Whittington Health NHS

Analgesia – Management of Children over 1 year old

Subject:	Analgesia for Children
Policy Number	N/A
Ratified By:	Drug and Therapeutics Committee
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Policy Executive Owner:	WCF Divisional Director
Designation of Author:	Lead Nurse Pain Management
Name of Assurance Committee:	Drug and Therapeutics Committee
Date Issued:	November 2014
Review Date:	3 years hence
Target Audience:	All clinical staff
Key Words:	Pain, analgesia, children, pain assessment, paediatrics

Version Control Sheet

Version	Date	Author	Status	Comment
1	17/07/06	Paediatrics/pain team		Approved by the Clinical Guidleines committee
2	16/02/09	Paediatrics/pain team		Added anti-emetic guidelines
3	01/09/10	Paediatrics/pain team		Updated references for cBNF
4	30/7/14	Paediatrics/pain team		Updated information regarding prescribing codeine for children as per MHRA alert. Guidance on prescribing low dose oramorph (incl on discharge). Inclusion of individualised pain management plan. Approbed on the 13/11/14 at the Drug and Therapeutics Committee

➢ Criteria for use

This guideline is to be used in conjunction with a pain assessment tool, acute pain assessment chart and analgesia administration chart illustrated in the appendix (I&II). It is intended for use for all paediatric patients with uncontrolled pain.

Staff consulted regarding guideline:

Senior nurses (including link nurse) and practice development nurse Ifor ward
Clinical Nurse Specialists for pain
Consultant Anaesthetists - Dr Samina Ishaq and Dr Jane Silk
Paediatric consultant - Dr Joe Raine
Pharmacist for Women and Children - Maxine Phelops

➢ Background/ introduction

- Studies have found that treatment of pain in children has not been adequately managed in the past (ref 1)

- Some studies have highlighted that whereas 78% adults have been prescribed analgesia only 30% of children experiencing similar pain and similar procedures have been prescribed analgesia (ref 2)

➢ Inclusion/ exclusion criteria

- Including all children over the age of 1 year old

- Excluding oncology children, see Pan Thames Shared Care guidelines http://whittnet/document.ashx?id=4588. Also for pain in children in sickle cell crisis, please see additional guidelines under paediatrics on the intranet

	**See:** Guidelines found under paediatrics/medical protocols

➢ Clinical management

- The pain assessment tool is based on researched evidence in this area. This tool has been validated through literature examining the management of pain in children (ref 3).

- The tool uses three different styles of assessment which are most effective when used together:

  a. It uses a categorical rating scale, using descriptive words such as, '0=no pain', '1=mild', '2=moderate' and '3=severe'. According to research, this is the most accepted tool as it is simple and easy for the patient to use. This can be used for older children.

  b. The tool also uses different faces to describe the severity of pain. This is based on Wong and Baker's faces scale (ref 4), which is used for paediatric patients from the age of three, depending on cognitive ability.

  c. The behavioural part of the tool observes behaviour as an indicator of pain, particularly useful for babies and toddlers.

- Use of colours also aids assessment.

- The pain score should be documented as part of the observation chart or the acute pain assessment chart. If a patient's pain is 2 or more then intervention is required (for example analgesia, repositioning, distraction)

➢ Analgesia

- Analgesia is given according to the severity of their pain based on the World Health Organisation Analgesic Ladder (ref 5).

- The ‘Analgesia Administration Chart’ gives a full description of the analgesic drugs, based on the British National Formulary for Children 2013/2014 (ref 6) including:

    - Drug name
    - Routes
    - Preparation
    - Dose according to age and weight
    - Frequency
    - Side effects
    - Comments/contraindications

- The administration chart is based on recent guidelines based on an Medicines and Healthcare products Regulatory Agency (MHRA) alert (ref 7) and Royal College of Paediatrics and Child Health and Royal College of Anaethetists joint guidance (ref 8) which highlighted safety issues when administering Codeine Phosphate to young children, particularly 12 and under. This is due to the understanding that codeine is variably metabolised to morphine and that some children (fast metabolisers) will be vulnerable to unpredictable and excessive respiratory depression particularly those who have pre-existing alteration in ventilatory drive (e.g. chronically obstructed airways from enlarged tonsils and/or sleep apnoea). Low dose Oramorph may be advisable as an alternative but this may not be an ideal solution and for some children the length of stay in hospital may need extending to allow opioid analgesia to be provided safely.

- The chart also is based on guidance from the MHRA regarding the administration of Intravenous paracetamol in paediatric population (ref 9)

- For children who need an individualised treatment plan, appendix III demonstrates an example of a pain management plan, for specific patients who have complex pain regimes.

➢ Discharge Information

- For Discharge Prescriptions please prescribe 50ml quantity or multiples of 50ml. Oral morphine solution (Oramorph®) is treated as a controlled drug and as such is subject to the prescribing requirement of the Misuse of Drugs Act 1971 as described in the BNF and BNF for children under the" prescribing controlled drugs" section (p.8-10). In summary on the JAC discharge prescription, the prescriber needs to add in their own handwriting the total quantity in words and figures (e.g. 50 (Fifty) ml) and sign and date.

- When patients are discharged from the ward the BNFc dosages for paracetamol, ibuprofen and diclofenac must be used. The discharge doses may well be lower than the doses used on the ward.

➢ Further information

See:

www.bnfc.org

www.mhra.gov.uk

www.apagbi.org.uk

www.rcpch.ac.uk

➢ Contacts (inside and outside the Trust including out-of-hours contacts)

Paediatric team on call reg bleep 3111

Pain team ext 5277/bleep 2688

Anaesthetist on call (out of hours) bleep 3301

Pharmacy ext 3439 /bleep 2944

➢ References

1. Morton NS. Prevention and control of pain in children. Br J Anaes 1999; 83: 118-29
2. Kumar N, Smith G. Post-operative pain. In: Rowbotham DJ, Macintyre PE, eds. *Clinical Pain Management: Acute Pain*, London: Arnold, 2003; 305-28
3. Royal College of Nursing. The recognition and assessment of acute pain in children. London: RCNI
4. Wong DL, Baker CM. QUESTT: A process of pain assessment in children. Ortho Nurs 1987; 6: 11-21
5. World Health Organisation. Comprehensive management of cancer pain. Geneva: WHO, 1986
6. British National Formulary for Children, www.bnfc.org
7. MHRA *Drug Safety Update – Codeine for analgesia: restricted use in children because of reports of morphine toxicity* 2013; 6: 12
8. https://www.rcoa.ac.uk/system/files/PUB-CODEINE-2013_0.pdf
9. MHRA *Drug Safety Update Intravenous Paracetamol (Perfalgan©): risk of accidental overdose, especially in infants and neonates* 2010; 3: 12

		Yes/No	Comments
1.	**Does the procedural document affect one group less or more favourably than another on the basis of:**		
	• Race	No	
	• Ethnic origins (including gypsies and travellers)	No	
	• Nationality	No	
	• Gender	No	
	• Culture	No	
	• Religion or belief	No	
	• Sexual orientation including lesbian, gay and bisexual people	No	
	• Age	yes	Guideline for paediatrics
	• Disability – learning disabilities, physical disability, sensory impairment and mental health problems	No	
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 procedural document likely to be negative?**	No	
5.	**If so can the impact be avoided?**	N/A	
6.	**What alternatives are there to achieving the procedural document without the impact?**	N/A	
7.	**Can we reduce the impact by taking different action?**	N/A	

	Title of document being reviewed:	Yes/No	Comments
1.	**Title**		
	Is the title clear and unambiguous?	**Yes**	
	Is it clear whether the document is a guideline, policy, protocol or standard?	**Yes**	
2.	**Rationale**		
	Are reasons for development of the document stated?	**Yes**	
3.	**Development Process**		
	Is it clear that the relevant people/groups have been involved in the development of the document?	**Yes**	
	Are people involved in the development?	**Yes**	
	Is there evidence of consultation with stakeholders and users?	Yes	
4.	**Content**		
	Is the objective of the document clear?	**Yes**	
	Is the target population clear and unambiguous?	**Yes**	
	Are the intended outcomes described?	**Yes**	
5.	**Evidence Base**		
	Are key references cited in full?	**Yes**	
	Are supporting documents referenced?	**Yes**	
6.	**Approval**		
	Does the document identify which committee/ group will approve it?	**Yes**	
7.	**Dissemination and Implementation**		
	Is there an outline/plan to identify how this will be done?	**Yes**	
8.	**Document Control**		
	Does the document identify where it will be held?	**Yes**	
9.	**Process to Monitor Compliance and Effectiveness**		
	Are there measurable standards or KPIs to support the monitoring of compliance with and effectiveness of the document?	Yes	
	Is there a plan to review or audit compliance with the document?	Yes	

	Title of document being reviewed:	Yes/No	Comments
10.	**Review Date**		
	Is the review date identified?	**Yes**	
	Is the frequency of review identified? If so is it acceptable?	**Yes**	
11.	**Overall Responsibility for the Document**		
	Is it clear who will be responsible for co-ordinating the dissemination, implementation and review of the document?	**Yes**	

Executive Sponsor Approval			
If you approve the document, please sign and date it and forward to the author. Procedural documents will not be forwarded for ratification without Executive Sponsor Approval			
Name		Date	
Signature			
Relevant Committee Approval			
The Director of Nursing and Patient Experience's signature below confirms that this procedural document was ratified by the appropriate Governance Committee.			
Name		Date	
Signature			
Responsible Committee Approval – only applies to reviewed procedural documents with minor changes			
The Committee Chair's signature below confirms that this procedural document was ratified by the responsible Committee			
Name		Date	
Name of Committee		Name & role of Committee Chair	
Signature			

Tool to Develop Monitoring Arrangements for Policies and guidelines

What key element(s) need(s) monitoring as per local approved policy or guidance?	**Who will lead on this aspect of monitoring? Name the lead and what is the role of the multidisciplinary team or others if any.**	**What tool will be used to monitor/check/observe/Assess/inspect/ authenticate that everything is working according to this key element from the approved policy?**	**How often is the need to monitor each element? How often is the need complete a report ? How often is the need to share the report?**	**What committee will the completed report go to?**
Element to be monitored	**Lead**	**Tool**	**Frequency**	**Reporting arrangements**
Training and dissemination of information	Paediatric consultants Pharmacy Pain team Surgical/orthopaedic consultants PDN/senior ward staff/pain team Elearning package	Regular lunchtime teaching for junior docs Pain Study days Regular lunchtime teaching for junior docs Nurse training on the ward Under development	***6 monthly*** ***6 monthly*** ***6 monthly*** ***Every month***	***Educaton and training***
Drug errors/prescribing out of guideline	Pharmacy	Datix/JAC	***Ongoing***	Drug safety Committee
Compliance with guidelines, specifically the prescribing of low dose oramorph	Diana Waterton	Audit	***6 monthly***	Drug safety Committee Paediatric department Anaesthetic and surgical department

Appendix I

Analgesia Administration Chart

Whittington Health NHS

For children 1 year and above

For Oncology children please see Pan Thames Shared Care Guidelines

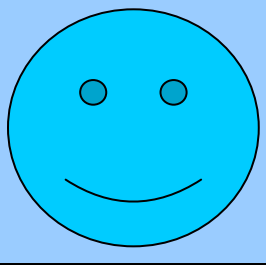
For Children in Sickle cell crisis refer to guidelines for further information

	Drug	Route	Dose	Frequency	Preparation	Comments/Contraindications
Mild pain (1)	***Paracetamol***	PO/PR IV	**Dose according to age / indication/ preparation as in BNFc-** **Dose according to age / indication/ preparation as in BNFc-**	4-6 hourly 4-6 hourly	Tablet 500mg Suspension 120mg/5ml or 250mg/5ml Suppositories: 60, 125, 250, 500mg Infusion: 10mg/ml (50ml and 100ml vial) Perfalgan ®	**Dose according to age as in BNFc** . Avoid in liver impairment . Vigilance is advised when prescribing and administering Perfalgan to ensure the correct dose is given based on the childs weight *
Moderate Pain (2)	***Ibuprofen*** ***or***	PO	**5-10 mg/kg** *Max daily dose 30mg/kg or 2.4g*	6-8 hourly	Suspension 100mg/50ml Tablets 200, 400, 600 mg	**Dose according to age as in BNFc** . May cause bronchospasm in asthmatics . Renal impairment . Clotting disorders . May cause gastric irritation (give after food if possible)
	Diclofenac For 4 days only ***Diclofenac*** For 4 days only	PO PR	**0.3-1 mg/kg** (max 50mg) *Max daily dose 3-5mg/kg or 150mg* **12.5mg TDS (8-12kg)** **1mg/kg over 12 kg** *Max daily dose 150mg*	8 hourly	Tablets 25, 50mg Dispersible tablet: 50mg Suppositories: 12.5, 25, 50, 100mg	
	Low dose Oral Morphine ***Or for above 12 years old Dihydrocodeine*** ***(caution see MHRA update/RCPCH)***	PO PO	**100 – 200 microgrammes/kg** Max dose 10mg **30mg 12 years or over**	4-6 hourly 4-6 hourly	Oramorph 10 mg/5 ml Tablets 30 mg Solution 10 mg/ 5ml	. Give Paracetamol to increase effectiveness . Movicol/lactulose for constipation . **Avoid use of Codeine Phosphate *** . Please be aware that dihydrocodeine may cause respiratory depression particularly in those with upper airway obstruction
Severe Pain (3)	***Morphine Sulphate***	PO	**200 –300 microgrammes/kg** **12 - 18 yrs 10 - 20mg**	4 hourly	Liquid: Oramorph 10mg/5ml Tablets: Sevredol 10, 20mg	**Titrate according to pain/sedation.** ***(may be given more frequently but dicuss with consultant or pain team first)*** **Monitor sedation, resp rate + O2 sats closely** **Consider prescribing PRN (see doses in BNFc):** . Ondansetron for nausea . Movicol/lactulose for constipation . Chlorphenamine to treat piuritis . Naloxone for IV opioids NB Other opioids/sedatives ***must not*** be given when opioid infusions are in use
		PO M/R	Adjust according to daily requirements of oramorph/sevredol	12 hourly	Tabs: MST 5,10,15,30,60,100,200mg	
		IV bolus	**1-12 yrs: 100- mcg/kg- adjusted according to response** **12-18 yrs 5 mg**	2 hourly PRN Every 10 mins	To be given slowly over 5-10mins Adjust according to response	
		IV cont inf	**20-30 microgrammes/kg/hr**			
		SC inf	**20 microgrammes/kg/hr**			
		PCA/NCA	See paediatric PCA/NCA guidelines			
		Intranasal	Diamorphine 100 microgrammes/kg – See intranet guideline One dose only. Children over 10 kg			In ED for acute pain/ acute sickle cell crisis If cannula not present.

For initial pain management consider commencing at the maximum dose of the quoted range.
All patients must have a documented pain score recorded at least every 4 hours.

Appendix II

PAEDIATRIC PAIN ASSESSMENT CHART

PAIN SCORES	VERBAL/BEHAVIOURAL CUES
SEVERE PAIN (3) 	**SEVERE PAIN** **"Hurts as much as I can imagine"** - Unable to distract - Crying, sobbing, screaming, aggressive - *May* complain of pain - Not moving freely, body looks rigid, abnormally still - May touch or guard painful area - Clenched jaw, quivering chin - May be constantly awake or in restless, exhausted sleep
MODERATE PAIN (2) 	**MODERATE PAIN** **"Hurts more"** - Distracted for short periods - Miserable, withdrawn, moaning/crying, whimpering - May complain of pain - Reluctant to move. - Looks tense on moving and may touch/guard painful area - Unsettled, irritable or restless - May grimace or frown
MILD PAIN (1) 	**MILD PAIN** **"Hurts just a little bit"** - Easily distracted - Withdrawn, miserable or moaning but content when distracted - Moves reasonably freely, but may seem tense - May sleep for short periods, contented sleep - May be contented or slightly irritable
NO PAIN (0) 	**NO PAIN** **"Happy because I don't hurt at all"** - Happy/playing - No cry, contented, gurgling/chatting, smiling - Moves freely without signs of discomfort - Contented sleep/relaxed - Normal position

SEDATION & NAUSEA SCORES

Sedation Score:		Nausea Score:	
Awake	= 0	No nausea	= 0
Easily roused	= 1	**Mild nausea**	**= 1**
Difficult to rouse	**= 2**	**Severe nausea**	**= 2**
Unable to rouse	**= 3**	**Vomiting**	**= 3**

- Pain, sedation & nausea scores must be performed and recorded at least every **FOUR HOURS**
- If any score is 2 or above an intervention(s) is (are) required, then reassess after **ONE** HOUR
- Details of any intervention(s) / persons contacted must be entered in the patient's notes
- If prescribed analgesia is ineffective contact medical team
- For further information you may refer to the Acute Pain Control Handbook (Located on the Intranet)

Appendix III

PAIN MANAGEMENT PLAN

Whittington Health NHS

Name: Tom Gross (EXAMPLE)
Hospital Nr: W11223344
Age: 11 years Weight: 30 kg

Date: 31/04/2000

Pain Team
Magdala Avenue
N19 5NF
London
Tel: 0207 2885277
Bleep: 2688
Mon-Fri 8:00- 18:00

ANALGESIC PLAN 31/04/2000

Regular Analgesics

- **Paracetamol 500mg QDS orally (20 mg/ kg < 12 years)**
  - **Max daily dose 2g (80 mg/kg)**
- **Ibuprofen 300 mg TDS orally (10 mg/kg)**
  - **Max daily dose 900 mg (30 mg/kg)**
- **Oramorph 6 mg QDS orally (200 microgrammes/kg)**
  - **Max daily dose 24 mg (800 microgrammes/kg)**

As Required Analgesics

- **Oramorph 12mg possible every 2 hours (400 microgrammes/kg)**

It is safe to give the low dose Oramorph AS WELL AS the PRN Oramorph doses as long as the patient does not show extreme side effects. Slight itchiness or nausea can be treated

Please bleep the Pain Team on bleep 2688, if there are any questions or concerns.

Thank you.

Out of hours contact Anaesthetist on call
Bleep 3301