Appendix

Emergency Care Journal – paper #8320

Is the nasal route a viable option for relieving acute pain in pediatric emergency medicine? A literature review

Appendix 1. Searching strategies for PubMed, EMBASE, and Cochrane databases.

PubMed	EMBASE	Cochrane
1. exp intranasal drug administration/ or intranasal.mp. 2. trans-nasal.mp. 3. exp pediatrics/ or pediatri$.mp. 4. children/ 5. exp analgesic agent/ or analges$.mp. 6. exp analgesic agent/ 7. (pain or procedure or injury).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] 8. exp fentanyl/ or exp fentanyl derivative/ or exp fentanyl citrate/ 9. exp dexmedetomidine/ 10. exp ketamine/ 11. exp diamorphine/ 12. exp butorphanol tartrate/ or exp butorphanol/ 13. exp buprenorphine/ 14. emergency health service/ or exp pediatric emergency medicine/ or exp emergency/ or exp emergency medicine/ 15. 1 or 2 16. 3 or 4 17. 5 or 6 or 7 18. 8 or 9 or 10 or 11 or 12 or 13 19. 14 and 15 and 17 and 18 20. 14 and 15 and 16 and 18 21. 19 or 20	1. exp intranasal drug administration/ OR intranasal.mp. 2. trans-nasal.mp. 3. exp pediatrics/ OR pediatri$.mp. 4. child/ 5. exp analgesic agent/ OR analges$.mp. 6. exp analgesic agent/ 7. (pain OR procedure OR injury).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] 8. exp fentanyl/ OR exp fentanyl derivative/ OR exp fentanyl citrate/ 9. exp dexmedetomidine/ 10. exp ketamine/ 11. exp diamorphine/ 12. exp butorphanol tartrate/ or exp butorphanol/ 13. exp buprenorphine/ 14. emergency health service/ OR exp pediatric emergency medicine/ OR exp emergency/ OR exp emergency medicine/ 15. 1 OR 2 16. 3 OR 4 17. 5 OR 6 OR 7 18. 8 OR 9 OR 10 OR 11 OR 12 OR13 19. 14 AND 15 AND 17 AND 18 20. 14 AND 15 AND 16 AND 18 21. 19 OR 20	#1 (paediatric): ti,ab,kw OR (child$):ti,ab,kw OR (young$):ti,ab,kw (Word variations have been searched) #2 ("analgesia"):ti,ab,kw OR ("analgesic"):ti,ab,kw OR (pain ADJ3/control):ti,ab,kw (Word variations have been searched) #3 (intranasal):ti,ab,kw OR ("intra-nasal"):ti,ab,kw OR ("trans-nasally"):ti,ab,kw (Word variations have been searched) #4 ("emergency department"):ti,ab,kw OR ("pre-hospital management"):ti,ab,kw OR ("first aid"):ti,ab,kw (Word variations have been searched) #5: #1 AND #2 AND #3 #6: #3 AND #1 AND #2 AND #4 #7 (intranasal OR nasal):ti,ab,kw AND (analgesia OR analgesic):ti,ab,kw AND (pediatric OR child$):ti,ab,kw AND (dexmedetomidine OR Idromorphone OR butorphanol OR buprenorphine):ti,ab,kw AND (emergency):ti,ab,kw (Word variations have been searched)

Appendix 2. Data collection form.

General Information		
Date form completed (dd/mm/yyyy)		
Study ID/ Publication type		
Reference citation:		
Notes:		
Characteristics of the included study		
Items	Descriptions as stated in report/paper	
Methods		
The aim of the study		
Design		
Unit of allocation		
Start and End date		
Duration of the Study		
Ethical approval obtained for the study		
Participants		
Population description		
Setting		
Inclusion criteria		
Exclusion criteria		
Method of recruitment of participants		
Power (*e.g.*, power & sample size calculation, level of power achieved)		
Total no. randomized		
Baseline imbalances		
Withdrawals and exclusions		
Age		
Sex		
Severity of illness		
Co-morbidities		
Other relevant sociodemographic		
Consent obtained		
Notes		
Intervention/comparison groups		
Group name	Intervention:	Comparison:
No. randomised to each group		
Description		

Duration of the treatment period		
Timing (*e.g.*, frequency, duration of each episode)		
Delivery		
Providers		
Co-interventions		
Resource requirements		
Compliance		
Outcome data and Measurement		
Primary Outcome		
Time points measured		
Time points reported		
Outcome definition		
Person measuring/ reporting		
Unit of measurement (if relevant)		
Scales: upper and lower limits (indicate whether the high or low score is good)		
Is the outcome/tool validated?		
Power		
Notes		

Secondary Outcomes			
Outcome name	Outcome 1:	Outcome 2:	Outcome 3:
Time points measured/reported			
Person reporting			
Unit of measurement			
Scales: upper and lower limits (indicate whether the high or low score is good)			
Is the outcome/tool validated?			
Power			
Notes			

Risk of Bias assessment		
	Risk of bias	Support for judgment (include direct quotes were available with explanatory comments)

	Low	High	Unclear	
Random sequence generation (selection bias)				
Allocation concealment (selection bias)				
Blinding of participants and personnel (performance bias) All outcomes				
Blinding of outcome assessment (detection bias) All outcome group				
Incomplete outcome data (attrition bias)				
Selective outcome reporting? (reporting bias)				
Other bias				

Data and Analysis						
Continuous outcome (Means, medians, 95% CI, proportions)						
Comparison						
Outcome						
Results	Intervention			Comparison		
	Mean	SD	n	Mean	SD	n
No. missing participants and Reason						
Any other results reported (*e.g.*, mean difference, CI, P value)						
Statistical methods used and appropriateness of these.						
Dichotomous outcomes (number of events, number of participants) (repeated according to the number of outcomes)						
Comparisons						
Outcomes						
Time points (specify from start or end of intervention)						
Results n=group No.	Intervention			Comparison		
	No. with event		n	No. with event		n
Any other results reported						
Statistical methods used						
Notes:						
Other information						

Key conclusions of study authors	
Limitations	
Study funding sources	
Possible conflicts of interest (for study authors)	