

REFERENCE

Thiemann P, Roy D, Huecker M, Senn J, Javed J, Thomas A, Shreffler J, Shaw I. Prospective study of haloperidol plus lorazepam versus droperidol plus midazolam for the treatment of acute agitation in the emergency department. Am J Emerg Med. 2022 Feb 25;55:76-81.

PMID: [35287091](https://pubmed.ncbi.nlm.nih.gov/35287091/)

SUMMARY

IM droperidol/midazolam was superior to IM haloperidol/lorazepam in achieving adequate sedation at all measured timepoints in this study. Patients in the droperidol/midazolam arm may be more likely to receive oxygen supplementation than those in the haloperidol/lorazepam arm. However, the shorter onset of action for droperidol/midazolam and less need for rescue medications seem to indicate superiority for safe management of ED acutely agitated patients.

BACKGROUND

- The standard of care for acutely agitated patients usually involves a benzodiazepine, an antipsychotic, or both. Midazolam and droperidol have quicker onsets than their counterpart's lorazepam and haloperidol. The faster onsets of action for midazolam and droperidol could provide significant benefits in cases requiring security personnel and physical restraint.

STUDY OBJECTIVE

- The objective of this study was to compare the combination of intramuscular (IM) droperidol/midazolam to haloperidol/lorazepam regarding time to sedation in patients with acute undifferentiated agitation in the emergency department (ED).

STUDY DESIGN

- This was a prospective, unblinded observational study in the ED of a university teaching hospital.

STUDY INTERVENTION & COMPARISON

- **IM midazolam 5 mg + droperidol 5 mg vs IM haloperidol 5mg + IM lorazepam 2mg**

RESULTS

- **Primary Outcome**
 - The primary outcome was the proportion of patients adequately sedated at 10 min defined as ED Sedation Assessment Tool (SAT) score of 0 or less
 - **51.2% (droperidol+ midazolam) versus 7% (haloperidol+ lorazepam) OR: 14 (95% CI: 3.7, 52.1).**
- **Secondary Outcomes**
 - There were statistically significant differences in each of the first four time periods (5, 10, 15, 30min) when comparing proportions of patients adequately sedated.
 - Eleven individuals (25.6%) in the droperidol/midazolam group required oxygen supplementation compared to four (9.3%) in the haloperidol/lorazepam group (p=0.047).

ADDITIONAL READINGS

- Miner JR, Klein LR, Cole JB, et al. The characteristics and prevalence of agitation in an Urban County emergency department. *Ann Emerg Med*. 2018 Oct;72(4):361–70.
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- Gottlieb M, Long B, Koyfman A. Approach to the Agitated Emergency Department Patient. *J Emerg Med*. 2018 Apr;54(4):447–457. doi: 10.1016/j.jemermed.2017.12.049. Epub 2018 Feb 1. PMID: 29395692.
- Kim HK, Leonard JB, Corwell BN, Connors NJ. Safety and efficacy of pharmacologic agents used for rapid tranquilization of emergency department patients with acute agitation or excited delirium. *Expert Opin Drug Saf*. 2021 Feb;20(2):123–138. doi: 10.1080/14740338.2021.1865911. Epub 2021 Jan 13. PMID: 33327811.
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