IMPLEMENTATION OF THE GLOBAL ACTION PLAN ON

Addressing the global AMR agenda: Activities of the WHO HTM Cluster (HIV, tuberculosis, malaria & neglected tropical diseases)

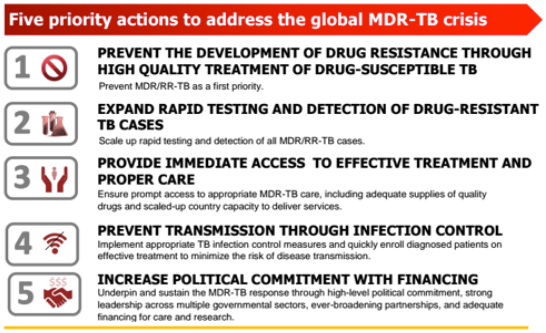
The Global Action Plan to combat AMR covers antibiotic resistance in most detail but also refers, where appropriate, to existing action plans for viral, parasitic and bacterial diseases, including HIV/AIDS, malaria and tuberculosis. Therefore, we are pleased to bring you this special issue that pays attention to activities related to these conditions and the implications of AMR for them.

Collectively, the HTM cluster reflects the longest and most comprehensive effort by WHO to address the AMR agenda in its broadest sense i.e. microbial and drug resistance as well as that of vector-driven diseases and pesticide resistance. The overall goal of HTM efforts is to contain the adverse impact of resistant forms of HIV, tuberculosis, malaria and neglected tropical diseases on public health. The HTM programmes require disease-specific approaches and are at different stages of maturity; however, they also represent unique entry points to several cross-cutting areas of the AMR agenda (e.g. surveillance, laboratory services, infection prevention, rational use of medicines, monitoring and evaluation). We hope you find the overview presented here useful.

Drug resistance and tuberculosis

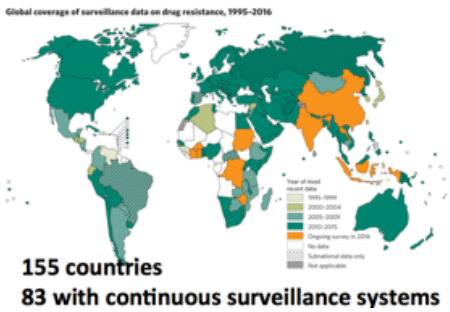
Despite the long and arduous treatment journey that patients with detected multidrug-resistant TB (MDR-TB) must endure, they are the "lucky" ones who have a chance of being cured. Globally, three out of four patients with MDR-TB do not even reach the starting point of this arduous journey, based on recent WHO estimates. On average, only 50% of those who start MDR-TB medicines successfully complete their treatment, and an estimated 250,000 people lost their lives in 2015 to a disease that is preventable by curing TB patients without drug resistance the first time around.

One in five patients currently interrupts their treatment or are lost to follow up in health services. Treatment fails for one in 10 patients - often leaving them without any hope of cure. The high cost of MDR-TB medicines also means that resources are stretched, and too little investment goes to much-needed patient support systems. Many MDR-TB patients lose their jobs and the economic repercussions can be catastrophic especially when the patient is the breadwinner of the family.



Yet, this bleak journey does not have to be the future for people ill with MDR-TB. Several recent innovations offer new hope: molecular diagnostics that rapidly identify patients with drug resistance; a shorter treatment regimen suitable for the majority of MDR-TB patients; and recently developed drugs that improve the possibility of cure if added to conventional treatment. If expanded urgently, the comprehensive package of care recommended by WHO can be lifesaving to the majority of MDR-TB patients globally.

We know this from the comprehensive approach taken by the Global TB Programme which includes: tracking the MDR-TB epidemic; monitoring the global response to the MDR-TB crisis; and rapidly turning research innovations into policy and practice.



Neglected tropical diseases (NTDs)

The department of control of Neglected Tropical Diseases targets two groups of diseases:

i) IDM (intensified disease management) diseases, control of which is based on case management (Human African Trypanosomiasis, Leishmaniasis, Chagas disease and Yaws)

ii) PC (preventive chemotherapy) diseases, control of which is based on large scale administration of drugs (Onchocerciasis, Lymphatic Filariasis, Soil-transmitted helminthiases, Schistosomiasis and Trachoma).

For both groups, off-patent medicines are used; the medicines are donated by drug producers and provided free through the local Ministry of Health infrastructure to the individuals in need.

In 2012, the NTD Department established a working group on drug resistance that meets regularly. It has developed a drug resistance monitoring system for both groups of diseases and is promoting the assessment of drug combinations to be used in the event of AMR.

While, to date, no cases of AMR have been identified for NTDs, **it is anticipated that AMR will become a serious issue for NTDs within the next five years.** Therefore, this group of diseases merits a "place holder" in the AMR agenda. This is essential in order to impress upon Ministries of Health the need to deploy measures that delay the emergence of AMR in NTDs and to convince partners to invest in AMR research.

HIV Drug Resistance

The ability of HIV to mutate and reproduce itself in the presence of antiretroviral drugs is called HIV drug resistance (HIVDR). The consequences of HIVDR include treatment failure and further spread of drug resistant HIV, despite advances in the prevention and treatment of HIV. According to the WHO HIV drug resistance report 2012, higher levels of HIVDR have been observed in several low- and middle-income countries, including Angola (16%), Argentina (14%), Botswana (10%), Cuba (22%), Democratic Republic of Congo (10%), Mexico (16%), Papua New Guinea (16%) and South Africa (14%). Even higher levels of resistance (up to 40%) are evident among individuals restarting antiretroviral therapy (ART) after treatment interruption or with prior exposure to ART to prevent HIV mother-to-child-transmission.

To help address this growing threat, WHO's HIV Department will launch two HIVDR documents at the annual Conference on Retroviruses and Opportunistic Infections in February 2017 : the WHO Progress Report on HIVDR and the Global Action Plan on HIVDR (GAP).

WHO Progress Report on HIVDR

The Progress Report on HIVDR is a joint Centers for Disease Control and Prevention/Global Fund/WHO report covering the last three years and will include analysis of recent nationally representative HIVDR surveys. It will update the first global report on HIVDR released by WHO in 2012, setting out future initiatives to strengthen the monitoring of and response to the emerging threat of HIVDR.

The Global Action Plan on HIVDR is a

five-year plan (2017–2021), aligned with the WHO Global Action Plan on AMR, which will outline key roles and actions for Member States, global and national partners and the WHO Secretariat, structured around five strategic objectives. The GAP will focus on efforts to be conducted in 35 Fast Track countries with the greatest burden of HIV but actions are relevant to all countries. The GAP has received considerable feedback to date, including more than 215 submissions from 90 different countries and more than 100 different organizations between April and September 2016. The five strategic objectives of the GAP are: strengthen HIVDR surveillance and monitoring programme data; research; pevention and response; laboratory capacity; and, enabling machanisms.

Webinars will be held on 12-13 December 2016 to discuss the programmatic implications of rising levels of HIVDR in low- and middle-income countries, focusing on the strategic objectives of the GAP and the division of labour with key stakeholders. To help address the 'prevention and response' strategic objective of the Global Action Plan for HIVDR, work has begun on the development of WHO guidelines on the public health response to HIVDR. These guidelines will be particularly relevant in countries reporting concerning levels of HIVDR, and are expected to be launched in July 2017 at the 9th IAS Conference on HIV Science.

GLASS Updates

Enrolment update: 38 countries have expressed interest in enrolling in GLASS, of which 27 are fully enrolled.

Available on the webpage: A series of capacity building documents and tools for AMR surveillance and GLASS reporting.

Call for consultants: The AMR Secretariat is seeking consultants to assist in the further development and implementation of the Global Antimicrobial Resistance Surveillance System. Applicants should apply by sending a covering letter and their CV to: glass@who.int, clearly specifying "Call for Consultants" in the subject line. The application deadline is 9 Dec 2016. Information here.

AMR programme monitoring : Call for consultants

The WHO AMR Secretariat is recruiting a monitoring consultant for 2017. Full details will be available shortly here.

New OIE strategy tackles the threat of AMR in animals

The newly released OIE Antimicrobial Resistance Strategy details four objectives for veterinary services and describes workplans in place and in development to support countries in averting AMR.

Government of Canada invests to combat AMR

Canada's CAN$9 m contribution is the largest single-year funding WHO has received to address AMR. It will support a global package of initiatives that address the human, animal, agricultural and environmental aspects of AMR.

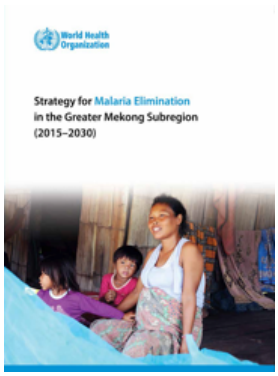
Fighting resistance to antimalarial drugs in the Greater Mekong Subregion (GMS)

WHO has supported efforts to contain artemisinin resistance since it was first confirmed along the Thailand-Cambodia border in 2008. Artemisinin is the core compound of the first-line treatment for uncomplicated *P. falciparum* malaria. It is administered in combination with one of several partner drugs, called artemisinin-based combination therapies (ACTs).

WHO accelerated efforts to protect the efficacy of artemisinin through the *Emergency response to artemisinin resistance in the Greater Mekong Subregion 2013-2015 (ERAR)* and the establishment of a subregional hub in Phnom Penh to coordinate multi-partner action and facilitate technical support. These efforts have yielded impressive results with a major decline in cases and deaths from malaria.

However, additional pockets of resistance emerged independently in new geographic areas of the subregion. In parallel, there were also reports of increased resistance to ACT partner drugs in some settings.

Despite the fact that artemisinin resistance is now present in five GMS countries, the majority of patients can be cured by ACTs – provided the partner drug remains effective. Thus, protecting the efficacy of artemisinin and its partner drugs remains critically important.



To keep pace with the changing malaria landscape, WHO launched the Strategy for malaria elimination in the Greater Mekong Subregion in 2015 and has supported all six GMS countries to complete national elimination action plans. The strategy calls for the elimination of all species of human malaria by 2030. Key focus areas include strengthening surveillance, improving equity in access to malaria services, and applying interventions that are tailored to a particular setting.

To support this work, the ERAR hub will transition at the end of this year from focusing on resistance containment to coordinating subregional elimination efforts. The transition of the hub and the next steps for this work were discussed at a Partners' Forum in Phnom Penh on November 21-22.

WHO continues to emphasize the need for all malaria-endemic countries to regularly conduct routine antimalarial monitoring, through therapeutic efficacy studies (TES). Routine TES will ensure that the recommended ACTs are effective, that timely changes to national treatment policies can be implemented, and that artemisinin resistance can be detected early. In addition, WHO will further evaluate the role played by artemisinin resistance in the development or selection of partner drug resistance.

Other links: WHO updates on artemisin resistance; World Malaria Report 2015 Country profiles ; WHO welcomes global health funding for malaria vaccine ; Malaria champions of the Americas

Resources

- Antimicrobial resistance: aide-memoire. Click here
- Antimicrobial resistance for policy makers. Click here
- Antimicrobial resistance: A manual for developing national action plans and supporting documents and tools. Click here.
- Antimicrobial resistance: updated fact sheet. Click here.
- Global Antimicrobial Resistance Surveillance System (GLASS) documents and tools.
- For information on infection prevention and control, click here.

UPCOMING MEETINGS/EVENTS

Dec 12-13	WHO Technical Coordination Group meeting	WHO HQ, Geneva
Dec 12-15	Combating the emergence and spread of AMR: A workshop to strengthen faith-based engagement	Rome, Italy
Dec 13-14	Meeting of WHO Collaborating Centres to support GLASS	WHO HQ, Geneva
Dec 15-16	GLASS Collaborative Platform meeting	WHO HQ, Geneva
Dec 15-17	WHO IPC Global Unit international expert meeting on "Infection prevention and control (IPC) priorities for field implementation in low-resource settings"	WHO HQ, Geneva
Jan 18-20	One health NAP meeting for Cambodia, Lao PDR and Viet Nam	Hanoi, Viet Nam
Jan 18-20	Programme budget and administration committee meeting	WHO HQ, Geneva
Jan 23-Feb 1	Executive Board meeting 140th session	WHO HQ, Geneva
Jan 24-27	Africa Region national action plan meeting	Harare, Zimbabwe
Mar 28-Apr 1	Western Pacific Region NAP meeting	Manila, Philippines

Please let us know of your upcoming events for inclusion in the newsletter. We also welcome your suggestions and comments. For all communications, and if you would like to **subscribe to the newsletter,** please contact the Secretariat at whoamrsecretariat@who.int**.** Responsibility for newsletter contents rests with the AMR Secretariat Director: Marc Sprenger.

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