

National Essential Drug List Medication Review Process
Primary Healthcare
Component: Central nervous system conditions

Medication Name: Midazolam (buccal)

Date: 31 August 2014

Indication: Status Epilepticus in adults (to replace lorazepam)

Search terms:

("midazolam"[MeSH Terms] OR "midazolam"[All Fields]) AND ("status epilepticus"[MeSH Terms] OR "status"[All Fields] AND "epilepticus"[All Fields]) OR "status epilepticus"[All Fields]) AND ("adult"[MeSH Terms] OR "adult"[All Fields] OR "adults"[All Fields])

Search identified 114 articles. One was relevant to this review.

The Rapid Anticonvulsant Medication Prior to Arrival Trial (RAMPART) was conducted in the US and randomised 893 patients with seizures that had lasted >5 minutes to receive IM midazolam 10 mg or IV lorazepam 4 mg from paramedics while on the way to hospital. Seizures stopped before arrival in the emergency department in 329/448 (73.4%) patients who received midazolam, and in 282/445 (63.4%) patients who received lorazepam (difference: 10%, 95% CI 4.0 to 16.1, $p < 0.001$ for non-inferiority and superiority). Secondary outcomes such as rates of hospital admission, intubation, ICU admission, seizure recurrence and hypotension were similar between the groups.

References

1. Bell DM, Richards G, Dhillon S, Oxley JR, Cromarty J, Sander JW, Patsalos PN. A comparative pharmacokinetic study of intravenous and intramuscular midazolam in patients with epilepsy. *Epilepsy Res.* 1991 Nov-Dec;10(2-3):183-90.
2. Silbergleit R, Durkalski V, Lowenstein D, Conwit R, Pancioli A, Palesch Y, Barsan W; NETT Investigators. Intramuscular versus intravenous therapy for prehospital status epilepticus. *N Engl J Med.* 2012 Feb 16;366(7):591-600.