Change NHS: help build a health service fit for the future

1. About you

Name: Microbiology Society

2. Questions

2.1 What does your organisation want to see included in the 10-Year Health Plan and why?

The Microbiology Society recommends the inclusion of the following key elements in the 10-Year Health Plan to create a modern, responsive, and sustainable NHS:

- **Clear strategies for workforce capacity building**, including recruitment and retention of medical microbiologists. Medical microbiologists play a pivotal role in the prevention, diagnosis, and treatment of illnesses caused by microorganisms, as well as in infection, prevention and control and antimicrobial stewardship [1]. A robust workforce is critical to meet the growing challenges due to rising antimicrobial resistance and emerging infectious diseases.

- **An emphasis on preventative measures** that can significantly reduce the burden on the healthcare system by addressing health issues before they become severe. Specifically, prevention of antimicrobial resistance (AMR) should be a priority, including diagnostic stewardship, antimicrobial stewardship and public engagement initiatives, as outlined in the UK's five-year national action plan for AMR [2].

- **Adoption and implementation of cutting-edge diagnostic tools**, which will enhance patient outcomes and streamline care processes. In the community setting, the use of rapid tests and point of care technologies can provide immediate results, enabling quicker clinical decisions, the correct antibiotic prescription (or no antibiotic prescribed) and interventions.

2.2 What does your organisation see as the biggest challenges and enablers to move more care from hospitals to communities

Moving more care from hospitals to communities could significantly advance efforts to tackle AMR if approached correctly. This shift could enable earlier intervention and timely treatment, facilitated by increased access to rapid diagnostics and enhanced monitoring and follow-up, therefore ensuring the right antibiotic is used at the right time. The challenges and enablers to achieving this transition include:

2.2.1 Challenges

a) **Insufficient healthcare professionals in community settings**. There is currently a lack of capacity, both in terms of staff numbers and availability of places, to provide the care to an adequate standard. Furthermore, GPs are currently overwhelmed and adding more services will strain them further, reducing the accessibility of crucial services.

b) **Lack of appropriate support for healthcare professionals**. For example, despite the potential of initiatives like 'Pharmacy First', which aims to alleviate the pressure on GP services, there is a concern that pharmacists may lack the appropriate resources to effectively diagnose patients (with an increase in empirical prescribing) while also supporting antimicrobial stewardship efforts [3].

2.2.2 Enablers

a) **Effective communication strategies** between hospitals and community care providers would be essential. This includes establishing strong hand-over teams to ensure seamless transitions of care and maintaining clear lines of communication.

b) **Clear diagnostic stewardship and training.** Embedding clear protocols for the use of diagnostics into current clinical pathways is essential. A standardised approach to community implementation, supported by comprehensive training, can ensure consistency and reliability in patient care [4].

c) **Rapid diagnostic point of care tests.** Utilising rapid point of care tests in the community will enhance the ability to provide timely and accurate diagnoses in community settings, improving overall patient outcomes.

2.3 What does your organisation see as the biggest challenges and enablers to making better use of technology in health and care?

2.3.1 Challenges

a) **Ensuring secure data is shared securely while maintaining privacy**. While we support patient data sharing to enable the generation of high-quality, accessible and harmonised datasets, there is a need to provide guarantees about how the data is used and secured. Providing guarantees about data privacy and security is fundamental to gaining the trust of both patients and healthcare providers.

b) **High costs associated with implementing new technologies**. The financial burden associated with the adoption of new technologies can be prohibitive. This includes not only the initial investment in technology but also ongoing costs related to maintenance, upgrades and support.

c) **Lack of adequate training** for healthcare professionals to use new technologies effectively and lack of continued support after it's introduction.

d) **Distrust in new technologies**. Concerns about reliability, security, and the impact on the quality of care need to be addressed to foster confidence in technological solutions.

2.3.2 Enablers

a) **Robust, integrated IT systems**, that facilitate the seamless integration of new technologies. These systems need to be joined-up and compatible to ensure smooth operation across different healthcare settings.

b) **Strengthened data infrastructure**. Investing in a strong data infrastructure is necessary to ensure data is used appropriately and securely.

c) **Training and workforce support**. Providing training and supporting the workforce is essential to adapt to technological advancements. For example, the successful implementation of the sepsis 'alert and action' technology was underpinned by targeted workforce training, ensuring healthcare professionals were equipped with the knowledge and skills to effectively use the system [5].

d) **Improved and standardised clinical coding and data recording**, which can help build a sound evidence base to validate new technologies and to inform clinical decision-making.

2.4 What does your organisation see as the biggest challenges and enablers to spotting illnesses earlier and tackling the causes of ill health?

2.4.1 Challenges

a) **Workforce capacity**. Ensuring there is adequate capacity and training among healthcare professionals, including laboratory workforce for diagnostics, is essential.

b) **Lack of appropriate resourcing**. There is a need for better frameworks to allow healthcare guidelines to be followed effectively. The lack of funding exacerbates this issue, making it difficult to implement necessary measures for early illness detection.

c) **Lack of available appointments**. The increasing postponement of consultations or treatments may be leading to more undetected early cases.

d) **Lack of public awareness** of the importance of early detection and regular health check-ups.

2.4.2 Enablers

a) **Enhancing infrastructure** for laboratories and diagnostics to support early detection.

b) **Adoption of existing rapid diagnostic technology in primary care settings**. For example, by following the British In Vitro Diagnostic Association's recommendations [6], primary care providers can effectively utilise rapid diagnostic technologies to triage patients with respiratory symptoms. This approach helps determine whether an infection is bacterial or viral, thereby reducing unnecessary antimicrobial prescriptions.

c) **Utilising rapid tests and point of care technologies**. The use of rapid tests and point of care technologies can provide immediate results, enabling quicker clinical decisions and interventions. This can significantly improve patient outcomes by initiating timely treatment.

d) **Increasing investment in pathology services** can support early diagnosis and treatment, ensuring that healthcare systems can handle the demand for diagnostic services and provide accurate results promptly.

2.5   Please use this box to share specific policy ideas for change. Please include how you would prioritise these and what timeframe you would expect to see this delivered in, for example:

2.5.1   Quick to do, that is in the next year or so

   a) Public engagement:

      i. Develop and implement a public engagement plan focused on AMR awareness, aligned with the UK's national action plan for AMR.

   b) Training

      i. Strengthen antimicrobial stewardship (AMS) and mandate AMS education and training for all healthcare workers.

      ii. Increase the number of training positions for health professionals specialising in infectious diseases, particularly for clinical microbiologists.

   c) Diagnostics

      i. Improve lab infrastructure to enable rapid diagnosis of infection and their susceptibility profiles, including recording these results.

2.5.2   Medium-term, (next 2 to 5 years)

   a) Implement lessons from previous health crises to strengthen laboratory infrastructure and overall healthcare resilience.

2.5.3   Long-term change (more than 5 years)

   a) Commit to long-term investment in diagnostic technologies, laboratory capacity and the implementation of clinical trials to continually advance healthcare capabilities to tackle AMR.

   b) Focus on training specialists who can effectively deliver and explain new therapeutic strategies and diagnostic methods within the NHS, ensuring the healthcare system remains at the forefront of medical innovation.

3. References

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[2]UK Government. Confronting antimicrobial resistance 2024 to 2029; 2024. https://www.gov.uk/government/publications/uk-5-year-action-plan-for-antimicrobial-resistance-2024-to-2029

[3] The pharmaceutical journal. Academics warn prime minister of 'extremely serious' AMR consequences of Pharmacy First scheme in England; 2023. https://pharmaceutical-journal.com/article/news/academics-warn-prime-minister-of-extremely-serious-amr-consequences-of-pharmacy-first-scheme-in-england

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