new antimicrobials and have made significant progress on this following recently published work from the [Economic Evaluation of Health and Care Interventions Policy Research Unit](#) and University of York. This is world-leading and complex work that will take time to get right. It is critical that we make sure that the NHS gets the best value from its drug budget and it will be important to evaluate the test thoroughly before considering any wider change to purchasing policy.

Antimicrobial use in healthcare

3. In order to preserve the effectiveness of current antimicrobial medicines for as long as possible, it is essential that they are prescribed appropriately. Improvements to date in prescribing practices are promising but need to continue. As UK prescribing levels are still approximately double that of the Netherlands, Sweden and the Baltic states, more challenging targets for primary care, and for rapid review and withdrawal of clinically unnecessary secondary care prescribing are needed. [Paragraph 49]

4. We welcome NICE's development of evidence-based guidelines on antimicrobial prescribing, but we expect to see rapid and concerted action by NHS England to ensure that prescribing systems in all care settings make responsible prescribing of antimicrobials the default option. [Paragraph 52]

5. Digital health tools for clinicians and policymakers have the potential to greatly increase the quality, safety, and cost effectiveness of clinical care and reduce the threat of antimicrobial resistance. The variation in uptake of best practice is unacceptable and there is good evidence of how this could be addressed. A single organisation should be given responsibility for co-ordinating clinical decision support systems across the NHS, and ensuring they prompt evidence based prescribing of antimicrobials, as well as other medicines. [Paragraph 53]

The UK has made great progress in reducing the use of antimicrobials in human health. We are committed to building upon this progress in the 20-year vision and aim to achieve usage rates that are among the best in the world. The new five-year national action plan on AMR sets out a challenging ambition for a further 15% overall reduction in antimicrobial use over the life of the strategy. It also contains two supporting ambitions: a 25% reduction in community use of antibiotics (1) from 2013 levels and a 10% reduction of antibiotics on the WHO's 'reserve' and 'watch' list in secondary care.

Prescribing of antimicrobials in secondary care is complex for many reasons including: that patients in secondary care tend to be sicker; there has been an increased focus on identifying and treating patients with a suspicion of sepsis with antibiotics; there have been shortages in some critical antibiotics leading to use of multiple alternatives in their place, thus increasing overall use; and, changes in dose and treatment guidelines can impact total use. It is important to note that from 2015 to 2016, hospitals reduced their use of two

¹ Community here refers to general practice in addition to prescribing and dispensing outside general practice; predominantly dental but also includes community nurse, other non-medical prescribers or hospital prescriptions dispensed in the community. Source: [English Surveillance Report for Antimicrobial Utilisation and Resistance](#) (ESPAUR), Public Health England, 2014, pp. 56

ultra-broad-spectrum antibiotics by 4%. In 2016/17 we saw 88% of antibiotic prescriptions reviewed within 72 hours of first being administered.

We recognise the role that digital health tools can play in promoting antimicrobial stewardship. The new five-year national action plan contains the commitment to develop a single patient level prescribing and resistance data source and to ensure that electronic prescribing supports antimicrobial stewardship. As part of our implementation of the five-year national action plan, NHS England and NHS Improvement will continue work to influence software providers and relevant procurement processes to ensure that the best use is made of digital tools across the system.

We used a range of interventions to support changes in prescribing behaviour over the life of the previous strategy. The five-year national action plan will continue our focus on strengthened antimicrobial stewardship. We want to enhance the role of pharmacists in primary care, strengthen board level leadership, improve the use of data, technology and guidance to support changes in clinical behaviours. This will be complimented by public awareness campaigns.

6. Encouraging the development of rapid diagnostic testing should be considered alongside the action to promote the development of new antimicrobials, but use of diagnostic tests should be based on NICE guidance. Where testing is clinically appropriate and recommended by NICE, action should be taken to address the perverse financial incentives which may discourage their use. [Paragraph 55]

We are committed to improving the use of diagnostic tools and tests in support of our ambitions. The UK AMR Diagnostic Collaborative, led by NHS England, was established in July 2018 to ensure that the right technological solution, that meets quality standards and needs of the patient, is used in the right setting and place in the care pathway. We would underline the importance of diagnostic stewardship and, tools and tests to support, not replace, clinical judgement.

We agree with the Committee's recommendation that the use of diagnostic tests should be based on NICE guidance. NICE provides Diagnostics Guidance and Medtech Innovation Briefings on innovative diagnostic technologies to encourage uptake in the NHS. NICE is currently producing a series of syndrome-specific short clinical guidelines which reflect the latest evidence on diagnostic tools and tests; four have been published to date with 10 in development.

The new five-year national action plan, contains commitments to incentivise research and development for new diagnostics and support for their rapid update. This includes building upon the [Life Sciences Industrial Strategy](#) and the response to the [Accelerated Access Review](#) to work with NHS partners and industry to tackle the barriers to new innovations being adopted in the NHS. The national action plan also contains an ambition to use modelling and test-pilot data to develop alternative funding models for faster diagnostics that support targeted treatment. This includes commissioning work to develop a method for assessing the value of new technologies that considers not only cost-effectiveness but the value proposition at a system level.

Antimicrobial use in animals

7. Progress has been made in reducing the use of antibiotics in animals. DEFRA must ensure that this progress is embedded and in some areas extended, including keeping targets under close review. Serious concerns remain about the prophylactic or metaphylactic use of antibiotics in animals, and the use of antibiotics of last resort that may as a result lose their effectiveness for humans more quickly. It is essential that tight controls on these practices are introduced and maintained following the UK's departure from the EU. [Paragraph 61]

We agree that more must be done. The Veterinary Medicines Directorate (VMD) published their latest Veterinary Antimicrobial Resistance and Sales Surveillance report on October 24th 2018, which shows further significant reductions in the sales of veterinary antibiotics for the fourth year in a row (18% reduction between 2016 and 2017). The UK has now achieved a 40% reduction in veterinary antibiotic sales since 2013, with current levels the lowest they have been since records started in the early 1990s. Sales of antibiotics classed as highest priority critically important antibiotics for human health (HP-CIAs) dropped 29% between 2016 and 2017 from already low levels, and now account for 0.8% of total sales.

The VMD and Defra are working with the veterinary profession and farming sectors to reduce the need to use antibiotics through improvements to animal health and the prevention of disease. Current sector-specific ambitions were developed by the Responsible Use of Medicines in Agriculture Alliance, with support from the VMD, and published in 2017. They will be re-evaluated in 2020.

The engagement of UK livestock sectors and the significant fall in veterinary antibiotic use in recent years are strong indicators that current action is effective. The 20-year vision and new five-year national action plan will build on in this. Aligning with EU legislation, we will implement the provisions of the new EU Veterinary Medicines legislation on the use of antibiotics, subject to the official public consultation process and through collaboration with stakeholders to agree how it can be applied in practice.

8. We invite the Government to make a clear commitment that any future trade deals will require any meat and dairy produce imported into the UK to meet at least the same standards relating to antibiotic use which apply to meat and dairy products produced in the EU. [Paragraph 63]

Any future trade agreements must work for consumers, farmers, and businesses in the UK. We will not water down our standards on food safety, animal welfare and environmental protection as part of any future trade deals.

Antimicrobials and the environment

9. We recognise that AMR is a global issue requiring co-ordinated international action, including on environmental contamination by antimicrobials. We expect the Government's new strategy to give greater focus and emphasis to this little understood but important area. The strategy should include commitments to establish safe discharge levels for human waste, agricultural waste and pharmaceutical manufacturing waste, and to introduce systems to monitor and enforce them. [Paragraph 71]

We agree that environmental contamination by antimicrobials is a critically important issue and that the evidence base in this area needs to be expanded globally and internationally. The five-year national action plan has a strengthened One-Health approach and contains a clear commitment to improve our understanding about AMR and the environment.

We will seek to utilise evidence that emerges in the period 2019-2023 to inform policy and the appropriateness of regulatory measures. The new strategy includes many actions to identify and minimise the impacts of antimicrobial in the environment, including a commitment to meet existing standards in the aquatic environment, international collaboration with governments and industry to improve supply chain stewardship and by working with industry to promote the development of a global environmental stewardship certification system.

Conclusion

We welcome the Committee's report and their support for continued action on AMR. The UK remains committed to tackling AMR through global leadership and collaboration as well as the delivery of our domestic ambitions.

Contained and controlled: The UK's 20-year vision on AMR sets out our long-term ambitions that, if achieved, will effectively contain, control and mitigate AMR. *Tackling antimicrobial resistance (2019-2024): The UK's five-year national action plan*, lays out the first set of challenging five-year ambitions and commitments aimed at achieving our vision. We encourage the Committee to read this response alongside these two documents, which present a comprehensive government position on tackling the challenge of AMR.

We will keep the Committee updated on progress as we implement the five-year national action plan.

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