Junior doctors and emergency tranquillisation of elderly, confused patients: a survey

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This paper presents the results of a survey of junior doctors' opinions concerning the emergency tranquillisation of acutely disturbed, confused elderly patients. Although the majority of respondents gave recommendations within current guidelines, there were large variations in drug dose, and the choice of psychotropic agent may have been determined more by availability than rational prescribing practice.

Medical and psychiatric trainees often deal with elderly confused patients who are acutely disturbed. If the patient lacks insight and is seriously resistive, emergency tranquillisation has an important role in clinical management. Most modern authorities recommend that in these circumstances the neuroleptic haloperidol is the drug of choice, because of its relative freedom from cardiac, autonomic, and respiratory side-effects. Due to the risk of disabling extrapyramidal side-effects and the relatively prolonged half-life in the elderly, titration up from a low starting dose is advised (Lipowski, 1989; Fairweather, 1990; Burns & Baldwin, 1994). The author's informal inquiries from Senior House Officers (SHOs) working in the Department of Health Care of the Elderly, University Hospital Nottingham, suggested that many junior doctors were unsure of what drug strategy to use in these circumstances and therefore an enquiry into current opinion among trainees seemed appropriate.

The study

All doctors in general professional training and working at the time of survey (September 1994) in a medical (internal or geriatric) or psychiatric post in Nottingham were identified and sent the following case vignette:

> "A previously healthy 80-year-old man of average build was admitted today with a chest infection, severe dehydration and confusion. He requires fluids and antibiotics urgently, but offers of oral fluids and medication have been thwarted by threats and punches. All attempts to orientate and reassure him have failed."

Respondents were asked to specify their choice of initial pharmacological management (if any), including dose and route. Assuming that after one hour there was little alteration in the patient's condition, they were asked to specify their next pharmacological intervention (if any). Finally, they were asked what further psychotropic drug they would prescribe (if any), if after another hour the patient was less disturbed, accepting oral medication, but still confused (the follow-up phase).

Findings

Seventy-eight doctors were contacted, comprising 44 medical senior house officers (SHOs) and 34 psychiatric SHOs and registrars. There were 46 (59%) valid responses with a higher response rate from the psychiatrists (76% *v.* 45%).

Thirty (65%) respondents, divided equally between medical and psychiatric trainees, advised intramuscular haloperidol in doses at or below 5 mg as their first-line parenteral tranquilliser, while three (7%) others recommended either haloperidol or droperidol at a dose of 10 mg intramuscularly. Only four (9%) doctors would have given intramuscular chlorpromazine as their initial sedation and then in doses no greater than 50 mg. Two others prescribed intramuscular thioridazine, a product not available in the United Kingdom (British Medical Associaton and Royal Pharmaceutical Society of Great Britain, 1994).

Four (9%) replies, all from psychiatrists, indicated benzodiazepines for first-line parenteral tranquillisation (diazepam 5 mg intravenously, diazepam 5 mg intramuscularly, lorazepam up to 4 mg intramuscularly in two cases). Three other psychiatrists indicated intramuscular lorazepam (dose 2–4 mg) if intramuscular neuroleptics had failed. Another psychiatric respondent recommended zuclopenthixol acetate (Clopixol Acuphase) as the first-line treatment.

One respondent would not prescribe parenteral psychotropic medication at any stage, indicating

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that 10 mg of thioridazine may be given orally if the patient agreed. Another respondent would not have prescribed any psychotropics in the acute situation, when aggression and resistiveness were the key problems, but would have considered giving a single dose of 1.5 mg oral haloperidol in the follow-up phase. Five further respondents indicated that oral sedation should be offered first (two prescribing chlormethiazole, one promazine, one thioridazine and one haloperidol) before opting for intramuscular therapy if unsuccessful; two others would have withheld psychotropics initially before giving a parenteral formulation if there was no improvement after one hour.

In the follow-up phase, 15 (33%) respondents – five medical, ten psychiatric – would not have prescribed any further psychotropic medication; 19 (41%) – 11 medical, 8 psychiatric – prescribed a phenothiazine (thioridazine, except one instance of promazine and one of chlorpromazine); 11 (24%) – four medical, seven psychiatric – favoured a butyrophenone (haloperidol, except one case of droperidol) and one psychiatrist prescribed diazepam 10 mg orally up to four times daily p.r.n. (as required). Of those who recommended a phenothazine, six prescribed on a p.r.n. basis. The maximum possible daily dose under p.r.n. prescribing was 400 mg of thioridazine compared with the maximum under regular prescribing of 200 mg of promazine, a less potent tranquilliser. Fifteen of the 19 responses indicated maximum permissible doses of thioridazine or chlorpromazine below 150 mg daily, with the lowest dose of phenothiazine prescribed at this time being 5 mg thioridazine three times daily. The prescription of follow-up butyrophenones was similarly varied but with no prescribing on a p.r.n. basis, although two respondents gave a range of doses. The maximum permissible daily doses were for droperidol, up to 30 mg four-hourly and haloperidol 10 mg three hours daily, which contrasted with a minimum of haloperidol 0.5 mg twice daily. All other prescriptions indicated a maximum daily dose of haloperidol below 10 mg. However, if 10 mg of haloperidol is equipotent to 500 mg of chlorpromazine or thioridazine (Bazire, 1994) then butyrophenones were suggested in much higher equivalent doses than phenothiazines.

Comment

This survey is the first to examine the prescribing opinions of junior doctors likely to be required to rapidly tranquillise acutely disturbed elderly patients. In spite of the shortness of the questionnaire, the relatively low response rate may be explained by the fatigue induced by the large number of questionnaires sent to members of the medical profession. A further deficiency in the study was the lack of systematically recorded data on the respondents' past medical experience, in particular whether they had worked in geriatrics or psychogeriatrics.

Most replies indicated initial drug management broadly in keeping with published guidelines, i.e. a small dose of intramuscular haloperidol. Only a few respondents suggested excessive doses of a butyrophenone (above 5 mg of intramuscular haloperidol or droperidol) and only one recommended the medium-term injectable neuroleptic, zuclopenthixol acetate, which would be inadvisable in view of its prolonged duration of action (Thompson, 1994). The unpopularity of intramuscular chlorpromazine may reflect awareness of the potentially dangerous hypotensive, arrythmogenic and anticholinergic effects of the more sedative phenothiazines, even though this did not translate into a reluctance to prescribe oral thioridazine in the follow-up phase, when this drug was the commonest prescription. The ready availability of oral thioridazine on both medical and psychogeriatric wards may explain its popularity. In comparison, oral haloperidol comes in a wider range of tablet sizes (0.50–20 mg), making it difficult for doctors to remember doses and for pharmacists to determine the appropriate ward stock. Greater liaison between doctors and pharmacists on the issue of emergency tranquillisation would be valuable.

The combined use of neuroleptics and benzodiazepines is recognised as an effective means of tranquillisation in general psychiatric settings (Pilowsky *et al*, 1992), but is not readily applicable to elderly people, in whom benzodiazepines risk worsening delirious states by both a direct effect on the cortex and by depressing the respiratory centre in those with compromised lung function (Dia *et al*, 1994). Several respondents indicated benzodiazepines as first or second line tranquillisation. It would be wrong to suggest that benzodiazepines are contraindicated in all disturbed, acutely confused elderly patients, and clinicians must judge the risk–benefit ratio in each case: clearly, if alcohol withdrawal is strongly suspected benzodiazepines might be appropriate. In this study, they were recommended solely by psychiatric trainees.

The follow-up phase produced a variety of responses, with a broad range of doses of either a phenothiazine or butyrophenone. Some of the p.r.n. prescribing would have allowed the administration of very high doses of neuroleptics compared with the prescriptions for regular dosing and this suggests the need for doctors to record the maximum total daily dose. The risks of excessive doses being prescribed were particularly high with haloperidol and droperidol and have been previously recorded in the general psychiatric literature (Baldessarini *et al*, 1984; Cunnane, 1994), highlighting the need for junior

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doctors to receive continuing education on the use of psychotropic drugs. Indeed, an addendum to several of the responses asked for feedback and guidance.

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