

PROVIDE FOR MICROBIOLOGICAL CONTROL OVER DISASTROUS SITUATIONS AND DANGER OF EPIDEMICS

H. Romanova, P. Vajarova*
Medical University - Varna,
*RIDCSH

SUMMARY

It has been studied the provide of microbiological control over disastrous situations and danger of epidemics in Varna city. It has been put into effect mainly by microbiological section of RIDCSH (regional inspection of defence and control of social health) with especially enormous volume of functions in 14 labs. It was supplied a daily acting microbiological control including arising of disasters and especially dangerous infections – anthrax, cholera, variola and plague. It has been duplicated on microbiological investigations in Varna city for arising disastrous epidemical situations as for the purpose there were revealed microbiological labs in 3 national hospitals and 2 private labs.

Key words: disasters, epidemics, microbiological control

PREFACE

The disastrous situations, arising in a given area, can destroy the system organized in advance for protecting people's health. Not depending of its origin – natural or anthropological the disasters are a serious threat for arising of epidemics (1, 2). Specific difficulties will be borne by the medical service at floods, earthquakes, land slipping and others, which often arise in Eastern Europe, at the areas of Black Sea beaches (3). For assuring effective medical providing of population an important prerequisite is assured medical control in a sufficient extent (4).

The purpose of the present study is an analysis to be done about the readiness for microbiological control in an average big city (350 000 citizens) at disasters and danger of epidemics.

MATERIAL AND METHODS

Objects of the study are the microbiological laboratories in Varna and their possibilities for assuring of microbiological control at disastrous situations and danger of epidemics.

The biggest volumes microbiological researches are made in 14 laboratories of the Microbiological Department at RIOKOZ Varna. Single clinical microbiological laboratories are opened in 3 hospitals on the city area and 2 private laboratories. Hospital laboratories serve patients.

An interview is hold during the period 01.10 – 30.11.2004 with some of the medical staff – physicians, the volume oh their work has been studied and the possibilities for working at disastrous situations.

RESULTS AND DISCUSSIONS

All the samples for microbiological analysis are taken in the relevant hospitals in waiting rooms. The samples are registered with suitable date and kind of material and from there they are sent to the relevant laboratory.

From all laboratories for microbiological investigations only the laboratories of microbiological section of RIDCSH Varna is intended to ensure investigations in case of disasters and epidemics. The structure is presented on Figure № 1.

In the bacteriological sector 150-160 000 analyses are made average a year. In enteric laboratory for dysentery 20-25 000 analyses are made, for salmonella 20-25 000, for E collie – 10 000, fro staphylococci – 1, 5 000 and others. In cholera laboratory the analyses are 3,5-4 000 a year from sick patients with enteric colitis syndrome, water test, washing of external middle of milk, meat manufacture and fish objects, samples of hydrobiont and food.

The physicians working in a clinical laboratory report in the Department Ant epidemical control for the materials received in the laboratory for anaerobes, anthrax, liquor, as well as for the results after finishing the analysis. Contacts are made by phone with clinicians or at place in the hospital departments as they give directions, interpret the results or ask for data for problematic patients.

In clinical laboratories 40 000 samples are made per year. The biggest share is of the analyzed urines – 12000 per year.

Sanitary microbiology is accredited as a control body – certificates and reports are issued, accompanying protocols. Food products, cosmetics, chemical, sanitary hygiene materials, sterile materials, air from rooms are analyzed.

During the period 2001 – 2004 43 samples are analyzed, a report to the police was made as white dust, spread at public places, suspicious as an anthrax. All the samples are negative.

Mycoviruses, immunofluorescent and serological analyses are made for flu, respiratory siniticial virus, parotid, rubella in the laboratories of mycovirus infections.

Serological analyses for hepatitis C and all hepatitis markers, analyses for AIDS by Elisa, for Lyme illness are made in AIDS laboratory.

In the laboratory for Wasserman 20 000 analyses are made a year, but only 25-30 are positive.

In the sector for preparing of food middle, needed for working in laboratories, they are responsible for the quality of sterilization and for right keeping of food middle and bio products, take blood from sheep; watch the work of fridge cameras and other.

The staff of Micro biological department of RIOKOZ works on rotates principle and includes 9 physicians, 2 biologists, 18 laboratory assistants and 4 hospital attendants who are available at disasters and dangers of epidemics and they will assure running of the activity in holidays. One third of the staff is with university degree.

When arising of disastrous situations on the city

area a team of State Agency Citizen defense takes samples from materials, suspicious for biological dirtiness and transports them to microbiological laboratories of RIOKOZ Varna.

The necessary quantity diagnostics, food middle, serums and other supplies for analyzing of the reason of rare and too dangerous infections – anthrax, cholera, plague and others.

The clinical microbiological laboratories in three hospitals on the city area are in many profile hospital for active treatment /MHAT/ “St. Anna” /with 600 beds are 300 - -400 meters from RIOKOZ, MHAT “St. Marina” with 1200 beds are 2 km from RIOKOZ, Navy Hospital – 1, 5 km from RIOKOZ. They are designed for making of microbiological analyses of lying down cases.

The private laboratories are 2 and 3 km from RIOKOZ and are designed for ambulatory making of microbiological analyses for paying.

CONCLUSIONS:

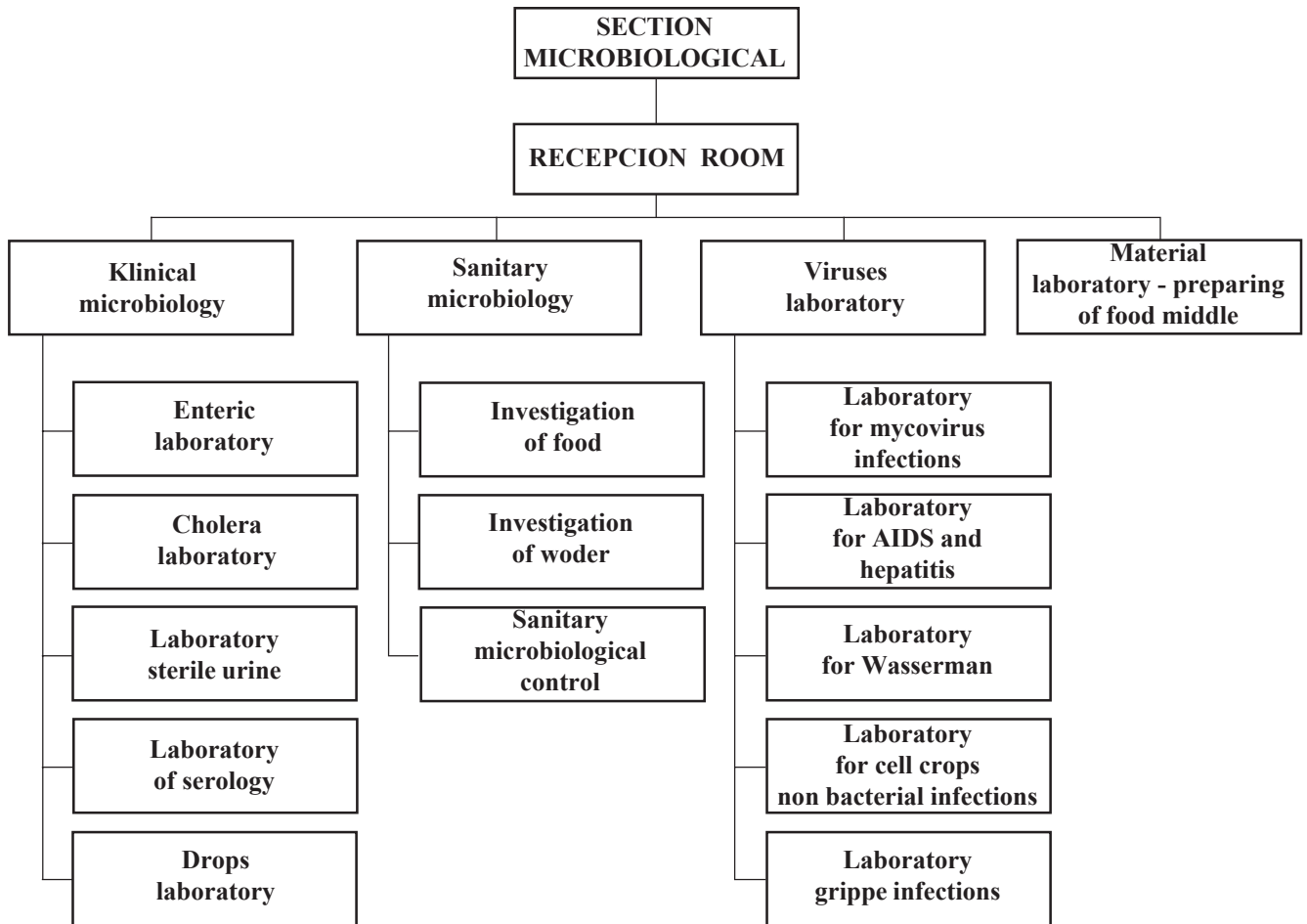
1. Microbiological department of RIOKOZ Varna makes a great volume diagnostic activity in 14 laboratories and has readiness for microbiological control and at disastrous situations.

2. The area of Varna is assured with everyday acting microbiological control at arising of disastrous and especially dangerous infections – anthrax, cholera and plague.

3. Some double is assured of microbiological control on the area of Varna by opening of 3 clinical microbiological laboratories for patients in hospitals and 2 private ones.

Figure 1.

STRUCTURE OF MICROBIOLOGICAL SECTION IN RIDCSH VARNA



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Correspondence address:

Hristianna Angelova Romanova
9002 Varna, 55 Marin Drinov Str.
Medical University of Varna
Department of Higiene and Disaster Medicine
tel.: +359/52/468 438
E-mail: romanova_hr@abv.bg