



# GARDP IN JAPAN

Antimicrobial resistance (AMR) is already one of the world's leading health threats, associated with 4.7 million deaths each year. New research suggests the crisis is approaching a dangerous tipping point, with AMR-related deaths projected to rise by more than 70% by 2050 if action is not accelerated.

AMR is a growing challenge in Japan too. In 2021, an estimated 17,400 deaths were caused by drug-resistant infections, and around 83,900 deaths were associated with AMR overall. Older people, particularly those aged 70 and above, are disproportionately affected, with high mortality linked to bloodstream and urinary tract infections<sup>1</sup>. Addressing this growing burden requires both the development of new antibiotics to replace those rendered ineffective by resistance and improved access to existing treatments that still work.

This dual approach sits at the heart of the mission of the Global Antibiotic Research & Development Partnership (GARDP). Working with partners worldwide, GARDP develops new treatments targeting priority pathogens identified by the World Health Organization and supports sustainable access to essential antibiotics. Its not-for-profit model brings together countries with a high AMR burden and those with strong research and development capacity, including Japan, collaborating with national experts, ministries of health and research institutions.

By advancing antibiotic innovation and ensuring global availability, GARDP's work also benefits Japan directly. As drug-resistant infections increase domestically, securing future treatment options is critical. GARDP's scientific expertise and integrated R&D and access model can help inform Japan's healthcare policies and strengthen preparedness, ensuring clinicians have effective tools to treat difficult-to-treat infections.

Japan has been a key partner and supporter of GARDP since 2020. As a member of the G7 and G20, and a country with significant pharmaceutical R&D strength, Japan plays an important leadership role in the global AMR response.



## Japan's global leadership on AMR

The Government of Japan has consistently demonstrated strong global leadership in addressing antimicrobial resistance. In 2016, Japan launched its National Action Plan on AMR, building on the five strategic objectives of the WHO Global Action Plan and introducing a sixth pillar—International Cooperation—to reinforce global partnerships and collaborative efforts. Since then, Japan has updated its strategy and issued a new National Action Plan for 2023-2027, reaffirming its commitment to tackling AMR through strengthened domestic measures and continued international collaboration.

Under Japan's 2023 G7 Presidency, G7 leaders and health ministers underscored the importance of creating a sustainable market for antimicrobials that ensures equitable access, stewardship, and alignment with public health needs. They also committed to implementing incentives to promote antibiotic R&D and access, including support for initiatives such as GARDP.

1. Source: Institute for Health Metrics and Evaluation (IHME). 'The burden of antimicrobial resistance in Japan'. Seattle, WA: IHME, 2023. Available from: <https://www.healthdata.org>.

## Strengthening domestic antibiotic supply chains

The Government of Japan launched a supply chain resilience initiative in 2022 with a budget of approximately JPY 55 billion (approx. USD 360 million). This programme aims to restart and expand domestic production of active pharmaceutical ingredients (APIs) for antibiotics, particularly beta-lactams.

As part of this initiative, companies such as Meiji Seika Pharma Co., Ltd. and Shionogi & Co., Ltd. have been selected to resume API production in Japan for the first time in decades. Meiji Seika Pharma's Gifu plant completed its new facility and started operations in December 2025.



## GARDP's partnerships with Japan

### RESEARCH & DEVELOPMENT

#### Discovery and exploratory research

GARDP and Institute of Science Tokyo launched a joint research project in 2025, leveraging the university's advanced X-ray crystallography capabilities. The collaboration focuses on unlocking the structures of protein-compound complexes, a critical step in understanding how potential antibiotic candidates interact with bacterial targets. By combining GARDP's global expertise in AMR with cutting-edge structural biology capabilities in Japan, this partnership aims to accelerate the discovery of novel treatments for some of the world's most challenging infections.

GARDP established an AMR Screening Consortium to screen compounds that had never been tested for antibiotic activity. As part of the consortium agreement, three Japanese pharmaceutical companies—Eisai Co., Ltd., Takeda Pharmaceutical Co. Ltd., and Daiichi Sankyo Co., Ltd.—gave GARDP access to their proprietary chemical libraries.<sup>2</sup> More recently, the Hit-to-Lead projects arising from the Tanabe Pharma Corporation (previously Mitsubishi Tanabe Pharma Corporation) and Sumitomo Pharma Co., Ltd. were concluded, thereby showing the potential of this approach.

#### Clinical development

GARDP is also working with Shionogi to define the way forward to guarantee future global access to flomoxef as a component of a combination treatment for neonatal sepsis. This includes a supply agreement to support the availability of flomoxef for our clinical trial to identify safe and effective antibiotic treatment combinations for neonatal sepsis ("NeoSep1").

In June 2022, GARDP signed a Memorandum of Understanding (MOU) with the Japan Institute for Health Security (JIHS)—previously National Center for Global Health and Medicine—to build a clinical research network in Asia and worldwide. The first area of collaboration focuses on site selection and identification in Asia for the NeoSep1 study.

### ACCESS

GARDP has partnered with Shionogi to ensure equitable access to cefiderocol, a breakthrough antibiotic for treating serious infections caused by multidrug-resistant Gram-negative bacteria. These infections pose a critical global health threat, and access to new antibiotics in low- and middle-income countries (LMICs) often takes more than a decade.

In July 2022, GARDP and Shionogi signed a landmark licensing and technology transfer agreement, granting GARDP the rights to develop, manufacture and distribute cefiderocol in 135 countries where access would otherwise be delayed. This first-of-its-kind agreement for a non-tuberculosis antibiotic reflects Shionogi's commitment to addressing AMR and GARDP's mission to close access gaps.

### CAPACITY DEVELOPMENT

GARDP provided support to help plan the JHIS training on antibiotic stewardship, sponsored by the Japan International Cooperation Agency (JICA). The course invited clinicians and leaders in the field of AMR from a number of LMICs.

2. Source: Science Direct "High-throughput screening of small-molecules libraries identified antibacterials against clinically relevant multidrug-resistant *A. baumannii* and *K. pneumoniae*". Available from: <https://www.sciencedirect.com/science/article/pii/S2352396424001087>