If radiating pain follows spinal puncture the needle should be moved before injecting the drug. Persistent bloody tap contraindicates injection of the spinal anesthetic drug. When a desired height of anesthesia has been difficult or impossible to obtain a spinal block should be suspected. Residual anesthetic solution should be removed at the termination of such anesthesia by irrigating the subarachnoid space with isotonic solution of sodium chloride.

Spinal fluid dynamics should be carried out when the patient complains of intractable back pain or pain which seems out of proportion to the circumstances of his condition. When the complication results the degree of nerve involvement as well as factors which might be responsible should be determined. Tidal irrigation of the bladder and effective enemas should be administered. Spinal fluid dynamics should be determined, residual anesthetic removed by irrigation, spinal punctures, repeated daily when indicated, and careful nursing should be included in the care of these patients. The recovery period is variable. 39 references.

F. A. M.


The surgeon has, in the past, adopted the attitude that he alone assumed the responsibility for the patient and that every phase of the operative procedure, including the anesthesia, were under his direction. The anesthetist was expected to assume responsibility only when the patient failed to survive the operation. Such a state of affairs could not continue indefinitely. With a change in the anesthetist’s functions he now assumes new responsibilities. The new agents and methods make familiarity with the advances in anesthesia essential to the practice of anesthesia. The anesthetist has in recent years assumed his rightful place as a member of the surgical team. Emphasis should be placed on the capabilities of the anesthetist when discussing the coming operation with the patient. The anesthetist is much more important than the agent. Careful preparation and discussion with the anesthetist as well as the internist results in the arrival of the patient in the operating room in a better physical and psychological state. Much of the credit for advances in surgery during the past 20 years must be given to the anesthetist. Where mutual respect and harmony exist between the surgeon and the anesthetist much can still be achieved in reducing what has been considered the irreducible degree of failure which mars surgical records.

F. A. M.


The anesthetist acts as a trustee to safeguard the patient’s interests before, during and after the operation. The anesthetist should have well-defined duties. He should see that the patient is in as fit a condition as possible and that his outlook is a cheerful one. In cardiac cases the anesthetist should be able to evaluate the risk and recommend the safest anesthetic. In thoracic surgery, where the surgeon invades the anesthetist’s territory, the anesthetist comes into his own.

In choosing the anesthetic the patient’s wishes, the surgeon’s preferences, the anesthetist’s skill and the safety of the patient should be considered. The anesthetist must maintain the anesthetic equipment in perfect order and have it ready for use. Diagnostic lumbar puncture, oxygen therapy, blood transfusion service and
local anesthetic procedures can all be done by the anesthetist.

Instruction is second only to the actual administration of anesthetics in the duties of the anesthetist. All medical students should receive lectures and demonstrations in the administration of anesthetics. At least one question in the final surgery examination should have an anesthetic reference and in the oral examination one question on elementary anesthesia should be asked by an anesthetist. The anesthetist should have a voice on the medical committee which manages the hospital. He should have equal rank and equal pay with members of other medical specialties. The anesthetist should be the buffer between the surgeon and the many details of a smooth working operating team.

F. A. M.


Anaesthesia for operations inside the chest is complicated by more or less extensive disease of the lung. With the chest open the anesthetist is faced with the problem of maintaining normal circulation and respiratory exchange as well as counteracting a possible mediastinal shift. To overcome these difficulties some form of artificial respiration becomes necessary. "Controlled" respiration or "assisted" respiration are two methods used during open chest operations. Endobronchial insufflation is an alternative method now little used. Should a broncho-pleural fistula occur the remedy is a constant flow of fresh gases under pressure.

Before operation postural drainage and breathing exercises may be suggested. For minor operations on the chest wall light general anesthesia or local infiltration may be used. Local anesthesia is used for thoracoplasty for pulmonary tuberculosis. Fairly heavy premedication is produced with papaveretum gr. 1/3 and seopolamine gr. 1/150 with further intravenous injection of papaveretum according to the degree of depression observed in the anesthetic room. The local anesthetic solution may be nupercaine 1/2,000 and procaine 1/400 with fresh adrenaline 1/300,000. Where scapular retraction is needed, a brachial plexus block should be used. Paravertebral block is most satisfactory for anesthesia for the ribs. Intercostal block is adequate for the lower ribs. These blocks are completed by subcutaneous infiltration of the line of incision.

When the pleura is stripped, paradoxical respiration and coughing may occur. The cough may be eliminated by an ipsilateral vagus nerve block. If the pleura is opened a general anesthetic should be given in order that respirations can be assisted. The late results with general anesthesia are less satisfactory than with local and hemorrhage is considerably more.

For major operations inside the chest wall the general anesthetic agents in favor at the present time are cyclopropane and ether. When controlled respiration is to be used with ether, the medulla should be depressed by the intravenous injection of morphine in addition to the usual premedication. Tracheal intubation, postural drainage, suction, bronchial intubation or bronchial block, achieved by packing or insertion of a catheter into the main bronchus, are all used in combating secretions.

For lobectomy, pneumonectomy or extrapulmonary tumors where secretions are not a major problem, a face piece is often satisfactory. The mechanical stimulus of operations upon the heart under cyclopropane anesthesia may lead to ventricular fibrillation. Irregular pulse calls for local infiltration with procaine. If fibrilla-