taneously, reach their peak analgesic effect in a little over thirty minutes. Intravenously, however, these five opiates reach their maximum analgesic effect in twenty minutes. Maximum analgesic effect does not necessarily coincide with the maximum hypnotic effect, but there will be enough sedation to remove apprehension. . . . Nembutal, seconal, and delvinal orally, reach their maximum hypnotic effect in about one hour. Chloral hydrate orally, and paraldehyde and avertin rectally, reach their peak hypnotic effect in about thirty minutes. If the rectal instillation of avertin is rapid (within two or three minutes) there may be profound depression in less than fifteen minutes. When these drugs are given rapidly, close vigilance of the patient's respirations is vital. Paraldehyde intramuscularly produces its maximum depression in fifteen to twenty minutes.

"In drying the secretions, atropine has little value if more than an hour elapses before the beginning of anesthesia. Scopolamine is effective up to about one and a half hours. Atropine and scopolamine, however, should be given at the first, since there is evidence to show that these agents decrease some at least of the untoward effects of the opiates, particularly the nausea and the respiratory depression. If a long time elapses before operation then either the atropine or scopolamine can be repeated; this had better be done if the anesthetic agent is to be ethyl or divinyl ether. On the surface, it seems that these attempts to time the preoperative medication with the operation would be completely impractical. It is surprising, however, how closely this can be gauged, especially if the surgical resident who posts the time of operation is familiar with the habits of his surgeon. . . . It should be remembered that the preoperative sedative still has an effect postoperatively. . . . It follows from this, that after operation the patient will have the combined depressing effect of preoperative sedative, anesthetic and operation. This depression can either cause shock by anoxia, or aggravate a collapse which has been initiated by some other cause. There are, however, two postoperative conditions which seem to indicate the use of a sedative, and these are pain and restlessness. For pain an opiate is indicated, the best analgesic being dilaudid. If there has been no opiate included in the preoperative sedative or the pain is acute, then comparatively large doses will be required: but doses should seldom be as large as those used for preoperative medication. It is better to give small repeated doses frequently rather than massive doses infrequently. . . .

"If the patient is suffering pain postoperatively and the hypnotic drugs alone such as nembutal, seconal, delvinal, avertin, chloral hydrate, and paraldehyde have been given, then he will be very unco-operative and restless. Here an opiate, especially dilaudid, is indicated. If the patient suffers from hypoxia, which is a decreased oxygenation of the tissues caused by the usual postoperative respiratory and circulatory depression, he may be very restless. Under these circumstances it is surprising what repose can be obtained with a few hours of oxygen therapy by nasal catheter, B.L.B. mask or tent. Oxygen therapy under these conditions helps to clear the brain." 7 references.

J. C. M. C.


"In order to protect patients as far as possible from the mental disturb-
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ances which we believe are inherent in the tonsil operation, we instituted a regime which makes use of basal narcosis. . . . Over 600 children ranging from 9 months to 12 years have been treated with pentobarbital soluble ('Nembutal') by mouth and we believe this method of narcosis is safe and reliable. Children require relatively larger doses than adults. . . . City patients arrive at the hospital at 8 A.M., while children from the country are admitted on the previous afternoon. They are undressed, weighed and put to bed. No hypodermic injection is given unless dissection is contemplated, when it is given immediately before the basal narcotic. At 9 A.M. each patient receives by mouth a dose of 'Elixir Nembutal' (Abbott) equal to gr. ¾ per stone of body weight. At 9.15 A.M. the ward is darkened and the side of each cot is let down in preparation for the noiseless removal of the patient to the anesthetic room. Patients over one year, who arrive in the afternoon, receive gr. 1 of pentobarbital soluble in the evening and in the morning gr. ½ per stone body weight plus gr. ¼ for any fraction of a stone. A quarter of an hour after the administration of the narcotic most of the patients are drowsy and after half an hour all, except perhaps an extremely nervous child, are asleep. At 10.15 the first patient is carried to the darkened theatre and is given ethyl chloride on a perhalation mask. As soon as stertorous respiration appears a gag is inserted between the teeth and opened. The tonsils are enucleated with the Layton haemostatic guillotine and the adenoids curetted if necessary. Blood is wiped out of the mouth and the patient is carried back to bed and the side of the cot put up. Patients may cough and spit out some blood and occasionally they sit up in the cot for a few minutes but they quickly lie down and sleep until late afternoon."

J. C. M. C.


"It is well known that various types of hemorrhage in the newborn account for a considerable percentage of stillbirths and neonatal deaths. . . . In an endeavor to decrease the percentage of stillbirths and to decrease mortality and maldevelopment in the newborn, we have studied the effect of vitamin K administered in various ways to women in labor or administered directly to the newborn. . . . Evidence is presented from a large series of cases to show that: The administration of vitamin K, either the original alfalfa extract or the synthetic product, to a mother in labor increases the percentage of prothrombin of both mother and child. The vitamin may be given orally or parenterally. Such medication also prevents the drop in the prothrombin level of the baby which normally occurs from the second to the fifth day. The administration of sodium pentobarbital or sodium amyl bromoallyl barbiturate as an analgesic definitely decreases the prothrombin level in mother and child. The decrease can be prevented by the administration of vitamin K to the mother during labor. It is apparent that even small doses of barbiturates effect the prothrombin level. . . . It seems reasonable to assume that hemorrhage is more likely to occur in the presence of a low prothrombin level. There is a normal depression of the prothrombin level of the newborn from the second to the fifth day. This depression is much greater when certain analgesics are administered to the