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Medical planning for toxic releases into the community: the example of chlorine gas

SIR,—The article by Baxter *et al* (1989;46:277-85) was of great interest. In particular, the designation of three concentration bands indicative of death, danger, and distress that are described in table 1 correspond closely to the concentration ranges proposed by the American Industrial Hygiene Association (AIHA) for their emergency response planning guidelines and to the types of effect (death, disability, and discomfort) defined by the European Chemical Industry Ecology and Toxicology Centre's (ECETOC) task force on emergency exposure indices. The AIHA has published 15 emergency response planning guidelines, each

giving three concentration below which, even if they are sustained for one hour, effects are unlikely to be life threatening (ERPG-3), cause irreversible or serious health effects, impair the ability to take protective action (ERPG-2), or cause to be experienced other than mild, transient adverse health effects or perception of objectionable odour (ERPG-1).

The ECETOC task force has considered in detail the definitions and methods of setting and use of such emergency exposure indices (EEIs) and has taken chlorine as a work example for the methodology of setting limits. Currently, several expert groups are ring testing the ECETOC method for phosphine, hydrogen fluoride, and acrylonitrile, evaluating the usefulness of its draft technical report. It is intended that the final report with the result of the methodological ring test will be published before the end of 1989.

It is to be hoped that values for EEIs (including ERPGs) and the appropriate techniques of setting and using them to facilitate the medical planning for toxic releases into the community will be developed. The decisions to be taken in such planning, however, will always require considerable expertise in accident scenarios, gas dispersion, toxicology, and emergency medicine. Such decisions can never be simply administrative.

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