

Table 1. Baseline characteristics, procedural details and adverse events for patients who underwent sedation with nitrous oxide

Variable	Number (%)			P value
	No adverse events (n=902)	Adverse events (n=16)	Total (n=918)	
Age, median (IQR), years	11.95 (9.31–13.93)	9.90 (6.88–12.05)	11.91 (9.26–13.90)	0.009 ^a
Sex				0.773
Female	222 (24.6)	3 (18.8)	225 (24.5)	
Male	678 (75.4)	13 (81.3)	693 (75.5)	
Ethnicity				0.663
Chinese	473 (52.4)	11 (68.8)	484 (52.7)	
Malay	159 (17.6)	2 (12.5)	161 (17.5)	
Indian	150 (16.6)	1 (6.3)	151 (16.5)	
Others	120 (13.3)	2 (12.5)	122 (13.3)	
Diagnosis				0.030
Fracture, dislocation	888 (98.5)	14 (87.5)	902 (98.3)	
Laceration, open wound	3 (0.3)	1 (6.3)	4 (0.4)	
Abscess, chalazion, styel	4 (0.4)	0	4 (0.4)	
Foreign body	3 (0.3)	0	3 (0.3)	
Nailbed injury	0	0	0	
Others ^b	4 (0.4)	1 (6.3)	5 (0.5)	
Site of procedure				0.141
Head, face	2 (0.2)	0	2 (0.2)	
Upper limb	780 (86.5)	13 (81.3)	793 (86.4)	
Lower limb	115 (12.8)	2 (12.5)	117 (12.8)	
Others	5 (0.6)	1 (6.3)	6 (0.7)	
Type of procedure				0.051
Manipulation and reduction	888 (98.5)	14 (87.5)	902 (98.3)	
Toilet and suturing	1 (0.1)	1 (6.3)	2 (0.2)	
Incision and drainage	4 (0.4)	0	4 (0.4)	
Removal of foreign body	3 (0.3)	0	3 (0.3)	
Debridement/dressing	2 (0.2)	0	2 (0.2)	
Others	4 (0.4)	1 (6.3)	5 (0.5)	
Co-administered medications/ analgesia ^c	191 (21.2)	8 (50.0)	199 (21.7)	0.011
Paracetamol or NSAIDs (ibuprofen/diclofenac)	86 (9.5)	1 (6.3)	87 (9.5)	1.000
Intranasal fentanyl	54 (6.0)	2 (12.5)	56 (6.1)	0.255
Morphine	43 (4.8)	3 (18.8)	46 (5.0)	0.042
Local anaesthesia (digital block/ subcutaneous lignocaine/LET gel)	10 (1.1)	2 (12.5)	12 (1.3)	0.021
None required	711 (78.8)	8 (50.0)	719 (78.3)	

Table 1. Baseline characteristics, procedural details and adverse events for patients who underwent sedation with nitrous oxide (Cont'd)

Variable	Number (%)			P value
	No adverse events (n=902)	Adverse events (n=16)	Total (n=918)	
Successful completion of procedure				
Yes	886 (98.2)	14 (87.5)	900 (98.0)	
Further modalities of pain management required				
Regional block (Bier's block)	6 (0.7)	0	6 (0.7)	1.000
Due to unsuccessful sedation	2 (0.2)	0	2 (0.2)	
Parenteral sedation (IM Ketamine)	10 (1.1)	2 (12.5)	12 (1.3)	0.017
Due to unsuccessful sedation	2 (0.2)	0	2 (0.2)	
Due to unsuccessful procedure or other reasons	8 (0.9)	2 (12.5)	10 (1.0)	
Nitrous oxide concentration, % (n=349)^d				
30	15 (4.4)	0	15 (4.3)	1.000
50	56 (16.3)	1 (20)	57 (16.3)	
60	9 (2.6)	0	9 (2.6)	
70	264 (76.2)	4 (80)	268 (76.8)	
Sedation score (Children's Hospital of Wisconsin Sedation Scale) (n=386)^{d,e}				
1	1 (0.3)	1 (16.7)	2 (0.5)	0.043
2	3 (0.8)	0	3 (0.8)	
3	10 (2.6)	0	10 (2.6)	
4	63 (16.6)	2 (33.3)	65 (16.5)	
5	297 (78.2)	3 (50.0)	300 (77.7)	
6	6 (1.6)	0	6 (1.6)	
Adverse events				
All patients (n=918)		Number (%)		
All patients (n=918)		16 (1.7)		
Emesis		14 (1.5)		
Oxygen desaturation		1 (0.1)		
Agitation		1 (0.1)		
N₂O alone (n=807)				
N ₂ O alone (n=807)		11 (1.4)		
Emesis		10 (1.2)		
Oxygen desaturation		0		
Agitation		1 (0.01)		
N₂O with intranasal fentanyl (n=54)				
N ₂ O with intranasal fentanyl (n=54)		2 (3.7)		
Emesis		2 (3.7)		
N₂O with morphine (n=44)				
N ₂ O with morphine (n=44)		1 (2.3)		
Emesis		1 (2.3)		
N₂O with morphine and intranasal fentanyl (n=1)				
N ₂ O with morphine and intranasal fentanyl (n=1)		0		