

**Meeting of the States Parties to the Convention
on the Prohibition of the Development,
Production and Stockpiling of Bacteriological
(Biological) and Toxin Weapons and on Their
Destruction**

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2023 Meeting
Geneva, 11–13 December 2023

**II Joint International Exercise for Rapid Response Teams
Employing Mobile Laboratories of Rospotrebnadzor
(Russian Federation, Astrakhan, 26-29 September 2023)**

Submitted by the Russian Federation



Meeting of the State Parties for the BWC

Geneva, 11 -13 December 2023

II Joint International Exercise for Rapid Response Teams Employing Mobile Laboratories of Rosпотребнадзор (Russian Federation, Astrakhan, 26 -29 September 2023)

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Establishing the joint network for response to public health emergencies



Russian Research Anti -Plague Institute “Microbe” :

- 2001 – **Base organization of the Coordination Council** on the issues of sanitary protection of the territories of the CIS countries from the introduction and spread of highly dangerous infectious diseases
- 2021 – **Base organization of the CIS countries on the monitoring, informing and joint response to public health emergencies**
- 2021 – **WHO Collaboration Center for GOARN Rapid Response Capacities (RUS -138).**



- ✓ Establishing the system of international information exchange on the issues of counteraction to the highly dangerous infectious diseases ;
- ✓ Harmonization and unification of the legal and methodological document ;
- ✓ Interaction in epidemiological surveillance and control of emergencies ;
- ✓ Unification of modern diagnostic technologies ;
- ✓ Establishing the joint methodology for sanitary protection ;
- ✓ **Personnel training**





Transfer of mobile laboratories to partner states



Since 2015, **31 mobile microbiological laboratory** with analytical equipment, has been transferred to **10 partner states**: Armenia, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Mongolia, Guinea, Vietnam, Democratic Republic of Congo



Theoretical and practical training in subjects associated with working in mobile laboratories



International exercises on response to infectious diseases outbreaks

From 2019 to 2023 - 15 international exercises for rapid response teams have been organized, employing **over 700 specialists**



- **2019** – Saratov (8 countries - 82 participants)
- **2021** – Kazan – **I international exercise for mobile laboratories** (11 countries – 120 participants)
- **2022** - 6 CIS states – 147 participants (Armenia, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan);
- **2022** – Saratov (7 countries – 85 participants)
- **2022** – Mineralnye Vody (7 countries – 65 participants)
- **2023** – Saratov (7 countries – 29 participants)
- **2023** – 3 CIS states – 100 participants (Belarus, Kyrgyzstan, Tajikistan)

2023 - Astrakhan – II International exercise (117 participants from 18 countries)

9 - bilateral, with the CIS states



4 – multilateral, with the CIS states



2 – international, with the countries of CIS, Europe, Asia, Africa, South America





Astrakhan-2023. Aim of the exercise

26-29 September 2023 in Astrakhan the **International exercise** for rapid response to public health emergencies employing mobile laboratories of Rospotrebnadzor have been organized



Aim of the exercise: to estimate, elaborate and demonstrate the preparedness of mobile laboratories and their teams to respond to a training scenario imitating a public health emergency in a country of Caspian region



Tasks of the exercise

- 1) Familiarization of the participants with different mobile laboratories, on the stages of deployment, preparation, laboratory testing and re -deployment;
- 2) Performing laboratory testing for highly dangerous infectious diseases in mobile conditions;
- 3) Demonstration and practical training in the following topics :
 - Biological safety and security ;
 - Quality management ;
 - Laboratory information systems ;
 - Logistics and support.
- 4) Sharing experience in the use of mobile laboratories



Participants

Over 100 specialists, including 44 from specialized public health organizations of 17 countries:

Armenia, Azerbaijan ,
Belarus, Burundi,
Venezuela, Vietnam,
Guinea, Kazakhstan,
Republic of Congo,
Kyrgyzstan , Mongolia,
Serbia, Tajikistan,
Turkmenistan, Turkey,
Uzbekistan , Uganda





Engaged mobile laboratories

- 1) Mobile complex of Special Anti-Epidemic Team (**SAET**), full-scale – 6 vehicle-based modules (from Russian Research Anti-Plague Institute “Microbe”);
- 2) Mobile laboratory of detection and monitoring (**MLDM**), vehicle-based (from Russian Research Anti-Plague Institute “Microbe”);
- 3) Pneumo-carcass (inflatable) mobile laboratory (**PML**), based on a set of transport cases and inflatable tent (from Russian Research Anti-Plague Institute “Microbe”);
- 4) Mobile laboratory of monitoring and diagnostics (**MLMD**), vehicle-based (from Astrakhan Anti-Plague station);
- 5) Mobile station of sanitary and quarantine control with laboratory support (**MSSC**), vehicle-based (from the Center of Hygiene and Epidemiology of the Astrakhan Region);
- 6) Mobile laboratory of express-diagnostics, vehicle-based (from the **Republic of Kazakhstan**)





Training teams

Epidemiologists, heads of MLs

EPI-1 RUS, TJK, UZB (5)

EPI-2 RUS, AZE (3)

EPI-3 RUS, ARM (2)

EPI-4 RUS, KGZ (2)

EPI-5 RUS, KAZ, TKM (4)

EPI-6 RUS (2)

Bacteriologists, virologists

LAB-1 RUS, TJK, UZB, MON, VEN (5)

LAB-2 RUS, AZE (4)

LAB-3 RUS, ARM (3)

LAB-4 RUS, KGZ (4)

LAB-5 RUS, KAZ (4)

LAB-6 RUS (4)

Observers (14)

Vietnam

Guinea

Mongolia

Burundi

Uganda

Serbia

Venezuela



Parts of the exercise

- 1) Deployment of mobile laboratories
- 2) Demonstration of mobile laboratories
- 3) Solving training tasks (in teams) on laboratory and epidemiological topics
- 4) Simulation and resolving accidents with pathogenic biological agents
- 5) Redeployment of mobile laboratories
- 6) Preparation and presentation of reports





Training tasks for epidemiologists

- Individual legends (scenarios) for each team
- Interaction between epidemiologists and laboratory specialists inside the teams

Training tasks for epidemiologists :

- Organizing emergency response measures ;
- Planning activities to stop further spread of infectious diseases ;
- Identification of epidemiological risks which can cause aggravation of the epidemiological situation ;
- Planning activities on specific and non-specific prophylaxis;
- Preparation for deployment of mobile laboratories
(equipment, consumables, personnel, working and household infrastructure)





Training tasks for the laboratory specialists

- For each team a set of unknown samples has been prepared (to be tested using PCR and sequencing)
- The samples have been inactivated beforehand, in accordance with relevant regulations

Training tasks for the laboratory specialists :

- Preparation of mobile laboratories for deployment, according to the individual team scenario
- Testing of the unknown samples (PCR for cholera, acute intestinal infections, plague, acute respiratory infections, tularemia; as well as sequencing)
- Simulation and resolving accidents with pathogenic biological agents





Outcomes of the exercise

- All teams have correctly identified the pathogens in their samples
- Analysis time was 3 – 4,5 hours
- All simulated accidents with pathogenic biological agents have been resolved
- Every epidemic focus formed within the framework of the training scenarios was localized and eliminated





Perspectives

Regular exercises with different mobile laboratories in bilateral and multilateral formats

Engaging more participants, organizations, countries

Expanding the exercise format: more laboratory methods (ELISA, microscopy, bacteriology, sequencing) and full -scale deployment simulation (including residential and utility infrastructure)

Creation and maintenance of a roster of specialists, theoretically and practically trained for response to public health emergencies



Thank you for your attention!

