

SUDAN: MENINGITIS OUTBREAK

17 June, 1999

appeal no. 07/99

situation report no. 3

period covered: 29 April - 4 June. Programme extension until 31 October, 1999.

A timely and effectively planned Federation and Sudanese Red Crescent (SRC) response to a severe meningitis epidemic in Sudan has received significant donor support. With the epidemic threatening to spiral out of control, the delivery of millions of vaccines as well as oral chloramphenicol and effective co-ordination between the agencies involved helped to reverse the trend. The Federation is in the process of carrying out training to increase the capacity for an early intervention in the future.

The context

Sudan forms part of the sub-Saharan meningitis belt and has regularly experienced cyclical outbreaks of the disease over the past few decades. The last major occurrence was in 1989 and the current epidemic has followed the normal 10-year cycle of the disease. The outbreak was first observed in North Darfur state in December 1998 but spread rapidly over a two month period to 12 other states, transmitted along the main road and rail transport routes. The disease has afflicted new areas and now affects 17 states¹ in Sudan, including the Upper Nile region in the south of the country, and some states in the north (River Nile, Northern) which are not typically considered to be in the meningitis belt. The epidemic reached its peak between the end of April and the beginning of May. To date 32,697 people, mainly children and young adults, have contracted the disease, and 2,359 have died.

The Federation has responded to the spread of the epidemic by launching a Revised Appeal (ref. Situation Report 2). It was estimated that an extra 0.9 million doses of vaccines would be required to meet the needs of the affected states where the SRC is operating.

At present, the number of meningitis cases is decreasing in most states, but reports of new cases in various areas are still being reported.

¹ The states of Bhar Elg and Elwida in the south of the country, which were mentioned in situation report 2, have not shown an epidemic trend; hence they are excluded from this report.

The Sudanese Red Crescent, as part of its ongoing operation, is currently formulating response plans for the future.

Latest events

Epidemic situation

The peak of the epidemic occurred between the last week of April and first week of May, but the number of cases continued to rise until the middle of May. During that period most states, particularly Khartoum, Gezira, White Nile, Gedaref, South Darfur, North Kordofan and South Kordofan, showed a high incidence of the disease. In Gezira and S. Darfur, for example, 700 new cases were experienced while in Khartoum and S. Kordofan there were about 500 cases and in the White Nile area 400 cases reported in the first week of May. From the third week of May onwards the number of new patients started to decline.

The table below shows the weekly total number of cases and deaths in the 17 states from the last week of April to date.

24 April - 30 April		Total number of cases and deaths 7 May		8 May - 14 May		15 May - 21 May		22 May - 28 May		29 May - 4 June	
cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
3,903	221	2,984	204	1,636	66	812	48	555	28	170	2

NOTE:
The data quoted in SitRep no. 2 for cases and deaths as of 28 April (16,591 and 1,236 respectively) was much lower than the reality at that time. Following joint supervision missions during the month and an improved reporting system, the surveillance is more effective and the backlog of data has been updated and incorporated in the new reports. The updated data on cases and deaths on 24 April is 22,637 and 1,790 respectively.

The Sudanese Red Crescent staff, with support from the Federation delegation, has been co-ordinating the operation in the central and eastern states. Since May two additional states, River Nile and Northern, have been included in the vaccine distribution plan. In addition, a quantity of vaccines and oily chloramphenicol was sent to the Upper Nile state where ICRC has facilitated transportation as road conditions hamper accessibility.

Distribution plans of vaccines and antibiotics (oily chloramphenicol) were made in conjunction with partner agencies in the International Co-ordination Group (ICG) meningitis task force (consisting of the Federal Ministry of Health (FMOH), WHO, UNICEF, MSF and SRC/IFRC). During the past month the Task Force organised a joint assessment mission in River Nile state in which the SRC/Federation participated. Also, the training programme on surveillance mentioned in the previous situation report has been completed.

ICG has made another 1 million doses of vaccine available and UNICEF has procured 20,000 vials of oily chloramphenicol and 1.25 million doses of vaccines and injection materials.

To date, a total of 12.8 million doses of vaccine and 30,000 vials of oily chloramphenicol have been distributed by the agencies.

Red Cross/Red Crescent action

Vaccinations

The Federation Secretariat quickly arranged the supply of an additional 0.9 million doses of vaccine, and the distribution was carried out in line with the prepared plan as soon as the material arrived in country. The vaccine distribution included the River Nile and Northern States. MSF has assisted by loaning the operation a quantity of 20ml syringes necessary for vaccine preparation.

The first distribution of the vaccination campaign (1.79 million doses) has been completed and the operating SRC branches, barring Sennar and White Nile, have produced reports showing the number of people vaccinated by province and state. These figures, however, do not show the full picture as the MoH has run its own programmes with their own resources alongside that of the SRC.

The vaccination campaign is continuing with the second distribution and due credit should be given to the SRC volunteers for their work.

Case management and surveillance

Standard guidelines for treatment of an epidemic were circulated last month. Also, the Task Force has completed training on surveillance and case management for the MoH at the state level which has resulted in a considerable improvement in the management of the outbreak. The SRC/Federation field monitoring visits have found that use of oily chloramphenicol is now widely accepted by the medical personnel, and is now the treatment of choice at peripheral health facilities.

Table 2. IFRC/SRC distribution of vaccines and antibiotics by state

DISTRIBUTION OF VACCINES AND ANTIBIOTICS					
STATE	Item				
	Vaccine (no of doses)	AD Syringe (0.5ml)	Vaccine (no of doses)	AD Syringe (0.5ml)	Oily Chloram. (no of vials)
Gezira	350,000	300,000	400,000	400,000	16,200
White Nile	300,000	250,000	50,000	50,000	9,600
Sennar	150,000	50,000	100,000	100,000	5,300
Gedaref	260,000	200,000	100,000	100,000	9,940
Kassala	350,000	300,000	0	0	6,000
Blue Nile	80,000	50,000	20,000	20,000	4,000
Red Sea	300,000	278,000	0	0	4,800
River Nile	0	0	100,000	100,000	2,000
Northern	0	0	50,000	50,000	0
Upper Nile	0	0	50,000	50,000	600
Total	1,790,000	1,428,000	870,000	870,000	58,440
In stock	0	182,000	28,750*	28,750	1,560

Notes:

- 1) Distribution in North Darfur was made when the outbreak started in December.
- 2) 1,940,000 doses of vaccine have been procured and distributed since the first appeal was launched on 1st March 1999.
- 3) 900,000 doses of vaccine procured of which 870,000 doses have been distributed since the revised appeal launched in 7 May 1999.

* 1,250 doses of vaccines have been allocated to SRCS HQ clinic for use by the staff.

Public health awareness

The previous report highlighted the fact that the SRC volunteers have been engaged in a health awareness campaign. This was vital in successfully organising the vaccination programme and for

identifying suspected cases early for treatment. Local radio and television were used to help disseminate the information and posters and leaflets were also distributed.

Training workshop

During the second week of May training workshops for SRC trainers were conducted in Kassala (11-12 May) and in Gezira (14-15 May). Although after the peak of the epidemic, it was felt necessary to organise such workshops in order to strengthen the training capacity initiated at the beginning of the operation.

SRC trainers from the Kassala, Gedaref and Red Sea states - 16 in all - participated in the Kassala workshop and a further 18 from the Sennar, Gezira, Blue Nile and White Nile states attended the workshop held in Gezira. The training was conducted by SRC health staff (supported by a Federation delegate), and the second workshop was recorded on video for use in future training.

Epidemic preparedness

In order to contain a future meningitis epidemic as quickly and efficiently as possible, a response plan is an important consideration at both the state and national level, and that of the SRC will complement that of the MoH.

A response plan has been drawn-up based on a 3 level approach:

- w Level 1 (highest level) - the executive committee;
- w Level 2 - state branch level; and
- w Level 3 - provincial level.

This plan is now being finalised and is due to be ready by the end of July (for details please contact the Federation Desk Officer in Geneva).

PNS visits

Over the past month Desk Officers from the British Red Cross and United Arab Emirates Red Crescent (UAERC) have made short visits to assess the programme. The UAERC officer made a trip to the River Nile state to see the ongoing vaccination campaign.

Outstanding needs

Due to the rapid spread of the epidemic it was necessary to appeal for further funds, and with generous donor response the needs have been met in full. The programme has been extended until the end of July. In view of the cyclical nature of meningitis epidemics in Sudan, it is essential that treatment campaigns take place before the disease ravages the population. For this reason, a grassroots prevention training programme has been designed and will be implemented in the seven states where the SRC has a major presence. This will be a no-cost extension to the existing programme, and is expected to last until the end of October.

It would be useful to expand the response plan to all the states in the meningitis belt in Sudan, and such a measure should be complementary to the national preparedness plan supported by WHO.

External relations - Government/UN/NGOs/Media

Federation/SRC representatives continue to take an active part in the Task Force co-ordination meetings led by the Federal MoH. Co-operation with the government and the partner agencies of ICG has been good.

The distribution plans of vaccines and antibiotics (oily chloramphenicol) were made in co-ordination with the partner agencies.

During May active communication has been maintained between the Task Force and the ICG group in Geneva through telephone conference meetings.

At the same time, the SRC has extended their support to UNICEF by loaning a small quantity of injection materials. Thanks also to ICRC for arranging the air transport of vaccines and antibiotics to the Upper Nile state.

The BBC has provided coverage of the Sudan meningitis situation following an interview with a Federation delegate.

Contributions

See Annex 1 for details.

Conclusion

The meningitis epidemic in Sudan this year has been particularly dangerous, with more than 30,000 people having contracted the disease resulting in over 2,000 deaths. Before the epidemic could spiral out of control, a timely and intense treatment and prevention operation was initiated, resulting in a total of 12.8 million doses distributed in the country by various agencies. Prior to the revised Appeal at the end of April, more than 200,000 vials of oily chloramphenicol had been procured, allowing treatment for a minimum of 30,000 patients. A further 30,000 vials were obtained in May in order to maintain a stock at 5 strategically located treatment facilities.

Implementing an operation of this size required effective organisation and management, as well as co-operation between the partner agencies and the SRC/Federation. Important lessons for future interventions and action have been gained.

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