Managing acute behavioural problems in medicine

Faouzi Alam

Faouzi Alam
MD MRCPsych,
Specialist Registrar,
Royal Preston Hospital

This conference was held at the Royal College of Physicians on 14 November 2006 and was organised jointly by the Royal College of Physicians and the Faculty of Liaison Psychiatry of the Royal College of Psychiatrists

Clin Med 2007;7:292–5

Introduction

Behavioural disturbances are very common in general hospitals; they can cause immense patient suffering and staff distress. Various studies have shown that more than 95% of health professionals have experienced several episodes of verbal aggression in the workplace.[1] Behavioural disturbances can present in various ways, for example refusal of proposed medical intervention, wandering, self harm, depression, anxiety, agitation, threatening behaviour, aggression and violence.

The most frequent causes of behavioural problems in hospitals are confusion, alcohol misuse, substance withdrawal, drugs, fear, physical disorder, mental disorder, traumatic brain injury, cerebral vascular accidents, Huntington's disease, dementia, unmet demands and receiving bad news.

Non-pharmacological interventions should be the mainstay of managing behavioural disturbances. Indeed many can be prevented by avoiding inappropriate medications. The success of pharmacologic interventions depends on accurate identification of specific problems, for example comorbid medical or mental illnesses. The November 2006 conference focused on the management of behavioural disturbances including managing delirium, self harm, capacity, alcohol misuse and delirium tremens.

Delirium

Delirium is a common presentation for a wide variety of physical dysfunctions,[2] it accounts for the majority of patients with behavioural disturbances in general hospitals. In one study disturbing behaviour accounted for more than 50% of the reasons for referring patients to liaison services.[3] Of patients admitted to a general hospital, 10–15% are in a state of delirium.[4] Delirium occurs in 14–56% of elderly hospitalised patients, with associated mortality rates ranging from 10–65%.[5]

There are three subtypes of delirium: hyperactive–hyperalert, hypoactive–hypoalert and the mixed type. Hyperactive–hyperalert delirium usually presents in 70% of the challenging behaviour cases encountered on the wards.

Clinical management depends on good diagnostic skills. Crucially, it is important to differentiate between delirium and dementia. In delirium, the attention and working memory are impaired where as in dementia they are normal. Thinking is impoverished in dementia but disorganised in delirium. Patients in delirium usually present acutely and often have illusions, hallucinations and thought disorder.

Primary prevention and non-pharmacological approaches should be the mainstay of management. In a trial of 852 general medical patients over the age of 70, strategies for primary prevention of delirium resulted in a 40% reduction in the odds of developing delirium. The protocol focused on optimisation of risk factors via the following methods: repeated reorientation by trained nurses, provision of cognitively stimulating activities, a non-pharmacological sleep protocol, early mobilisation activities, a range of motion exercises and timely removal of catheters and physical restraints.[6]

Medication should only be used following adequate attention to the correction of modifiable contribution factors. It is important to recognise that delirium could be the result of psychotropic medications; also, it has to be remembered that delirium could be a manifestation of an acute, life-threatening problem that requires immediate medical attention, for example hypoxia, hypercarbia, hypoglycaemia, metabolic derangements or shock. After addressing such concerns, delirium patients should then be considered for pharmacological management.

Haloperidol is usually considered to be the first line drug in the treatment of delirium. Although it does not suppress the respiratory drive and is largely non-sedating it is frequently associated with negative reactions, such as extrapyramidal side effects and cognitive disturbances. Schwartz and Masand reviewed the role of atypical antipsychotics in the treatment of delirium, but found few studies which evaluated them for that purpose.[7] Clinical experiences support their use as a reasonable first line approach. It is known that they can cause less sedation and fewer extrapyramidal side effects than conventional antipsychotics. Tavcor and Dernovsk, however, reported a case of delirium induced by risperidone.[8] Benzodiazepines are best avoided as they reduce attention and increase confusion therefore prolonging recovery.

Detection and management of alcohol problems in the medically ill

Alcohol has also been recognised as one of the major factors in verbal abuse and physical violence

involving health professionals working in accident and emergency (A&E) departments.[9] Every year there are 150,000 alcohol-related admissions to hospital, with 12% of A&E attendances related to alcohol problems. In England and Wales, 15–25% of suicides are associated with alcohol misuse and almost 40% of men and 8% of women who attempt suicide are chronic problem drinkers.[10] In 1987, the Royal College of Physicians recommended that every patient seen in hospital should be asked about his/her alcohol intake as a matter of routine.[11]

Detecting patients with alcohol problems in hospitals is extremely important in order to manage violence, prevent the emergence of delirium tremens and detect Wernicke's syndrome. A&E departments and general wards can play a crucial role in the reduction of alcohol-related harm. Various studies have demonstrated that it is possible to screen and respond positively within A&E settings to problem drinking. The CAGE, AUDIT and PAT questionnaires have all shown very promising results in the quick and sensitive identification of problem drinkers, however, they must always be followed by a brief anti-alcoholic intervention such as counselling, referral to a specialist, alcohol health worker or appropriate alcoholic organisations, and involvement of the social services.[10] A successful hospital alcohol strategy should include:

- a screening strategy for early detection
- brief intervention for coincidental hazardous drinkers
- widely available protocols for pharmacotherapy of detoxification
- good links with specialist services.[10]

Alcohol withdrawal

Alcohol withdrawal accounts for a substantial number of patients who present with challenging and behavioural difficulties. Symptoms include: tremor, sweating, nausea/vomiting, tachycardia/hypertension, psychomotor agitation, headache, insomnia, malaise and in severe cases transient hallucination/illusion and/or grand mal seizures. These symptoms usually occur following reduction or cessation of alcohol in patients who previously consumed large amounts. These symptoms are thought to be caused by an increased activity of NMDA receptor, L-subtype of Ca channel, in addition to reduced activity of GABA-ergic activity and Mg^{2+} inhibitory system (NMDA receptor).

Of patients with alcohol problems, 15% require detoxification but only a minority require inpatient detoxification, for instance those with significant physical/psychiatric pathology, previous/current severe withdrawals, or those who lack social support. Many drugs have been used for alcohol withdrawal including benzodiazepine, chlormethiazole, alpha 2-agonists, beta blockers, carbamazepine, GABA-agonists, GABA-inverse-agonist, NMDA antagonist, dopaminergic agents and calcium channel antagonists. The drugs of choice are long-acting benzodiazepines such as diazepoxide which is used usually in various regimes like front loading, fixed dosing schedule or symptom-triggered therapy.

Conference programme

- **Managing acute behaviour problems in the general hospital** Dr Alan Carson, Consultant Neuropsychiatrist, Royal Edinburgh Hospital
- **Assessing capacity to consent to, or refuse, medical treatment** Dr Jim Bolton, Consultant Liaison Psychiatrist, St Helier Hospital, Surrey
- **Self harm or threats of self harm and suicide in the general hospital setting** Professor Allan House, Professor of Liaison Psychiatry, University of Leeds
- **Violence and aggression: prevention and management** Dr Paul Gill, Consultant Liaison Psychiatrist, University of Sheffield
- **Detection and management of alcohol problems in the medically ill** Professor Elspeth Guthrie, Faculty of Liaison Psychiatry of the Royal College of Psychiatrists; Professor of Psychological Medicine and Medical Psychotherapy, University of Manchester
- **The management of alcohol withdrawal in the general hospital: to detox or not to detox** Dr Chris Daly, Consultant Addiction Psychiatrist, Bolton Salford and Trafford Mental Health NHS Trust and Manchester Alcohol Service
- **Brief interventions for alcohol problems** Dr John Sheehan, Consultant Liaison Psychiatrist, Mater Misericordiae University Hospital, Dublin
- **Acute behaviour problems; case problems and management strategies** Dr Trevor Friedman, Consultant Liaison Psychiatrist, Leicester General Hospital

Delirium tremens

Delirium tremens is a severe complication of alcohol withdrawal. Symptoms, such as tremor, hallucinations (auditory, visual and olfactory), and confusion associated with delusions, insomnia, agitation, tachycardia, hyperthermia, hypertension and tachypnoea, usually emerge several hours/days after cessation or reduction in alcohol, and peak at 48–72 hours.

Some of the predisposing factors can be severe dependency, high blood alcohol concentration (BAC) following withdrawal, abrupt cessation of intensive consumption, kindling process, recent epileptic seizure, concurrent medical problems, metabolic abnormalities, use of sedative-hypnotic drugs, older age and male sex. Positive predictors, such as infectious diseases, tachycardia at admission >120 beats/min, withdrawals with BAC >1 g/l, history of epileptic seizures and history of delirious episodes, can predict up to 100% of delirium tremens.

It is possible to prevent delirium tremens by using prediction rating scales, identifying high-risk individuals, thorough physical examination including tachycardia >120 beats/min, positive breathalyser >0.5 g/l with severe withdrawal on revised Clinical Institute Withdrawal Assessment Scale (CIWA-Ar), and active investigation of cause of confusion. After identifying high-risk

groups, carbamazepine 50 mgs four times a day can be introduced in addition to serial CIWA-Ar, correction of magnesium level and other electrolyte disturbances. Delirium tremens can be managed by continuous assessment, fluid balance, IV Pabrinex®, carbamazepine 50–100 mgs four times a day, parenteral thiamine, rapid tranquilisation policy and treatment of all causes of delirium.

Deliberate self harm

About 10% of admissions to UK medical wards are as a result of deliberate self harm and in total 100,000 cases annually present to A&E departments. Most acts involve self poisoning, and nearly half of these involve paracetamol overdose. About 12% of patients injure themselves in other ways, usually by cutting. Alcohol consumption contributes to about 45% of deliberate self harm episodes. About 15% of patients attend hospital within a year of harming themselves and at least 1% commits suicide. In England and Wales about 1,000 patients who have deliberately harmed themselves commit suicide each year – almost a quarter of the total annual suicides.[12] Ways of managing deliberate self harm include:

- brief admission available to all as an option
- assessment by specially trained and supervised staff after initial medical management
- immediate access to psychiatric care, where appropriate
- early follow up by multidisciplinary team, with outreach or domiciliary visits when necessary
- good communication and liaison with medical and surgical teams, general practitioners, and other agencies
- crisis card
- low-key regular contact
- interpersonal problem-solving therapy.[12]

Assessing capacity to consent to, or refuse, medical treatment

All adults are presumed to have capacity unless evidence is presented to the contrary. Adults with capacity are entitled to refuse treatment for physical disorders, even if this is detrimental to their health. For consent or refusal to be valid, a patient must be given enough information, act voluntarily, and have capacity to take that decision. In legal terms, in order to have capacity to make a decision, a person must be able to comprehend and retain the necessary information, weigh it in the balance and arrive at a choice.

The presence of a psychiatric disorder does not automatically make someone incapable of making healthcare decisions, but capacity may be affected by chronic disorders like dementia, depression, psychosis or transient mental states for example intoxication, panic, shock and even fatigue. The Mental Health Act 1983 provides information for mental but not physical disorders. At present, no one can consent on behalf of adults who lack decision-making capacity, not even a family member or carer, and legally the responsibility rests with the health professional to decide in the patient's 'best interests' whether or not to provide certain treatment. The notion of 'best interests' is not defined and depends upon the individual and their circumstances.

Pharmacologic treatment of behavioural disturbances

The choice of medication for managing behavioural difficulties, particularly aggression, in general hospital settings depends on the patient's history, assessment, medical condition, drug interactions, side effects and safety. Lorazepam can be used for aggression and behavioural problems. It is safe, effective and can be administered sublingually, orally, intramuscularly as well as intravenously; however it has high risk of abuse and dependence. Haloperidol is widely prescribed to manage behavioural difficulties; it causes less hypotension and fewer anticholinergic side effects than other typical antipsychotics although it can cause more extrapyramidal side effects.

Atypical antipsychotics like olanzapine, risperidone and quetiapine are yet to be evaluated in the management of aggression and behavioural difficulties. Clinical experience shows that they can be a good choice especially in patients who show psychotic symptoms. They have lower risk for extrapyramidal side effects; however they are associated QTc prolongation (olanzapine 6.4 ms risperidone 10 ms, quetiapine 14.5 ms). Clozapine can reduce aggression and self harm behaviour in people with mental retardation. Valproate has been used to control aggression in dementia, borderline personality disorder, organic mood syndrome, bipolar disorder, schizophrenia and mental retardation. Carbamazepine and semi-sodium valproate are widely used to treat impulsivity and aggression in dementia. Lithium has been found to be effective in reducing behavioural symptoms among hospitalised aggressive children. Propranolol has been shown to be useful in controlling aggression in a number of conditions, such as mental retardation, autism, posttraumatic brain syndromes, dementia, Huntington's disease, Wilson's disease and postencephalitic psychosis. Other drugs which have been used to control aggression are: methylphenidate, anticholinesterase inhibitors and trazodone.

Summary

This conference outlined the concepts of managing behavioural disturbances in general hospital settings, and highlighted the importance of pre-emptive work, recognition and prevention of aggression; it also discussed the value of non-pharmacologic intervention and advocated for better communication between agencies and improving staff training. Only in this context can safety of patients and staff in hospitals be ensured.

References

1 O'Connell B, Young J, Brooks J, Hutchings J, Lofthouse J. Nurses' perception of the nature and frequency of aggression in general ward settings and high dependency areas. *J Clin Nurs* 2000;9:602–10.
2 Lipowski ZJ. Update on delirium. *Psych Clin North Am* 1992;15: 335–46.
3 Shevitz SA, Silberfarb PM, Lipowski ZJ. Psychiatric consultations in a

general hospital: a report on 1000 referrals. *Dis Nerv System* 1976;37: 295–330.
4 Anthony JC, LeResche LA, VonKoff MR, Niaz U, Folstein MF. Screening for delirium on a general medical ward: the tachistoscope and a global accessibility rating. *Gen Hosp Psychiatry* 1985;7:36–42.
5 Inouye S, Charpentier P. Precipitating factors for delirium in hospitalized elderly persons: predictive model and interrelationship with baseline vulnerability. *JAMA* 1996;275:852–7.
6 Inouye SK, Bogardus ST Jr, Charpentier PA *et al.* A multicomponent intervention to prevent delirium in hospitalized older patients. *N Eng J Med* 1999;340:669–76.
7 Schwartz TL, Masand PS. The role of atypical antipsychotics in the treatment of delirium. *Psychosomatics* 2002;43:171–4.
8 Tavcar R, Dernovsek MZ. Risperidone-induced delirium. *Can J Psychiatry* 1998;43:194.
9 Cembrowicz SP, Shepherd JP. Violence in the accident and emergency department. *Med Sci Law* 1992;32:118–22.
10 Charalambous MP. Alcohol and the accident and emergency department: current review. *Alcohol Alcohol* 2002:37:307–12.
11 Royal College of Physicians. *A great and growing evil: the medical consequences of alcohol abuse.* London: RCP, 1987.
12 Ramirez A, House A. ABC of mental health. Common mental health problems in hospital. *BMJ* 1997;314:1679–81.