

OXYMORPHONE The absence of sedative effects and suppression of coughing, and the low incidence of gastrointestinal disturbance are the primary advantages of oxymorphone. Depression of pulmonary ventilation, the most undesirable effect, may be counteracted with nalorphine. (Wasmuth, C. E., and Homi, J.: *Review of Oxymorphone Hydrochloride Analgesia Employed for General Surgery, Cleveland Clin. Quart.* 28: 262 (Oct.) 1961.)

ANTIDOTES Nalorphine is itself a potent analgesic in man and lacks the addicting potential of the opiates. However, its practical application as an analgesic has been frustrated by cost and the fact that it produces extremely unpleasant side effects, including dysphoria and hallucinatory states. Nalorphine penetrates into the brain much more rapidly and in higher concentrations than morphine and has a more rapid rate of egress. This explains why effects of morphine persist longer than the antagonism afforded by nalorphine. While bemegride is capable of lightening the depth of depression, it does not appear to shorten the duration of coma in patients with severe barbiturate intoxication. Neither do bemegride-treated patients awake with higher blood levels of barbiturates than do controls. The antihistamine diphenhydramine has effected rapid relief of the motor reaction to phenothiazine toxicity. (Done, A. K.: *Clinical Pharmacology of Systemic Antidotes, Clin. Pharmacol. Ther.* 2: 750 (Nov.-Dec.) 1961.)

NARCOTIC ACTION Morphine and certain allied analgesic agents prolong and enhance the positive after-potential of frog sciatic nerve, and these actions are antagonized by levallorphan. These observations led to the suggestion that analgesic agents might act by potentiating residual depression which accompanies the positive after-potential. By studying the dorsal root potentials of cat spinal cord it was found that morphine, methadone, meperidine and nalorphine inhibit the residual negativity which constitutes the fifth dorsal root potential. In the case of morphine, methadone and meperidine this was antagonized by nalorphine. (Krivoy, W. A., and Huggins, R. A.: *Action of Morphine, Methadone, Meperidine and Nalorphine on Dorsal Root Potentials of*

Cat Spinal Cord, J. Pharmacol. Exp. Ther. 134: 210 (Nov.) 1961.)

MORPHINE On hypothermized (20° to 22° C.) rabbits, a dose of 1 mg./kg. morphine by intravenous administration does not have a depressant influence on respiration. Likewise, no essential changes were observed in the respiratory function of the blood, rate of blood flow and blood pressure. (Volynskii, B. G., and Bender, K. I.: *Action of Morphine on Respiration and on Haemodynamics in Hypothermia, Farmakol. i Toksikol.* 23, 500, 1960.)

RO 4-1778/1 The respiratory and circulatory effects of RO 4-1778/1 were investigated. One milligram per kilogram was administered intravenously in 36 patients anesthetized with thiopental sodium and nitrous oxide-oxygen. Respiratory depression was produced which was not prevented or antagonized by levallorphan, 0.02 mg./kg. The degree of analgesia produced by 1 mg./kg. was about the same as that produced by meperidine, 0.5 mg./kg.; the duration of effect of RO 4-1778/1 was longer than that of meperidine; and the analgesic action was not accompanied by a significant hypnotic effect. (Foldes, F. F., Moore, J., and Suna, I. M.: *Studies on Respiratory Circulatory, and Analgesic Effects of 1 (P-Chlorophenethyl)-6,7-Dimethoxy-2-Methyl-1,2,3,4-Tetrahydroisoquinoline (RO 4-1778 1), Amer. J. Med. Sci.* 242: 282 (Dec.) 1961.)

A new, nonnarcotic analgesic, RO 4-1778/1, was evaluated in 101 patients with pain due to various causes. Its safety on chronic administration studied in 50 patients who did not require analgesic medication. It was concluded to be an effective analgesic in acute and chronic pain of mild to marked intensity. Nausea is an occasional side effect of larger dosage. It is nonaddictive and has no side effects in daily doses of 240 mg. given over a period of six months. (Brandman, O.: *Clinical Evaluation of Effectiveness and Safety of New Analgesic, Amer. J. Med. Sci.* 242: 694 (Dec.) 1961.)

A double-blind study was carried out with RO 4-1778/1, 60 mg. codeine sulfate, 60 mg. dextro-propoxyphene 65 mg. and a placebo. RO 4-1778/1 was found to be as effective as codeine, milligram for milligram, and free of