TABLE IV.1.—CASES OF ACUTE BACTERIAL MENINGITIS [1]

Age group	Severity [2] on admission to hospital						Total	
	Mild		Moderate		Severe			
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Death
<2 months	10	3	2	1	3	2	15	6
2 to 11 months	42	1	14	0	13	4	69	5
1 to 14 years	91	0	11	0	12	1	114	1
15 to 44 years	25	0	0	0	17	2	42	2
45 to 59 years	9	1	0	0	16	7	25	8
60-+years	4	0	0	0	16	7	20	7
Total	181	5	27	1	77	23	285	29

[1] Los Angeles County General Hospital, 1 year experience to July 1966, by age group, severity, and outcome.
[2] Severe: coma, semicoma, significant hypotension, or definite shock. Moderate: convulsions. Mild: none of the above
See references 3, 9, and 12.)

Optimal management of the medical and, at times, surgical emergencies which are seen in patients with acute bacterial central nervous system disease requires careful attention to certain key principles of diagnosis and therapy. With observation of these principles, described below, and the use of newer techniques for monitoring the illness, morbidity and mortality may be reduced below current levels in most hospitals.

EVALUATION OF THE TOTAL PATIENT

Critical and rapid clinical evaluation of the patient is essential to determine the general condition, the presence of actual or impending shock, underlying defects, associated complicating disease (such as brain abscess or bacterial endocarditis), and the state of hydration.

Nearly 10 per cent of our patients arrive at the hospital in definite or impending shock. Recognition of this problem and prompt expansion of the intravascular fluid volume are essential if life is to be maintained. Inasmuch as the great majority of deaths occur within the first few hours after arrival in the hospital, nonspecific measures such as administration of blood, plasma, and electrolyte solutions must be instituted. Use of a central venous catheter provides continuous information regarding venous return and cardiac output if shock is present. Attention to the airway, with tracheostomy if necessary, is most important during this stage. Because even the most effective antibacterial therapy requires some time to arrest the progress of the disease, the importance of these supportive measures cannot be overemphasized.

During the initial evaluation of the patient, the clinician must be alert for evidence of associated disease such as brain abscess or localized cerebritis which may require attention later. It should be noted that nearly 2 per cent of patients admitted to our service with central nervous system infections have concomitant bacterial endocarditis. These patients are particularly likely to have localized neurological changes and brain abscesses.

Patients older than 2 months of age almost invariably have infections with *H. influenzae*, Type B, *N. meningitidis*, or *Diplococcus pneumoniae*, in descending order of frequency. However, the presence of a dermal sinus tract, concurrent or preceding endocarditis, and prior multiple lumbar punctures, neurosurgical procedures (particularly with entry of the dura), or the presence of a ventricular shunt should alert the physician to the substantially greater likelihood of the presence of unusual organisms. Initial antimicrobial therapy, discussed below, may require alteration if any of these conditions is present. In any event, the group of organisms encountered in these situations is so heterogeneous that laboratory guidance is absolutely essential for the final selection of definitive antimicrobial treatment.