

61 - References

References

544 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 4 heat generation and catecholamine release. There is evidence to support intramuscular use of benzodiazepines (including lorazepam and midazolam¹³), antipsychotics (including haloperidol, droperidol, olanzapine and chlorpromazine^{13,14}) and their combination.¹⁵ Caution is required with antipsychotics because of the risk of acute dystonia and neuroleptic malignant syndrome. Record pulse, blood pressure and temperature where and when safe to do so. Basic urinary drug screens have limited validity for New Psychoactive Substances but many clinical laboratories can identify potentially causative compounds (albeit with a time lag). An ECG is desirable but unlikely to be possible until individuals have been sedated. Full assessment and treatment require urgent ambulance transfer to an emergency department.¹⁶ Psychiatric nursing personnel might be required to contain and support the individual. In the emergency department, intramuscular ketamine is the preferred sedative, with a predictable dose-response effect at 2–4mg/kg.¹⁷ Antipyretics are ineffective cooling agents. Cooled intravenous fluids, water sprays and ice to the whole body may be required. Outcomes Mortality rates are not known, with the only source of data available being uncontrolled observations.¹⁸ Risk of death is related to the duration of hyperthermia and peak temperature reached – body temperatures over 42°C usually have very poor outcomes. A body mass index of more than 25kg/m² is also associated with worse outcome. In non-fatal instances, most cases of drug-induced excited state are brief and fully resolve within 48 hours. Longer-term cardiac, renal and hepatic damage can occasionally occur. References

1. Stevenson R, et al. Acute behavioural disturbance: a physical emergency psychiatrists need to understand. *BJPsych Advances* 2021; 27:333–342.
2. Kennedy DB, et al. Delayed in-custody death involving excited delirium. *J Correct Health Care* 2018; 24:43–51.
3. Tracy DK. Acute behavioural disturbance: what's in a name? *BJPsych Open* 2024; 10:e38.
4. Polling C, et al. Use of 'acute behavioural disturbance' in mental health records: differences over time and by ethnicity. *BJPsych Open* 2023; 9:e133.
5. Humphries C, et al. Consensus on acute behavioural disturbance in the UK: a multidisciplinary modified Delphi study to determine what it is and how it should be managed. *Emerg Med J* 2023; 41:4–12.
6. Bunai Y, et al. Fatal hyperthermia associated with excited delirium during an arrest. *Leg Med (Tokyo)* 2008; 10:306–309.
7. Borek HA, et al. Hyperthermia and multiorgan failure after abuse of 'bath salts' containing 3,4-methylenedioxypyrovalerone. *Ann Emerg Med* 2012; 60:103–105.

8. Otahbachi M, et al. Excited delirium, restraints, and unexpected death: a review of pathogenesis. *Am J Forensic Med Pathol* 2010; 31:107–112.
9. Wittstein IS, et al. Neurohumoral features of myocardial stunning due to sudden emotional stress. *N Engl J Med* 2005; 352:539–548.
10. Hall CA, et al. Frequency of signs of excited delirium syndrome in subjects undergoing police use of force: descriptive evaluation of a prospective, consecutive cohort. *J Forensic Leg Med* 2013; 20:102–107.
11. Baldwin S, et al. Distinguishing features of excited delirium syndrome in non-fatal use of force encounters. *J Forensic Leg Med* 2016; 41:21–27.
12. Stratton SJ, et al. Factors associated with sudden death of individuals requiring restraint for excited delirium. *Am J Emerg Med* 2001; 19:187–191.
13. Isbister GK, et al. Randomized controlled trial of intramuscular droperidol versus midazolam for violence and acute behavioral disturbance: the DORM study. *Ann Emerg Med* 2010; 56:392–401 e391.
14. Page CB, et al. A prospective study of the safety and effectiveness of droperidol in children for prehospital acute behavioral disturbance. *Prehosp Emerg Care* 2019; 23:519–526.
15. O'Connor N, et al. Pharmacological management of acute severe behavioural disturbance: a survey of current protocols. *Australas Psychiatry* 2017; 25:395–398.
16. Wetli CV, et al. Cocaine-associated agitated delirium and the neuroleptic malignant syndrome. *Am J Emerg Med* 1996; 14:425–428.
17. Li M, et al. Evaluation of ketamine for excited delirium syndrome in the adult emergency department. *J Emerg Med* 2020; 58:100–105.
18. Baldwin S, et al. Excited delirium syndrome (ExDS): situational factors and risks to officer safety in non-fatal use of force encounters. *Int J Law Psychiatry* 2018; 60:26–34.

Revision #1

Created 2026-01-04 20:16:19 UTC by Omar Ayman

Updated 2026-01-04 20:16:19 UTC by Omar Ayman