

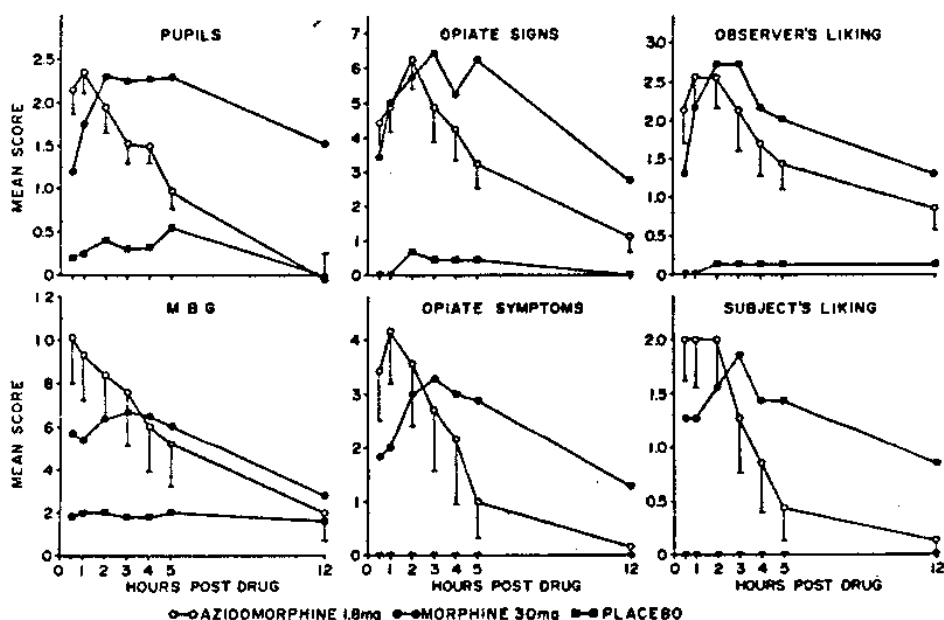


Figure 6. Time action curves for placebo, azidomorphine, 1.8 mg, and morphine, 30 mg. Brackets represent the standard error of the mean placebo response.

Substitution Studies

The ability of azidomorphine to substitute for morphine and suppress morphine abstinence was determined in 5 subjects dependent upon 60 mg of morphine administered subcutaneously daily (15 mg q.i.d.). The 24 hour substitution procedure^{13,14} was used in which each subject received 3 double blind medications in place of 3 consecutive doses of morphine and from the 14th to the 24th hour of substitution observations were made hourly for abstinence signs. At these same times subjects rated their degree of withdrawal sickness as 0 = not sick; 1+ = slightly sick; 2+ = moderately sick; and 3+ = very sick. Control responses to placebo, morphine, 3 mg, and morphine, 6 mg, were obtained initially. Each subject then received a dose of 1.8 mg of azidomorphine in the 24 hour substitution procedure (total dose 5.4 mg). In these studies azidomorphine effectively substituted for morphine and suppressed abstinence (Table 5).