Health and Global Policy Institute　AMR Alliance Japan

# Towards Strengthening Microbiological Diagnostics as a Foundation for AMR Control



## Background and Challenges

- It is estimated that antimicrobial resistance (AMR) is the direct cause of approximately 1.27 million global deaths each year, and this figure rises to 4.95 million deaths when including those associated with AMR. A political declaration adopted at the United Nations General Assembly High-Level Meeting in September 2024 set a target of a 10% reduction in AMR-related global deaths by 2030.
- Of the six areas set out in Japan's National Action Plan on AMR (NAP), 2023–2027, two—surveillance and monitoring, and antimicrobial stewardship—are founded on routine microbiological testing conducted at healthcare institutions. By identifying causative microorganisms and confirming drug susceptibility through microbiological testing, the types and duration of antimicrobial therapy can be limited to the minimum necessary.
- The 2026 revision of the medical service fee schedule introduced a new item called the "additional fee for microbiological testing systems," and the microbiological testing capability within hospitals was evaluated as a separate item for the first time. However, further refinements are needed in how systems are designed to better align with clinical realities.
- The next NAP, tentatively titled the National Action Plan on AMR (2028–), is expected to begin in 2028. Against this backdrop, AMR Alliance Japan conducted interviews with experts and developed four pillars and eight recommendations on strengthening microbiological testing systems.

## Four Pillars and Eight Recommendations for Strengthening Microbiological Testing Systems

### Pillar 01 Establishing a clear definition for "microbiological testing system" and designing a framework for evaluating current practices

- Recommendation 1-1　Assign a clear definition to "microbiological testing system"
- Recommendation 1-2　Expand the Survey of Medical Institutions and develop a public statistical framework for examining current conditions for microbiological testing systems

### Pillar 02 Ensuring diagnostic stewardship and reviewing reimbursements to accurately reflect the role of microbiological testing

- Recommendation 2-1　After standardizing microbiological testing procedures under the leadership of academic societies and similar organizations, mechanisms for evaluating quality, turnaround times (TATs), and other aspects of testing should be incorporated into the medical service fee schedule
- Recommendation 2-2　Develop reimbursement mechanisms that accurately reflect the value of new testing technologies for infectious disease management
- Recommendation 2-3　Consider mechanisms that ensure medical service fee schedule evaluations encourage testing system development

### Pillar 03 Strengthening quality control systems for microbiological testing

- Recommendation 3-1　The national government should take the lead in establishing an external quality control framework for microbiological testing and develop mechanisms to encourage participation

### Pillar 04 Building a system for sharing the functions of microbiological testing within communities

- Recommendation 4-1　Under the leadership of the national government, outbound and inbound specimen testing between healthcare institutions should be positioned as regional testing networks, and mechanisms for sharing costs and information should be developed
- Recommendation 4-2　Prefectural governments should take the lead in designing regional microbiological testing networks that are consistent with Infectious Disease Prevention Plans, Medical Care Plans, and other such plans

Microbiological testing extends beyond immediate patient care; it underpins infectious disease control at healthcare institutions, within local communities, and ultimately, across the nation. Many medical procedures, including surgery and cancer chemotherapy, carry an inherent risk of infection and are predicated on the ability to reliably diagnose and treat infectious diseases. Rather than being left solely to the efforts of individual facilities, microbiological testing systems should be designed as a shared infrastructure for society. Toward the next NAP, expected to begin in 2028, we hope that stakeholders from industry, government, academia, and civil society will engage in continued discussions from their respective positions so that microbiological testing systems can become a foundation for society.

For the full text of these policy recommendations, please see the Health and Global Policy Institute (HGPI) website: https://hgpi.org/en/research/amr-20261124.html

Full paper

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