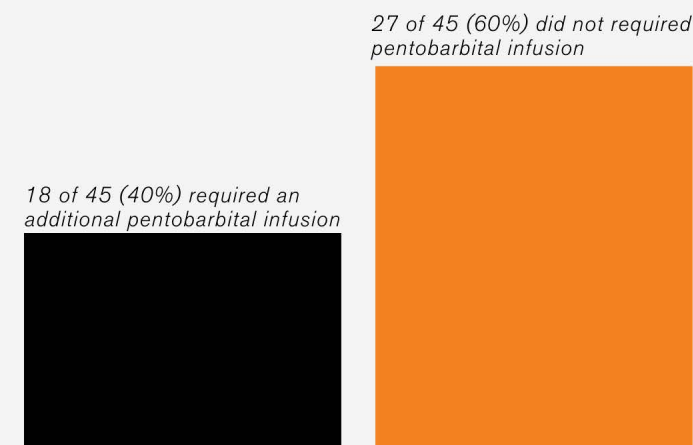


High-Dose Midazolam for Pediatric Refractory Status Epilepticus: A Single-Center Retrospective Study

Study Question:

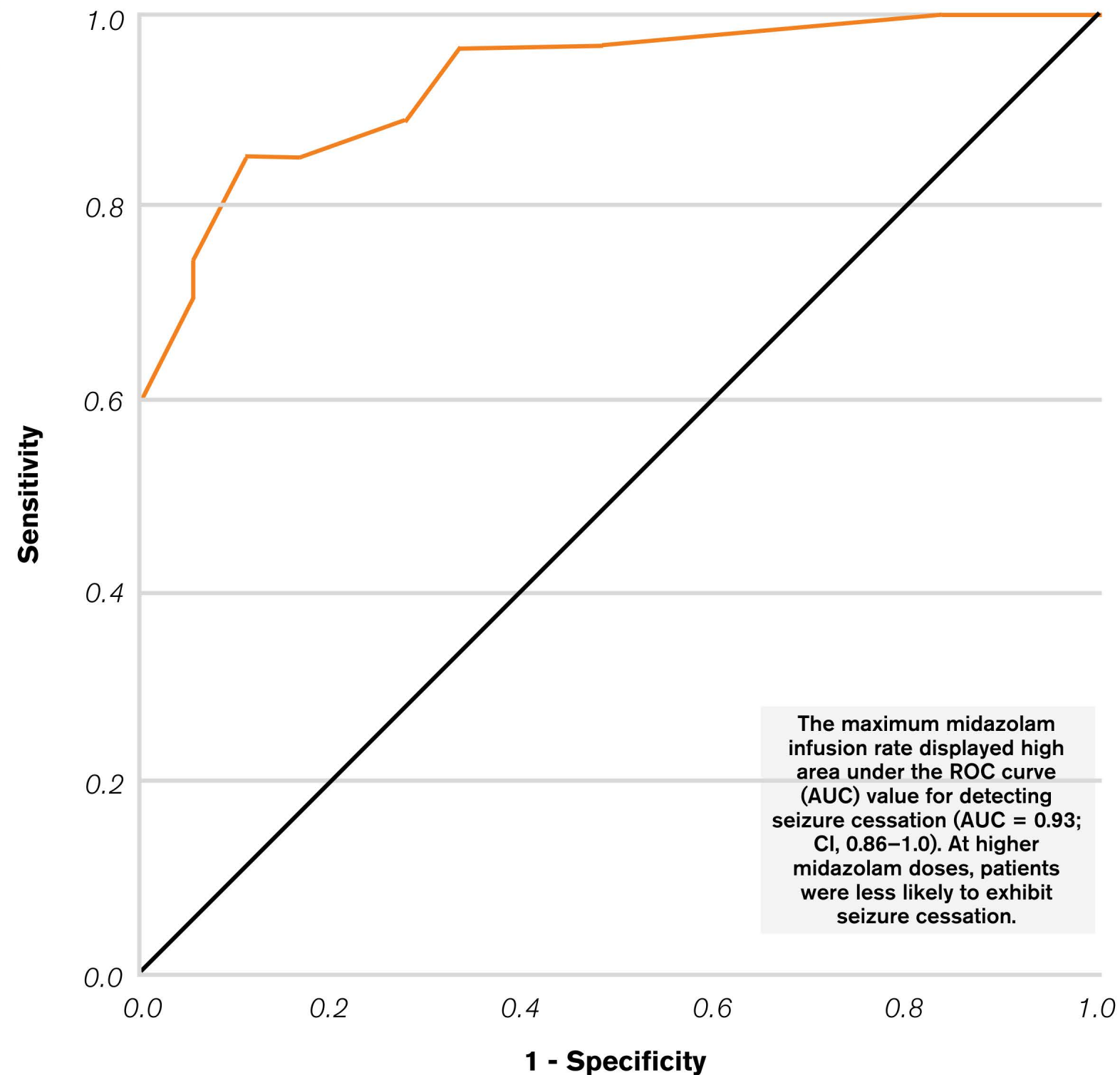
What is the prevalence of midazolam treatment failure in children with refractory status epilepticus (RSE)? What is the dose associated with diminishing frequency of seizure cessation?

At the authors' institution, in the setting of persistent seizure activity, midazolam is discontinued at 800 µg/kg/hr and pentobarbital infusion is initiated:

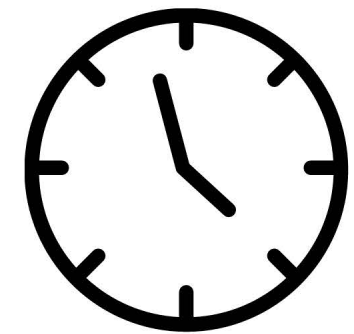


Patients Requiring Pentobarbital for Seizure Cessation

In this cohort, 27 of 45 (60%) had seizure cessation with a midazolam infusion, whereas 18 of 45 (40%) required an additional pentobarbital infusion for seizure cessation.



A considerable amount of time is spent titrating midazolam in ranges where seizure cessation is unlikely to be achieved:



The median time spent titrating midazolam under 500 µg/kg/hr was 4.67 hours (IQR, 2.30-16.75 hr).

Conclusions

Many (60%) patients achieved seizure cessation with midazolam overall, but above doses of 525 µg/kg/hr response rate declined to 9%.

Clinicians should consider switching to an alternative agent sooner to shorten the time to seizure cessation.