

EDITORIAL

Monitors and Clinical Judgment

THE concept exists that anesthesia cannot be practiced safely without the employment of numerous monitors. This idea is so well established that an anesthetist may be considered not only backward in his practice but remiss from a medico-legal standpoint unless he has about him an array of electronic gear beeping, groaning, or rolling out reams of lined paper. The concept has become so prevalent that surgeons, many nonmedical people, particularly attorneys, and even some anesthetists have become deluded into thinking that these gadgets somehow can provide more valuable information than is available through diligent application of feeling, learning, seeing and associated clinical judgement.

In the application of these various devices, one should establish their function. Are they to function as adjuvants to the more simple measures or are they to serve as substitutes for constant personal contact with patients? As adjuvants, they can provide useful information which is sometimes of a more precise nature. In this capacity, however, they are more important as means of education of the hand, eye and ear. As substitutes, they are dangerous because they tend to encourage detachment of the anesthetist from the patient and because they are not designed to supply the sort of interpretive data that is so essential to the development and maintenance of good clinical judgement.

Monitor is defined as one who watches and warns. The majority of the devices in present

use can act in this capacity only in a very limited sense. They can show such things as the change in potential associated with the conduction system of the heart. Any warning they may give will be restricted to a difference in sight and sound signal and will be related only to the electrical activity of the heart—its function as a pump. A finger on the pulse can provide more definitive information. An electroencephalograph will also represent electrical activity in the brain. Such an instrument can, therefore, watch this aspect of brain function. Warning it can give as well, but usually only after function has been so seriously impaired that detection is as easily secured by observation of such things as pupillary changes, changes in responsiveness, changes in respiratory patterns, and the like.

The important monitor is the anesthetist. He is the one who watches and he is the one who is capable of interpreting the signs and providing warning and appropriate action. Whatever devices he may elect to employ to improve his clinical capacities should be recognized as being capable only of adding to his knowledge, and the information provided by them should be considered to be only a portion, and most likely a small portion, of the data necessary to critical evaluation of the patient's condition. Unwarranted reliance on monitoring devices can result only in restricted information, misleading information (at times), and deterioration of clinical acuity.

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