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Quadripartite Key Recommendations and Priorities for the 2024 UNGA High-Level Meeting on Antimicrobial Resistance (AMR)

A Policy Brief



SUMMARY

This document sets out the key recommendations of the Quadripartite organizations (Food and Agriculture Organization of the United Nations (FAO), United Nations Environment Programme (UNEP), World Health Organization (WHO) and World Organisation for Animal Health (WOAH)) for an urgent and more accelerated response to AMR, for consideration by Member States at the United Nations General Assembly (UNGA) High-level Meeting (HLM) on AMR in September 2024. The HLM on AMR presents a unique opportunity for global leaders to invest in the present and secure our future by enabling effective national and global actions to save millions of lives, safeguard animal health, food safety, food security, protect the environment, and fortify economies against the threats of AMR for years to come. We therefore present the following key recommendations for Member States' consideration towards the political declaration:



1 Implement measures for effective sub-national, national, regional, and global governance, leadership, and coordination, which should include the updating of the 2016 Global Action Plan on AMR; updating multisectoral national action plans (NAP) on AMR including cross-sectoral coordination mechanisms, together with greater efforts to address country capacity gaps, particularly in the Global South; and formally recognizing the Quadripartite Joint Secretariat as the key coordinating mechanism for the global One Health multisectoral response to AMR



2 Allocate adequate, predictable, and sustainable financing for the AMR response through increased domestic resource allocations, integration of AMR in broader national development plans, and greater leveraging of existing bilateral and multilateral funding streams supported by global and national investment cases. Expanding the funding contributions and scope of the AMR Multi-Partner Trust Fund should be considered to catalyze enhanced support to accelerate the implementation of multisectoral Action Plans (NAPs) on AMR as well as AMR global governance and initiatives.



3 Commit to actionable targets and bolster monitoring and strategic information systems, to guide and accelerate the AMR response, including functional institutionalized sector-specific surveillance of antimicrobial resistance and use, with multifaceted data sharing instruments towards an integrated surveillance mechanism, supported by national, regional, and global monitoring frameworks. The Independent Panel on Evidence for Action on AMR recommended by the 2019 IACG Report should be established to provide independent high-level advice to member states on AMR burden and its impact, while ensuring strengthened surveillance and research.



4 Prevent the emergence and spread of AMR through system-wide transformation across human, animal, plant and environmental sectors, including strengthening of regulatory frameworks, preventative action on waste and wastewater from pharmaceutical manufacturing, municipal systems, hospitals, farms and intensive crop production. Strengthened laboratory capacity and diagnostics should be ensured for timely detection of infections, and improved vaccination to reduce the need for antimicrobials across the human, animal, and plant sectors as well as prevention of environmental contamination. Equitable access to these tools and their appropriate and sustainable use, coupled with greater efforts to increase awareness of and education on AMR in all relevant sectors should be ensured.



5 Urgently address the research and development (R&D) and access crisis across sectors, including for new antimicrobials (especially antibiotics) and biologics such as vaccines through a coordinated market incentives to achieve maximum impact on R&D and ensure equitable access. Resilient systems and plans for vaccines, alternatives to antimicrobials, diagnostics, innovations, waste and integrated water management interventions should be established and funded particularly in low- and middle-income countries (LMICs). Appropriate and sustainable use of antimicrobials as well as safe disposal should also be ensured particularly in LMICs.

1 Background

The United Nations General Assembly (UNGA) High-level Meeting (HLM) on Antimicrobial Resistance (AMR), held in 2016, was a landmark in global commitment to tackle AMR. Its political declaration called for greater urgency and action in response. However, progress since 2016 has been insufficient to tackle the urgent and existential global health and socioeconomic threats posed by AMR.

AMR is acknowledged by WHO to be among the top 10 threats for global health and development, with an estimated 1.3 million deaths were directly attributable to AMR in 2019 and nearly 5 million deaths associated with AMR (GRAM study, 2022). If left unchecked it is projected to cause a GDP shortfall of at least USD 3.4 trillion annually and push 24 million more people into extreme poverty (World Bank, 2017). AMR is an equity issue because it is closely linked to poverty, lack of access to essential health services, poor sanitation and hygiene, biosecurity, food safety and security, with the Global South worst affected.

Tackling AMR is therefore critical to preserving the world's ability to treat diseases in humans, animals, and plants, reduce food safety and security risks, protect the environment, and maintain progress towards the SDGs.

The UNGA High-level Meeting on AMR to be held in September 2024 is a crucial opportunity for world leaders to agree on an inspiring vision, commitments, and actions to save lives; protect countries from the growing impacts of AMR on human health, agrifood system, animals, plants, and the environment; safeguard economies; address inequities including gender inequality and ensure that effective antimicrobials are available and affordable when needed for current and future generations.

2 Progress and ongoing challenges in the global AMR response

2.1 Multisectoral coordination

The Global Action Plan on AMR has inspired development of multisectoral mechanisms to coordinate the AMR response at all levels, but critical gaps must be addressed

The 2015 Global [Action Plan](#) on AMR, developed by the World Health Organization (WHO) in consultation with the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (WOAH) and other stakeholders, outlined actions needed to respond to AMR under five strategic objectives and set out implementation responsibilities of member states, WHO and international and national partners. Subsequent support from the FAO conference and WOAH members in 2015 and the United Nations Environment Assembly in 2017, backed by sector-specific action plans, has galvanized momentum for a multisectoral One Health approach to addressing the threats posed by AMR.

The establishment of the Quadrupartite Joint Secretariat (QJS) on AMR, the Global Leaders Group (GLG) on AMR, and the Multistakeholder Partnership Platform on AMR, based on the 2019 Ad-hoc [Interagency Coordination Group \(IACG\) recommendations](#), have helped to raise awareness,

supported advocacy for action, and mobilized increased political attention to AMR. Since its establishment in October 2019, the Quadrupartite Joint Secretariat has played a particularly important role in coordinating the joint work of the four organizations on AMR and galvanized support from other stakeholders for a multisectoral global response. However, the lack of a formally mandated status for the QJS to coordinate the joint work of the global One Health response to AMR remains a gap.

The creation of an independent panel on evidence for action on AMR modelled on the Intergovernmental Panel on Climate Change, recommended by the IACG in 2019, has not been realized. Such an entity is critical to synthesize One Health evidence and inform advocacy and action.

Although an increasing number of countries have established multisectoral AMR coordination mechanisms (47% in 2023, up from 15% in 2017), such entities are lacking in more than half of the countries surveyed by the Quadrupartite organizations. Such mechanisms are essential to design and implement cost-effective National Action Plans (NAPs) on AMR.

Given that the Global Action Plan on AMR serves as a blueprint for National Action Plans on AMR, there is a need to address the critical gaps in the current Plan with a view to accelerating multisectoral action to contain the global AMR threat. These gaps include:

- Addressing the environmental dimensions of AMR;
- Aligning multisectoral and sector-specific strategies in a One Health approach;
- Specific financing approaches and investment cases;
- Accountable global, regional, and national AMR governance; and
- Strengthening diagnostics and laboratory systems for optimal patient management, and AMR surveillance in humans, animals, and plants.

2.2 Improving awareness and understanding

Despite growing awareness about AMR at global, regional, and national levels, more efforts are needed to communicate that AMR is an existential threat and build understanding of needed response at all levels

Countries have made some progress in raising awareness about AMR and promotion of behavioral change through targeted communication to different audiences in human and animal health and agricultural practice, as well as to consumers. Guidance to support country efforts has been produced by the Quadrupartite organizations and since 2016 the annual World AMR Awareness Week (WAAW) has helped to engage stakeholders, including communities, media, and youth groups. Efforts are ongoing in some countries to incorporate AMR in curricular of schools and health professionals.

Despite these efforts, national awareness programs have been insufficient, with less than 40% of countries conducting government-supported, nation-wide, AMR awareness campaigns targeting all or most priority stakeholder groups and involving all sectors. The campaigns that are undertaken are mainly in the human and terrestrial animal health sectors. More effort is also needed to raise awareness and promote action on of AMR in schools and in professional education in human health and veterinary and environment sectors, as well as agricultural practices.

Policymakers, including political leaders and legislators, form another priority audience for awareness-raising efforts. There is also an urgent need to ‘humanize’ the narratives around AMR and make it understandable and more relatable, through involvement and engagement of those with lived experiences of AMR such as patients, survivors, care givers, physicians and farmers.

2.3 Building knowledge and the evidence base through surveillance and research

AMR surveillance across sectors is slowly improving. However, substantial investment is still needed to build stronger and resilient surveillance in countries and enhance use of AMR data for public health action. Focused attention is also needed on implementation and behavioural research across sectors.

Important progress has been made in strengthening surveillance on AMR. WHO’s Global Antimicrobial

Resistance and Use Surveillance System (GLASS) collects national routine data, with 137 countries now enrolled and 91 countries reporting data on AMR in 2023. In areas where routine data quality and coverage are lacking, WHO recommends conducting AMR surveys to generate nationally representative data on AMR prevalence and its impacts on health, including cost. Currently, three countries are conducting these AMR surveys. The FAO InFARM (International FAO Antimicrobial Resistance Monitoring) and WOAHA ANIMUSE (for ANimal antiMicrobial USE) databases have enabled AMR surveillance in agri-food system, and AMU surveillance in animals and are supporting the development of an integrated AMR surveillance system (Global Integrated Surveillance System for AMR, GISSA). The inclusion of new AMR indicators in the SDG monitoring framework and the publication of a Quadrupartite One Health priority research agenda for AMR and the WHO global research agenda for AMR in human health are also important steps forward to catalyze action on prioritized areas.

Despite this encouraging progress, more effort and financial resources are critically needed to strengthen AMR surveillance system and improve quality and representativeness of AMR data according to WHO GLASS standards, CODEX standards, and WOAHA Standards for aquatic and terrestrial animals, respectively. AMR/AMU surveillance systems in many countries suffer from suboptimal design, resulting in a lack of representative data. Disparities in the robustness and reliability of surveillance systems stem from various factors, including inadequate access to affordable diagnostic tests, heterogeneity in the quality of lab results, and suboptimal AMR data reporting. These limitations hinder understanding of the AMR burden and impede the effective use of surveillance data for public health interventions, policies, target setting and evidence-based priority setting for a comprehensive One Health response.

To increase the evidence base to inform effective AMR interventions and strategies, WHO and the Quadrupartite have developed two complementary research agendas for AMR in the human health sector and in One Health. A coordinated effort among stakeholders, including member states, academia, industry, and donors, is essential to tackle priority research questions with the greatest public health impact and to mitigate AMR effectively.

2.4 Reducing infection through effective sanitation, hygiene, immunization, and infection prevention

Infection prevention and control are the frontline response in the fight against AMR. Strong and sustainable human, animal and plant health systems are essential to prevent disease, reduce the need for antimicrobials, and reduce antimicrobial discharges, but these systems remain weak in many lower-income countries.

Mitigating infectious disease risk and addressing key pollution sources from hospital and community wastewater, effluent from pharmaceutical production, run-off from plant and animal agriculture and other discharge into the environment is crucial to curbing AMR. The Quadrupartite organizations have developed sector-specific guidance to prioritize infection prevention and control (IPC) interventions, including sanitation, hygiene, integrated water and waste management, implementation of IPC programmes in the human health sector such as immunization and effective diagnosis, performance monitoring of veterinary services, food production practices in line with international standards, and biosecurity measures, which have been strengthened in some countries. Progress to date has been slow, with only 68 countries out of 176 reporting in 2023 that they have a functional IPC programme at national and health facility levels or were at least implementing the WHO IPC core components with guidelines and plans (TrACSS 2023). Similarly, only 49 of 167 countries reported having documented evidence of capacity on the quality of veterinary services in compliance with WOA standards or at least regular monitoring through the Performance of Veterinary Services (PVS) evaluation follow-up missions.

Persistent challenges include insufficient focus on hygiene practices and biosecurity in healthcare facilities and farms, highlighting the need for strengthening IPC in these settings. Additionally, there is a lack of attention to animal health systems overall, a need for sustainable technologies to reduce reliance on antimicrobials, especially in low- and middle-income countries, and a critical need to reduce antimicrobial discharges from health facilities, farms, and manufacturing facilities into the environment.

2.5 Optimizing the use of antimicrobial medicines in human, animal, and plant health

There has been an encouraging global reduction in antimicrobial use in animals in recent years, but this trend may be stalling. Furthermore inappropriate use of antibiotics in humans remains very common, with widespread overuse of Watch antibiotics. Ambitious evidence-based targets, strong national regulatory frameworks and other interventions are needed to drive further reductions, especially in lower-income countries.

Efforts to optimize the use of antimicrobial medicines in human and animal health are crucial for combating infectious diseases and AMR and reducing antimicrobial discharges into the environment. The Quadrupartite has developed global guidance to promote responsible and sustainable antimicrobial use while ensuring access to essential medicines. Initiatives such as the WHO Antimicrobial Stewardship (AMS) Toolkit and the WHO Access, Watch and Reserve (AWaRe) framework and antibiotic book support healthcare professionals in using antimicrobials appropriately and the monitoring the use in humans, complementing efforts to prevent infections and ensure timely access to quality diagnosis and treatment. Other critical approaches include a global information system for substandard and falsified veterinary products (VSAFE), Codex Alimentarius standards for foodborne AMR, and the FAO initiative to Reduce the Need for Antimicrobials on Farms for Sustainable Agri-food Systems Transformation (RENOFARM).

In 2023, 79 countries reported having adopted the WHO AWaRe classification into their essential medicines lists, an encouraging increase since 2020. Harmonization of the WHO and WOA standards of medically important antimicrobials is also an important step forward. The Muscat Ministerial Manifesto targets, endorsed by about 50 countries since 2022, have helped to focus attention on the need to optimize antimicrobial use in agri-food systems and to eliminate the non-veterinary use of medically important antimicrobials in animals, and non-phytosanitary antimicrobial use in plants.

Challenges exist in accessing existing and new essential antibiotics as well as essential diagnostics, particularly in low and middle-income countries (LMICs), mainly due to inadequate financing, insufficient capacities, and fragile supply chains.

2.6 Economic case for sustainable investment and increased investments in new medicines, diagnostic tools, vaccines, and other interventions

Responses to AMR at global and national levels are severely underfunded and there is a need for greater investments in research and development.

Although many countries have responded to the Global Action Plan on AMR by developing national AMR action plans, many of these plans are inadequately funded. Only a quarter of countries have costed and budgeted plans with monitoring mechanisms in place, while only 11% have funding allocated for implementation. Prioritizing antimicrobial stewardship, WASH, infection prevention and control measures and immunization across sectors and incorporating AMR containment into development financing, especially for LMICs, is crucial and requires urgent investment.

With support from the Quadrupartite organizations and other partners, including the World Bank and the OECD, a compelling, global economic case for sustained investment in the AMR response has been developed. The study shows that without greater action, the economic impact of AMR will be catastrophic, but that investments can yield significant returns.

Challenges in AMR-related research and development (R&D) persist, as shown by the small number of innovative antibacterial targeting priority pathogens in clinical development. While there are greater numbers of products in pre-clinical development, one-third of pre-clinical development programmes are discontinued every year.

Inadequate funding and incentives for AMR-related R&D remain a significant constraint, resulting in a fragile pipeline for new antimicrobials and other interventions. While there have been investments in human health antimicrobial R&D, more funding is needed including for late-stage product development, diagnostics, vaccines, and alternatives to antimicrobials. Smarter public-private partnerships are necessary to balance investor returns with the global public good provided by antimicrobials and tools to tackle AMR.

3 Key messages for the 2024 UNGA high-level meeting to promote an urgent and accelerated response to AMR

The Quadrupartite organizations are committed to working with and supporting member states and other stakeholders towards a successful UNGA high-level meeting in 2024 that delivers a bold and impactful political declaration. To this end, building on experiences since the last High-level meeting on AMR in 2016, the four organizations underscore the following critical considerations to catalyze and accelerate multisectoral and sector-specific actions.



3.1 Implement measures for effective sub-national, national, regional, and global governance, leadership, and coordination

Effective and coordinated action across the human, animal and plant health, agri-food, and environmental sectors is critical to a successful and sustainable response to AMR and requires strong leadership at all levels of governance, underpinned by robust multisectoral coordination. To enable effective, whole-of-society responses to AMR, member states should ensure that strong, functional, adequately resourced, and accountable national multisectoral coordination mechanisms are in place, including meaningful engagement with the most-affected communities. It is also critical to maintain support for regional and global multisectoral AMR governance structures. Member states should:

- Request that the Quadrupartite organizations in coordination with relevant partners update the existing Global Action Plan on AMR to guide a robust, multisectoral One Health response across sectors, complementing sector-specific strategies and plans.
- Ensure that multisectoral AMR NAPs include all relevant sectors, are up-to-date, are costed, ensure the establishment of efficient cross-sectoral coordination mechanisms, and include an appropriate monitoring and accountability framework.
- Promote experience sharing and learning across countries to develop and manage effective national governance and coordination mechanisms for AMR. For example, to ensure high-level leadership, some countries have established these coordination structures at the level of cabinet committees or the office of the head of state/government or their deputy.
- Formally recognize the Quadrupartite Joint Secretariat on AMR as a key coordinating mechanism for the global One Health response to AMR, drawing on the mandates and roles of the Quadrupartite and other relevant organizations in each sector. This will sustain and enhance efficient coordination, streamlined processes, and should include a mandate to engage all relevant multilateral agencies and institutions, as well as other stakeholders in the fight against AMR. It will also provide the basis for sustainable and effective management of established global governance structures, namely the Global Leaders Group on AMR, the AMR Multistakeholder Partnership Platform, and the AMR Multi-Partner Trust Fund (AMR MPTF).
- Address technical capacity gaps, particularly for LMICs, to meet both short- and longer-term needs, especially to ensure equitable access to AMR interventions across the One Health spectrum.

- Strengthen South-South and triangular collaboration to enable skills and technology transfer and to strengthen capacity building for effective implementation of national AMR action plans.



3.2 Allocate adequate, predictable, and sustainable financing for the AMR response

Despite some financing becoming available through existing institutions and the MPTF, a step-change in financing is needed to accelerate action on AMR. Member states should consider commitments to:

- Increase domestic resource allocations to support effective implementation of NAPs on AMR and further drive national and global impact.
- Ensure integration of AMR prevention and care in national development plans and insurance packages for human and animal health.
- Ensure integration of AMR National Multisectoral Action Plan and Strategy in national development plans to ensure sustainable actions to safeguard human and animal health, agrifood systems, and the environment.
- Leverage all relevant bilateral and multilateral funding streams including multilateral funds, multilateral and regional development banks, and climate and environment funds to adequately address drivers, sources, and challenges of AMR; and request a report to the United Nations Secretary General on how the global financing architecture should evolve to sustainably tackle AMR. This could include expanding the funding contributions and scope of the AMR Multi-Partner Trust Fund to scale up support for implementation of NAPs to maximize impact and support global governance and initiatives.
- Develop national and global investment cases for addressing AMR across all sectors, ensuring that they are proportionate to needs and the actions planned and consider the recent study undertaken by the Quadripartite organizations.



3.3 Commit to actionable targets and bolster monitoring and strategic information systems, to guide and accelerate the AMR response

Previous high-level meetings on a range of subjects have catalyzed the greatest impact when member states agreed meaningful, inspirational, action-oriented, time-bound, and measurable targets, and many member states and other stakeholders have expressed the expectation that

the 2024 high-level meeting endorses such targets to guide action, accompanied by the development of national and global monitoring and evaluation frameworks. In addition, it is recognized that there are critical gaps in strategic information to guide the response to AMR and monitor progress, especially in surveillance of antimicrobial resistance and consumption/use across sectors. Member states should consider commitments to:

- Include realistic meaningful and measurable targets in the political declaration to galvanize commitment and actions to address AMR. These could include adoption and/or revision of the existing multisectoral 2022 Muscat Manifesto targets.
- Strengthen and institutionalize sector-specific and integrated surveillance of AMR and antimicrobial consumption/use, building on progress to date in bringing together through a multilateral information sharing agreement (or its equivalent) the FAO IMFARM, WHO-GLASS, and WOA-ANIMUSE databases, as well as environmental surveillance, and report, share and use data for effective decision-making in all sectors and at all levels. Member states could also highlight innovative approaches, such as nationally representative prevalence surveys, attributable mortality studies and technologies such as genomic surveillance and artificial intelligence.
- Boost research on AMR focusing on prioritized research questions with the greatest public health impact as articulated in the research agendas in human health and Quadripartite One Health agendas.
- Establish an Independent Panel on Evidence for Action against AMR, as recommended in 2019 by the IACG, to monitor and provide member states with regular reports on the science and evidence related to AMR, its impacts and future risks, and to recommend options for adaptation and mitigation.



3.4 Prevent the emergence and spread of AMR through system-wide transformation across human, animal, plant and environmental sectors

Prevention of infections across sectors is critical to reduce the need for and discharge of antimicrobials. Still, many countries, particularly LMICs, have insufficient access to antimicrobials when they are needed. Addressing this inequity is also at the core of efforts to preventing and responding to AMR. Urgent measures are also needed to minimize discharges into the environment from healthcare facilities, pharmaceutical manufacturing, agriculture (including terrestrial and aquatic animal production, and crop production) and municipal systems. All these actions

highlight the importance of accelerated implementation of sector-specific strategies in the context of a multisectoral One Health approach. Member States should consider commitments to:

- Accelerate implementation of sector-specific actions in the context of multisectoral NAPs on AMR, especially to prevent infectious diseases (thereby reducing the use and discharge of antimicrobials across human, animal and plant health, and agri-food sectors and into the environment).
- Strengthen regulatory frameworks across sectors governing the manufacture, prescription, sale, and disposal of antimicrobials and eliminate the use of medically important antimicrobials for human medicine in animals for non-veterinary medical purposes (including growth promotion) and in crop production for non-phytosanitary purposes.
- Facilitate transformation of agrifood systems to become more sustainable and resilient, reducing the need for antimicrobials through biodiverse, environment- and climate-friendly interventions, for example, by developing costed and funded vaccination strategies for animal health and implementing high standards of sanitation and animal husbandry, biosafety and biosecurity measures, sustainable use of soil, water and other resources, and integrated pest management practices.
- Address critical health system gaps, and barriers faced by people and patients through the effective implementation of WHO's People-centred approach to addressing AMR in human health and its core package of interventions, to ensure quality and affordable diagnosis, prevention, and timely and appropriate treatment of infections.
- Ensure that updates to NAPs on AMR and their implementation fully integrate the environmental dimensions of AMR in the context of the triple planetary crisis of pollution, biodiversity loss and climate, which can impact AMR and disease development, transmission and spread.
- Recommit to commemorating World AMR Awareness Week through nationwide, government supported campaigns; enhance and sustain efforts to promote AMR awareness, especially among political leaders, legislators, media, youth, academia, civil society, the private sector, and the general public; and strengthen education and training related to AMR in the medical, veterinary, agricultural, and environmental professions; and include AMR in school health education curricula.



3.5 Urgently address the research and development (R&D) and access crisis

It is essential to address the R&D pipeline and access crisis for new antimicrobials (especially antibiotics), vaccines, alternatives to antimicrobials, and diagnostics, and to strengthen research into critical interventions to strengthen the AMR response. There is suboptimal access to early and quality diagnosis of the most common bacterial and fungal pathogens due to high costs, lack of a functional laboratory infrastructure and failing referral mechanisms that contribute significantly to morbidity, mortality, disability, and health-associated costs, particularly in LMICs, and further fuel AMR emergence and transmission. It is critical for clinicians to determine the causal pathogen and its susceptibility to antimicrobials to guide appropriate therapeutic decisions and rational use. Member states should consider commitments to:

- Establish mechanisms to appropriately support R&D in all sectors and bring new antimicrobials to market that target priority pathogens; and promote the development of more and better diagnostics in humans and animals, human and animal vaccines based on existing priority lists, new formulations of animal medicines; and alternatives to antimicrobials.
- Establish and coordinate market incentives to have maximum impact on R&D and ensure equitable access to antimicrobials, particularly in LMICs and ensure their appropriate and sustainable use.
- National governments, the Quadripartite organizations, partners, and resource partners should significantly expand efforts to increase affordable access to essential antimicrobials while ensuring their appropriate use.
- Improve country capacity to diagnose bacterial and fungal infections through strengthened governance, access, quality, and appropriate utilization of diagnostic tests to inform rational treatment at all levels of the health system.
- National governments should prioritize, fund and implement behavioral and operational research, based on the Quadripartite One Health priority research agenda for AMR and the WHO global research agenda for AMR in human health, and strengthen research into interventions to reduce antimicrobial discharges into the environment, including wastewater and waste management interventions.

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