



ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ
ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Working Group on the Role of the Hospital
Laboratory in Public Health

Stockholm, 8-12 May 1978

ICP/ATH/004/11

(ICP/LAB/006)

27 April 1978

ORIGINAL: ENGLISH

INDEXED

FUNCTIONS OF HOSPITAL LABORATORIES AS RELATED TO PUBLIC HEALTH:
BACTERIOLOGY

by

Dr Ingegerd Moberg

Department of Bacteriology, National Bacteriological Laboratory
Stockholm, Sweden



The bacteriological laboratory in the hospital has a well established role as one of the tools needed for the proper diagnosis and correct treatment of the patient. By providing resources for the quick and reliable diagnosis of communicable diseases when they first appear in a community, thus making it possible for that community to carry out necessary preventive measures against the spread of the disease, the hospital laboratory also fulfils a public health function. Furthermore, its resources can be used for mass screening purposes, either by investigating samples sent to the laboratory or by providing guidance to the laboratory units in the periphery.

When the agent causing the disease is carried in the respiratory tract, e.g. meningococci, diphtheria and to some extent β -haemolytic streptococci, it is important to establish whether an epidemic is starting. Often it is in the hospital laboratory that the first observations are made, and by putting together reports from several laboratories the central epidemiological supervisor knows when there is time to act. Tuberculosis is another respiratory tract disease which it is necessary to keep under supervision for the sake of public health. When the dispensary is situated at a hospital, as is often the case in Sweden, the samples are naturally investigated in the hospital laboratory.

Foodborne and waterborne infectious agents like salmonella, shigella, cholera, enteropathogenic coli, enterotoxinogenic coli, brucella and toxin-producing Clostridium botulinum are other examples of contagious organisms in respect of which the speedy recognition of the bacterium and/or the toxin and also, in many cases, species diagnosis and serotyping, are of the utmost importance for the surveillance and prevention of an epidemic.

The bacteriological diagnosis of gonorrhoeae and the samples taken for the epidemiological monitoring of the disease, as well as the serological screening for syphilis, is often carried out in the hospital laboratory, as is, in some cases, the diagnosis of other sexually transmitted diseases, e.g. Chlamydia.

The first hint of what is most often an occupational disease, e.g. anthrax, leptospirosis and tularaemia, is often obtained from the hospital laboratory.

Mass screening of, for example, urinary tract infections and of certain serotypes of β -haemolytic streptococci is important in order to prevent chronic diseases of the kidney.

The issue of this document does not constitute formal publication. It should not be reviewed, abstracted or quoted without the agreement of the World Health Organization Regional Office for Europe. Authors alone are responsible for views expressed in signed articles.

Ce document ne constitue pas une publication. Il ne doit faire l'objet d'aucun compte rendu ou résumé ni d'aucune citation sans l'autorisation du Bureau régional de l'Europe de l'Organisation Mondiale de la Santé. Les opinions exprimées dans les articles signés n'engagent que leurs auteurs.

Настоящий документ не является официальной публикацией. Не разрешается рецензировать, аннотировать или цитировать этот документ без согласия Европейского регионального бюро Всемирной организации здравоохранения. Всею ответственность за взгляды, выраженные в подписанных авторами статьях, несут сами авторы.

ICP/ATH 004/11
(ICP/LAB 006)
page 2

In the task of preventing hospital infections through which, for instance, penicillinase-producing staphylococci can spread to the community, the hospital laboratory plays the most important role.

To be able to follow the vaccination status of the population or to detect the failure of a vaccine, e.g. pertussis vaccine, samples from many people and from many parts of the country have to be examined, and here the hospital laboratory can be of great help.

When a well developed hospital laboratory for clinical bacteriology is available, as is often the case in countries with a high standard of hospital care, it is only reasonable that the resources should be utilized also for public health purposes.