

ALLOY, L. B. & TABACHNIK, N. (1984) Assessment of covariation by humans and animals: the joint influence of prior expectations and current situational information. *Psychological Review*, **91**, 112–149.

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### Rapid tranquillisation

SIR: Pilowsky *et al* (*Journal*, June 1992, **160**, 831–835), in their survey of rapid tranquillisation, report that intravenous sedation with diazepam alone or in combination with haloperidol appeared to be more rapid and effective than other drugs given intramuscularly. Furthermore, staff expressed greatest satisfaction where a combination of an antipsychotic and a sedative were used. However, we are concerned about the dangers of intravenous injections in psychiatric settings. We note that one of the 60 patients in the study had a cardiorespiratory arrest, another collapsed with shallow respirations and a third had a transient tachycardia.

We would like to draw attention to the risks associated with emergency intravenous injections by describing two cases known to us. In the first, a general practitioner (GP) assessed an excited 23-year-old man threatening suicide after a furious row with his parents who objected to his bringing his girlfriend to the parental home at 3 a.m. He was given diazepam, 10 mg intravenously. As this apparently had no effect, the GP then gave chlorpromazine, 50 mg intravenously. The patient was brought into hospital unconscious, responding only to painful stimuli and with acute dyskinesias affecting his neck, trunk and limbs. It took two days for him to recover full consciousness. The ABPI data sheet compendium states that parenteral chlorpromazine can be administered only by intramuscular injection. Likewise, the British National Formulary (1991) and Gilman *et al* (1990) describe only intramuscular use. Martindale mentions that the injection can be given intravenously if it is diluted beforehand (Reynolds, 1989). How many doctors know this?

The second case involved a psychotic and disturbed young adult assessed at home by the GP and a psychiatrist. After intravenous injection of diazepam, 20 mg, and haloperidol, 20 mg, the patient had a fatal cardiac arrest. There was a history of drug therapy for asthma. Sometimes emergency treatment has to be started when the patient's mental state prevents the doctor taking an adequate history which would include details of past medical illness and recent drug (including illicit drug) use. Although these two cases

occurred in the community we do not believe that hospitals confer immunity from catastrophe.

Finally, we would like to point out that estimation of dose is based largely on guesswork. Dr Pilowsky *et al* used small bolus doses to avoid oversedation and undertreatment. However, we are concerned that with aggressive patients who are being restrained by staff and need to have a needle kept in a vein, there is a powerful incentive to get the matter over with quickly. But as Gilman *et al* (1990) write of intravenous injections, "once the drug is injected there is no retreat". While the same might be said of intramuscular injections, the effects are not so sudden. We think that the issue of intramuscular versus intravenous rapid tranquillisation should be addressed by a prospective study with random allocation of patients to either intramuscular or intravenous treatment groups.

BRITISH NATIONAL FORMULARY (1991) *British National Formulary*. London: British Medical Association and the Pharmaceutical Society of Great Britain.

GILMAN, A. G., RALL, T. W., NIES, A. S., *et al* (1990) *The Pharmacological Basis of Therapeutics* (8th edn). New York: Pergamon.

REYNOLDS, J. E. F. (1989) *Martindale. The Extra Pharmacopoeia* (29th edn). London: Pharmaceutical Press.

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SIR: We found the paper by Pilowsky *et al* (*Journal*, June 1992, **160**, 831–835) on the use of rapid tranquillisation in a general psychiatric hospital compelling reading.

While psychological, behavioural and therapeutic restraint are acknowledged as alternative ways of managing aggressive patients, we were dismayed that no mention was made of the use of continuous observations. Shugar & Rehaluk (1990) found that continuous observation provides the essential ingredients of reduced stimulation, protection, intensive observation, and an opportunity for therapeutic contact and that its use forestalls and manages self-destructiveness, violence and over-stimulation of psychiatric in-patients. Our own study confirmed these findings. We studied consecutive acute psychiatric admissions in the Nottingham Health District, and found 14 documented incidents in a 28-day period. However, there were no untoward incidents when patients were observed on the most intense level of observation. In Nottingham this entails a designated nurse being in visual contact with the individual patient at all times.