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Methylphenidate | Morphine | Paraldehyde | Pentazocine

Methylphenidate (Ritalin)

Methylphenidate, a Schedule II substance, has a high potential for abuse and produces many of the same effects as cocaine or the amphetamines. The abuse of this substance has been documented among narcotic addicts who dissolve the tablets in water and inject the mixture. Complications arising from this practice are common due to the insoluble fillers used in the tablets. When injected, these materials block small blood vessels, causing serious damage to the lungs and retina of the eye. Binge use, psychotic episodes, cardiovascular complications, and severe psychological addiction have all been associated with methylphenidate abuse.

Methylphenidate is used legitimately in the treatment of excessive daytime sleepiness associated with narcolepsy, as is the newly marketed Schedule IV stimulant, modafinil (Provigil®). However; the primary legitimate medical use of methylphenidate (Ritalin®, Methylin®, Concerta®) is to treat attention deficit hyperactivity disorder (ADHD) in children. The increased use of this substance for the treatment of ADHD has paralleled an increase in its abuse among adolescents and young adults who crush these tablets and snort the powder to get high. Youngsters have little difficulty obtaining methylphenidate from classmates or friends who have been prescribed it. Greater efforts to safeguard this medication at home and school are needed.

Morphine(Back to Top)

Morphine is the principal constituent of opium and can range in concentration from 4 to 21 percent. Commercial opium is standardized to contain 10-percent morphine. In the United States, a small percentage of the morphine obtained from opium is used directly (about 15 tons): the remaining is converted to codeine and other derivatives (about 120 tons). Morphine is one of the most effective drugs known for the relief of severe pain and remains the standard against which new analgesics are measured. Like most narcotics, the use of morphine has increased significantly in recent years. Since 1990, there has been about a 3-fold increase in morphine products in the United States.

Morphine is marketed under generic and brand name products including "MS-Contin®," Oramorph SR®," MSIR®," Roxanol®," Kadian®," and RMS®." Morphine is used parenterally (by injection) for preoperative sedation, as a supplement to anesthesia, and for analgesia. It is the drug of choice for relieving pain of myocardial infarction and for its cardiovascular effects in the treatment of acute pulmonary edema. Traditionally; morphine was almost exclusively used by injection. Today, morphine is marketed in a variety of forms, including oral solutions, immediate and sustained-release tablets and capsules, suppositories, and injectable preparations. In addition, the availability of high-concentration morphine preparations (i.e., 20-mg/ml oral solutions, 25-mg/ml injectable solutions, and 200-mg sustained-release tablets) partially reflects the use of this substance for chronic pain management in opiate-tolerant patients.

Paraldehyde(Back to Top)

Paraldehyde (Paral®) is a Schedule IV depressant used most frequently in hospital settings to treat delirium tremens associated with alcohol withdrawal. Many individuals who become addicted to paraldehyde have been initially exposed during treatment for alcoholism and, despite the disagreeable odor and taste, come to prefer it to alcohol. This drug is not used by injection because of tissue damage, and taken orally, it can be irritating to the throat and stomach. One of the signs of paraldehyde use is a strong, characteristic smell to the breath.

Pentazocine(Back to Top)

The effort to find an effective analgesic with less dependence-producing consequences led to the development of pentazocine (Talwin®). Introduced as an analgesic in 1967, it was frequently encountered in the illicit trade, usually in combination with tripelennamine and placed into Schedule IV of the CSA in 1979. An attempt at reducing the abuse of this drug was made with the introduction of Talwin Nx®. This product contains a quantity of antagonist

(naloxone) sufficient to counteract the morphine-like effects of pentazocine if the tablets are dissolved and injected.

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