ISSN-7447

รายงานการเฝ้าระวังโรคประจำสัปดาห์

WEEKLY EPIDEMIOLOGICAL SURVEILLANCE REPORT

VOLUME 16 NUMBER 3
JANUARY 25, 1985

บทความ

SURVEILLANCE OF ACUTE RESPIRATORY INFECTIONS (ARI)

Workshop on Acute Respiratory Infections in Childhood

A Workshop on Acute Respiratory Infections in Childhood was held in Sydney, Australia, from 27 to 31 August 1984. It was organized by the Australian Development Assistance Bureau and was cosponsored by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF) and the University of Sydney. It was attended by 120 delegates from 18 countries, ranging from the richest to some of the poorest in the South-East Asian and Western Pacific Regions. Many were official representatives nominated by their governments. They included health administrators, hospital specialists and paediatricians, laboratory scientists, nutritionists and community health experts.

Recent analyses reveal that at least 6 million children die each year from infection of the respiratory tract. The workshop believes that a large proportion of these deaths can be prevented and that needless grief, hardship and suffering could be avoided by the application of existing technology and established medical practice. The problem of ARI exists in all countries. ARI is the top cause of morbidity and use of health services in children all over the world. Respiratory infections in early life contribute significantly to lung disease in later life. In the developed countries, child deaths from these infections have fallen progressively. The severity and lethality of ARI are much greater in the developing countries and among groups in the developed countries who are socially and economically deprived. The workshop believes that a major global programme to control ARI and to decrease both morbidity and mortality is urgently needed and can be implemented. The programme requires international collaboration to achieve this goal. Substantial resources must be mobilized, reassigned and extended for the control of ARI. ARI programmes must be included in national health care planning and integrated appropriately with primary health care and immunization programmes. Each country should review whether the current priorities being given to the national programmes are adequate to reduce the unacceptably high morbidity and mortality from ARI.

Proposal for a Global Programme to Control ARI

(a) Strengthened case-management

Antibiotics have reduced morbidity and mortality from ARI. However, for millions of children, especially in the rural areas of the developing world, they are not available. On the other hand, their use worldwide is often inappropriate and has favoured the emergence of antibiotic-resistant bacteria.

The workshop endorsed the concept of simple standard plans of management for the treatment of ARI. These standard plans should be discussed by health services and made relevant to circumstances of individual countries. Critical to the success of an ARI control programme is the ability of the mother to recognize when to seek help. The proposed case-management strategy has defined rapid breathing as an important and simple discriminating sign of severe ARI which can be taught through effective health education so that mothers can tell that the child urgently needs help.

Similarly, standard plans are available to guide primary health care workers and doctors in their use of antibiotics and referral for hospital care. Already such plans, based on the fact that chest indrawing is a critical sign of the need for sophisticated hospital care, are being used to great effect in some countries. In view of the widely varying background of the primary health care workers, the workshop believes that simple guidelines such as these are essential and that the use of powerful antibiotics such as penicillin can be applied more rationally. Standard management plans should also be used in hospitals. They can simplify management and make the application of costly hospital resources both more efficient and more economical. Such plans need to be continually reviewed as to their accuracy and discrimination.

(b) Immunization

A number of effective and inexpensive vaccines are already available to prevent some types of ARI. They are not reaching all children. The success of measles, diphtheria, and whooping-cough vaccines in preventing ARI is recognized and the EPI programme of universal immunization of all children with these vaccines is endorsed.

(c) Vaccine development

Vaccines are not yet available for many causes of ARI. Increased resources and priorities could accelerate their development. The workshop assigned high priority to research and development which increases the range effectiveness and availability of vaccines against the commonest causes of severe ARI, especially respiratory syncytial virus, pneumococcus and *Haemophilus influenzae*.

(d) The cause of ARI

A control strategy can be designed based on currently available information about the many causative agents of ARI. Every country should consider approaches to monitor and improve its information about the causes of severe ARI and their susceptibility to treatment with antibiotics and prevention by vaccination. This will contribute to the validity of standard plans of management. This is not to suggest that all sick children should undergo laboratory tests but to emphasize that progress of the programme needs to be monitored from a sample of such children. Work is also needed to strengthen laboratory diagnostic methods and in this respect the workshop singled out the importance of new

antigen detection methods which can circumvent the major difficulties which often surround conventional methods of culturing pathogenic agents from respiratory secretions.

Viruses are the main cause of most ARI in childhood. Bacteria, especially *Streptococcus pneumoniae* and *H. influenzae* are important causes of severe pneumonia and death particularly in the developing countries.

The workshop recognized that many factors in addition to infecting agents contribute to ARI. The causative role of environmental pollution by cigarette smoke increases the frequency and severity of respiratory infections in young children. Smoke from household fuels may have a similar effect. It is also clear that malnutrition increases the severity and lethality of ARI. Breast-feeding confers protection against some causes of ARI. Prevention of morbidity and mortality from ARI should include interventions based on this knowledge.

Programme Implementation

The workshop believes that all countries can now begin to attack this problem and that enough is already known to systematically introduce control measures in a phased manner, evaluating their relative effectiveness in changing morbidity and mortality as the programme proceeds. This evaluation should include documentation on the cost-effectiveness of ARI control programmes.

The World Health Organization has already started. It has confirmed the magnitude and severity of the problem, initiated projects to develop and evaluate standard management strategies and approaches to implementation of control programmes. UNICEF has declared its intention to support programmes for the prevention and control of ARI.

Many national governments are already involved in the establishment of programmes. A concerted effort on the part of each national government is required to achieve the realistic humanitarian goal of reducing the unacceptably high morbidity and mortality from ARI.

Reprinted from Weekly Epidemiological Record

7 December 1984,

Vol. 59, No. 49 P. 380 - 382