Call: 9th Call – JPIAMR Joint Call on Diagnostics and Surveillance 2019

Title: One Health AMR Surveillance through Innovative Sampling

Acronym: OASIS

Project composition

Type	Name	Institute	Country
Coordinator	Frank van Leth	Amsterdam Institute for Global Health and Development; Amsterdam University Medicine Centers	The Netherlands
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Abstract

OASIS aims to develop an antimicrobial resistance (AMR) surveillance strategy in a One Health context, and applicable in high-, middle-, and low-income countries. The proposed strategy challenges the strong reliance on laboratory-based AMR surveillance for meeting objectives of the Global Action Plan on AMR. Laboratory-based AMR surveillance is hampered by selection bias and unrepresentativeness for local settings, precluding guidance on empirical antibiotic treatment decisions in the human or veterinary domains. Population-based AMR surveillance is preferred but is time-, labour- and cost intensive due to large sample sizes required. OASIS moves from conventionally estimating AMR prevalence to classifying populations/settings as having a high or low AMR prevalence, by applying a Lot Quality Assurance Sampling approach, which requires much smaller sample sizes and is uniquely positioned for population-based AMR surveillance. OASIS optimises the LQAS approach as a rapid, domain-, and setting-appropriate AMR surveillance strategy, within a One Health context that appreciates the close interplay of drivers of AMR emergence and transmission in human and livestock populations. Surveillance strategies that use a similar methodology to assess AMR prevalence in multiple domains are highly desired, strengthen the knowledge and evidence base on AMR, and optimise the use of antimicrobials in both human and animal health. Oasis' implementation research component engages domain-specific stakeholders throughout the project to optimise knowledge utilisation, and facilitate the translation of results into policy.