age of .5 to 1 mg. Because it lacked sedative effect and suppressive action on cough, the intravenous administration of this drug prior to minor surgical procedures and oral endoscopic procedures proved unsatisfactory. With long-term usage the most frequent side reaction noted was dysphoria. The addicting properties of this drug are probably between morphine and dihydromorphinone. (*Samuels, M. L., and others: Critical Evaluation of Numorphan: New Synthetic Morphine-Like Alkaloid, South. M. J. 52: 207 (Feb.) 1959.*)

NEW ANALGESIC In a study of 15 patients with chronic pain d-propoxyphene (Darvon) and meperidine (Demerol) were compared. d-Propoxyphene appeared to be only slightly less effective in analgesia than meperidine. (*Sahagian-Edwards, A.: Comparison of Analgesic Efficacy of d-Propoxyphene (Darvon) and Meperidine (Demerol), J. Chron. Dis. 8: 645 (Nov.) 1958.*)

DEXTROMORAMIDUM Dextromoramidum was found in experiments on rats to be 32 times as potent as morphine. The therapeutic index is much larger than with morphine and other opiates (morphine 10:95, dextromoramidum 15:225). Onset of action is more rapid than with morphine. Normorphine (4 parts dextromoramidum–3 parts nalorphine) antagonizes respiratory depression. Experiments did not reveal side actions on heart, kidneys or gastrointestinal tract. (*Krueger, G. A., and Orth, P. H.: Animal Experiments Concerning New Analgesic, Dextromoramidum, Der Anaesthetist 8: 11 (Jan.) 1959.*)

PROLONGED PAIN RELIEF Thirty milligrams of amiphenazole (Deptazol) and 30 to 40 mg. of morphine were given every 12 hours for periods of 4 to 14 days to 40 patients suffering from severe pain following injuries or operations. This mixture was given even when the patient was in severe shock, with very superficial respiration and definite cyanosis. The results were excellent in all instances. The most striking feature was improvement of respiration and patient's general condition. (*Glatzl, A.: Clinical Experience with Pain Relief with Amiphenazole Morphine Combination in Surgery of Trauma, Der Anaesthesist 7: 341 (Nov.) 1958.*)

NERVE BLOCKADE Argon, methane, krypton, xenon, nitrous oxide, ethylene, cyclopropane and three gaseous fluorocarbons reversibly block impulse transmission in all myelinated fibers when a critical number of molecules exist in solution within a nonaqueous phase. (*Carpenter, F. G.: Kinetics of Blockade in Peripheral Nerve Fibers Produced by Anesthetic Gases, Fed. Proc. 18: 23 (March) 1959.*)

PAIN MECHANISMS The specificity of sensory end organs in the skin is now seriously questioned. Newer concepts postulate that impulses traveling in various nerve fibers will be interpreted according to the pattern of impulses entering the central nervous system. Both the spinal cord and the reticular substance of the midbrain may serve as centers for sorting and relaying sensory impulses to higher interpretive areas of the brain. (*Scott, J.: Physiological Basis for Pain, Canad. M. A. J. 80: 109 (Jan. 15) 1959.*)

PSYCHOGENIC PAIN In pain due to tension states and hysteria, there is no sensory loss and the pain threshold is lowered; pain, tenderness, and feeling is of normal quality but magnified; the reactions to stimuli are normal, but magnified, and there exists a true hyperalgesia. When true causalgia and hyperpathia exist, there is demonstrable sensory loss and the pain threshold is elevated. Pain and tenderness is altered in quality, being characteristically hyperpathic. (*Walters, A.: Differentiation of Causalgia and Hyperpathia, Canad. M. A. J. 80: 105 (Jan. 15) 1959.*)

ATROPINE There are three phases of atropine action on the heart–an initial vagotonic effect; a transient period of vagal imbalance at different levels of the conduction system; and a final prolonged parasympathetic blockade. In the usual doses, the cardiac actions of atropine are benign. However, serious arrhythmias and conduction defects may occur if action of atropine is combined with actions of drugs such as neostigmine. (*Averill, K. H., and Lamb, L. E.: Less Commonly Recognized Ac-*