

In large or high-rise urban hospitals, it may require from 3 to 10 minutes to get personnel and equipment to the bedside. Rarely is emergency surgery underway in less than 20 or 25 minutes once a patient has reached the emergency room. The two greatest problems are communications and elevator delays.

Over the past 3 years we have conducted time motion studies of emergency care and concluded that any mobilization system which relies on an entirely human-operated communications sequence is unsatisfactory.

If, for example, a switchboard operator must individually call and awaken four or five people for a night emergency, we can expect unacceptable time delays. Frequently the room number of the emergency location is given in error, either because of the nurse reporting the emergency or, much more frequently, because the operator panics, confuses the message, and mispages the location. This error, due to the operator, actually occurs about 12 percent of the time.

Following a study of many human and technical factors in emergency care mobilization, we identified the problem areas and designed a system which, we feel, will add a new measure of effectiveness to emergency care within the hospital.

We are developing a hospital emergency command system with the support of the Research and Demonstration Grants Branch, Division of Hospital and Medical Facilities of the U.S. Public Health Service. The hospital emergency command system incorporates what was previously described, the command system communications system, with one of its subsystems or components. The total system will permit simultaneous and immediate mobilization of communications, personnel, equipment, and elevators by a single initiating call from any hospital dial telephone.

(The hospital emergency command system illustration referred to follows:)

HOSPITAL EMERGENCY COMMAND SYSTEM
SIMPLIFIED BLOCK DIAGRAM

