

CENTRAL AND WESTERN AFRICA: MENINGITIS

9 May 1997

appeal no. 08/97

situation report no. 1

period covered: 5 April - 20 April, 1997

As meningitis cases reach epidemic proportions in a growing number of countries, National Societies are developing their co-operation with their respective health authorities in situation monitoring, immunisation activities and public awareness campaigns. Because of the limited availability of vaccines, it is essential to target children under 15 years old, rather than aim at blanket coverage. Funds are still urgently needed to buy vaccines and to support National Society programmes

The context

Every year, the seventeen countries in sub-Saharan Africa face the danger of epidemics of bacterial meningitis, a disease with an average mortality rate of 10%. Their total population is around 300 million. In 1996, when a record 150,000 cases and 16,000 deaths were reported, the worst affected countries were Burkina Faso, Chad, Mali, Niger and Nigeria.

In anticipation of a new wave of severe outbreaks this year, The World Health Organisation (WHO) established an International Co-ordinating Group (ICG) in January composed of UN agencies, international organisations including the International Federation, NGOs and other technical partners. On 7 February WHO, the International Federation, Médecins sans Frontières (MSF) and UNICEF launched an appeal to fund meningitis control in Africa from 1997 to 2000. The combined appeal sought USD 6.3 million (CHF 9,072,000) to purchase 14 million doses of vaccine in 1997 and a yet to be determined amount to finance epidemic preparedness and response from 1998 to 2000.

The Federation also launched its own appeal, seeking CHF 3,127,000 for the purchase of 4 million doses of vaccine, (its share of the four agency vaccines appeal), as well as CHF 2,580,000 for response and preparedness training programmes for Operating National Societies.

Latest events

Since the beginning of the 1997 meningitis season in early November 1996 until 11 April this year, a total of 41,699 meningitis cases, with 4,498 deaths, have been reported. Several countries have already reached the threshold where an outbreak becomes an epidemic. National health

authorities, in close co-operation with national Red Cross/Red Crescent Societies, are actively involved in mass immunisation activities, as well as detailed activity planning.

Togo

Togo was the first country to report an increased number of meningitis cases in late December 1996, and reached the epidemic threshold on 5 January, 1997. In the first month, 1,160 cases and 159 deaths were recorded, representing a mortality rate of 13,77%. The latest figures, as of 11 April, show a total of 2,619 cases, with 119 deaths. Mass immunisation activities have covered 159,000 persons or nearly all the population in the affected areas of Tandjouare and Oti. Of the 510,000 doses of vaccines requested from the ICG, 100,000 have already been sent.

Ghana

After crossing the epidemic threshold in early January 1997, the disease continued to spread rapidly. As of 11 April, 13,063 cases and 1,191 deaths were reported and an estimated 1,7 million people were at severe risk. National health authorities started mass immunisation activities, vaccinating some 360,000 people in the first quarter of the year.

Burkina Faso

As of 11 April, a total of 16,775 cases and 1,953 deaths were recorded.

Gambia

The epidemic threshold was reached in the first week of April. On 11 April, 856 cases and 119 deaths were reported in the country. By 9 April, 200,000 doses of vaccine had been delivered, and an additional 700,000 doses requested from the ICG. The epidemic is spreading and the health authorities together with the National Society have been closely monitoring the situation.

Mali

The population of the areas where the disease has reached epidemic proportions is 3.7 million. As of 11 April the total of 13,063 cases and 587 deaths were recorded. Since the beginning of the outbreak, 600,000 persons have been vaccinated, but another one million doses of vaccine are urgently needed for an immunisation campaign in the most densely populated areas.

Other countries

As of 11 April, Benin reported 273 cases and 47 deaths, Niger 1,813 cases and 208 deaths, Rwanda 10 cases and 4 deaths, Senegal 13 cases and 4 deaths. On 23 April, Chad reported 190 cases and 16 deaths. Information is expected shortly from the Central African Republic, Zaire, and Nigeria (which reported 77,089 cases in 1996).

Some information about Meningitis

The meningitis strain causing the epidemics in Africa is the *Neisseria Meningeococcus* bacteria (generally group A). *Meningococcus meningitis* is endemic all over the world. The bacteria is spread by air. Once inhaled, it penetrates through the mucosa into the blood stream and eventually into the cerebral fluid, infecting the membranes around the brain (meningitis), the cranial nerves and finally the brain substance itself. Symptoms are fever, pain, neck stiffness, and loss of consciousness. If not treated with antibiotics, most sufferers die in a matter of days.

In an endemic situation, meningitis mainly affects children from 6 months to 5 years old. In epidemics, up to 80% of the cases are found in the 5 - 15 years age group, but often with a higher incidence in the younger ages. The mortality rate in the best of circumstances is more than 10%. In the sub Saharan belt the mortality rate ranges from 10 to 30%, and in isolated areas can reach 50%. More than 30% of those who are optimally treated suffer permanent damage to the nervous system, leading to deafness, seizures, mental retardation and blindness. Children are in particular danger, since antibiotic therapy is only effective in the first three days.

Epidemics in the African meningitis belt are increasing both in frequency and in size, and are leapfrogging, via travellers, into other geographical areas and countries such as Pakistan, Saudi Arabia, Nepal and UK, where the disease has never been a problem. Epidemics are seasonal, generally occurring from January to June. In the past ten years, meningitis has infected more than 500,000 people, causing 50,000 deaths, and left 100,000 disabled children. The year 1996 was the worst ever recorded and 1997 may be as bad.

Meningitis can be prevented through vaccination and health education. It can be treated with short acting and long acting antibiotics, although even with such treatment there is a 10% death toll and a high number of disabled children. At present, a combined vaccine against Meningitis A + C is being used. The main obstacle to dealing effectively with the current epidemic is the acute shortage of vaccines, since most of the stocks were used or bought up last year.

In the future, new approaches will have to be explored. There is ample evidence that the use of a monovalent vaccine, meningococcus A vaccine, with a booster vaccination, would be an effective weapon against the disease. The very young should be the primary target.

Red Cross/Red Crescent action

All National Societies in the affected countries have been co-operating closely with their respective health authorities on situation monitoring, immunisation activities, and programme planning. Task forces, including not only government bodies and National Society representatives, but also representatives of other domestic and international humanitarian organisations, have been set up to co-ordinate activities and direct the flow of information.

The National Societies, with their wide networks of branches, their volunteers and their health activities, are making a major contribution to faster and more effective immunisation operations.

- **Togo**

The Togolese Red Cross has agreed to assist the Government and has asked for Federation support. It has mobilised staff and volunteers in villages, and has set up dispensaries and health posts where patients are being identified and health education and additional medical care provided. Vaccines are being supplied by WHO. The action began in March and is planned to last two months. The Federation has agreed to fund the purchase of medicines, syringes and needles, as well as hospital tents. Because of the urgency, it has allocated 160,000 CHF from its Disaster Relief Emergency Fund. The German RC has sent 30 hospital tents to reinforce the health structures treating patients.

- **Ghana**

Based on its recent experience in fighting a yellow fever outbreak in November 1996 - February 1997, the Ghana Red Cross Society (GRCS) has taken an active part in the planning of the epidemic control programme. It has identified as its main areas of action: social mobilisation for more effective vaccination as well as health education in the 18 worst affected districts in the three northern regions (it is planning to provide training in health education for 900 volunteers) and relief assistance to people in temporary treatment facilities. About 3.7 Mio. doses have been supplied via ICG and therefore a request to the Federation for further supply cannot be considered now. GRCS is actively co-operating with the health authorities, but because stocks of vaccines are exhausted, it is not able to participate in any vaccination campaigns.

- **Burkina Faso**

Thanks to the Federation's assistance during the 1996 epidemic, the Red Cross Society of Burkina Faso (BFRCS) has experienced first-aid volunteers at its disposal who are now active in health education and sensitisation of the local population, and are assisting

in organising more effective vaccination in villages. The National Society aims at intensifying these activities in all 30 provinces by training more activists and volunteers. On January 31st, BFRCS handed over 80,000 syringes and 480,000 doses of vaccines out of the Federation's stock to the government.

- **Gambia**

Since the beginning of the outbreak, the Gambia Red Cross Society, with its considerable operational capacity, and in close co-operation with the health authorities, is actively working on sensitisation campaigns and participating in vaccination campaigns, using six medical teams set up for this specific purpose. Their main activities are dissemination, health education and training. Further support for 730,000 doses of vaccines has been forwarded to the Federation. This is examined carefully, considering forth-coming supply from other sources.

Outstanding needs

Cash is urgently needed to buy vaccines, and to support the efforts of National Society staff and volunteers by providing health education materials, transport facilities and extra human resources.

Contributions

See Annex 1 for details.

Conclusion

There is an apparent contradiction in the tendency of governments to purchase scarce vaccines for stockpiling rather than using them for urgently required vaccination campaigns. Therefore ICG is endeavouring to ensure that the best possible use is made of the current limited supplies of vaccines by purchasing available vaccines and ensuring that they are distributed to the countries in greatest need. It is equally urgent for the Red Cross/Red Crescent Societies to contribute to these vital needs of their own countries.

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