



Oh – What a Relief It Is:

Using Ketamine For Pain Control Eagles 2018

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What Does Ketamine Do?

- Sedative (Dissociative Anesthesia)
- Pain Relief
- Amnesia
- Bronchodilator
- Hallucinations
- Elevates Blood Pressure
- Anti Seizure
- Anti Depressant



Ketamine use for PAIN

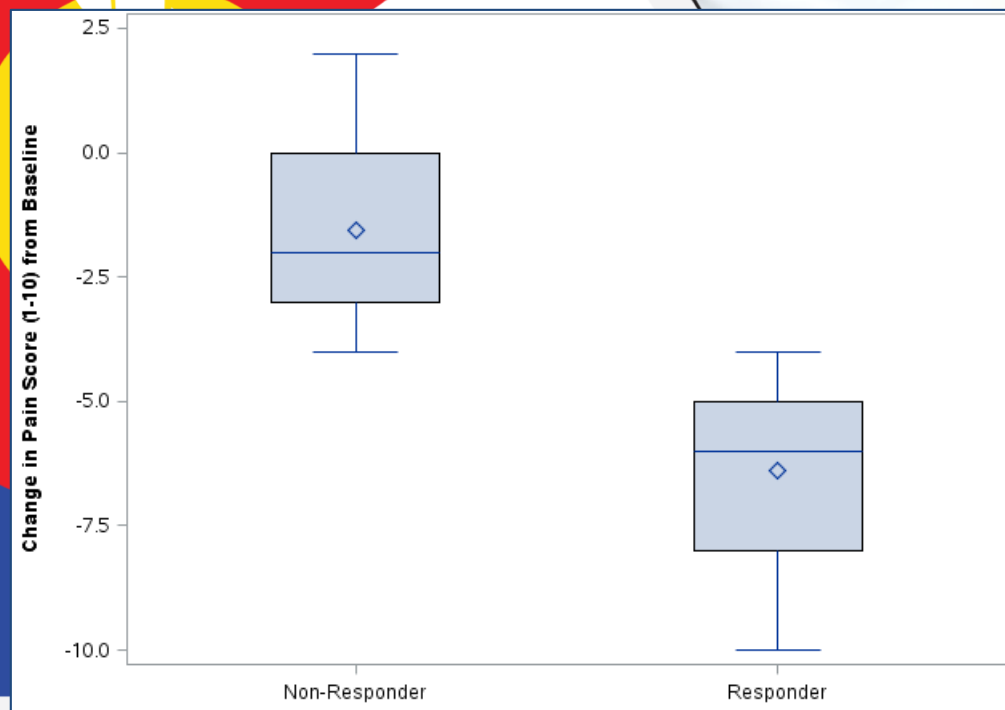
- ✱ Serve ~ 670,000 population
- ✱ Ketamine allowed for first line pain management
- ✱ Three years of use
 - Over 3500 patients treated with Ketamine

Head To Head Fentanyl vs Ketamine

- ✱ Retrospective analysis
- ✱ n=158 (after variable correction)
- ✱ Focus on efficacy, not side effects
- ✱ Protocol:
 - Medical and trauma
 - 0.3mg/kg IV/IO Q20min, up to 3 doses

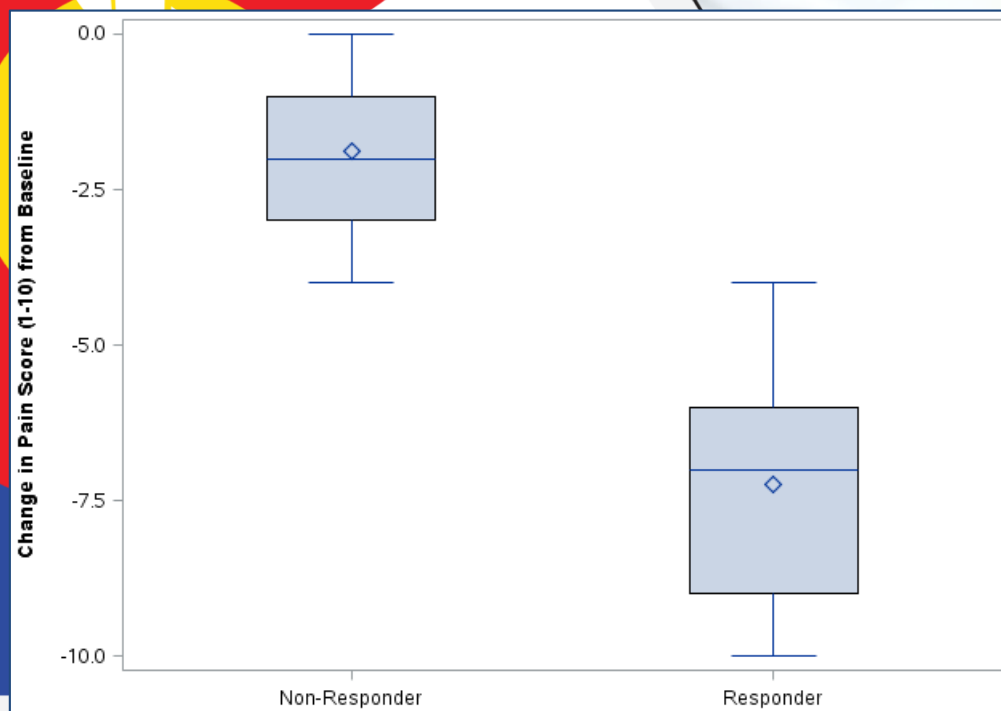
Pain Reduction With Fentanyl

2.5 point
reduction of
pain
on 11 point
scale



Pain Reduction With Ketamine

5.5 point
reduction of
pain
on 11 point
scale



Ketamine and Vital Signs

**No clinically significant
change in vital signs**

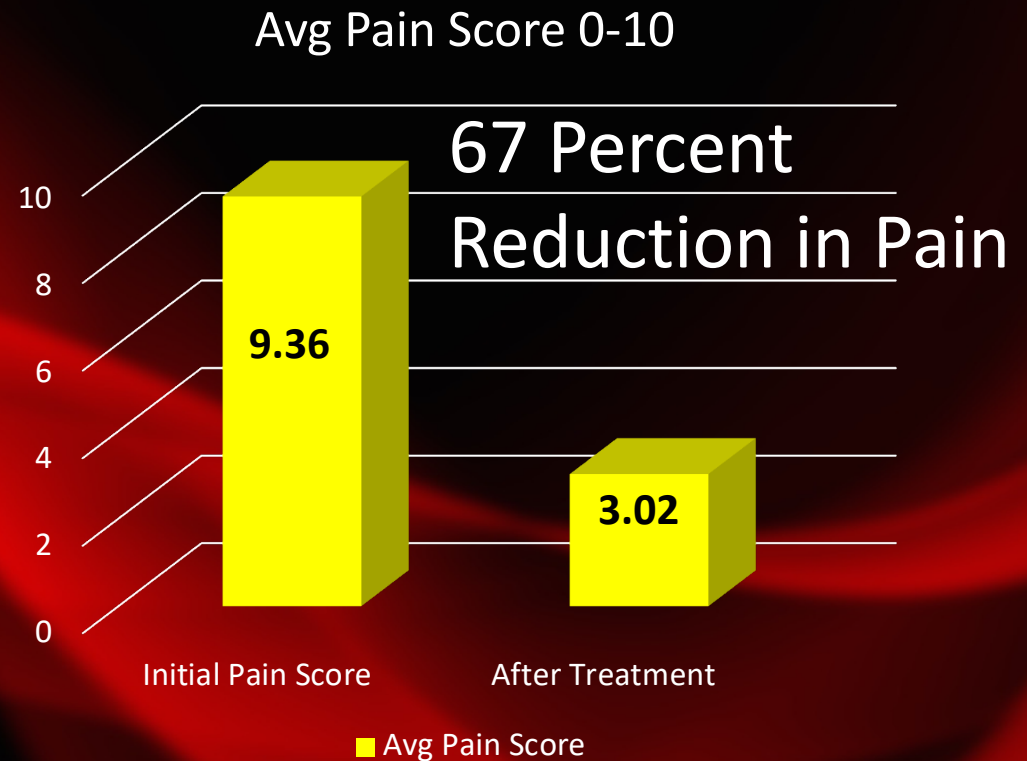
	Baseline			After Treatment		
N (%)	Ketamine IV n=79	Fentanyl IV n=79	P value	Ketamine IV n=79	Fentanyl IV n=79	P value
Normal Systolic Blood Pressure	13 (16%)	16 (20%)	0.55	19 (24%)	19 (24%)	>0.99
Normal Diastolic Blood Pressure	22 (28%)	23 (29%)	0.87	30 (38%)	25 (32%)	0.46
Normal Pulse	54 (68%)	60 (76%)	0.30	64 (81%)	71 (90%)	0.14
Normal Respiratory Rate	35 (44%)	36 (46%)	0.86	50 (63%)	43 (54%)	0.21
All Vitals Normal	4 (5%)	3 (4%)	0.71	11 (14%)	7 (9%)	0.35



Ketamine for Pain Control

- 40 Cases
- Mostly Traumatic Injuries, Fractures, Burns, Multi Trauma

PBCFR CQI Data March – May 2017



Psychological Adverse Reactions

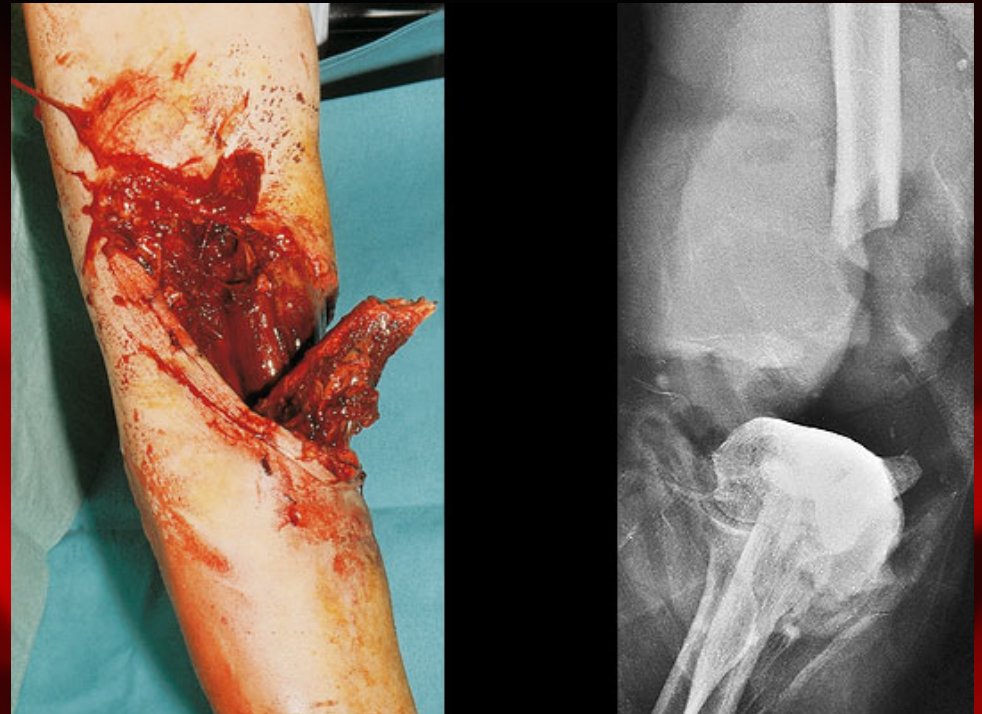
- Occur in about 12% of patients
 - Preventable with administration of benzodiazepines
- Visual Hallucinations
- Dysphoria
- Emergence Delirium
- Sensation of detachment from the body

Ketamine Dilution is the Solution for Pain Control



Ketamine for Pain Control

- PBCFR Protocol 25mg IV (mix in 50cc saline bag) repeat x1 prn
- Best given as infusion – lower psych effects
- Excellent pain relief
- Short acting



Ketamine Focus Group





QUESTIONS?



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