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Reply

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Sir: As noted in our editorial, guidelines for the evaluation of new health care technologies have been described [1]. Patient benefit defined by outcome is one of the requirements. Although decreased mortality is the most important benefit that cannot be overlooked, improvement of organ dysfunction and a reduction in ventilator, ICU and hospital days and less costs are also clinically relevant benefits.

It is currently possible to randomize two groups of patients with similar mortalities for pulmonary artery catheter trials. The last decade has demonstrated the randomization of heterogeneous groups of patients in sepsis trials with similar mortalities. The recent Pulmonary Artery Catheter Consensus Conference recommended clinical trials with randomization for indications where clinical equipoise exists [2]. Defining the appropriate group for study and developing a protocol to treat patients with different diagnoses based on their hemodynamic profiles represent a major challenge. The National Institutes of Health and the Federal Drug Administration in the United States are currently addressing these issues.

References

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Hyponatraemia, water intoxication and 'Ecstasy'

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Sir: Sjöblom et al. have recently described a case of fatal hyponatraemic cerebral oedema following common gastroenteritis and accidental water intoxication [1]. They make the point that water intoxication alone is very unlikely to cause severe hyponatraemia in the presence of normal renal function unless there is a concurrent increased secretion of antidiuretic hormone (ADH). Most cases occur in patients with psychotic polydipsia or are iatrogenic and due to inappropriate administration of hypotonic fluids perioperatively. However another cause of this phenomenon is becoming increasingly common, that is following use of the drug commonly known as 'Ecstasy'. Ecstasy (3,4-methylenedioxymethamphetamine, MDMA, 'E', 'XTC', 'Adam') resembles chemically a combination of amphetamine and mescaline. It has become a popular drug of abuse, particularly in the setting of the 'rave' party where prolonged energetic dancing may potentiate the drug-induced tendency to a life threatening hyperthermic reaction [2]. Awareness of the danger of hyperthermia among users of MDMA has led to the practice of drinking large volumes of water to prevent the compounding effect of dehydration upon body temperature.

Severe acute hyponatraemia with consequent catatonic stupor, coma and fitting have been reported following MDMA and excessive water intake. This may also be associated with the inappropriate production of ADH [3–5]. Another cause of acute hyponatraemia to be borne in mind – this, however, may prove to be an increasingly common presentation in hospital Emergency Rooms.

References

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