

November 7, 1969

Dr. Robert A. Turner
Consulting Pharmacologist
289 Greenwich Avenue
Greenwich, Connecticut 06830

Dear Dr. Turner:

Thank you for your letter regarding the EEG changes during a cycle of opiate addiction in man. Enclosed are reprints of our clinical studies; and a pre-print of our latest report on the EEG effects of heroin and naloxone as submitted for publication.

The drugs of greatest need in opiate addiction is an antagonist of long duration of action (24 hours minimal, 7-14 days optimal), of high potency, with minimal secondary effects, and without dependence potential. Cyclazocine is potent and of long duration but the secondary effects so common as to preclude general usage. Naloxone is potent and without secondary effects but its duration on oral use too short. We would like to see a long acting analog or form of naloxone for clinical trial.

Your specific question is difficult to answer categorically. Subjects taking opiates during the development of dependence show EEG changes from their baseline record. When dependence is established, the EEG shows a characteristic highly synchronized, alpha dominant record. As withdrawal is instituted, the record is upset and slow waves, irregular patterns and fast frequencies become prominent - only to have the record return to the alpha dominant record with an opiate.

If the opiate dependence is relieved, a more "normal" record will assume prominence - this may be of any type, and should be distinguishable from the addicted record, in most instances.

Dr. Turner

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There is, however, no single characteristic "drug" record and "clean" record, and the differences are to be found in comparative or sequential recording.

Thank you for your interest.

Sincerely yours,

Max Fink, M.D.
Professor of Psychiatry

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