GUIDELINE FOR THE USE OF INTRANASAL DIAMORPHINE

Trust wide Emergency Departments

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

INTRODUCTION

The use of Intranasal Diamorphine, as analgesia in the Emergency Department, has been found to be effective, fast acting and well tolerated by patients.

Patient selection: Children weighing from **10kg – 50kg** who are in severe pain from conditions such as limb fractures or burns.

Sites: For use at Worcestershire Royal Hospital & Alexandra Hospital

Equipment:

MAD 300 - Intavent Orthofix Ltd/Products Wolfe-Tory Medical

Delivers - Spray - 30 microns particle size
Dead space – 0.09ml
Tip diameter – 4.3mm
Length – 4.5cm
Delivered in any head position

Lead Clinician(s)

Dr R Hodson	Consultant In Emergency Medicine
Approved by ED Senior Departmental Meeting:	5th March 2019
Review Date: This is the most current document and is to be used until a revised version is available	5th March 2021

Date	Key Amendments	By:
30/12/2010	No amendment made to guideline	Ian Levitt
1/3/2013	Lowered weight limit to 10Kg	Richard Morrell
5/3/2013	Approved by Medicines Safety Committee	
22/5/2013	Approved by Clinical Management Committee	
18/10/13	Changed volume and diluent to be drawn up to take into account the dead-space of MAD device, as stated in CEM guideline July 2013	Richard Morrell
19/5/15	Reviewed by ED senior teams ALEX & WRH	Richard Morrell
04/12/2017	Sentence added in at the request of the Coroner	
June 2018	Document extended for 3 months as per TLG recommendation	TLG
14/02/2018	Delivery of Diamorphine does not require use of atomiser device but is recommended where possible Monitored observations for 20 minutes post administration Patient discharge after a minimum of 1 hours post administration	

Introduction

Many departments now use Intranasal Diamorphine instead of Oromorph.

The treatment has been found to be effective, probably more so than Oromorph, faster acting and well tolerated by patients ([3,4])

The following guideline for its use should be followed and the drug should be administered to the children with them sitting at about 45º, if possible.

Any patient given Intranasal Diamorphine needs the same care as post Oromorph administration with observations and no discharge until at least 1 hour post administration.

Details of Guideline

Patient Selection: **For children weighing between 10kg and 50kg and in any case of severe pain such as fractures or burns.**

Check:
- No allergy to opiates
- No other drug interactions
- No indication for immediate IV access
- No evidence of liver disease
- No evidence of respiration depression present
- No evidence of head injury (seek senior medical advice)

Carry out Base Line Observations of Pulse/BP/SpO_2/Cap Refill/Respiratory Rate

1. Establish patients weight to the nearest 5kg (**do not administer in patients under 10kg weight)**

2. Add the appropriate volume of water to a 5mg Diamorphine ampoule

3. Draw **0.3ml** of the resulting solution into a 1ml syringe (this accounts for the 0.09ml dead space of the atomiser)

4. Attach the mucosal atomisation device (MAD 300) to the 1ml syringe. If MAD 300 device unavailable 0.2ml of the medication should be dripped slowly into one or both nares.

5. Administer the **0.3ml** to the nostril (you may administer 0.2ml to one nostril and the rest to the other)

Weight/Kg	Vol of water for injection(ml) added to 5mg Diamorphine ampoule	Dose (mg) contained in 0.2ml of solution
10	**1.0**	**1.0**
15	**0.65**	**1.54**
20	**0.5**	**2.00**
25	**0.4**	**2.50**
30	**0.35**	**2.86**
35	**0.3**	**3.33**
40	**0.25**	**4.00**
50	**0.2**	**5.00**

- No patient should be discharged home for least 2 hour post administration
- Monitored observations for 20 minutes post administration BP/Spo2/Pulse/RR
- Consider application of Ametop, Emla or LMX4 if clinically indicated for on-going patient care.

Side effect:
The effects of intranasal Diamorphine can be reversed by Naloxone 10 micrograms/kg (max dose 400micrograms) IV/IM every 2-3 minutes (Children's BNF) either prescribed or administered via PGD DA/AE/44

The senior shop floor doctor should also be contacted urgently if you are considering administering naloxone.

Monitoring Tool

This should include realistic goals, timeframes and measurable outcomes.

How will monitoring be carried out?

Who will monitor compliance with the guideline?

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)*	Frequency of reporting:
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**
	Appropriate use and following dose indication and patient group treated	Audited in ED cycle both sites	Once in 3 years	Audit leads EM	EM directorate/group	Once after audit

References

1. Diamorphine intranasal protocol - Birmingham Children's Hospital

2. Diamorphine intranasal protocol - Worcestershire Royal Hospital

3. Mark Davies Best BET`s - Manchester Royal Infirmary

4. Kendal J et al (2001) Multicentre Randomised Controlled Trial of Nasal Diamorphine for Children and Teenagers with Clinical Fractures - BMJ 2001 322 261-265

5. Management of Pain in Children- Best Practice Guideline: College of Emergency Medicine, Revised July 2017

CONTRIBUTION LIST

Key individuals involved in developing the document

Name	Designation
Dr Ross Hodson	Consultant in EM

Circulated to the following individuals for comments

Name	Designation
Dr J Walton	DMD Urgent care
Dr J Risley	Consultant in EM
Dr A Jalil	CD for EM
Mr M Tarrant	Matron for EM
Dr J France	CD for EM
Dr I Levett	Consultant in EM
Dr B Williams	Consultant in EM
Dr F Fasih	Consultant in EM
Dr T Naqvi	Consultant in EM
Mrs C Bush	Matron for EM
Dr N Turley	Consultant EM

Circulated to the following CD's/Heads of dept for comments from their directorates / departments

Name	Directorate / Department
Alison Smith	Pharmacist Medicines Safety Committee
Dr S Graystone	Medicines Safety Committee

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

		Yes/No	Comments
1.	**Does the policy/guidance affect one group less or more favourably than another on the basis of:**	**no**	**All patients of the correct weight and presenting complaint**
	Race		
	Ethnic origins (including gypsies and travellers)		
	Nationality		
	Gender		
	Culture		
	Religion or belief		
	Sexual orientation including lesbian, gay and bisexual people		
	Age	**Yes**	**Its designed for a young lower weight group specifically but can be used for lower weight adults who can't tolerate iv therapy**
2.	**Is there any evidence that some groups are affected differently?**	**no**	
3.	**If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?**	**no**	
4.	**Is the impact of the policy/guidance likely to be negative?**	**no**	
5.	**If so can the impact be avoided?**	**no**	
6.	**What alternatives are there to achieving the policy/guidance without the impact?**		**Using another analgesia often more invasive**
7.	**Can we reduce the impact by taking different action?**	**no**	

If you have identified a potential discriminatory impact of this key document, please refer it to Human Resources, together with any suggestions as to the action required to avoid/reduce this impact.

For advice in respect of answering the above questions, please contact Human Resources

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	**no**
2.	Does the implementation of this document require additional revenue	**no**
3.	Does the implementation of this document require additional manpower	**no**
4.	Does the implementation of this document release any manpower costs through a change in practice	**no**
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	**no**
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval