



The European Commission DG RTD INCO Copernicus programme: an example of successful collaboration between countries of Eastern and Western Europe

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ABSTRACT

The European Commission DG RTD INCO Copernicus programme IC15.CT98.0302 commenced in September 1998 with the following objectives: to improve microbiological surveillance of potentially toxicogenic corynebacteria, to organise a network of Reference Laboratories within Eastern Europe (EE) and to stimulate information and technology exchange between countries of Eastern and Western Europe (WE). Eleven partners from nine countries of EE and WE participated in this programme, including the UK, France, Armenia, Belarus, Kazakhstan, Latvia, Romania, Russian Federation and the Ukraine. The total duration of the project was 40 months. Methodologies were focused upon the organisation of an effectively functioning network, harmonisation of methods for laboratory diagnosis of diphtheria, development of rapid techniques for determination of toxigenicity of corynebacteria and the implementation of a surveillance database with regular data submission. An international quality assurance programme was also developed to allow improvements in microbiological surveillance and standardisation of laboratory methodologies. In addition, specific research activities, involving the training of partners in laboratories situated within WE (UK and France), were essential for successful collaboration of partners. New National Diphtheria Reference Centres were organised in Armenia, Belarus, Kazakhstan, Latvia and the Ukraine. Microbiological surveillance was established successfully by the implementation of specialised diagnostic methods and also the development and introduction of new, rapid methods for determination of toxigenicity (e.g. EIA and immunochromatographic strip test), used in several field evaluations. A surveillance database was designed using Microsoft Access, which currently includes data on 1649 strains. This project can be considered as an example of successful collaboration between countries of EE and WE. It has not only led to improvements in laboratory diagnosis by harmonisation of methodologies, implementation of new diagnostic methods, but has also helped in strengthening surveillance and establishment of scientific collaboration, information exchange and transfer of technology (via visiting scientists programme) between participating countries. In addition, available funds have allowed countries to acquire necessary reagents and equipment which overall stimulated the establishment of a reliable surveillance system for diphtheria.

INTRODUCTION AND PURPOSE

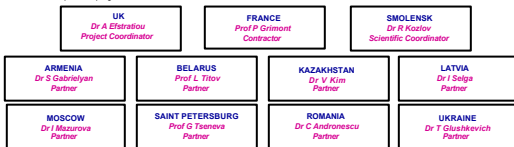
The European Commission DG RTD INCO Copernicus programme IC15.CT98.0302 'Microbiological Surveillance of Diphtheria in Eastern Europe' had the following objectives:

- Microbiological surveillance of infections caused by *Corynebacterium diphtheriae* and other potentially toxicogenic corynebacteria
- Surveillance of carriage of *C. diphtheriae*
- Incidence and significance of non-toxicogenic, tox gene bearing *C. diphtheriae*
- Establishment of National Diphtheria Reference Centres within the NIS of the former USSR

METHODS

The above programme, which is primarily a joint research programme, started on 1 September 1998 and completed on 28 February 2002, was functioning via established network of eleven partners from 9 countries of Eastern and Western Europe, including the UK, France, Armenia, Belarus, Kazakhstan, Latvia, Romania, Russian Federation and the Ukraine (Fig. 1)

Fig. 1. Partners of the INCO Copernicus programme



RESULTS

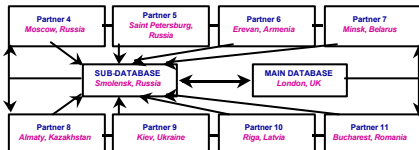
- Establishment of New National Diphtheria Reference Centers in the following countries: Armenia, Belarus, Kazakhstan, Latvia and the Ukraine.
- Development and introduction of new rapid methods for determination of toxigenicity:
 - EIA;
 - Immunochromatographic (ICS) strip test
- Successful distributions of International External Quality Assurance scheme for the laboratory diagnosis of diphtheria

Of a particular importance, it was a successful implementation of visiting scientists program allowing 19 scientists from 9 countries of Eastern Europe (Fig. 2) to undergo training in laboratory diagnosis of diphtheria and molecular typing techniques at the CPHL, Streptococcus & Diphtheria Reference Unit (London, UK) and Pasteur Institute (Paris, France) and also establishment of surveillance database EpiINCO which includes clinical, epidemiological and microbiological data on 1,649 strains from participating Partners information from Eastern Europe (Fig. 3).

Fig. 2. Participants of the visiting scientists' programme



Fig. 3. Data flow chart for surveillance database EpiINCO



CONCLUSIONS

This project can be considered as an example of successful collaboration between the countries of Eastern and Western Europe because of the following:

- Achievement of the improvements in laboratory diagnosis of diphtheria by:
 - Harmonization of methodologies;
 - Implementation of new diagnostic methods (EIA, ICS)
- Strengthening of surveillance
- Establishment of scientific collaboration
- Information exchange and transfer of technologies
- Acquisition of necessary reagents and equipment by Partners

ACKNOWLEDGEMENT

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