Cocaine: Physiological and Physiopathological Effects. By ALFONSO PAREDES and DAVID A. GORELICK. The Haworth Medical Press, 1992. pp. 130, ISBN 1-56024-385-6.

This slim volume is a series of papers detailing research on the physical effects of cocaine on a number of organ systems. It would be of most use to a clinician working in a liaison capacity with Accident Departments and general medical wards, who also had an interest in drug abuse. The methods dealt with do not concern the effects of cocaine on brain reward systems, so much as its effect on lung functioning and its ability to produce distinctive pathognomic signs that would enable clinicians to spot the diagnosis even when the patient denies cocaine use.

The material in this volume is drawn exclusively from US sources. Whether comparable problems are being seen in the UK in particular in urban areas in unclear to me, but some chapters of the book are not without their interest even to a clinician who has not been exposed to cocaine related physical problems to any great extent. The problems—strokes and seizures as well as marked lung damage—are frightening in their own right and one can easily see how casualty officers could be quite misled. But of equal interest is the perspective that this book sheds on the job of the casualty officer in consultation with others to devise pragmatic strategies to manage such complications when they arise. While the field of drug abuse has been fascinating for some time in terms of how research developments have pushed forward theoretic perspectives, this book brings home the fact that medicine is in many respects a pragmatic exercise and that while theory can inform pragmatism, new epidemics such as the epidemic of crack-cocaine use in the United States require clinicians and associated researchers who can think on their feet and with their hands.

DAVID HEALY
Denbigh

Neurobehavioral Toxicity: Analysis and Interpretation. Edited by BERNARD WEISS and JOHN L. O'DONOGHUE, Raven Press, New York, 1994. £125.00.

Neurotoxicity is achieving increasing importance as a discipline partly because of the concern by regulatory bodies in most industrialized countries in the links between exposure of animals and man to environmental toxins and the derangement of brain function that can arise as a result. It has been established for more than two decades that lead and mercury for example cause behavioural disruptions as a consequence of their effects on brain. Defects in learning in children are known to arise as a consequence of exposure to volatile alkyl lead from car exhausts. It is understandable therefore that the present volume concentrates on the toxicological assessment of neurobehavioural data on the understanding that such data may give useful end points when assessing the risks arising from exposure to neurotoxins.

This monograph arose from a workshop dedicated to the memory of the neurotoxicologist Bob Infurna. It consists of 35 chapters that are divided into six major sections. The first section consists of five chapters that discuss the criteria for determining neurotoxic potential. This is followed by sections in Developmental Neurotoxicity (four chapters), Activity and Observational Data (seven chapters) two sections on Schedule-Controlled Operant Behaviour (13 chapters) and finally four useful chapters that comprise case studies. Some 37 neurotoxicologists and behavioural toxicologists, all from the USA, have contributed to these proceedings.

The proceedings of this workshop are divided into specific themes, the concluding chapter of each section being a useful summary of the main points of the discussions which took place after each paper while the opening chapter of each section defines the topic that is to be considered by the contributors to the section. This is particularly useful as it provides a framework for the subsequent contributions. For example, the first chapter opens with a set of questions which are then considered by the authors of the following five chapters.

What are the criteria for determining that a chemical is a primary neurotoxicant? What role should structural changes, electrophysiology and neurochemistry play in the interpretation of behavioural data? What criteria, such as potency and irreversibility, should be used to identify a neurotoxicant? Should the regulatory authorities devise a set of categories similar to those governing the US Environmental Protection Agency's cancer classification? Similar key questions are posed at the beginning of each of the subsequent four sections and the monograph ends with a useful series of case studies dealing with the interpretation of neurobehavioural data, problems that are specific to industrial neurotoxicology and a detailed discussion of toluene as a prototype solvent for the evaluation of behavioural and nervous system toxicity.

In conclusion, this is a valuable addition to the series of publications on neurotoxicology that have been produced by Raven Press in recent years. Clinical and experimental psychopharmacologists will gain considerably by studying such texts particularly as the dividing line between the therapeutic and the toxic actions of many psychotropic drugs in current use is much smaller than most of us care to acknowledge.

B. E. LEONARD
Galway, Ireland