

# Paramedic – Evidence Based Medicine (P-EBP) Program

## Paramedic CAT (Critically Appraised Topic) Worksheet

**Title:** Prehospital sedation of violent patients

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**Clinical Scenario:** Paramedics respond to a 28 year old male experiencing excited delirium. Police on scene radio that they are unable to calm the man down and are having difficulty preventing him from causing further harm to himself. They are asking for a chemical sedation from the paramedics.

**PICO (Population – Intervention – Comparison – Outcome) Question:**  
With severely agitated and violent patients are benzodiazepines more effective than antipsychotics for sedation in the prehospital setting.

**Search Strategy:** (Prehospital OR out-of-hospital) and (excited delirium OR agitated or violent) and (benzodiazepine or antipsychotics)

**Search Outcome:** 6

### Relevant Papers:

Author, Date	Population: Sample characteristics	Design (LOE)	Outcomes	Results	strengths/ Weaknesses
<b>Trec Collaborative Group, 2003</b>	301 Aggressive or agitated people	Observational study LOE 1	Pts Sedated or tranquil by 20mins	134 of the 151 pt given midazolam were tranquil or asleep by 20min  101 of the 150 pt given haloperidol were tranquil or asleep by the 20 min	No study of drug induced mental agitation  No studies of pt's suffering from excited delirium  Study conducted in hospital
<b>Flavia Nobay, 2004</b>	111 Severely agitated and violent Pt's	Observational study LOE 1	Pt's sedated in the least amount of time.	Midazolam sedation time 18.3mins  Haloperidol sedation time 28.3mins	Pts only subject to study if in certain hours  No mention of use with pt's under the influence

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**Comments:**-only in-hospital pt's were observed  
-not a very large population in either study  
-study does not describe if pt's were under the influence of illicit drugs

**Consider:** *Why would you NOT change practice, based on this article?*

The practice that is currently in place with the Nova Scotia prehospital service of using midazolam to restrain and sedate violent and agitated patients has been proven to be the fastest and most controlled duration of sedation. The articles are demonstrating that there can be multiple options when working in a hospital setting, with many resources. Prehospital care givers do not have the same means of man power for physical restraining or the plethora of medications for desired effects.

### **Clinical Bottom Line:**

There is evidence that there are other suitable medications for the sedation of violent pt's. For the prehospital environment the current practice of using midazolam has been proven to be the fastest and most reliable medication.

### **References:**

Flavia Nobay, MD, Barry C. Simon, MD, M. Andrew Levitt, DO, Graham M. Dresden, AB. A Prospective, Double-blind, Randomize Trial of Midazolam versus Haloperidol versus Lorazepam in the Chemical Restraint of Violent and Severely Agitated Patients. ACAD EMERG MED 2004; 11:7.

TREC Collaborative Group. Rapid tranquillisation for agitated patients in emergency psychiatric rooms: a randomized trial of midazolam versus haloperidol plus promethazine. BMJ, 2003; 327.