



antimicrobial  
resistance

# AMR and Conflict:

## National security amid rising tide of drug-resistant infections – lessons from Ukraine

This is the report of a meeting hosted  
by the All-Party Parliamentary Group  
on Antimicrobial Resistance on  
Tuesday 1st April 2025



# Introduction

Antimicrobial resistance (AMR) is a critical yet often underestimated consequence of armed conflicts. Hospitals in Ukraine report a troubling surge in AMR cases, with over 80% of patients at Feofaniya Hospital infected with antibiotic-resistant microbes. These infections are spreading beyond Ukraine; in Germany, wounds from the conflict have led to cases so resistant that no viable antibiotic treatments remain.

With the UK “ready and willing” to deploy peacekeeping troops to Ukraine, there is an increased risk of AMR entering the NHS. Past conflicts in Afghanistan and Libya show that evacuation chains transporting injured soldiers create pathways for resistant microbes to enter NHS hospitals. UK involvement in current and future conflicts are expected to exacerbate demands on NHS resources, driven by the rising prevalence of AMR being observed in conflict settings.

While world leaders at last year’s UN High-Level Meeting on AMR committed to increase financial investments to combat AMR, recent reductions in global health funding—driven by major donors cutting aid budgets—jeopardise progress and undermine those commitments. This includes the UK’s decision to shift aid spending towards defence budgets. However, the Prime Minister’s announcement of the forthcoming National Security Strategy offers a vital opportunity to prioritise AMR as a standalone focus, ensuring a more strategic and comprehensive response.

The APPG recently convened an urgent meeting to examine these issues, bringing together AMR experts from the UK and Ukraine to brief members and develop actionable recommendations for the Government. The discussions and recommendations from this meeting are outlined in this document. For further details, please contact the British Society for Antimicrobial Chemotherapy (BSAC).



A handwritten signature in black ink that reads "Danny Chambers". The signature is fluid and cursive, with the first name "Danny" and the last name "Chambers" clearly distinguishable.

Dr Danny Chambers MP  
Member of Parliament for Winchester  
Secretary of the APPG on AMR



# Agenda

## AMR and Conflict: National security amid rising tide of drug- resistant infections – lessons from Ukraine

### A meeting of the APPG on AMR

**Date:**

Tuesday, 1st April 2025

**Time:**

9:15am to 10:15am

**Location:**

Room B, Ground Floor, 1 Parliament Street

**Chair:**

Dr Danny Chambers MP, Secretary for the AMR APPG (acting on behalf of Dr Beccy Cooper MP)

## Parliamentarians in attendance

1. Danny Chambers MP  
– *Chair of the meeting*
2. Lord Browne of Ladyton
3. Calum Miller MP
4. Richard Foord MP
5. Baroness Bennett of Manor Castle

### 0915 Welcome and Opening Remarks

*Dr Danny Chambers MP and Dr Nick Brown, Consultant Medical Microbiologist, Addenbrooke's Hospital, Cambridge, & Director of Public & Professional Engagement, British Society for Antimicrobial Chemotherapy*

### 0920 Keynote Presentations

*Dr Olena Moshynets PhD (joining remotely): Insights on AMR in Ukraine and its impact on healthcare during the conflict*

*Dr Luke Moore: Current state of AMR in the UK and implications for healthcare systems*

*Dr Scott Pallett: The threat of AMR in conflict zones and its broader implications for the NHS*

### 0935 Open roundtable discussion among APPG members, speakers and attendees

*All*

### 1000 Formulating actionable recommendations for the National Security Strategy

*All*

### 1010 Closing Remarks

*Dr Danny Chambers MP and Dr Nick Brown*

### 1015 Meeting ends



# Speaker biographies

## Dr Olena Moshynets

is a distinguished Senior Research Fellow of the Institute of Molecular Biology and Genetics of National Academy of Sciences of Ukraine, specialising in antimicrobial resistance. With a Ph.D. in Cell Biology, she has conducted groundbreaking research on microbial resistance and biofilm formation. Dr. Moshynets is deeply involved in addressing AMR challenges in Ukraine where her work highlights the urgent need for comprehensive strategies to manage AMR in hospitals treating war injuries. Her contributions to the field are widely recognised, making her an invaluable asset to the global effort to combat AMR.

## Dr Luke Moore

is an Infectious Diseases Physician and Clinical Microbiologist from Chelsea and Westminster Hospital with special interests in critical care infections, antimicrobial resistance, and healthcare systems. He works clinically for secondary and tertiary care patients with infections in London. He leads an active research group focusing on the epidemiology of and interventions for outbreak control and antimicrobial stewardship here in the UK, but also in the MENA & pacific regions.

## Dr Scott Pallett

is a senior medical microbiology and infectious diseases registrar with an academic interest in Gram negative resistance, particularly in the development and use of novel diagnostics in resource limited or remote settings, including in areas of conflict and catastrophe.



## Presentation by Dr Olena Moshynets

Olena provided a comprehensive overview of the AMR situation in Ukraine, emphasising the impact of healthcare reforms and the lack of national protocols. Key points from her presentation included:

- **Healthcare Reforms and AMR:**  
The healthcare system in Ukraine, inherited from the USSR, was conservative and did not meet modern needs. Reforms aimed at reducing corruption inadvertently weakened the system, particularly in epidemiology and infection control.
- **Impact of Conflict:**  
The conflict exacerbated the AMR crisis, with many hospitals facing multi-drug resistant infections. The war cannot be solely blamed for the AMR disaster, as the crisis began before the conflict and worsened due to systemic issues.
- **Lack of National Protocols:**  
The absence of national protocols for antimicrobial therapy and infection control has led to inconsistent practices across hospitals. This has been compounded by chronic underfunding and the use of sub-therapeutic doses of antibiotics. These issues combine as a perfect storm to result in ideal conditions for the emergence and dissemination of antimicrobial resistant microorganisms.

- **Recommendations:**

Olena called for the development of national protocols, investment in healthcare, regular educational courses on antibiotics and infection control, and broader national and international cooperation.

- o **National and International Cooperation:**

Emphasised the need for broader national and international cooperation to improve surveillance and management of AMR. Collaboration with European institutions and experts is crucial.

- o **Educational Programmes:**

Recommended organising regular educational courses on antibiotics and infection control to improve surveillance and management practices. These programmes should involve experts from international sciences and policy-making bodies.

- o **Surveillance Infrastructure:**

Suggested developing a clear vertical management system for surveillance and monitoring of AMR. This includes creating national protocols for antimicrobial therapy and infection control.



# Presentations

## Presentation by Dr Luke Moore

Dr Luke Moore's presentation focused on the current status of AMR in the UK and its implications for healthcare systems. Here are the key points he made:

- **Impact of AMR:**

AMR is already affecting modern medicine in the UK. Patients with untreatable infections from conflict zones are being repatriated, posing a threat to other patients needing surgery and cancer care. The multiplication of the AMR threat due to repatriation is inhibiting the standard of care.

- **Implementation Gap:**

Despite advancements in technology and new drugs, the primary challenge remains the effective implementation of these solutions. The gap between having the necessary tools and using them effectively in clinical practice is significant.

- **Curriculum Deficiency:**

There is a notable lack of emphasis on AMR in medical education. Out of 5,500 hours of undergraduate medical training, only about 20 hours are dedicated to teaching about antimicrobials. This deficiency extends to postgraduate training of surgeons, intensivists, GPs, and other healthcare professionals.

- **Recommendations:**

Dr. Moore emphasised the need to focus on practical implementation, improving medical education, and ensuring the effective use of diagnostics and drugs.

- **Improve Medical Education:**

There is a need to improve medical education to ensure healthcare professionals are adequately trained to manage AMR effectively.

- **Integration with National Security Strategy:**

He discussed the idea of integrating AMR surveillance, diagnostics, and management into the national security strategy to ensure a coordinated response.

- **Focus on Basic Microbiology:**

Dr. Moore stressed the importance of ensuring access to basic microbiology and bridging the gap between diagnostics and practical application. This is crucial for effective surveillance and management of AMR.

- **Behavioural Science Perspective:**

He highlighted the need to incorporate behavioural science to ensure that diagnostic results lead to actionable outcomes. Understanding the factors that influence prescribing practices and infection control measures is essential.



# Presentations

## Presentation by Dr Scott Pallett

Dr Pallett provided insights from a military perspective, discussing the threat of AMR in conflict zones and its broader implications for the NHS. Key points from his presentation included:

- **Military Perspective:**

The military has observed the spread of multi-drug resistant organisms from conflict zones like Afghanistan. Current conflicts however are experiencing longer evacuation chains and emerging data suggests a higher risk of early resistant infections.

- **Future Conflicts:**

Published data suggest increased spread of AMR infections from areas of conflict and future conflicts may therefore see an increase in rates detected in the UK, with potential to impact across a variety of NHS healthcare settings.

- **Diagnostics and Drugs:**

While the UK has access to advanced diagnostics and new drugs, resistance levels are already high, making some of these drugs ineffective. The rapid emergence of resistance to new drugs from areas of conflict poses a significant challenge.

- **Recommendations:**

Dr Scott emphasised the need for simple, cost-effective, and scalable solutions for diagnostics and treatment. He highlighted the importance of surveillance and adapting technologies for use in conflict settings.

- **Adaptation of Technologies – cost-effective solutions:**

Discussed the need to adapt existing technologies for use in conflict settings. Large, expensive infrastructure and high technical skill requirements are

impractical in these environments.

Solutions need to be practical and feasible in conflict settings. They must be simple, cost-effective, and scalable.

- **Collaboration:**

Suggested collaboration with national and international experts and institutions to enhance surveillance efforts. This includes working with organisations like the UK Health Security Agency (UKHSA), NATO partners and other international bodies. Bilateral sharing of lessons learned with allied nations will be vital to optimising progress.

- **Comprehensive Approach:**

Advocated for a comprehensive approach that includes surveillance, diagnostics, treatment, infection control and education to manage AMR effectively. This approach should be integrated into both military and civilian healthcare systems.

- **Proper Use of Diagnostics for Improved Surveillance:**

Proper use of diagnostics is vital to support surveillance efforts. Accurate and timely diagnostics help in identifying resistant strains, monitoring the spread of AMR, and informing treatment decisions. Effective diagnostics ensure that data collected is reliable, which is essential for tracking trends, implementing control measures, and guiding public health interventions. Without proper diagnostics, surveillance efforts would be compromised, leading to delayed responses and ineffective management of AMR.

- **Surveillance in Conflict Zones:**

Highlighted the importance of enhancing surveillance in conflict zones to better understand and manage AMR. He mentioned the challenges faced in these settings.



# Recommendations arising from discussion

## **1. Integration with National Security**

### **Strategy:**

Integrating AMR surveillance and management into the national security strategy to ensure a coordinated response.

## **2. Bilateral collaboration to enhance surveillance:**

UKHSA already have an outreach programme to improve diagnosis, surveillance and antimicrobial stewardship in low- and middle-income countries that potentially could be adapted for this purpose.

## **3. Focus on Basic Microbiology:**

Ensuring access to basic microbiology and bridging the gap between diagnostics and practical application is crucial for effective surveillance and management of AMR.

## **4. Adapt Technologies for Conflict Settings:**

Adapt existing technologies for use in conflict settings. Solutions should be simple, cost-effective, and scalable to be practical and feasible in these environments.

## **5. Surveillance in Healthcare Settings:**

Improving surveillance in healthcare settings to monitor the spread of AMR and implement effective infection control measures. This involves enhancing diagnostic capabilities and stewardship programmes.

## **6. Incorporate Behavioural Science:**

Incorporate behavioural science to ensure that diagnostic results lead to actionable outcomes. Understanding the factors that influence prescribing practices and infection control measures is essential.

## **7. Funding:**

Advocating for funding to support surveillance and management of AMR, especially in conflict zones. This includes leveraging international development funds and aligning efforts with global health security initiatives.





# Recommendations for Government

## **1. Include a Standalone Section on AMR in the National Security Strategy:**

AMR represents a significant biological threat and requires dedicated focus in the National Security Strategy. By advancing global surveillance, especially in conflict settings where resistance thrives, the UK can enhance military readiness and strengthen NHS resilience. Prioritising AMR ensures the UK's leadership on the global stage, fostering collaboration and unified action against this escalating challenge.

## **2. Prioritise Affordable Diagnostics for AMR Surveillance:**

Being better informed about AMR trends will reduce risks to the UK. Prioritising affordable solutions to complement innovation in life sciences is essential. Investing in cost-effective diagnostic tools for conflict zones and low-resource settings will facilitate improved diagnosis and bolster AMR surveillance, ensuring robust responses to antimicrobial resistance challenges. Two such examples that have shown some utility in these environments include:

- Loop-mediated isothermal amplification (LAMP) Tests: Handheld devices for quick detection of infections, including drug-resistant strains, delivering results within an hour using finger-prick blood samples.
- Lateral Flow Tests: Rapid and affordable tools for identifying antimicrobial-resistant bacteria, producing results in 15–30 minutes with minimal training.



# Conclusion

This meeting has highlighted a critical but often overlooked consequence of armed conflicts: AMR. Invaluable insights were shared from a Ukrainian expert, who emphasised the urgency of addressing this invisible threat and making it a political priority for national security and global stability.

UK specialists underscored the severe security risks posed by AMR, agreeing it must feature prominently in the National Security Strategy. The alarming AMR situation in Ukraine provides vital lessons to guide our efforts.

With 66,730 serious antibiotic-resistant infections annually in the UK and a 13% rise in cases since 2018, despite a target to reduce them by 10%, AMR is a growing existential threat. Experts in the room issued a clear warning: the UK is unprepared for a surge in resistant bacteria, which is a real risk stemming from direct UK military engagement in Ukraine.

The Prime Minister's forthcoming National Security Strategy is a pivotal chance to address this crisis. Prioritising AMR within this strategy is imperative for stronger, more effective measures to protect public health and security.



Dr Beccy Cooper MP  
Member of Parliament for Worthing West  
Chair of the APPG on Antimicrobial Resistance

## Next steps for the APPG

- **Meet with Luke Pollard MP, Parliamentary Under-Secretary of State (Minister for the Armed Forces):**

Chair of the AMR APPG, Beccy Cooper MP recently asked a question on the issue of AMR and national security at Defence Questions. Luke Pollard MP responded to offer her a meeting to discuss the issue.

- **Seek a meeting with Pat McFadden MP, Chancellor of the Duchy of Lancaster:**

As the Minister with overall responsibility for the National Security Strategy, the APPG will seek a meeting to discuss the importance of this including a standalone section on AMR.



Dr Nick Brown  
Consultant Medical Microbiologist,  
Addenbrooke's Hospital, Cambridge  
Director of Public and Professional Engagement, BSAC

# Attendees

## Round table participants

Name	Role	Organisation
Nick Brown	Consultant Medical Microbiologist	Cambridge University Hospitals NHS Trust
	Director of Public and Professional Engagement	British Society for Antimicrobial Chemotherapy
Rhian Foley	Public Affairs Lead	British Society for Antimicrobial Chemotherapy
Alex Tasker	Senior Lecturer in One Health Trusted Research Environments	University of Bristol
Colin Brown	Deputy Director of Clinical & Emerging Infections	UKHSA
Ryan Baguley	President	The Trinity AMR Action Group
Tasnim Khan	Policy Lead	The Pharmacists' Defence Association
Clare Shortall	AMR Strategic Lead	MSF
Aula Abbara	Consultant in Infectious Diseases and Acute Medicine/ Honorary Senior Clinical Lecturer	Imperial College, London
	Infectious Diseases Advisor	MSF
David Strain	Thematic Research Lead for Health	Parliamentary Office of Science and Technology
Shehan Hettiaratchy	Professor of Practice and Consultant Plastic and Reconstructive Surgeon Major Trauma Director	Imperial College and Imperial College Healthcare NHS
	National Specialty Advisor	Armed Forces Health
	National Clinical Director Op RESTORE	NHS England

# Attendees ...continued

Carolyn Hemsley	Infectious Diseases and Microbiology Consultant; Lead for Outpatient Parenteral Antibiotic Therapy Service (OPAT)	Dept of Infectious Diseases, Guy's & St Thomas' NHS Foundation
Tasnim Khan	Policy Lead	Pharmacists' Defence Association

## In attendance as an observer

Name	Role	Organisation
Chris Banks	One Health and AMR Policy Advisor	FCDO
Tom Pilcher	Head of International AMR Policy	DHSC
Jason De-Bono	Global AMR Policy	DHSC
Ben Wakefield	Specialist Senior Advisor, National Security Secretariat	Cabinet Office





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resistance**

**This All-Party Parliamentary Group exists to raise the profile of antimicrobial resistance, the need to preserve antimicrobials (including antibiotics, antivirals, antifungals, and antiparasitics) through education on their appropriate uses (including non-human uses), the lack of new treatments for infections and to help accelerate efforts to discover, research and develop new treatments.**

The **British Society for Antimicrobial Chemotherapy** serves as the Secretariat to the APPG.

Contact Rhian Foley, Public Affairs Lead,  
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