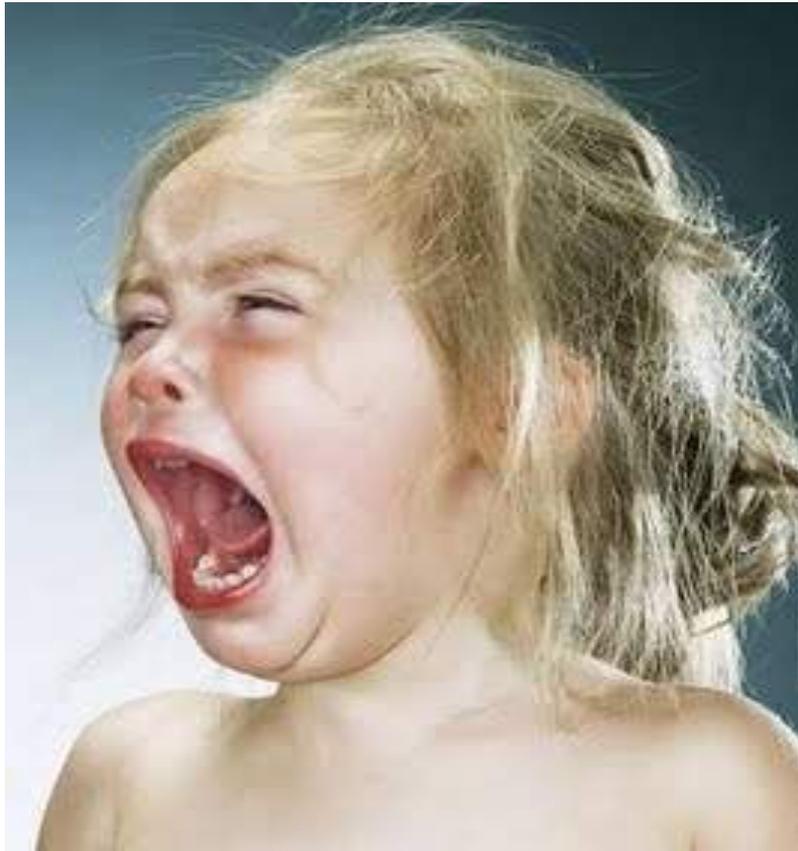


Paediatric procedural sedation in the emergency department: Case series reporting the experience in Sligo Regional Hospital

Bennett M, Harris K, Hussain M, Sweeney M, Cunningham K, Horan J, Hickey F

Introduction



- Children often present to the ED with painful conditions requiring painful procedures

Introduction

- Annual Attendances
 - Total: 34,000
 - Paeds: 10,000



Sedation pathway



Emergency Department
SLIGO REGIONAL HOSPITAL

Patient ID Label

ED PROCEDURAL SEDATION CHART

Date:

Time :

Doctor:

PRE-SEDATION

Details of procedure to be performed

Personnel present:

Doctor performing sedation: _____ Doctor performing procedure: _____

Nursing Staff: _____

Others: _____

Weight (Kg)	
Allergies	
Time of Last Meal/Drink	
Medications	
Past Med / Surg History	
Anaesthetic problems in past	

Pre-Sedation Checklist:

Consent	Yes / No	ASA Status: (circle status) ASA 1 (Fit & healthy no systemic disease) ASA 2* (Mild systemic disease, not debilitating) ASA 3* (Significant systemic disease, limiting) ASA 4* (Will not survive without operation) ASA 5* (Resuscitation simultaneous with surgery) <small>*= Details:</small>
Procedure explained	Yes / No	

Doctor's Signature:

ED Care Pathway, Procedural Sedation Chart, January 2014, Version 2

1

ED PROCEDURAL SEDATION CHART

Patient ID Label

Date Doctor

	Yes	No
History		
Sleep apnoea		
Severe rheumatoid arthritis		
Psychiatric history		
Airway assessment/Physical examination		
L (look) externally for beards etc that may cause difficult airway		
E (evaluate) 3:3:2 rule		
M (Mallampati) I II III IV		
O (obstruction) anything that may cause obstruction if airway needed		
N (neck mobility)		
Chest clear		
Pre procedure monitoring/setup		
ECG		
Sats		
BP		
End tidal CO ₂		
IV fluids 500mls normal saline		
Equipment		
Tiltable trolley		
Working suction		
Oro/Nasopharyngeal airway		
Appropriate sized LMA/ET tube/laryngoscope blades		

Doctor's Signature:

ED PROCEDURAL SEDATION CHART

Patient ID Label

Date Doctor

DETAILS OF SEDATION PROCEDURE:

Dosage calculator for children receiving Ketamine

Child's wt (Kg)	Ketamine IV 1mg/kg	Ketamine IM 3-4mg/kg	Atropine IV or IM 0.02mg/kg (MAX 0.6mg)
	_____mg (over 1-2 Minutes)	_____mg	_____mg <small>(Atropine may be drawn up in same syringe as Ketamine for IM sedation)</small>

Baseline observations: Time: Pulse: BP: Resp Rate: SaO₂: GCS:

I.V Access gained: Yes / No Details:
 Oxygen given: Yes / No
 Entonox/N₂O: Yes / No
 Monitoring Used (MANDATORY)
 Continuous ECG Pulse Oximetry BP

Drug:	Dose:	Route:	Time:	Signature:
1.				
2.				
3.				
4.				

Details of complications & further interventions during/following sedation/recovery:

Nausea/vomiting Yes / No Procedure Failed Yes / No
 Delayed recovery Yes / No
 Recovery Agitation Yes / No

Reversal Agent required: Yes / No
 Details:

Recovery Observations: Time: Pulse: BP: Resp Rate: SaO₂: GCS:

Doctor's Signature:

Patient ID Label

Consent Form

(A) Insert name _____

(B) Insert name of patient if different from (A) _____

Hereby consent to undergo / undergoing _____
the operation or treatment of (C)

(C) Insert name or brief account of operation or treatment, the nature and effect of which has
been explained to me

Date: _____

Signature of Doctor _____

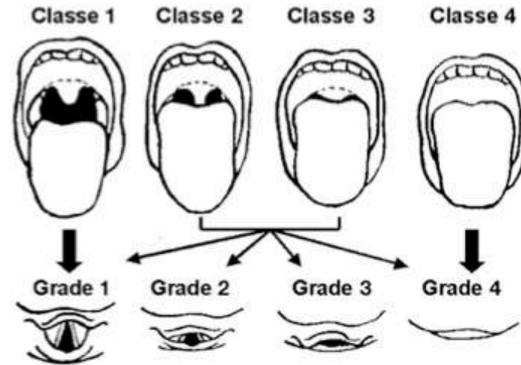
Signature of Patient / Parent / Guardian _____

Procedural Sedation Safety Checklist

- Has the patient confirmed his/her name, site and procedure to be performed
- Is there a signed consent form in the ED notes
- Monitoring:
 - ECG
 - NIBP
 - Oxygen saturation probe
 - End-tidal CO₂ (nasal cannula with CO₂ detector)
- Free flowing IV with fluids hooked up
- BVM or C-circuit attached to wall oxygen with mask connected
- Suction set-up: tested with Yankauer, but still in its packaging
- Intubation equipment at bedside:
 - Appropriate sized ET tube
 - Oral airway
 - Nasopharyngeal airway
 - Appropriately sized LMA left in packaging
 - Laryngoscope tested
- Medication at bedside:
 - Sedation meds (appropriate for doctors expertise)
 - Appropriate reversal agent
 - Epinephrine, cardiac arrest syringe (1:10,000) unopened and a 10ml NS flush
- **Difficult Airway assessment performed and documented in notes**

PSC/Draft2|Jan2014/MB

Mallampati Difficult Airway Assessment



PSC/Draft2[an2014/MB



Methods

- Retrospective chart review of all sedations performed between December 2013 and June 2014

Results

Demographics

Male	18
Female	10
Total	28

Results

Age

Minimum	2
Maximum	14
Median	5

Results

Days sedation performed

Monday	6
Tuesday	4
Wednesday	6
Thursday	5
Friday	1
Saturday	6
Sunday	0
Out of hours	15

Results

Sedative used

Ketamine	27
Propofol	1
Midazolam	0

Results

Staff present

Consultant + Spr or Reg	22	(78%)
Spr + Reg or SHO	6	(22%)

Results

Procedures performed

Facial wound suturing	17
MUA (#'s or dislocations)	7
Thomas Splint application	2
FB removal from lip	1
Nail bed repair	1

Results

- 22 of 28 patients were discharged home
 - 4 patients admitted for further MUA of distal radial/ulnar #'s
 - 2 patients admitted post application of a Thomas splint

Complications

- No adverse airway events or desaturations
- No emergent reactions
- Post sedation vomiting in two patients that was self limiting prior to discharge home

Conclusion

- Paediatric sedation for painful procedures has proven safe in Sligo Regional Hospital

Questions



