Neisseria meningitidis or *Diplococcus pneumoniae* infections. For those with *H. influenzae*, chloramphenicol was used as a single drug dosage of 100 mg/kg, for 24 hr. Both of the latter antibiotics were administered by continuous intravenous infusion. As with ampicillin, after 2 or 3 days of therapy, these drugs were given in the same dosage intramuscularly. Control group patients with meningitis of unknown etiology received both aqueous penicillin G at 150 mg/kg and chloramphenicol at 100 mg/kg. As outlined above, the initial 24-hr dosage of ampicillin or penicillin G was therefore approximately 200 mg/kg and for chloramphenicol was 133 mg/kg. Sulfisoxazole was added to the regimen of a few patients in the control group at the beginning of the study. In control patients in whom no organisms were seen on the initial direct examination of the spinal fluid, but who had subsequent isolation of an organism, either penicillin or chloramphenicol was discontinued, depending upon the organism identified.

The response to therapy was evaluated by the usual clinical criteria, including duration of fever, improvement in the mental and neurological status, and improvement in the cerebrospinal fluid (CSF). Treatment was continued until: the patient was afebrile for at least 5 days; the spinal fluid cell count was less than 30 cells, with less than 10% polymor-phonuclear cells; the CSF sugar was normal; and the protein approached normal. Subdural taps were performed whenever indicated.

Bacteriological methods. Gram-stained sediment of spinal fluid was examined both by the admitting physician and by laboratory personnel. The quellung test for specific confirmation of *H. influenzae* infections was used if adequate numbers of organisms were present. Isolation and identification of the causative organisms were accomplished by conventional methods, including both aerobic and CO_2 incubation techniques. In vitro data concerning ampicillin, chloramphenicol, and penicillin G sensitivities have been presented previously (Ivler et al., 1964).

TABLE 1.—TOTAL MENINGITIS PATIENTS STUDIED, LOS ANGELES COUNTY GENERAL HOSPITAL, JULY 1963 TO APRIL 1965

Bacterial etiology	Treatment regimen		Patients excluded	Total patients
	Ampicillin	Control		
Haemophilus influenzae	66	107	16	189
Neisseria meningitidis	56	77	23	156
Diplococcus pneumoniae	41	42	22	105
Unknown	29	35	9	73
Other organisms			18	18
Total cases	192	261	88	541

TABLE 2.—IDENTIFICATION OF ORGANISMS FROM MENINGITIS PATIENTS BY TREATMENT GROUPS[1]

Etiology and regimen	Source of organisms			Total	Smear[2]	Total cases included
	CSF	Blood	CSF plus blood			
Haemophilus influenzae:						
Ampicillin	60	35	32	63	3	66
Control therapy	94	51	42	103	4	107
Neisseria meningitidis:						
Ampicillin	39	7	5	41	5	[3] 56
Control therapy	55	12	7	60	6	[4] 77
Diplococcus pneumoniae:						
Ampicillin	34	21	20	35	6	41
Control therapy	30	17	13	34	8	42
Total	312	143	119	336	32	389

[1] Total cases studied 453, 81 percent with known etiology (88 exclusions).
[2] Direct examination only.
[3] Includes 10 clinical diagnoses.
[4] Includes 11 clinical diagnoses.