Pain Management & Assessment - Paediatric Full Clinical Guideline

Reference no.: PA GI 01/ Jan 17/v004

1. Introduction

This guideline aims to provide a framework for all members of the multi-disciplinary team in order to ensure the optimal pain management of children and young people whilst in hospital. Adequate resources to promote and maintain a quality pain service must be provided. The guideline applies to all areas of the trust where children and young people are cared for.

2. Aim and Purpose

- Children and young people have a right to appropriate prevention, assessment and management of their pain.
- Clinical staff should receive training in the prevention, assessment and management of children and young people's pain
- Children and young people can expect the management of their pain to be a routine part of any treatment or procedure, in any area in the hospital. They can also expect to be involved as active partners in their pain management.
- Pain should be assessed and reviewed in all children and young people during and after all procedures
- Protocols and procedures should support the safe use of pain controlling medicines and interventions
- Children's and young people's pain assessment and management should be demonstrated by regular audit

3. Main body of Guidelines

Standard pain assessment documentation should be used to ensure consistency in practice throughout all areas caring for children

All clinical staff should perform a thorough pain assessment using a multi-dimensional tool that is valid and reliable. This tool should include self-reporting cues, observational, behavioural and physiological indicators. The revised Derbyshire Pain tool (Children) and the PAT tool (Neonates) are in use at Derby Children's Hospital

The child/young person should be regularly assessed and that assessment linked to action. A full range of analgesic drugs will be available for use in pain management, as outlined in the Paediatric analgesic stepladder guidelines (available on Flo)

Ensure a multimodal approach to preventing pain is used, using local anaesthetics, opiates, non-steroidal anti-inflammatory drugs (NSAIDs), sedation and non-drug methods in a safe and effective planned environment based on the child's individual needs.

Parental participation in the assessment and management of the child's pain should be encouraged where possible.

Ensure non-pharmacological interventions are encouraged including distraction, guided imagery and relaxation to prepare children through play and education where possible.

Children and their families are given written information regarding continuing pain management after discharge; a patient information booklet 'Pain Management at Home' is available to be given to patients at discharge if appropriate.

Ensure regular audit is performed to monitor and improve the quality and safety of care through evidence based practice.

Measurable Outcomes

- All children will have their level of pain assessed using the appropriate acute pain tool.
- The child and /or family will be involved in the assessment of pain.
- All children/young people will have analgesia prescribed prior to leaving the theatre complex.
- Analgesia will be administered when a pain score of 1, 2 or 3 is recorded.
- No child will have a pain score of more than 2 or 3 on the ward for more than two consecutive assessments.
- Effectiveness of analgesia will be monitored, recorded and reassessed.
- Children will be given written advice for pain management at home.

Unresolved Pain

Unresolved acute pain problems should be referred to:

- Lead Paediatric Pain Specialist Nurse
- Consultant Paediatric Anaesthetist (Theatres)

Unresolved chronic pain problems should be referred to:

- Consultant Paediatricians
- Lead Paediatric Pain Specialist Nurse

Audit

Information will be sought from pain charts, EPMA & Patient Track.

Audit of patient notes for a period of 2 weeks, twelve monthly.

The Derbyshire Pain Chart

The pain chart should be used for all children attending the Children's Hospital. The chart should be started in CED, OPD, theatre or on direct admission to a ward; whichever area is the child's first contact with the hospital and a minimum of twice daily assessments recorded thereafter.

The pain chart should accompany the child on transfer to a ward/theatre/clinic.

WARD /OPD AREA'S

All children both inpatients and ward/department attender's must have pain assessments carried out; these should be recorded at the same frequency as the observations of vital signs, unless the child's pain assessments dictate that they should be carried out more frequently.

All patients whatever their diagnosis must have at least **two** pain assessments carried out every 24 hours

THEATRE STAFF:

Please complete the following: -

Operation:

Time operation ended:

Analgesia given in Theatre/ Recovery:

Pain score in Recovery before transfer to ward:

This allows continuity of care and facilitates the continuance of adequate appropriate analgesia

Post Operative Pain Assessment Scores should be recorded as follows:

½ - 1 hourly for 2 hours on return from theatre

½ - 1 hourly if the pain score is greater than 0

4 hourly until discharge; even if the score is consistently 0.

N.B Following removal of tonsils and/or adenoids please record pain score ¼ hourly for the first hour then follow the above for all children.

The **pain score** should be completed on the pain chart (appendix 1) using the following indicators:

The scoring system using the **revised Derbyshire pain chart** is shown below. Also refer to appendix 2

	Score 0 ***No Pain***	***Score 1*** ***Mild Pain***	***Score 2*** ***Moderate Pain***	***Score 3*** ***Severe Pain***
Faces Scale Score				
Verbal Report Score	0 "No pain"	1-3 "Hurts a little"	4-7 "Starting to hurt a lot"	8-10 "Hurts a lot".
Behaviour Score	* Normal activity * No Crying * No ↓ movement * Happy	* Reaching for/Rubbing affected area * Decreased movement * Neutral expression * Able to play / talk normally	* Restlessness * Protective of affected area * ↓ movement / quiet * Complaining of pain * Consolable crying * Grimaces when affected part moved / touched * Miserable	* Very still/rigid * Guarding * Looking frightened * Very quiet * Very restless, unsettled * Complaining of lots of pain * Crying Inconsolably

- Source the revised Derbyshire Pain Chart

Verbal report score:

Young verbal children can usually distinguish between something which "does not hurt", "hurts a little", "starting to hurt" and "hurts a lot". It is often useful to ask the parent/carer if the child has mentioned pain to them. Some children may never have experienced acute pain other than a minor cut or bump; therefore their verbal report of their pain may not be appropriate to its cause.

Some teenagers may be reluctant to verbalise their pain, therefore it's vitally important to take into account fear, culture and language barriers when assessing pain in this group.

Behaviour Score:

Children may behave out of character when experiencing pain; based on either their own pain memory/experiences or the behaviour of family members they have seen experiencing pain. Young children will use play or being disruptive as a distraction from their pain it is therefore important not to base a pain assessment primarily on behaviour as a single indicator of pain.

The health professional should take into account **ALL** the above indicators plus the parents/carers knowledge of the child and their own professional judgement when arriving at an accurate pain score.

INTERVENTION / ACTION:

Action should be taken as indicated by the pain score following the guidelines on the analgesic ladder (steps 1 – 4). Pain should always be reassessed 30 minutes after any intervention has been given. Both pharmacological and Non pharmacological interventions should be considered and evaluated on the pain chart.

Accompanying documentation

Appendix 1 (separate document available for printing off intranet)

Paediatric Pain Chart

Appendix 2 Guidelines for Nurses and Junior Medical Staff Management of Acute Post-Operative Pain

Appendix 3 (separate document available for printing off intranet)

Patient Information - PAIN MANAGEMENT AT HOME AFTER DISCHARGE

Patients and parents/carer's to be given this information on managing their child's pain at home prior to discharge; this is to include what analgesia the child has already received on the day of discharge.

A Pain management at home booklet is available in all clinical paediatric areas to be given to patients/families where appropriate. (can also be printed off from intranet)

Any child with an oral morphine TTO must be given a copy of the booklet.

All patients that are likely to experience on going pain to be given the contact details of the Pain nurse specialist and the ward.

4. References (including any links to NICE Guidance etc.)

- Department of Health (2003a) Children's National Service Framework: Emerging Findings
- Department Of Health (2003b) Children's National Service Framework:Getting the Right Start: National Service Framework for Children: Standards of Hospital Service.
- Franck L S (2003) Nursing Management of Children's Pain: Current evidence and future directions for research NT Research, VOL 8, NO 5pp330-353
- Howard R. (2003) Current Status of Pain Management in Children: The Journal of the American Medical Association Vol 290 (18) pp 2464 - 2469
- Royal College of Nursing (2009) Clinical Practice Guidelines: Recognition and assessment of acute pain in children; update of the full guideline. Bristol: RCN Publishing Co.
- Twycross A. Dowden S. Bruce E (2009) Managing Pain in Children; a clinical guide. Blackwell Publishing. Oxford
- Association of Paediatric Anaesthetists (2012) Good practice in postoperative and procedural pain management 2nd Ed
- Bnfc.org BNF for Children (2012-2013). BMJ Publishing Group Ltd

5. Documentation Controls

Development of Guideline:	Liz Taylor
Consultation with:	Derby NHS Foundation Trust Paediatricians, Paediatric Anaesthetist & Pharmacist. Paediatric Matron & Pain Link Nurses
Approved By:	Dr R Bowker (Lead Clinician) - 31/01/17 Integrated Care Division - 16/1/17
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Key Contact:	Liz Taylor

Appendix 1 - PA GI 01

Paediatric Pain Chart

ADDRESSOGRAPH LABEL

Consultant: _____ **Ward:**_____ **Date:** _____

Time																							
Pain Score																							
Sedation Score																							
Nausea & Vomiting Score																							
Respiratory Rate																							
Further analgesia (drug, dose, time & route) & any comments																							
Signature																							

Analgesia given in theatre (drug, dose, time & route)	**SEDATION SCORE**	**NAUSEA & VOMITING SCORE**
OPIATE LOCAL N.S.A.I.D OTHER	Sleep = S Fully awake = 0 Drowsy / easily rousable = 1 Difficult to rouse = 2 **If score is 2 consult Doctor before giving analgesia** **If resps fall below 10, inform Doctor**	0 = No nausea 1 = Nauseated 2 = Nausea & vomiting

AT ALL TIMES CONSIDER OTHER MEASURES THAT MAY HELP THE CHILD'S PAIN / DISCOMFORT E.G.; PARENTAL PRESENCE, SIPS OF FLUID, CUDDLING, STROKING, REPOSITIONING, DISTRACTION WITH TOYS.

The pain score should be calculated using the ***Revised Derbyshire Scoring*** *system on page 3 and entered onto the pain chart above* using the following guidance: -

- The score must be recorded as nil (0), mild (1), moderate (2) or Severe (3) in order to determine which intervention to use
- Use the tool most appropriate for the child's developmental age
- Self assessment (i:e the **child** must verbally report their pain level) must be used if possible in children > 5 years of age, this usually applies to children and young people without special needs.

Individual Indicators

- Use the Faces scale for children aged 2-5 years – the child should pick the most appropriate face to represent their pain
- Use the verbal rating score for children older than 5 years, with the child assessing their own pain.
- Use the behavioural indicator for non-verbal children (babies, toddlers and special needs children where applicable) in conjunction with other scores to come to a final assessment score (Particularly useful in the recovery room)

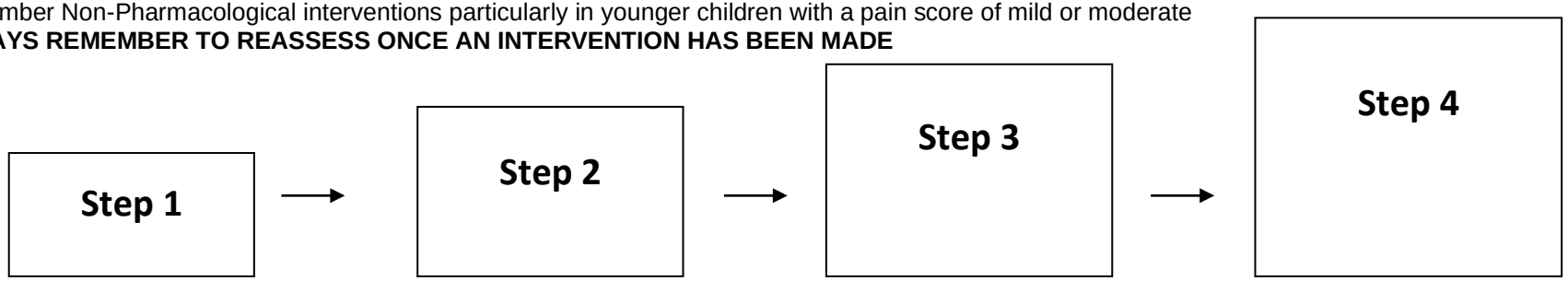
Suggested Scoring Frequency

Medical patients: On admission then ½ - 1 hourly if pain score >0, then 4 hourly until discharge if score continuously 0
Post op Surgical Patients: ½ - 1hourly for 2 hours on return from theatre, then 1-2 hourly until discharge
N.B Following removal of tonsils and/or adenoids please record pain score ¼ hourly for the first hour then follow the above for all children.

For all patients: Repeat scoring if the child is in pain and an intervention has been performed.

General Information

- Use the Trust Analgesic Ladder to determine the most appropriate Pharmacological treatment for the child's pain.
- Remember Non-Pharmacological interventions particularly in younger children with a pain score of mild or moderate
- **ALWAYS REMEMBER TO REASSESS ONCE AN INTERVENTION HAS BEEN MADE**



Guidelines for Nurses and Junior Medical Staff Management of Acute Post-Operative Pain

MILD	MODERATE	SEVERE
"Hurts a bit"	*"Starting to hurt more"*	*"Hurts a lot"*
Score 1	**Score 2**	**Score 3**

STEP 1	STEP 2	STEP 3	STEP 4
Paracetamol PO 15mg/kg • <3months: 60mg/kg/24hrs • >3months: 90mg/kg/24hrs (max 4g/24hrs) **Paracetamol PR** 30mg/kg initially then 20mg/kg • <3months: 60mg/kg/24hrs • >3months: 90mg/kg/24hrs (max 4g/24hrs) **Paracetamol IV** (If other routes unsuitable) • Term newborn infants & babies**<**10kg - 7.5mg/kg **(**max: 30mg/kg/24hrs) • Child 10–50 kg - 15mg/kg (max: 60mg/kg/24hrs) • Adolescents **>** 50kg - 1gm (max: 4g/24hrs)	**Ibuprofen** • Child 1-3months: 5mg/kg 6hourly • Child >3months: 10mg/kg 68hourly (max 30mg/kg/24hours) • Adolescents: 200-400mg 6-8hourly (max 1.6g/24hours) **OR** **Diclofenac** • 0.3 -1mg/kg/dose (max 50mg) • 6-8 hourly 3 times daily • Max 3mg/kg/24hrs (150mg/24hours)	**Short lived pain** **Paracetamol + NSAID** **OR** **Oral Morphine** **Adjusted to response** • **Child 1 – 12 months**: 80-200micrograms/kg 4-hourly • **Child 1-2 years**: 200–400micrograms/kg (max 10mg) 4-hourly • **Child 2-12years:** 200–500micrograms/kg (max 20mg) 4-hourly • **Child 12–18 years:** 5-20mg 4-hourly	**Continuous pain** **IV Bolus of either** Morphine 100-200micrograms/kg 4-6 hourly **OR** **IV Morphine** 20 micrograms/kg increments (Titrated to effect up to 200mcg/kg by doctor or pain nurse only) **PCA** (see policy) **IV Morphine Infusion** (Dolphin only – see policy) **DO NOT** give Morphine to head injuries or to shocked patients without advice

AT ALL TIMES CONSIDER OTHER MEASURES THAT MAY HELP THE CHILD'S PAIN/DISCOMFORT, e.g. PARENTAL PRESENCE, DISTRACTION WITH TOYS, SIPS OF FLUID, CUDDLING/STROKING, REPOSITIONING.

Appendix 2 - PA GI 01

Patient Information

Derby Hospitals NHS
NHS Foundation Trust

Pain management for your child following discharge from hospital

Taking pride in caring

Your child may still be experiencing some pain on discharge. Untreated pain can cause delayed recovery so it's important that this is well managed once your child is at home.

Most children will tell you if something hurts if they can, others may not tell but show other behaviours that may indicate that they are in pain: becoming quiet, withdrawn, clingy, reluctant to play or excessively naughty.

As a parent you are in the best position to recognise behaviours that are out of character, this behaviour may be because your child is in pain and not able to tell you.

Many children will never have experienced anything other than mild pain: such as a bumped head/knee or injection pain before so it's important that you take this into account when considering the amount of pain your child is feeling.

When a child is young their reaction to pain may seem 'over the top' or they may tell you that their pain is a lot worse than you think it should be when taking the cause of the pain into account. This may be because the pain is the worst they have ever experienced and they are frightened by it, particularly if they are too young to understand what's happening to them.

Some children will have seen another family member in pain and how that person reacted to it, this can affect how they react to feeling pain themselves, it's important to use your judgement as a parent as well as the pain scales included in this booklet to decide how best to assess and treat your child's pain.

In hospital your child may have used a pain assessment tool to help them explain their pain, this has been included in this leaflet for you to use at home as your child might already be familiar with it or enjoy using it with you.

	Score 0 No Pain	Score 1 Mild Pain	Score 2 Moderate Pain	Score 3 Severe Pain
Faces Scale Score				
Verbal Report Score	0 *'No pain'*	1 2 3 *'Hurts a little'*	4 5 6 7 *'Starting to hurt a lot'*	8 9 10 *'Hurts a lot'*
Behaviour Score	• Normal activity • No crying • No movement • Happy	• Reaching for/rubbing affected area • Decreased movement • Neutral expression • Able to play/talk normally	• Restlessness • Protective of affected area • Reduced movement/quiet • Complaining of pain • Consolable crying • Grimaces when affected part moved/touched • Miserable	• Very still/ rigid • Guarding the painful area • Looking frightened • Very quiet • Very restless, unsettled • Complaining of lots of pain • Crying inconsolably

- Use the Faces scale for children aged 2-5 years - ask your child to pick the most appropriate face to represent their pain
- Use the verbal report score for children older than 4 years; explain to your child that 0 is no pain at all, 3 is a bit of pain, 7 is quite a lot of pain and 10 is the worst pain they can imagine; ask them to tell you where on that scale their pain is
- Use the behavioural score for non-verbal children (babies, toddlers and children that can't communicate where applicable)

Talk to your child about using this tool at a time when they are not experiencing pain and explain that by using this with them it will help you to understand their pain and how best to take it away.

Children may not always admit to being in pain especially if they don't like medicine and fear having to take some. Smaller children will distract themselves from the pain with play but this doesn't necessarily mean that they aren't in pain. In older children culture and gender can have an effect on how children see their pain and how they choose to manage it.

All of the above should be taken into account when assessing your child's pain, pointing to faces, a verbal report or behavioural scores are all single indicators of your child's pain but it's important to use all the indicators together to reach an accurate pain assessment ie if your child says their pain is 9/10 but they are relaxed and happy it may be that they have never experienced pain before, so to them it is the worst pain they have ever felt. If they report a pain score of 0-1/10 while holding their body very still, very restless or being very quiet, this may be that they are frightened to admit to being in pain.

Babies should be assessed on their behaviour; your baby's cry may be more high pitched than usual or they may whimper. Look for furrowed brows, agitation, extended fingers wide spread or very tight fists and body rigid. Their skin may be pale or flushed and they may be breathing more quickly than usual.

There are two medicines available over the counter to treat your child's pain.

Ibuprofen (Calprofen, Nurofen, Fenpaed)

This is particularly useful for dental pain and for control of pain in long-term inflammatory conditions.

Ibuprofen may cause pain in the tummy so please ensure that your child has eaten or had a drink of milk before giving them Ibuprofen

In certain cases a higher dose may be required for 48 hours after you go home. After 48 hours you should revert to the dose stated on the bottle for the child's age.

Iburpofen should be given regularly 3 times a day to be most effective for pain lasting more than 24 hours.

You should give the dose stated on the bottle for your child's age.

Space the doses out to regular intervals throughout the day, with no less than 6 hours and no more than 8 hours between doses.

Ensure that a dose is given first thing in the morning and last thing before bedtime if possible.

It is safe to give Ibuprofen and paracetamol together if your child is in a lot of pain as they are different drugs that work in different ways; however it is most effective to give the doses intermittently, spaced out during the day, this will help prevent your child from being in pain and recover quickly.

Paracetamol (Calpol, Medinol, Disprol)

This blocks the pain and can bring down temperatures

Paracetamol should be given regularly 4 times a day to be effective for pain lasting more than 24 hours. You should give the dose stated on the bottle for your child's age.

In certain cases a higher dose may be required for 48 hours after you go home. You will be given advice about the dose to be given for the first 48 hours after discharge.

Space the doses out to regular intervals throughout the day, with no less than 4 hours and no more than 6 hours between doses.

Ensure that a dose is given first thing in the morning and last thing before bedtime if possible.

REMEMBER
OTHER MEDICINES CONTAINING PARACETAMOL MUST NOT BE GIVEN AS WELL AS ANY OTHER PARACETAMOL PREPARATION

Difflam Spray - is a local anaesthetic spray that is used to manage painful mouth/throat conditions; this may have been prescribed for your child on discharge from hospital. It should be sprayed directly onto the painful area as prescribed. There may be some stinging when it is first applied but the area will become numb quickly after application and last up to 2 hours.

Stronger Pain Killers (Oramorph) - Your child may require strong pain killers on the ward after their operation. After certain operations or conditions your child may need stronger pain killers to take home with them. You will usually be given enough doses for 3 days treatment after discharge. These strong pain killers may have side effects such as excessive sleepiness. Occasionally they may cause constipation and nausea. Stronger pain killers should only be given if they are

needed for pain. Strong pain killers should be given as directed by the pharmacy instructions on the bottle. If your child becomes very drowsy, do not give any more doses and contact the Children's Emergency Department.

Store strong painkillers in a locked cupboard out of children's reach.

Return any unused Oramorph to your local pharmacist.

The chart below is for you to use to record the times you have given medicine to your child to help you keep an accurate record of what you have given and when.

Ibuprofen	Breakfast	Lunch	Tea	Bedtime
Day 1				
Day 2				
Day 3				
Day 4				
Day 5				
Your child last had Ibuprofen at..... on.....				

Paracetamol	Breakfast	Lunch	Tea	Bedtime
Day 1				
Day 2				
Day 3				
Day 4				
Day 5				
Your child last had Paracetamol at..... on.....				

Morphine Sulphate	Breakfast	Lunch	Tea	Bedtime
Day 1				
Day 2				
Day 3				

Your child last had Morphine Sulphate at.....

on.....

Contact the hospital Pain Nurse or your child's GP for advice about continuing pain relief after 5 days or if your child is still in pain despite being given regular pain relief and you have tried other non medicinal methods of managing pain.

Other things that may help

Giving a baby or young child a dummy/pacifier or breast feed where appropriate, cuddling/wrapping/stroking.

Playing with your child can help to ease fear and provide a means of distraction from pain.

Application of a cold or heat pack if appropriate (only use if the child is able to move away if the pack is too hot or too cold).

Immobilisation by splinting has traditionally been used for musculoskeletal injury, to ease pain and promote healing.

If you want further information on the medications that your child has been sent home with please visit www.medicinesforchildren.org.uk/index.php

Relevant contact numbers

Liz Taylor
Lead Specialist Nurse
Children and Young Peoples Pain
01332 785661 or mobile 07879115879

Puffin ward
01332 786855

Sunflower ward
01332 786856

Dolphin ward
01332 786852

References

South Tees Hospitals NHS Foundation Trust
Pain relief for your child following discharge from hospital (2011)
Author: Liz Taylor, Lead Specialist Nurse. Derby Hospitals NHS Foundation Trust

NOTES