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P: In patients who require moderate/deep procedural sedation

I: Is the use of propofol (Diprivan)

C: Compared to standard agents

O: Associated with similar safety profile and improved recovery time

Search Strategy and Results:

Medline: Limits English, Humans, Clinical Trial or RCT or Meta Analysis: "Propofol" 2660; AND "Emergency Department" 20; AND "Procedural Sedation" 8. 3 articles looked at the bispectral index to monitor sedation and are not discussed here.

Ramsay Sedation Score

1: Anxious and agitated 4: Brisk response to loud auditory stimulus

2: Cooperative, oriented, and tranquil 5: Sluggish response to loud auditory stimulus

3: Responds to commands only 6: No response

Author	Patient Group	Study Type	Outcome	Result
Pershad, J. et al. 2004 J of EM	52 patients in need of a painful procedure PEDS	Retrospective	1. Recovery time 2. Complications	1. RT: 27.1 min Total Sedation 39.1mi 2. Hypoxemia (<90%) 3/52 patients
Fraze, B. et al. 2005 Am. J of EM	136 patients in need of a painful procedure ADULTS	Prospective Study	1. Complications	Apnea (>30sec) 5 case Hypoxemia 4cases + 3 Hypotension 5 Intubations 1
Bassett, K. et al. 2003 Annals of EM	392 patients (393cases) PEDS	Prospective Study	1. Recovery time 2. Complications	1. Sedation Time 30m 2. Discharge time 18m 3. Hypoxemia 5% 4. Hypotension 8%
Havel, C. et al. 1999 Acad. EM	89 patients (P43/M46)ages 2-18, with an isolated extremity PEDS	PRCT Propofol (w/ MSO4 and lidocaine) vs. Midazolam (w/MSO4)	1. Recovery time 2. Complications	1. RT: Last dose to full recovery 14.9 vs. 76.4min. P<.001 2. No significant difference in hypoxemia over sedation, or agitated
Godambe, S. et al. 2003 Pediatrics	113 patients (P/F59 vs. K/M 54)ages 3-16, with an emergent orthopedic injury PEDS	Prospective, partially blinded controlled trial (propofol/fentanyl vs. ketamine/midazolam	1. Recovery time 2. Complications 3. Distress score (OSBD-r)	1. RT: Propofol 20.8 m vs. 54.2min p<0.0001 Total Sedation Time: Propofol 38.9min vs. 62.1min 2. Hypoxemia: Propofol 18 cases vs. 4 cases 3. OSBD-r: Pre procedure no difference Procedure: significant difference, but not clinically different
Coll-Vinent, B. et al. 2003 Annals of EM	32 patients in need of cardio version ADULTS	PRCT Propofol vs. Etomidate vs.	1. Recovery time 2. Complications	1. RT: Etomidate 14 m Propofol 10 min, Midazolam 45 min, Midazolam w/F 5 min

		Midazolam with and without flumazenil		2. Hypoxemia: No significant difference 3. 5/6 Midazolam with Flumazenil became re sedated
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Clinical Bottom Line: With proper preparation, including supplemental oxygen and IV fluids, the use of propofol for deep procedural sedation is a safe and effective agent. In most cases, a drop in oxygen saturation or blood pressure is either transient or easily corrected with repositioning, oxygen, or fluids. Multiple studies have shown a significant decrease in recovery time which then leads to quicker discharge time.