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Ministry of Public Health

Directorate of Prevention

Epidemiological Surveillance Unit

Meningitis cases in Lebanon

Annual report 2002

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Ref:

Meningitis report for year 2002

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I- CONTEXT

Meningitis surveillance is one example of surveillance followed by rapid response. Once Neisseria meningitis or Haemophilus influenzae b are diagnosed or suspected, immediate response for protecting close contacts and preventing secondary cases has to be undertaken within 14 days of date of disease onset.

II- OBJECTIVE

The objective of meningitis surveillance can be enumerated as follow:

To undertake immediate response for Neisseria meningitidis and Haemophilus influenzae b

To objective any meningitis outbreak and start investigation

To continue to update the national data base on meningitis began on 2001, for epidemiological purpose

To collect microbiological strains for future fundamental and applied research

III- MATERIAL & METHODS

Meningitis surveillance is based on the mandatory communicable disease reporting underlined by the LAW of 31 December 1957. Health professional report disease using the reporting form, the latest issued by the circular 17 dated on 21 May 2001.

In Year 2002, a specific form was designed for investigating meningitis cases and issued by the circular 53 dated on 27 May 2002.

Since meningitis cases are inpatient, meningitis was included in the hospital weekly zero reporting (Arrete of 1162/2 dated on 5 December 2001). All hospitals are included in the system, in the pubic and the private sectors.

Once a case is reported to the ministry of health, data is gathered in order to search a Neisseria or Haemophilus case. If it

c)- Meningitis types

Among the 131 meningitis cases, we found the following types: see table (4)

- Meningitis due to Neisseria Meningitidis 6,9 %
- Meningitis due to Heamophilus influenzae b 3,1 %
- Meningitis due to Pneumococcus 8,4 %
- Tuberculosis meningitis 1,5 %
- Meningitis due other known microbial agents 11,5 %
- Purulent meningitis with unknown agent (for which CSF and Blood culture were sterile) 51,1 %
- Viral meningitis 13,0 %
- Unspecified meningitis (not documented) 4,6 %

Purulent meningitis is defined in relation to the CSF characteristics: turbid CSF, or >= 100 WBC or >= 1g/dl proteins.

According to the meningitis types, we found the Neisseria cases in the North (5 cases), Beqaa (2 cases) and Beirut (1 case). In the north, the cases are distributed in 4 different districts: Akkar, Minieh Danieh, Tripoli and Zgharta. See tables (5) and (6)

As showed in 2001, the Haemophilus types are reported only in the North (3 cases) and the Beqaa (1 case). According to the national immunization coverage from the MICS 2 study in 2002, high coverage rates for Hib are recorded for Beirut, Mount Lebanon and low Hib coverage are recorded in the North and the Beqaa. See tables (5) and (6).

d)- Temporal variation

Over the year, an usual pic is seen in the June July. Such pic has been observed in 2001. However, in 2002, this pic disappeared when looking in detail in each district. Moreover, the 2002 pic correspond to the increase in the viral meningitis type and the purulent with unknown agent meningitis types. See table (7) and figures (1) to (7).

e)- Demographic features

The age groups are all target for meningitis. However, most cases occurred in the 6-20 year age group (31.3 %), the 1-5 year age group (25,9 %) and the under 1 year (16,8 %). The 4

Haemophilus cases appeared in the 1-5 and 6-20 year patients. See table (8)

Most reported cases were male (61,8 %). The sex ratio F/M is 0.6. This male sex ratio has also been observed for other diseases as Acute Flaccid Paralysis. See table (9)

f)- Clinical findings

As clinical features of the cases, purpura was observed in 4 cases. Septic choc was reported in 14 cases, which were neisseria, haemophilus, other purulent meningitis with known or unknown agent, viral and unspecified meningitis cases. Gangrena was observed in one case. See table (10)

g)- Lumbar punction findings

Lumbar ponction were performed and documented for 95,4 %. It was fully documented with CSF cytology, biochemistry and culture results for (86/131) 65,6 % of the cases. 29.8 % were partially documented with CSF results. See table (10).

Performing the Lumbar punction before antibiotics was recorded in 59 cases (45,0 %), not observed in 43 cases (32,8 %) and unknown in 29 cases (22,1 %). For the purulent with unknown agent meningitis, 40,3 % (27/67) of the cases had lumbar punction after antibiotics. See table (10)

The macroscopic aspect of CSF was missing for 59,5 % of the cases (78 / 131). For many cases, the local laboratory did not mention the CSF aspect in the cytology results. When it is reported, 71,7 % was turbid (38/53), 24,5 % (13/53) was clear and 3,8 % (2/53) was bloody. See table (10)

When known, the WBC count in the CSF, was under 100 WBC in (28/111) 25,2 % of the cases, equal or over 100 for 74,8 % (83/111). This information was missing in 20 cases (15,2 %). See table (10)

The CSF formula regarding segmented WBC, showed: see table (11)

- 34,3 % have >=65 % of segmented (45/131)
- 15,3 % have 45-64 % of segmented (20/131)
- 32,1 % have <45 % of segmented (42/131)

- and 18,3 % was not specified (24/131)

Meanwhile the CSF proteins were <1 g/dl for 41,3 %, >=1 g/dl for 42,7 % and unknown for 16,0 %. See table (11)

CSF culture was documented for 86,2 % of the cases. When it is documented, CSF culture was positive for only 25,7 % (29/113). See table (11)

CSF solubles antigens were performed for 32 cases (24,4 %). It was useful in detecting one Neisseria meningitis, 2 Haemophilus cases and 4 Pneumococcus meningitis. However, it gave false negative results in ½ for Neisseria cases and 1/5 for Pneumococcus cases. See table (11)

h)- Blood culture

Blood culture was performed and conducted for 38,9 % of the cases (51/131). When it was documented, positive culture was observed for only 23,5 % (12/51). See table (12)

i)- Evolution

Follow up of the cases to detect deaths and sequellae was possible for 69,5 % of the cases (91/131). For the followed patients, 12 deaths were notified and 2 sequellae were also reported (1 paralysis and 1 deafness). Death occurred for 1 Neisseria case, 2 Haemophilus cases, 2 Pneumococcal cases, 3 other known agent meningitis, 2 other unknown agent meningitis, 1 viral meningitis and 1 unspecified meningitis. The overall cases fatality rate (CFR) for all meningitis cases in Lebanon is 13,2 %. For Neisseria cases, the cases fatality rate is 11,1 % (1/9). For Haemophilus cases, the CFR is 50 % (2/4). For pneumococcal meningitis, the CFR is 22,2 % (2/9). See table (12)

j)- Microbial isolates

Among the 131 meningitis cases, only 32 microbial isolates have been isolated in CSF and/or Blood. Most of the isolates were in CSF culture. See table (13)

The isolates strains are: 11 pneumococcus, 6 staphylococcus, 4 neisseria meningitidis, 4 haemophilus influenzae b, 2 streptococcus, 2 brucella, 1 listeria, 1 klebsiella and 1 Proteus.

During the year 2002, logistic facilities to send microbial isolates to the Central Laboratory of the Ministry of Public Health were lacking. By the end of the year, efforts are made to restart collecting strains and 3 strains could be transmitted: 2 haemophilus influenzae b and 1 neisseria meningitidis.

For all purulent meningitis, the identification of the agent was possible in 40 % by clinical findings (as purpura), CSF and Blood direct exam or culture and CSF antigen detection.

At mohafazat level, the identification of microbial agent for purulent meningitis varies: high rates were observed in Beirut (75,0 %), Beqaa (54,4 %) and Nabatiyeh (50,0 %) and low rates in Mount Lebanon (20,7 %), South (25 %) and North (29,5 %). See table (14)

V- DICUSSION

Comparison between 2001 and 2002

Since 2000, number of reported meningitis cases is increasing: 67 cases in 2000, 108 in 2001 and 131 in 2002. However there is no significative difference for the national rates: 3,0 /100,000 in 2001 versus 2,5/100,000 in 2001. At mohafazat level, meningitis rates had become more homogeneous in 2002. Almost all mohafazat had rates of 2,0 to 2,7 expect for the North with 5,5/100,000.

Concerning the availability of results, the year 2002 had more documented CSF results (95,4 % in 2002 versus 84,2 % in 2001), as for CSF culture (78,6 % in 2002 versus 55,5 % in 2001), and CSF antigen detection (24,4 % in 2002 versus 12,0 % in 2001). The availability of results did not improve for Blood culture, which is 23,5 %.

Concerning laboratory results, as in 2001, 2002 showed that CSF and blood culture, whenever done, are positive in 23,5 % to 28,1 % of the cases. And the ability to identify microbial agents in

purulent meningitis did not increase significantly (40,0 % in 2002 versus 35,5 % in 2001).

Surprisingly, neiserria meningitis rates had decreased in 2002. This fact can be explained more by "decapited" meningitis than to under reporting or really decrease.

Finally, case fatality rates increase in 2002 to 9,2 % but without significant difference compared to the 3,7 % of 2001.

VI- CONCLUSION

The last WHO estimates for Meningitis cases in Lebanon was 500 case a year. This estimate is based on survey conducted in Egypt. For Lebanon, we think that this number is very high and Lebanon can't be compared to Egypt. However, we still have under-reported cases.

Another way to detect meningitis cases is to establish a laboratory based surveillance system since meningitis diagnosis is based on clinical and laboratory findings. Since the end of 2002, the epidemiological surveillance unit and the central laboratory are coordinating to define this new system.

On the other hand, prophylactic measures are conducted for Neisseria and Haemophilus, but most of them are not documented. New circulars will be issued to specify the prophylactic measures and the way of documentation of such actions..

Table (1): All meningitis - Total cases

	N cases	%	Rate /100000 habitants
	131		

Table (2): All meningitis - Repartition and rates by Mohafazat

	N cases	%	Rate /100000 habitants
North	48	36.6	5.5
Beqaa	13	9.9	2.2
Nabatiyeh, Moh	6	4.6	2.0
South	13	9.9	2.5
Mount-Lebanon	39	29.8	2.4
Beirut	12	9.2	2.7
TOTAL	131	100.0	3.0

Table (3): All meningitis - Repartition and rates by Caza

	N cases	%	Rate /100000 habitants
Akkar	16	12.2	5.7
Minieh Danieh	11	8.4	7.9
Tripoli	13	9.9	4.1
Zgharta	2	1.5	2.9
Koura	5	3.8	7.3
Bchirreh		-	-
Batroun	1	0.8	2.0
Hermel	2	1.5	3.5
Baalbeck	5	3.8	2.2
Zahleh	4	3.1	2.4
Beqaa Gharby	2	1.5	2.5
Rachaya		0.0	-
Nabatiyeh, Caza	6	4.6	4.5
Hasbaya		0.0	-
Marjiyoun		0.0	-
Bint Jbeil	1	0.8	1.3
Saida	10	7.6	5.8
Sour	2	1.5	1.1
Jezzine		0.0	-
Jbeil	2	1.5	2.2
Kesrouan	7	5.3	3.9
Metn	8	6.1	1.5
Baabda	19	14.5	3.6
Aleyh	2	1.5	1.4
Chouf	1	0.8	0.6
Beirut	12	9.2	2.7
TOTAL	131	100.0	3.0

Table (4): By meningitis types – Total cases

	Neisseria Meningitis	Haemophilus influenzae b	Pneumococcus	Tuberculosis	Other purulent known agents	Purulent meningitis + unknown agents	Viral	Unspecified	TOTAL
N cases	9	4	11	2	15	67	17	6	131
%	6.9	3.1	8.4	1.5	11.5	51.1	13.0	4.6	100.0

Table (5): By meningitis types – Geographical Repartition by Mohafazat

	Neisseria Meningitis	Haemophilus influenzae b	Pneumococcus	Tuberculosis	Other purulent known agents	Purulent meningitis + unknown agents	Viral	Unspecified	TOTAL
North	5	3	4	1	5	26	2	2	48
Beqaa	2	1	1		2	5	1	1	13
Nabatiyeh			1		1	2	2		6
South	1				2	9	1		13
Mount-Lebanon			4		2	23	8	2	39
Beirut	1		1	1	3	2	3	1	12
TOTAL	9	4	11	2	15	67	17	6	131

Table (6): By meningitis types – Geographical Repartition by Caza

	Neisseria Meningitis	Haemophilus influenzae b	Pneumococcus	Tuberculosis	Other purulent known agents	Purulent meningitis + unknown agents	Viral	Unspecified	TOTAL
Akkar	2	1	1	1	1	10			16
Minieh Danieh	1	1	2		2	3	1	1	11
Tripoli	1	1			1	9		1	13
Zghrata	1					1			2
Koura			1		1	2	1		5
Batourn									
Bchirre						1			1
Hermel	2								2
Baalbeck			1		1	2		1	5
Zahleh					1	3			4
Beqaa Gharby		1					1		2
Rachaya									
Nabatiyeh, Caza			1			3	2		6
Hasbaya									
Marjiyoun									
Bint Jbeil					1				1
Saida	1				1	7	1		10
Sour					1	1			2
Jezzine									
Jbeil						2			2
Kesrouan			2		1	2	2		7
Metn			2			5		1	8
Baabda					1	12	6		19
Aleyh						2			2
Chouf								1	1
Beirut	1		1	1	3	2	3	1	12
TOTAL	9	4	11	2	15	67	17	6	131

Table (7): By meningitis types – Temporal Repartition by months

	Neisseria Meningitis	Haemophilus influenzae b	Pneumococcus	Tuberculosis	Other purulent known agents	Purulent meningitis + unknown agents	Viral	Unspecified	TOTAL
January	1	1			4	2	2		10
February	3		2			2			7
March			2			4	1	1	8
April	1					4		1	6
May	1		2		1	5			9
June			1	1	1	17	3	1	24
July			2		3	12	7		24
August		1	1		2	4	2	1	11
September						3	1	1	5
October	1					3		1	5
November		2	1		1	6			10
December	2			1	3	5	1		12
TOTAL	9	4	11	2	15	67	17	6	131

Table (8): By meningitis types – Repartition by age group

	Neisseria Meningitis	Haemophilus influenzae b	Pneumococcus	Tuberculosis	Other purulent known agents	Purulent meningitis + unknown agents	Viral	Unspecified	TOTAL
Under 1 year	1				4	16	1		22
1 - 5 year		2	3	1	1	20	6	1	34
6 - 20 year	4	2	3	1	5	19	5	2	41
21- 40 year	3		2		3	8	1	2	19
41- 60 year	1					1	2		4
>= 61 year			3		2	1		1	7
Unspecified						2	2		4
TOTAL	9	4	11	2	15	67	17	6	131

Table (9): By meningitis types – Repartition by sex

	Neisseria Meningitis	Haemophilus influenzae b	Pneumococcus	Tuberculosis	Other purulent known agents	Purulent meningitis + unknown agents	Viral	Unspecified	TOTAL
Male	6	3	8		9	40	12	3	81
Female	3	1	3	2	6	27	5	3	50
TOTAL	9	4	11	2	15	67	17	6	131

Table (10): By meningitis types – Diagnosis findings I

	Neisseria Meningitis	Haemophilus influenzae b	Pneumococcus	Tuberculosis	Other purulent known agents	Purulent meningitis + unknown agents	Viral	Unspecified	TOTAL
Clinical symptoms									
Purpura	4								4
Septic choc	4	2			1	4	1	2	14
Gangrena					1				1
Documentation on Lumbar punction									
Fully documented	4	3	9	2	10	50	8		86
Partially documented	3	1	2		5	13	9	2	39
Not documented	2							4	6
Lumbar punction performed before Antibiotics									
Lumbar punction before ATB	3	2	6	2	9	28	8	1	59
Lumbar punction after ATB	5		2		3	27	5	1	43
Unspecified	1	2	3		3	12	4	4	29
CSF: Aspect									
Clear	0		1	1		10	1		13
Turbid	1	4	9		6	18			38
Bloody						2			2
Unspecified	8		1	1	9	37	16	6	78
CSF: WBC counts									
< 100 WBC	2			1	3	5	17		28
100-499 WBC	3			1	6	36			46
500-999 WBC		1			1	13			15
>= 1000 WBC	2	1	6		3	10			22
Unspecified	2	2	5		2	3		6	20
TOTAL	9	4	11	2	15	67	17	6	131

Table (11): By meningitis types – Diagnosis findings II

	Neisseria Meningitis	Haemophilus influenzae b	Pneumococcus	Tuberculosis	Other purulent known agents	Purulent meningitis + unknown agents	Viral	Unspecified	TOTAL
CSF: Segmented WBC %									
>= 65 % Segmented	3	3	8		6	23	1	1	45
45-64 % Segmented	1		1		3	13	2		20
< 45 % Segmented	1			2	5	25	8	1	42
Unspecified	4	1	2		1	6	6	4	24
CSF: Proteins									
< 1 g / dl		1	2		2	34	15		54
>= 1g / dl	6	3	8	2	12	25			56
Unspecified	3		1		1	8	2	6	21
CSF: Purulent meningitis (turbid CSF, or WBC>= 100 or Proteins >= 1g/dl)									
Purulent meningitis					1		17		18
Non purulent	7	4	11	2	14	67			105
Unspecified	2							6	8
CSF: Culture results									
CSF culture positive	4	4	11		10				29
CSF culture negative	2			2	2	62	14	2	84
Unspecified	3				3	5	3	4	18
CSF: Soluble Antigens results									
CSF Antigens positive	1	2	4						7
CSF Antigens negative	1		1	1	3	14	3		25
Unspecified	7	2	6	1	12	53	14	6	109
TOTAL	9	4	11	2	15	67	17	6	131

Table (12): By meningitis types – Diagnosis findings III

	Neisseria Meningitis	Haemophilus influenzae b	Pneumococcus	Tuberculosis	Other purulent known agents	Purulent meningitis + unknown agents	Viral	Unspecified	TOTAL
Blood culture results									
Blood culture positive	2	1	4		5				12
Blood culture negative			2		2	30	5		39
Blood culture not done or unknown	7	3	5	2	8	37	12	6	80
Follow-up of the patients									
Guerison	8	2	6		8	42	7	4	77
Sequella: deafness			1						1
Sequella: paralysis						1			1
Death	1	2	2		3	2	1	1	12
Unspecified			2	2	4	22	9	1	40
TOTAL	9	4	11	2	15	67	17	6	131

Table (13): Microbial isolates at the local laboratories

	CSF culture		Blood culture		CSF/Blood culture	
	N	%	N	%	N	%
Neisseria meningitidis	4	13.8	2	16.7	4	12.5
Haemophilus influenzae b	4	13.8	1	8.3	4	12.5
Pneumococcus	11	37.9	4	33.3	11	34.4
Stretococcus	2	6.9			2	6.3
Staphylococcus	4	13.8	2	16.7	6	18.8
Listeria	1	3.4	1	8.3	1	3.1
Brucella	1	3.4	2	16.7	2	6.3
Klebsiella	1	3.4			1	3.1
Proteus	1	3.4			1	3.1
TOTAL	29	100.0	12	100.0	32	100.0

Table (14): For documented cases: All meningitis – Proportion of isolated bacterial agents

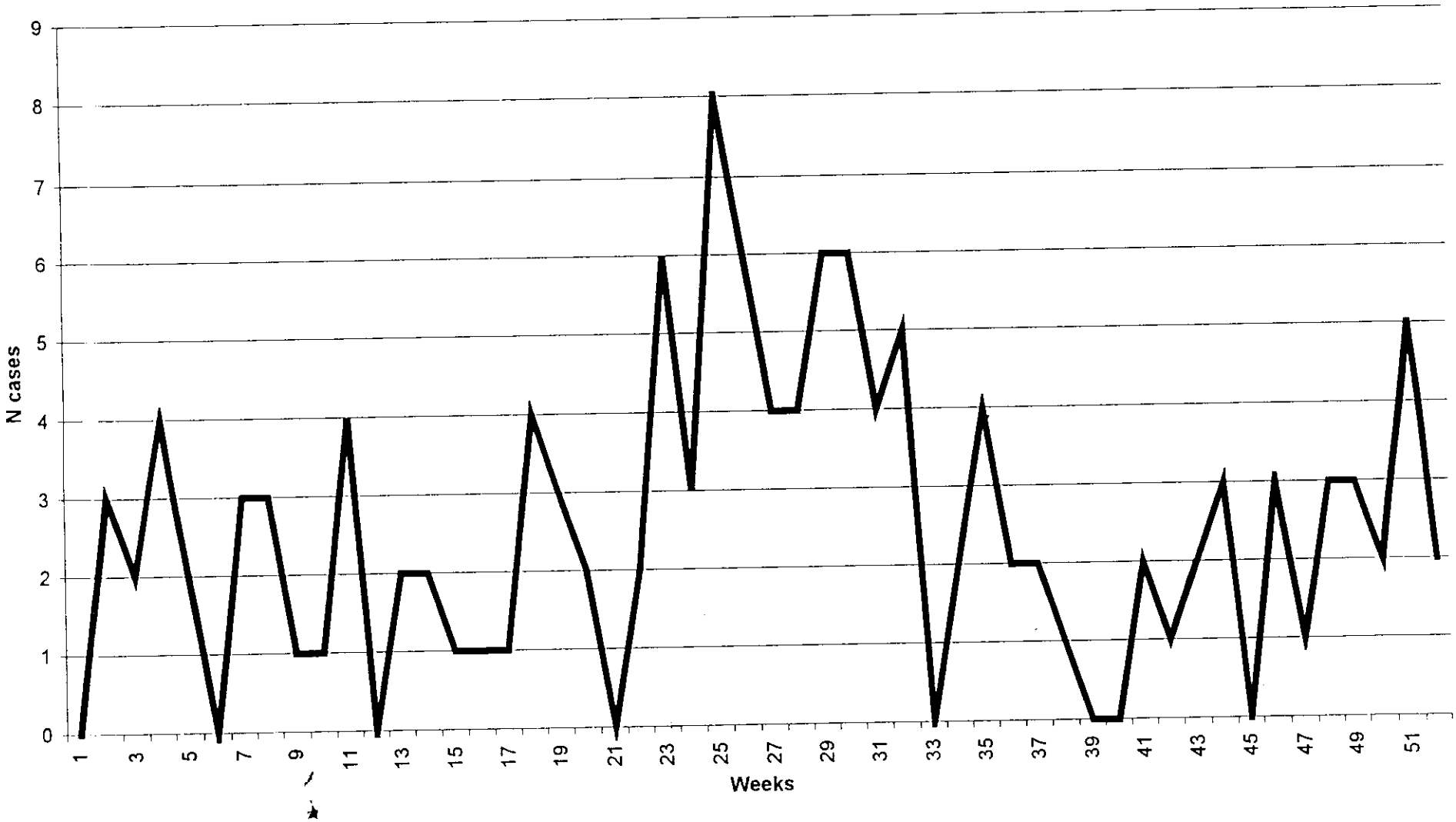
	Total cases	Total purulent cases (2)	Total cases with isolated agents (3)	% of (3) / (2)
LEBANON	125	108	41	40,0
North	46	44	13	29,5
Beqaa	12	11	6	54,5
Nabatiyeh, Moh	6	4	2	50,0
South	13	12	3	25,0
Mount-Lebanon	37	29	6	20,7
Beirut	11	8	6	75,0

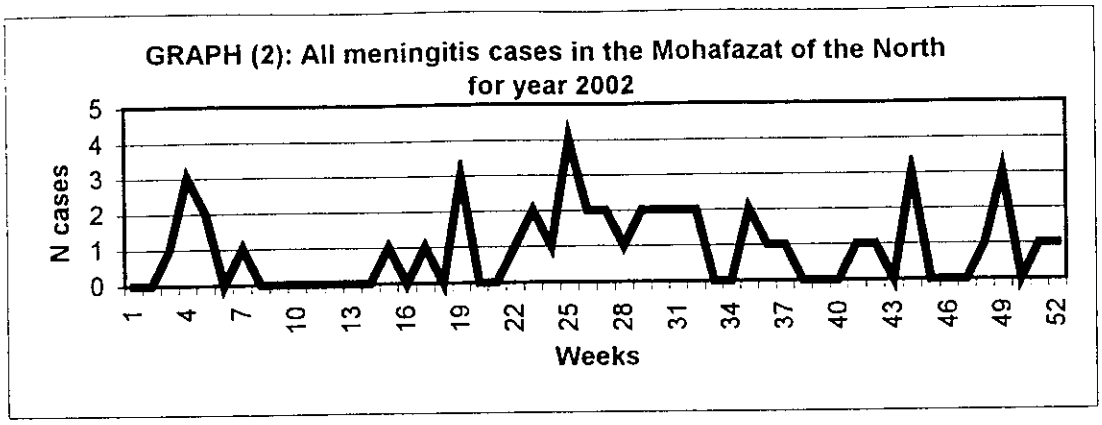
Republic of Lebanon
Office of the Minister of State For Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

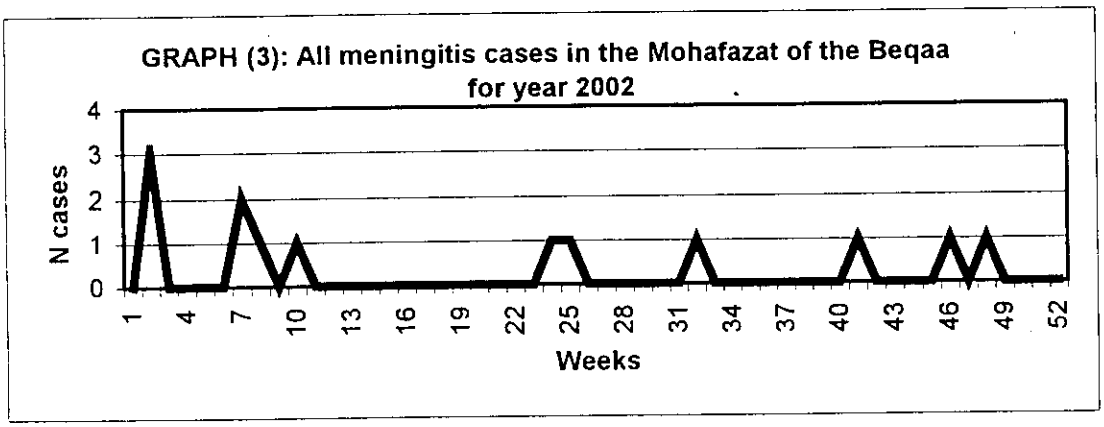
Table (15): Comparison between 2001 and 2002

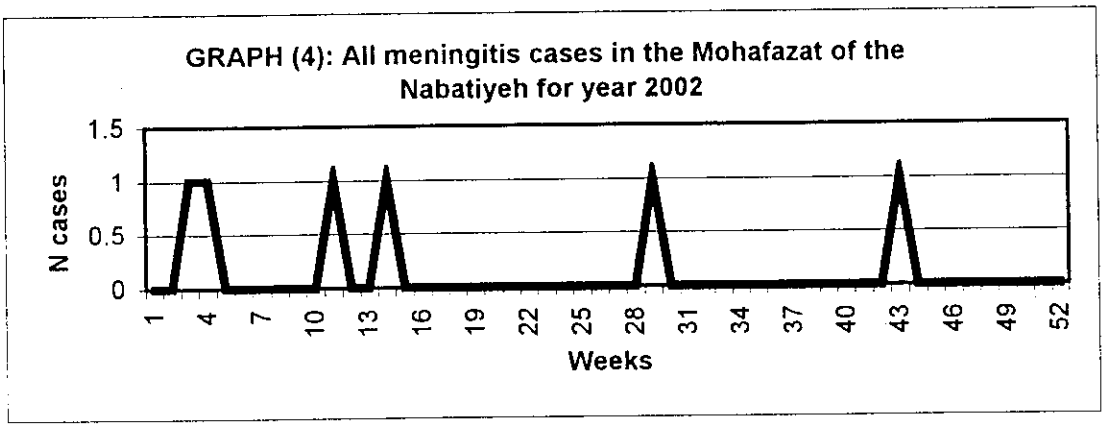
	Year 2001	Year 2002	p
Rates / population			
Number of reported cases	108	131	
Rate per 100,000 habitants	2.5	3.0	p=0.174
Mohafazats rate (/100,000) range	1.3-5.1	2.0-5.5	
Number of district with zero cases	7	5	
Demographic features			
Age 0 to 5 years, %	43.5 %	37.9 %	
Sex ratio M/F	1.1	1.6	p=0.181
Lumbar punction findings			
Documented lumbar punction, %	84.2 %	95.4 %	p=0.003
Documented CSF culture, N	60	103	
Documented CSF culture, %	55.5 %	78.6 %	p=0.000
Positive CSF culture among documented, %	23.3 %	28.1 %	p=0.379
Documented CSF antigen detection, N	13	32	
Documented CSF antigen detection, %	12.0 %	24.4 %	p=0.03
Positive CSF antigen detection among documented, %	84.6 %	21.9 %	p=0.000
Blood culture findings			
Documented blood culture, N	39	51	
Documented blood culture, %	36.1 %	38.9 %	p=0.654
Positive Blood culture among documented, %	25.6 %	23.5 %	p=0.817
Microbial agents isolation			
Isolated microbial agents / purulent meningitis, % (national)	35.4 %	40.0 %	p=0.713
Isolated microbial agents / purulent meningitis, % Mohafazat % range	0-66.6 %	25-75 %	
Neisseria meningitides and Hib			
Neisseria meningitides, N	16	9	
Neisseria meningitides, N	14.8 %	6.9 %	p=0.046
Haemophilus influenzae b, N	4	4	
Haemophilus influenzae b, %	3.7 %	3.1 %	p=0.934
Case fatality rates			
Death, N	4	12	
Death rate, Case fatality	3.7 %	9.2 %	p=0.093

GRAPH (1): All meningitis cases in Lebanon for year 2002

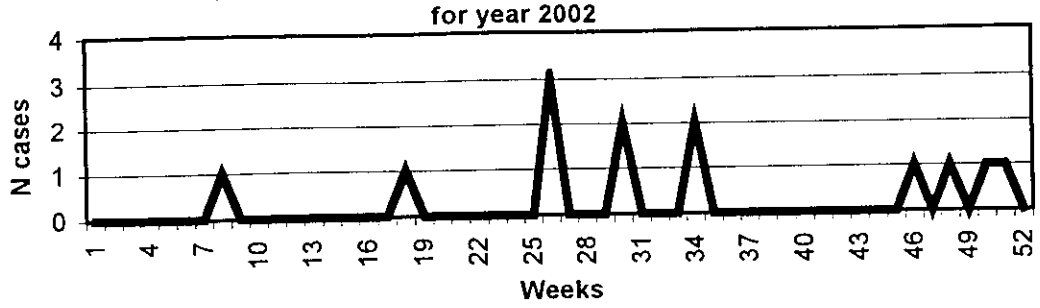



GRAPH (2): All meningitis cases in the Mohafazat of the North for year 2002
N cases
0
1
2
3
4
5
1
4
7
10
13
16
19
22
25
28
31
34
37
40
43
46
49
52
Weeks

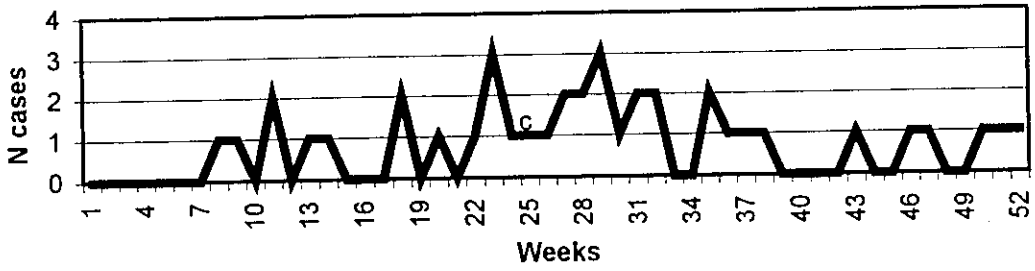

GRAPH (3): All meningitis cases in the Mohafazat of the Beqaa for year 2002
N cases
0
1
2
3
4
1
4
7
10
13
16
19
22
25
28
31
34
37
40
43
46
49
52
Weeks


GRAPH (4): All meningitis cases in the Mohafazat of the Nabatiyeh for year 2002
N cases
0
0.5
1
1.5
1
4
7
10
13
16
19
22
25
28
31
34
37
40
43
46
49
52
Weeks

GRAPH (5): All meningitis cases in the Mohafazat of the South for year 2002



GRAPH (6): All meningitis cases in the Mohafazat of Mount-Lebanon for year 2002



GRAPH (7): All meningitis cases in the Mohafazat of Beirut - Lebanon for year 2002

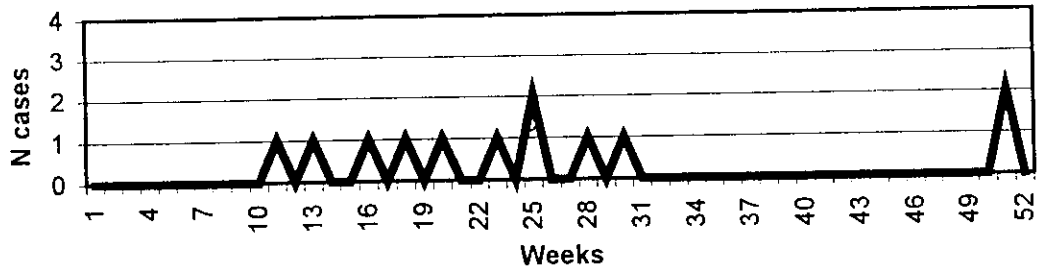
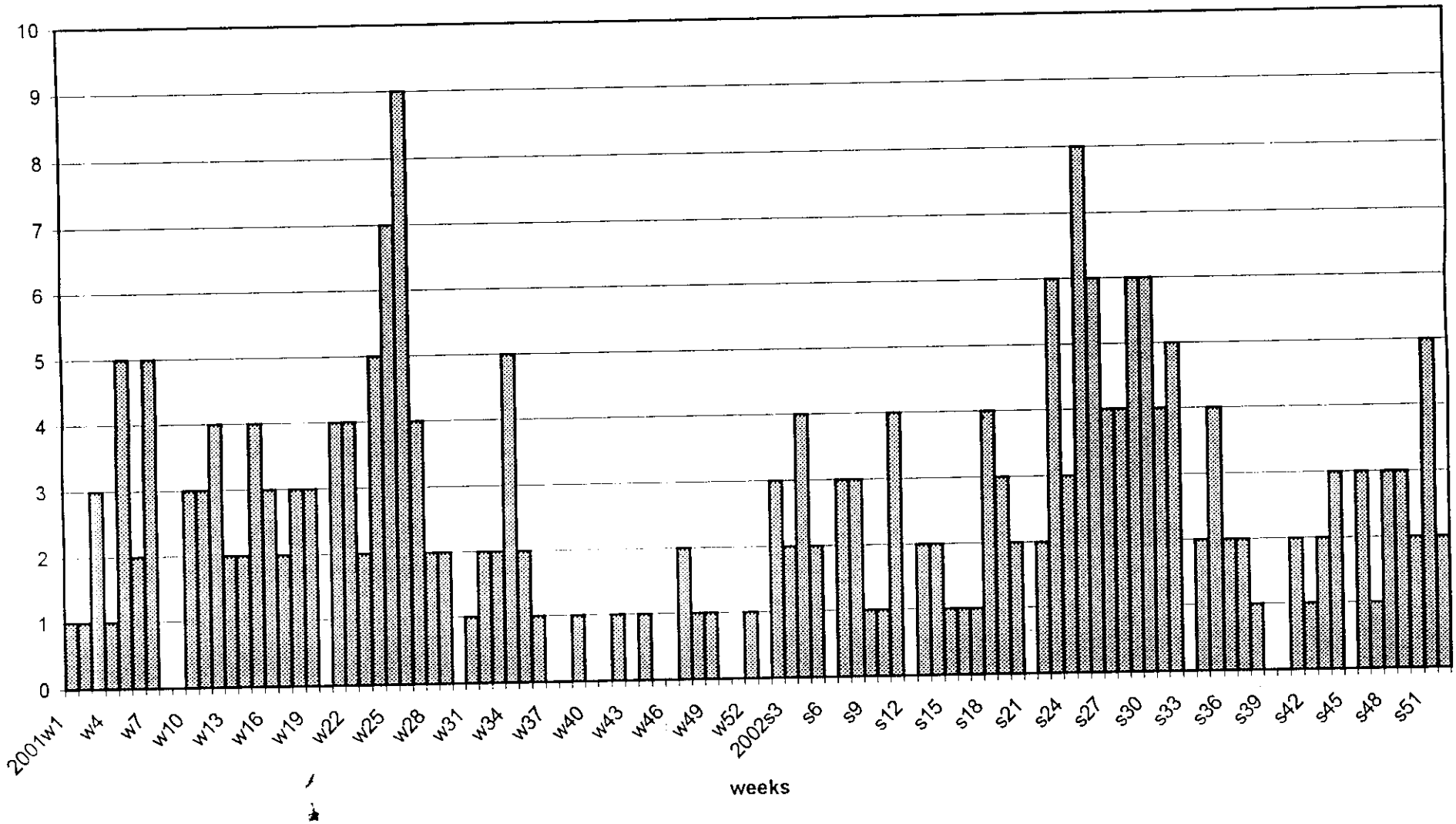


Figure (8): Reported meninigitis cases in Lebanon 2001-2002



الجمهورية اللبنانية

وزارة الصحة العامة

استمارة إبلاغ عن التهاب السحايا الحاد

رقم ESU: _ _ _ _ _ _ _ _ _ رقم M: _ _ _ _

1)- المصاب

اسم المصاب	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
اسم الأب	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
الشهرة	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
تاريخ الولادة	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
الجنس	: ذكر / انثى

2)- عنوان المصاب

الجنسية	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
	مقيم / زائر
العنوان	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
القرية / المدينة	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
القضاء	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
رقم الهاتف	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

3)- عن الاستشفاء

تاريخ ظهور العوارض	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
تاريخ دخول المستشفى	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
تاريخ التشخيص	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
اسم المستشفى	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
اسم الطبيب المعالج	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
رقم الهاتف	:

4)- نتائج الفحوصات المخبرية - ارفق نتائج الفحوصات التالية

	مرفقة	غير مرفقة
CSF- direct		
CSF - chemical		
CSF - culture		
CSF - antigenes		
Blood - CBC		
Blood - culture		

هل عولج المريض بالمضادات الحيوية قبل دخوله إلى المستشفى ؟ نعم / كلا

إذا نعم، ماذا : _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

ومنذ متى: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

الجرثومة المسببة	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
ملاحظات	:

Republic of Lebanon

Office of the Minister of State for Administrative Reform

Center for Public Sector Projects and Studies

(C.P.S.P.S.)

5) – الاشتراكات الإكلينيكية للمريض – هل تعرض إلى ما يلي ؟

	نعم	كلا
Purpura		
Septic choc		
Gangrena		
غيره ، حدد :		

6)- عن الوضع التلقيحي - هل لقح المريض ضد ؟

	عدد الجرعات ونوعه	تاريخ آخر جرعة
Neisseria meningitis		
Haemophilus influenzae b		
Pneumococcus		

7)- هل سافر المريض أو أحد المقربين إلى الخارج ، مؤخرا ؟

من سافر ؟	إلى أي البلد؟	تاريخ العودة الى لبنان ؟

8) – ما هي مهنة المريض ؟

المهنة	:
نوع المؤسسة	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
اسم المؤسسة / المدرسة / دار الحضانة / الثكنة :	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
الصف	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
العنوان	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
رقم الهاتف	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

9) – عن أهل الدار

عدد الأفراد في البيت	: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
هل يوجد أطفال دون 5 سنوات : نعم / كلا	

10)- عن المبلغ

اسم المبلغ	:
التاريخ	:
التوقيع	:

تبلغ الاستمارة إلى وحدة الترصد الوبائي – فور الاشتباه بالحالة لأخذ التدابير اللازمة للمخالطين :

تلفون : (01) 614194

فاكس : (01) 610920 أو (01) 615159