

Bangladesh AMR Newsletter



Antibiotics
Antivirals
Antifungals
Antiparasitics

PREVENTING ANTIMICROBIAL
RESISTANCE TOGETHER

The Muscat Ministerial Manifesto on AMR

His Excellency Mr. Zahid Maleque, MP, Hon'ble Minister of Health and Family Welfare, represented Bangladesh in the Third Global High-level Ministerial Conference on Antimicrobial Resistance (AMR) in Muscat, Oman on 24-25 November 2022. In the conference the Ministers from 39 countries of the world agreed and signed "The Muscat Ministerial Manifesto on AMR", paving the way for bold and specific political commitments at the 2024 United Nations General Assembly High Level Meeting on AMR. The Manifesto contains the following three targets:

Target 1: Reduce the total amount of antimicrobials used in the agri-food system at least by 30-50% by 2030 from the current level



Third Global High-Level Ministerial Conference on Antimicrobial Resistance (AMR)

Target 2: Zero use of medically important antimicrobials for human medicine in animals for non-veterinary medical purposes or in crop production and agri-food systems for non-phytosanitary purposes

Target 3: Ensure that ACCESS group antibiotics are at least $\geq 60\%$ of overall antibiotic consumption in humans by 2030

Dr Aninda Rahman, Deputy Program Manager, Antimicrobial Resistance, Communicable Disease Control (CDC), DGHS participated in this conference as a panelist.



Bangladesh delegation in the Third Global High-Level Ministerial Conference on Antimicrobial Resistance (AMR)

Editorial



The year 2022 was remarkable for the National Antimicrobial Resistance Containment (NARC) Programme in Bangladesh. This year National Strategy of NARC for next 5 years with a costed national action plan was prepared and coordinated actions with a One Health approach have been taken. With support from Fleming Fund, we have completed refurbishment of 12 AMR surveillance laboratories across human and animal health sectors. We have expanded the AMR surveillance network to include leading private sector laboratories and supported facility-based programmes like diagnostic stewardship and antimicrobial stewardship to promote guided rational use of antibiotics. Towards the end of the year, our Honourable Minister, Mr. Zahid Maleque, MP along with Ministers from 38 other countries, signed "The Muscat Ministerial Manifesto on AMR", which is an expression of very strong commitment by our government to fight the growing threat of AMR. NARC is committed to attainment of the three targets set in the Manifesto. Taking together all efforts by government departments and development partners, AMR containment was a demonstration of whole-of-society approach and commitment in 2022.

On behalf of the NARC, I wish you all a very Happy 2023 and steady progress towards attaining the goals set towards antimicrobial resistance containment in Bangladesh.

Prof Dr Md. Nazmul Islam

Chief Editor, Director, Disease Control and Line Director, CDC

Observance of World AMR Awareness Week 2022

Background

National Antimicrobial Resistance Containment Coordination Centre of Bangladesh celebrated the World Antimicrobial Awareness Week (WAAW) from 18-24 November 2022 to raise the awareness on antimicrobial resistance targeting the policymakers, different stakeholders, and general public. It organized various activities all over the country, from national to district and upazila levels, ensuring participation of multiple stakeholders and partners from different sectors using One Health approach.

Events celebrating WAAW 2022 in Bangladesh

National level advocacy seminar:

Communicable Disease Control (CDC), Director General of Health Services (DGHS), with the participation of other government departments and different development partners working in Bangladesh organized a national level advocacy seminar on 22 November 2022 at Hotel Le Meridien, Dhaka. The seminar was chaired by Dr Abul Bashar Mohammad Khurshid Alam, Director General, DGHS, Ministry of Health and Family Welfare (MOHFW).

Mr. Zahid Maleque, MP, Honourable Minister, MOHFW, Bangladesh highlighted the emergence of Antimicrobial Resistance (AMR) as a silent threat to public health, and warned that if appropriate actions to contain it are not taken now, there will be increase in morbidity and mortality related to infectious diseases putting a huge pressure on the country's health system and economy. He said "We are working to strengthen efforts to stop the sale of antibiotics without prescription. At the same time, we need to ensure judicious prescribing too". He also stressed the need of raising the public awareness on AMR.



Launching ceremony of the World Antimicrobial Awareness Week 2022

In the keynote address at the seminar Prof Saniya Tahmina, former Additional Director General of DGHS, presented an overview of the current AMR scenario in the country and presented the costed national action plan based on the National AMR Containment Strategy and Action Plan 2021-26. Using the reference of findings from Fleming Fund Supported study on Political Economic Analysis (PEA), she stressed the need for increased resource allocation to support AMR containment activities.

Experts and officials from different departments and organizations spoke at the event highlighting the activities planned and implemented by them to contain the threat of AMR.

District and Upazila level events:

Directorate General of Health Services (DGHS) and Department of Livestock (DLS) organized advocacy meeting on Antimicrobial Resistance Containment in every district and upazila (sub-district), poster presentation, advocacy meeting and rally on medical colleges, generating awareness through public announcement using mikes all over the country etc.

Dissemination program on Antimicrobial Resistance Surveillance in Bangladesh:

Institute of Epidemiology, Disease Control and Research (IEDCR) being the 'National Reference Laboratory' (NRL) on AMR observed the AMR Awareness Week in a very befitting manner on 24 November 2022. Different distinct events have been carried by IEDCR like rally, essay competition, painting, poster presentation and dissemination programme meeting on 'Antimicrobial Resistance Surveillance in Bangladesh'.

Professor Dr Tahmina Shirin, Director IEDCR, in her welcome address explained the AMR surveillance activities in the country. She explained the need of including private sector laboratories as AMR passive reporting sites to increase the volume and representativeness of the AMR data which is important for getting a clear picture on the AMR trends prevailing in Bangladesh. Around 100 participants from the public and private institutes along with the participants from the sentinel sites attended the meeting.



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Surveillance Findings Dissemination at IEDCR

To mark the occasion, 'AMR poster presentation' was held and prizes were distributed to the winners of essay and poster competition on AMR organized among the students in different categories.



Poster Presentation at IEDCR



Opening session and visiting the Poster Presentation at IEDCR



Prize distribution session of different categories

Rally and Seminar organized by the Department of Livestock Services (DLS):

To celebrate the World Antimicrobial Awareness Week (WAAW) 2022, the Department of Livestock Services (DLS) organized a grand rally and a seminar on 23 November 2022 with the support from World Organization for Animal Health (WOAH) and the Fleming Fund Country Grant to Bangladesh (FFCGB). A total of around 100 participants from the Department of Livestock Services, FAO, WOAH, FFCGB attended the rally and the seminar. Chaired by Dr Md. Emdadul Haque Talukder, Director (Admin). The seminar was graced with the presence of Dr Monjur Mohammad Shahjada, DG, DLS as the Chief guest. Dr Eric Brum, Team Leader, FAO-ECTAD and Professor Dr Nitish Debnath, Team Lead, FFCGB were the Special guests in the seminar. The seminar started with the welcome address by Dr Md. Shahinur Alam, CSO, Virology, CDIL followed by playing the recorded speech on the WAAW 2022 by Dr Hirofumi Kugita, Regional Representation for Asia and the Pacific, WOAH. There was a presentation from Fleming Fund Country Grant describing the achievements in enhancing the capacity of the animal health sector AMR surveillance laboratories and human resource development. Achievements of DLS in combating AMR was presented by Dr Md. Abu Sufian, Director (Budget), DLS in the seminar.





Participants in the Grand rally of DLS for celebrating the WAAW 2022: DG, DLS and the Team Lead, FFCGB among others are seen attending the rally



Participants of the seminar on World Antimicrobial Awareness Week 2022 held at DLS

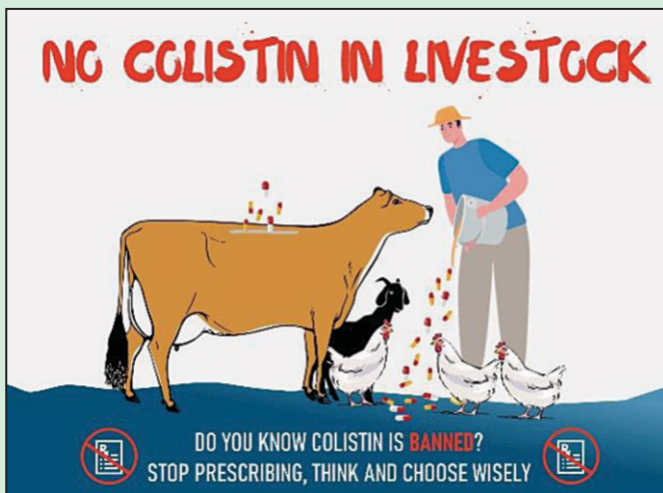
AMR WAAW 2022 Activities from Bangladesh AMR Response Alliance (BARA) and FAO:

1. Standard Treatment Guidelines (STG) for poultry, Bangladesh including antibiograms, standard dosing based on per kg body weight and withdrawal periods of antibiotics were developed by Bangladesh AMR Response Alliance (BARA) with technical support from FAO and financial support from Fleming Fund UK & USAID. The document was reviewed and endorsed by Department of Livestock Services Bangladesh and then it was distributed among the veterinarians participated in the 5th CEVETBD Conference 2022 to celebrate World Anti-Microbial Awareness Week (WAAW) 2022.



Distribution of STGs for poultry at 5th CEVETBD conference 2022

2. An Art and Poster Competition on “No Colistin in Livestock in Bangladesh” was planned to be held during World Anti-Microbial Awareness Week (WAAW) 2022. Total 42 posters were submitted by veterinary students from 13 Veterinary schools. Three posters were selected to be exhibited at the 5th CEVETBD conference. Finally the poster created by Osman Khan was declared as winner on the basis of live polls conducted among the participants of the conference and was selected for inclusion in the national "No Colistin in Livestock Campaigns".



3. To celebrate World Anti-Microbial Awareness Week (WAAW) 2022, Bangladesh AMR Response Alliance (BARA) human doctors organized an awareness building program among the frontline clinicians at BIRDEM General Hospital on 23 November 2022 facilitated by the BARA trainers of BIRDEM hospital and Food and Agriculture Organization of the United Nations technical advisor for clinical services with the participatory activities focusing on AMR. Another BARA initiative was taken to share the threat of AMR among all the doctors and students of Brahmanbaria Medical College on 23 November 2022. A group of doctors and medical

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students, with support from BARA members took the initiative to raise awareness on AwARe classification of antibiotics in the hospital. Commitments from the authority to establish active IPC in the hospital and step to disseminate the antibiotic sensitivity tests (AST) data among the clinicians were taken for ensuring rational use of antibiotics.

Policy Dialogue Workshop on Food Safety and AMR Surveillance for Food of Animal Origin Organized by UNIDO and LDDP, DLS:

A 3-day long workshop, organized by UNIDO (United Nations Industrial Development Organization), LDDP (Livestock and Dairy development Project) and DLS (Department of Livestock Services), was held on 22-24 November 2022 at Pan Pacific Hotel Sonargaon, Dhaka on the theme entitled, “Policy dialogue workshop on food safety and AMR surveillance for food of animal origin”. Invited stakeholders representing public and private institutions/organizations, food related enterprises and producers, mass media and consumer association from the country and some UNIDO specialists from abroad on food safety and AMR surveillance attended the Workshop. Dr Nahid Rashid, Honourable Secretary, Ministry of Fisheries and Livestock inaugurated the workshop as the Chief Guest. Dr Monjur Mohammad Shahjada, DG, DLS, also spoke at the session as one of the Special Guests.

Day III, 24 November was mainly focused on AMR Policy Dialogue. Public and private stakeholders attending the workshop were engaged on a policy dialogue on how AMR surveillance and AMU containment could be addressed in the livestock sector. As part of the discussions, participants were facilitated to touch upon the current issues and possible mitigation measures for the rational use of antimicrobials in the animal production/health sector. The ultimate goal of all the discussions held was to identify a mutually agreed way forward for a better AMR surveillance and AMU containment in the animal health sector in the country. The groups formed later to provide final recommendations on how to develop and to run AMR surveillance following the CODEX Guidelines on integrated monitoring and surveillance of foodborne AMR (CXG-94-2021) made their presentations in a concluding session co-chaired by Dr Md. Reajul Huq, Director (Production), Department of Livestock Services and Professor Dr Nitish Chandra Debnath, Team Lead, Fleming Fund Country Grant for Bangladesh. It was advised that the provisions of forming the Sectoral committee and the National Committee and their compositions should be as per the National Antimicrobial

Resistance (AMR) Surveillance Strategy of Bangladesh 2020-2025.



Dr Nahid Rashid, honourable Secretary, Ministry of Fisheries and Livestock, is seen delivering her Chief Guest's speech



Partial view of the participants working at a group discussion



Professor Dr Nitish Chandra Debnath, Team Lead, Fleming Fund Country Grant for Bangladesh, and Dr Md. Reajul Huq, Director (Production), Department of Livestock Services are seen co-chairing the concluding session on AMR Policy Dialogue

Round table discussion on “Preventing Antimicrobial Resistance Together”:

The over-the-counter sale of antibiotics will have to be stopped to resist the antimicrobial resistance in Bangladesh, experts noted while participating in a seminar titled “Contain Antimicrobial resistance together” at a city hotel on Sunday 23 November 2023 to mark the World AMR Awareness Week (WAAW 2022). They said the antimicrobial resistance has emerged as a leading public health problem and requires immediate coordinated steps to contain it.

The event jointly organised by Directorate General of Health Services (DGHS), its' Communicable Disease

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Control (CDC) department, USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) and Bangladesh Health Reporters Forum jointly drew large coverage by the leading newspapers and electronic media.



Round table discussion

Some links are provided below for further reading.

1. <https://www.dainikamadershomoy.com/post/410076>
2. <https://www.bdpratidin.com/city/2022/11/28/833592>
3. <https://ebhorerkagoj.com/city/2022/11/28/2>
4. <https://www.tbsnews.net/bangladesh/health/monitor-prescriptions-rein-retailing-stop-misuse-antibiotics-experts-540282>
5. <https://bangla.bdnews24.com/health/r2lthnxee3>
6. <https://www.dhakapost.com/health/156707>

Antimicrobial Awareness Week-2022: Activities of Directorate General of Drug Administration (DGDA)

The Directorate General of Drug Administration (DGDA) organized an AMR advocacy workshop and rally at the district level, engaging policymakers such as the District Commissioner, civil surgeon, Police Superintendents, representative from the Islamic Foundation, Bangladesh Chemists and Druggists Samity, Pharmaceutical industry, Resident Physician (RP), District Livestock Officer, District Fisheries officer, Upazilla Nirbahi Officer, Senior Health Education Officer, District Narcotics Officer, and District Narcotics Officer. DGDA Head office officials, including the Director General, also took part in the district awareness program. For the understanding and engagement of district level policy makers about AMR they have distributed posters, educational materials like-comics book, presentation etc.



During the 2022 World Antimicrobial Awareness Week, DGDA and WHO Bangladesh launched a poster campaign for the red labelling that aimed to stop the misuse of antibiotics/curbing the self-medication. Along with the red colored labeling, the DGDA made it imperative upon pharmaceutical companies to send a message to the public through the packaging that antibiotics could only be dispensed and sold when prescribed by the registered physicians or registered veterinarians for human and animal use, respectively. Undoubtedly, this is an effort to advocate for the rational use of antibiotics, which means the promotion of a therapeutically sound and cost-effective treatments by antimicrobials by health professionals and consumers.



In this AMR Awareness week-2022, DGDA has declared their enrollment in GLASS-Antimicrobial Consumption (AMC) Surveillance, the 06 years (2015 to 2020) AMC report, the summary findings from AMC surveillance and the regulatory decision to create the public awareness through “Red Label” of antibiotics packaging concept and its implementation.

An antimicrobial awareness campaign was also initiated in school. On November 22, 2022, the Class 6 to Class 9 students of Cox's Bazar Model High School received comics as part of the celebration.

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There were two parts to the comic. The first one portrays two sisters, Tinu and Minu, and Superbug's tale. The moral of Tinu - Minu's story is that in order to prevent the emergence of antibiotic resistance, antibiotics must be used as prescribed. This means adhering to the prescribed dose and duration of treatment, even after the patient feels well, and not sharing or using leftover antimicrobials. The tale of two chickens named Tapa and Gopi is portrayed



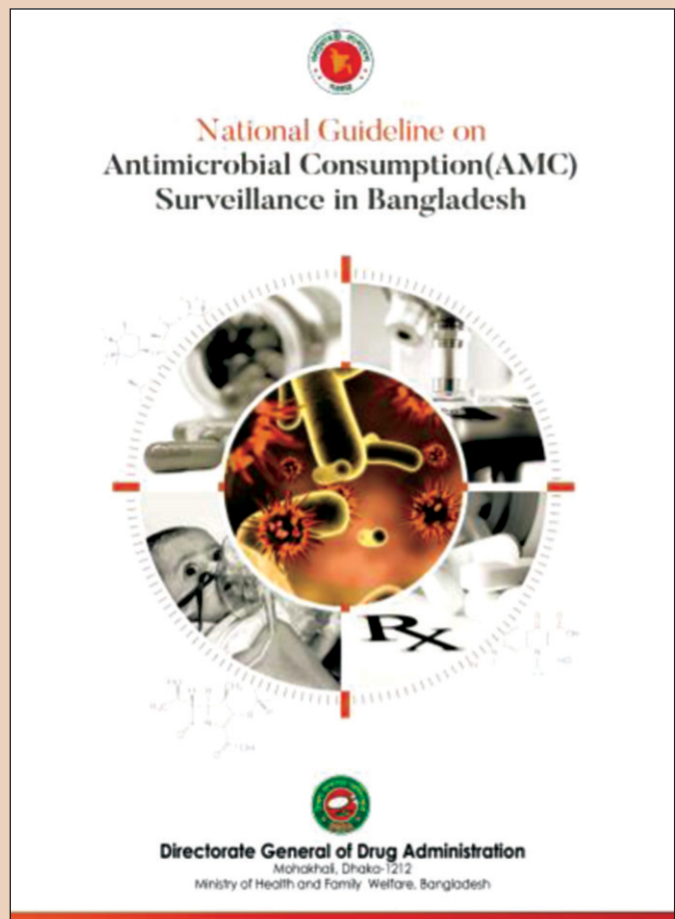
in the second part. Antibiotic overuse in livestock and aquaculture is now a significant factor in the emergence of antimicrobial resistance.



Given their durability, versatility, and capacity to convey complex information utilizing visual elements, comics may constitute an appropriate language for the purpose of raising awareness on antimicrobial resistance among the Class 6 to Class 9 students, thus, promoting both awareness and health-conscious behaviors.

National Guideline on Antimicrobial Consumption (AMC) Surveillance in Bangladesh:

As National center for Antimicrobial Consumption (AMC) Surveillance in Bangladesh DGDA has enrolled in WHO-GLASS platform. They have also developed the National Guideline on Antimicrobial Consumption (AMC) Surveillance in Bangladesh which has been approved by the Ministry of Health and Family Welfare and published in the Gazette.



National Guideline on Antimicrobial Consumption (AMC) Surveillance in Bangladesh has been added at WHO international website in the below link:

<https://www.who.int/bangladesh/about-us/publications-1>

AMR Surveillance in Veterinary and Aquaculture Settings in Bangladesh

A two-day workshop entitled "AMR Surveillance in Veterinary and Aquaculture Settings in Bangladesh" was held in Dhaka on 19th and 20th September 2022. The workshop was jointly organized by UK's FAO Reference Centre for AMR, Food and Agriculture Organization and WorldFish. Focus of the workshop was to review the present status of AMR surveillance activities in the agri-food and environmental sectors and also producing and sharing recommendations for future work in this area in support of the Bangladesh AMR National Action Plan. This workshop was a follow-up event of the March 2022 AMR workshop-cum-meeting conducted in Dhaka, Bangladesh organized by WorldFish.

Institute (BLRI) and Central Disease Investigation Laboratory (CDIL). Professors from Chattogram Veterinary and Animal Sciences University (CVASU) and Bangladesh Agricultural University (BAU) along with the members from Fleming Fund Country Grant to Bangladesh (FFCGB) and Fleming Fund Fellows attended the workshop. Members from International Center for Diarrheal Disease Research, Bangladesh (icddr,b), One Health and AMR experts from NPARKS, UK's FAO Reference Centre for AMR (Cefas and APHA), FAO-ECTAD and WorldFish also attended the workshop. A team of six visiting experts of UK's FAO Reference Centre for AMR facilitated the workshop. The workshop with the active participation of the relevant stakeholders, shared and reviewed recent insight and achievements, identified gaps of existing surveillance structures and policy frameworks and established a framework for future collaboration in strengthening AMR surveillance capacity in the animal health and aquaculture sectors in Bangladesh.



AMR workshop participants, September 2022

A total of 40 participants representing diverse group of experts, practitioners, policy makers and leaders engaged in this field participated in the workshop. Participants from the national government entities included the Department of Fisheries (DoF), Department of Livestock Services (DLS), Directorate General of Health Services (DGHS) and Institute of Epidemiology Disease Control and Research (IEDCR). Experts from national research institutes included Quality Control Laboratory (QCL), Bangladesh Livestock Research



Experts sharing recent insights and achievements

5th Continual Education (CE) Conference for veterinarians in Bangladesh

The joint Penta Partite forum consists of Department of Livestock Services, National Veterinary Dean Council,

Bangladesh Veterinary Council, Bangladesh Veterinary Association and, Bangladesh College of Veterinary Surgeons with the technical support from Emergency Center of the Transboundary Animal Diseases of Food and Agriculture of the United Nations funded by USAID, organized the 5th CEVET conference for veterinarian professionals from all over Bangladesh from 18 to 20 November 2022. Dr Nahid Rashid, Secretary, Ministry of Fisheries and Livestock as chief guest and Robert Simpson, Country Representative, Food and Agriculture Organization of the United Nations as special guest inaugurated the conference on 18 November 2022 and Dr Keith Sumption, Central Veterinary Officer, Food and Agriculture Organization of the United Nations joined the plenary along with Dr Monjur Mohamamd Shahjada, Director General, Department of Livestock Services. This 3-day conference continued with 500 participants, 20 international and national speakers and 43 hours of continuing education.



Dr Nahid Rashid, Secretary, Ministry of Fisheries and Livestock attended CEVETBD conference

Training on Fish Sample Collection and Transportation for Active AMR Surveillance



A two-day long training on "Fish sample collection and transportation for active AMR surveillance" was held at the Quality Control Laboratory (QCL), Department of Fisheries (DoF), Savar, Dhaka from 24-25 January 2023 with the support from Fleming Fund Country to Bangladesh (FFCGB) and the WorldFish. The aim of the training was capacity building of the scientists under the FFCGB network laboratories in the Aquaculture sector for active antimicrobial resistance (AMR) surveillance. Professor Paritosh Kumar Biswas, Animal Health Laboratory Capacity Building Lead, FFCGB along with Mr. Shafiq Rheman from WorldFish, Mr. Barkatul Alam and Mr. Shafiu Alam from QCL were the resource persons in the training program. A total of 10 participants from the Department of Fisheries (DoF), Bangladesh Livestock Research Institute (BLRI) and the Chattogram Veterinary and Animal Sciences University (CVASU) attended the training program. The training was based mainly on biosecurity and biosafety practices when collecting and transporting fish samples, media preparation for pre-enrichment of the target pathogens, sample collection from aqua farm and farm environment, sample collection from fish wet market and specimen collection from fish samples for isolation and identification of target organisms for antimicrobial sensitivity testing (AST) as part of AMR surveillance.

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