Nitrous oxide as an opioid and the association between the therapeutic use of narcotics and addiction.

Sir,
I read with interest the excellent practical article by Twycross (1984) on analgesia. However, there are two points I would like to raise regarding opiate and opioid substances.

First, Twycross does not mention an excellent and often overlooked analgesic, namely nitrous oxide (N2O). This agent has been shown to be a most useful pain relieving agent (Thal et al., 1979). Furthermore, N2O at analgesic concentrations should be regarded as an opiate receptor agonist, and should be so classified. This follows from both in vivo work in animals (Berkowitz et al., 1976, 1977) and man (Gillman et al., 1980; Gillman & Lichtigfeld, 1981; Yang et al., 1980). In addition, in vitro binding studies have shown a direct action of N2O at the mu opioid receptor (Ahmed & Byrne, 1980; Daras et al., 1983).

Second, many practitioners even today are niggardly in their use of opioid analgesics for fear of producing addiction. However, such fears are largely groundless since the therapeutic use of narcotic analgesics is rarely associated with abuse. (Porter & Jick, 1980).

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References