8 Paediatrics

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8.1 Preoperative information for children and their families

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Why do this improvement project?

Perioperative anxiety affects 75% children undergoing surgery. It has direct links with worsened postoperative outcomes, emergence delirium and post-hospital behavioural changes lasting days to weeks.[1–3] Preoperative family-centred behavioural preparation has been shown to reduce preoperative anxiety, opioid consumption and length of postoperative stay.[1,5]

Background

Lower socioeconomic class, parental anxiety, impulsive and temperamental personality traits and negative healthcare experiences have been shown to increase risk of preoperative anxiety.[5] Children and their families may be concerned about the anaesthetic, the procedure, complications and postoperative pain.[4] We can reduce anxiety by providing good-quality age-specific preoperative information with sufficient time to process the information. This may enable coping skills develop that improve children's perioperative experience and reduce long-term psychological effects.[1] Children desire detailed information before surgery, especially those aged seven years and older,[6] and require tailored resources to meet their needs.

Best practice

Preoperative preparation should be patient centred and provided in a variety of forms including written/leaflets, videos, educational programmes, social media platforms such as Facebook, websites, apps and podcasts, complementing face-to-face preoperative clinics and telephone consultations. Written information alone is the least effective form of preparation.[7] Older children need more comprehensive information about their surgery and should be included in decisions.[6] Younger children (two to six years) benefit from simple procedural event information with sensory descriptions.[3] Many children in UK hospitals meet health play specialists at the preoperative visit and on the day of surgery.

Innovative anxiety management solutions include virtual tours with animations, which can be done away from the hospital. These methods have been shown to reduce anxiety, answer questions, raise issues for discussion and avoid unnecessary investigations and cancellations.[6]

A virtual reality smartphone app delivered preoperatively can prepare children and their parents for surgery to reduce their anxiety levels (eg Little Journey from Little Sparks Hospital).[8]

Best practice example and resources

- Association of Paediatric Anaesthetists and RCoA leaflets for children.[10]
- Association of Paediatric Anaesthetists Paediatric Perioperative Medicine Group.[11]
- Association of Paediatric Anaesthetists and RCoA videos for children.[12]
- 'A Little Deep Sleep: A Family Guide to Anaesthetics' video.[13]
- Examples of national and international websites.[14]
- Bristol Royal Hospital for Children interactive website with a video on the perioperative journey.[15]

Suggested data to collect

Understanding where you are as a team

- Start with a review of the preoperative materials available to your families through letters to parents, leaflets, website and social media. How can they access these materials? Do your webpage, leaflets and patient letters have QR codes or links to these resources?
- Is the information age appropriate? Is the information specific to your healthcare setting?
- Review emergency admission pathways for information given to families on starvation times, what to bring, how to prepare their child. How do they access this information?
- Do you have health play specialists available at preoperative sessions and on the day of surgery?

Measuring the effectiveness of your information

- Perform a parent/carer survey on how anxious they are feeling, assessed through tools such as the Amsterdam Preoperative Anxiety and Information Scale (Figure 8.1.1).[9]
  - How satisfied they are with the preoperative preparation?
  - What did they find useful and which methods did they use to prepare their child?

Appendix The Amsterdam preoperative anxiety and information scale (APAIS)

	Not at all	1	2	3	4	5	Extremely
1. I am worried about the anesthetic							
2. The anesthetic is on my mind continually							
3. I would like to know as much as possible about the anesthetic							
4. I am worried about the procedure							
5. The procedure is on my mind continually							
6. I would like to know as much as possible about the procedure							

The subscales

Anesthesia-related anxiety	Sum A = 1 + 2
Surgery-related anxiety	Sum S = 4 + 5
Information desire component	= 3 + 6
Combined anxiety component	Sum C = A + S (1 + 2 + 4 + 5)

Figure 8.1.1: The Amsterdam preopreative anxiety and information scale.

- Survey the children on what information they used before their operation and which elements they found useful.
  - What is the process for cancellation on day of surgery due to a failure in the preoperative assessment?
  - Could children and parents co-design new or improved information resources with you?

Mapping

ACSA standards: 1.2.5, 1.6.1.6
Curriculum competences: PA_BK_02, PA_BK_17
CPD matrix codes: IF01, 2D02
GPAS 2020: 2.1.3, 2.3.1,2.3.2,2.3.14, 2.3.15, 2.7.2, 2.9.1, 2.9.3, 2.9.4. 10.2.7, 10.5.11,10.9.11, 10.9.1, 10.9.2, 10.9.5

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8.2 Premedication and anxiolysis in children

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Why do this quality improvement project?

Reducing anxiety in children of all ages is an important component of perioperative medicine. Induction of anaesthesia can be stressful for children and parents. This may have on going negative psychological effects on all aspects of current and continuing care.

Background

Over half of children undergoing surgery experience anxiety during induction of anaesthesia. The consequences of anxiety are costly to the patient and family, the anaesthetist and the institution. The patient suffers from adverse psychological, metabolic and physiological effects including increased postoperative pain, nausea and vomiting and prolonged recovery. The psychological effects may continue past the postoperative period. Children between one and five years of age are at the highest risk.[1,2] Therapeutic holding and restraint should only be used as a last resort when deemed in the child's best interest and by professionals trained to provide restraint.

Best practice

All staff members who are involved with the perioperative care of children undergoing anaesthesia should be trained to identify and manage anxiety in children.[3] Topical anaesthesia should be applied before intravenous induction.

Non-pharmacological therapies such as behavioural interventions should be available and employed where appropriate, including:

- play therapists
- distraction therapy
- child friendly environment
- age appropriate tablet game apps
- virtual reality.[4]

Pharmacological strategies with sedative premedication include:

- midazolam orally 0.5-0.75 mg/kg (maximum 20 mg) 30-60 minutes before induction or sublingually 0.3 mg/kg 20 minutes prior to induction
- dexmedetomidine 2 µg/kg orally or intranasal 30-45 minutes prior to induction
- clonidine 1-5 µg/kg
- ketamine orally 5 mg/kg, intramuscularly 4-8 mg/kg or intravenously 1-2 mg/kg.

Suggested data to collect

Standards	Measures
An assessment of preoperative anxiety should be documented and a clear anaesthetic plan agreed upon prior to surgery.	■ Percentage of children with documented anaesthetic plan.
Preoperative anaesthetic clinics should provide non-pharmacological strategies to manage anxiety in children.	■ Availability of play therapists, distraction therapy, child-friendly environment, age appropriate tablet game apps, virtual reality.
Children who are assessed and require a premedication should be reassessed prior to induction of anaesthesia for effect.	■ Percentage of patients who do not cry or appear distressed at induction.

Therapeutic holding and restraint should only be used as a last resort when deemed in the child's best interest and by professionals trained to provide restraint.	■ Percentage of patients who are restrained at induction and the follow-up they receive.
Children for intravenous induction should have topical anaesthesia applied prior to anaesthesia.	■ Percentage of children who have intravenous induction planned with topical anaesthesia applied at the appropriate time.

Quality improvement methodology

Risk assessment

- Draw out a process map from the preassessment to the postoperative care including accuracy of assessment and outcome.
- Include anaesthetists name and grade, patient age, parental presence, planned route of induction, non-pharmacological strategies employed, application of topical anaesthesia and duration, sedative premedication: drug, dose, route and time relative to induction, assessment of child's response to induction.

Perioperative anxiety

- Look at the process map of a patient from admission to postoperative care ward. Look for parts where the process it could be made more robust or streamlined. Look at cases which fail the required standard where there any common features in these cases which you can improve.

Mapping

ACSA standard: 1.6.1.1
Curriculum competence: PA_BK_12
CPD matrix codes: 2A03, 2D02, 2D06, 3D00
GPAS 2020: 2.3.1, 2.3.5, 10.2.7, 10.2,8, 10.2.9, 10.2.18

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8.3 Paediatric sedation

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Why do this quality improvement project?

The number of diagnostic and minor surgical procedures performed on paediatric patients outside the traditional operating room setting continues to increase. These procedures should be conducted to the same standard as theatre cases.[1] Carrying out a quality improvement project in this field can help to highlight areas for improvement and challenge the anaesthesia department to develop a framework that supports and regulates the safe delivery of paediatric sedation.

Background

There are four common different types of procedures: dentistry, painful procedures in the emergency department, therapeutic procedures and diagnostic procedures (eg gastrointestinal endoscopy and painless imaging). A wide range of sedation techniques is available. Ineffective sedation causes distress and additional cost (related to repeat procedures). Practitioners need to know how to deliver effective sedation and be able to manage the complications of airway obstruction and cardiorespiratory depression. If sedation is performed without an anaesthetist present, the professionals should adhere to the guidelines of their own colleges and the Academy of Medical Royal Colleges. The National Institute for Health and Care Excellence (NICE) advocates the creation of a national registry for paediatric sedation.[2,3]

Best practice

- RCoA Guidelines for the Provision of Paediatric Anaesthesia Services 2019, chapter 10 section 5.20.[1,4]
- Anaesthesia Clinical Services Accreditation 2019 guidelines.[5] Where sedation is provided by an anaesthetist there is a policy for the provision of this service including all subspecialty areas and the specifications of the facilities provided, including paediatrics. A copy of the policy should be provided.
- The NICE guideline covers all types of effective sedation, including specialist techniques and recommends a framework of training to use them safely.[2,3]
- The Scottish Intercollegiate Guideline Network Guideline published in 2004 concentrating on safe moderate sedation techniques but did not advise on techniques that caused deep sedation or risked anaesthesia. This guideline has been withdrawn as new evidence has emerged that means the guideline no longer represents best practice. SIGN does not have any plans to produce a new guideline on this topic at present.

Suggested data to collect

- Drugs used and doses administered.
- Any airway interventions required during procedure and reason for them.
- Incidence of abandoning procedure due to failure of sedation technique.
- Incidence of admission required due to a need for advanced airway interventions.
- From NICE Guideline 112:[3]
  - Adequacy of pre-sedation assessment, including seeking specialist advice if needed.
  - The appropriateness of the chosen sedation technique.
  - The theoretical and practical training of the person delivering the sedation.
  - The training of sedation personnel in relevant resuscitation techniques.
  - Availability of sedation equipment, resuscitation equipment, monitoring equipment and appropriate drugs.
  - Person delivering sedation and trained assistant present throughout the procedure.
  - Adequate documentation, including patient/carer information, consent information, contemporaneous documentation of the sedation and physiological recordings.
  - The success or otherwise of the sedation including complications, highlighting airway intervention.

Quality improvement methodology

- Is there a limited pool of those undertaking paediatric sedation and how do you ensure that skills are up to date?
- Is there learning you can take from how sedation services are set up in other departments in the hospital or from elsewhere? Do you share learning from incidents across sedation services in the hospital?
- Team rehearsal using in-situ simulation will help identify any logistical and training issue with providing safe sedation. Are their aids available, designed with human factors in mind, for common complications?
- What information is available to patients about their sedation? Is it age appropriate and designed with patients (see section 8.1)?

Mapping

ACSA standard: 1.1.1.4
Curriculum competence: PA_AS_03
CPD matrix codes: 2D06, 1A02
GPAS 2020: 3.1–3.5, 7.1.3, 7.2.3, 7.2.9, 7.2.10, 7.3.4, 7.3.6, 7.3.7, 7.3.14, 7.3.42, 7.5.11, 7.5.13, 10.5.20

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8.4 Perioperative temperature control in children

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Why do this quality improvement project?

Thermoregulation is known to be disrupted in the perioperative period and maintaining normothermia is well known to be an important part of patient care to reduce postoperative complications.

Background

Hypothermia is associated with prolonged recovery, increased oxygen consumption and shivering, decreased platelet function and consequent blood loss, increased risk of surgical wound infection and impairment of drug metabolism.[1–5]

Basal metabolic heat production is reduced 20–30% under anaesthesia and central thermoregulation is inhibited.

Children lose more through conduction and radiation than adults as they have less insulating fat and a higher surface area to volume ratio. Neonates and premature babies undergoing major surgery, such as bowel resection, can have considerable third-space losses and are especially at risk of hypothermia.

Best practice

The Association of Anaesthetists advises that body temperature monitoring must be available in paediatrics and used when appropriate.[6] The National Institute for Health and Care Excellence guidelines stress the importance of informing parents and carers of the need for children to stay warm.[7]

The RCoA Guidelines for the Provision of Anaesthesia Services (GPAS)[8] and the Anaesthesia Clinical Services Accreditation (ACSA) standards highlight the importance of monitoring and maintaining theatre temperature, especially in neonates.[9]

Suggested data to collect

Standards	Measures
All children should have a preoperative temperature recorded in the hour before going to theatre, and measured at a site that is a direct estimate (ie accurate to within 0.5 degrees C of direct core measurement; the best sites are sublingual or axilla) or indirect estimate (ie reading produced by thermometer after correction factor has been applied, eg infrared tympanic, temporal or forehead).	■ Core temperature preoperatively and time of last reading before going to theatre. ■ Site used for temperature recording. ■ Type of measuring device used.
All children should have their temperature recorded at the beginning and end of surgery (and intermittently for procedures lasting longer than 30 minutes).	■ Temperature at start and end of surgery. ■ Frequency of temperature measurements. ■ Method of temperature measurement.
All children should have a temperature documented on arrival in recovery.	■ Percentage of children who arrive in the recovery area with temperature in the range 36-37 degrees C. ■ Document method of temperature measurement on arrival into recovery.

All children having surgery lasting more than 30 minutes should have active warming (mattress or blanket). Inditherm mattresses and forced-air blowers are particularly effective theatre warming devices.[2]	■ Percentage of children having surgery lasting more than 30 minutes who have active warming. ■ Document type of warming devices used in theatre (including fluid warmer). ■ Document temperature at beginning and end of surgery and duration of surgery. ■ Document method of temperature measurement.
Devices for monitoring and maintaining or raising the temperature of the patient should be available throughout the perioperative pathway including control of theatre temperature (ACSA 1.3.2.2).	■ Availability and visibility of devices on the ward, in theatre and in recovery. ■ Whether the devices are in working order.[7]
Equipment for warming fluids, patient warming devices and equipment for measuring temperature should be readily available in all areas where children and neonates are anaesthetised and in recovery areas (GPAS 10.2.1, 10.3.5; ACSA 2.2.3.2).[8]	■ Itemise all types of warming equipment that are present in theatre, recovery, magnetic resonance imaging and emergency departments, and anywhere else where children are anaesthetised. ■ Document what is used to record temperature in each site.
Theatre temperature should be capable of regulation to at least 23 degrees C and up to 28 degrees C (GPAS 10.3.4) where neonatal surgery is performed. There should be accurate thermostatic controls that permit rapid changes in temperature (GPAS 10.2.6).	■ Percentage of neonates having surgery in a theatre that can regulate ambient temperature to 28 degrees C.
Patients and their carers should be informed that staying warm before surgery will lower the risk of postoperative complications. Particular attention should be paid to the comfort of those with communication difficulties before, during and after surgery.[9]	■ Percentage of parents/carers who receive any information about the importance of maintaining temperature perioperatively. ■ For all, document patient age and weight, operation and duration of anaesthesia.

8.4 Perioperative temperature control in children

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Quality improvement methodology

- Identify one or two key goals (eg how and when temperature is measured at each stage of patient pathway: pre-, intra- and postoperative; percentage of children having surgery lasting longer than 30 minutes who are actively warmed (and compare findings at beginning and end of a six-month period).
- Identify steps in the patient pathway where issues might arise that would impact on achieving a goal (eg lack of awareness of staff, lack of availability of monitoring or warming devices, unexpected prolonged surgery without adequate warming, overzealous warming without temperature monitoring). Where are the key points that an intervention can take place (pre-, intra- or postoperatively)?
- Consider using a driver diagram:
  - environmental-related: ward, theatre or recovery-related factors (eg poor air conditioning, faulty thermostats)
  - people related: awareness, training, time
  - equipment related: availability of measuring or warming devices.

Mapping

ACSA standard: 2.1.1.19
Curriculum competences: PA_IK_06, PA_IS_05, PB_IK_36
CPD matrix codes: 1A01 (physiology), 2D02
GPAS 2020: 10.2.1, 10.2.6, 10.3.4, 10.3.5

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8.5 Postoperative vomiting in children

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Why do this improvement project?

Postoperative vomiting has an incidence of 13-42% in paediatric studies, which is double the occurrence in adults.[1,2] The consequences of postoperative vomiting are costly to the family and the patient with psychological, metabolic and physiological disturbances. There may be negative surgical effects such as wound dehiscence or immobility. Postoperative vomiting causes delays in discharges and accounts for 2% of unanticipated hospital admissions.[3–5]

Background

Clinicians should use a risk stratification strategy (the Postoperative Vomiting in Children score, POVOC, or the Vomiting in the Postoperative Period, VPOP) to identify baseline risk and initiate measures to reduce preventable factors and administer prophylaxis or treatment appropriately.[6,7]

Modifiable risk factors

- Patient-related: anxiety (level 2– evidence).
- Anaesthesia-related:
  - anticholinesterases (level 2– evidence)
  - volatile anaesthetic agents including nitrous oxide (level 1++ evidence)
  - opiates (level 1+ evidence)
  - dehydration (level 1+ evidence).
- Surgery-related: painful procedures that have a high opioid requirement.

Recommendations for preventing postoperative vomiting

- Children should be assessed using the risk scores to determine pharmacological treatment and reduce modifiable factors where appropriate.
- Decrease baseline risk:
  - regional anaesthesia as an opiate sparing technique
  - maintain good hydration.

Best practice

The Association of Paediatric Anaesthetists has produced guidelines on the prevention of postoperative vomiting in children in 2016.[8]

Suggested data to collect

Standards	Measures
All children should have documentation of risk assessment.	■ Proportion of children who have documented risk assessment using either a risk stratification tool (POVOC or VPOP).
All children should have documentation of anticipation of postoperative vomiting and treatment plan.	■ Documentation of treatment plan discussed with patient.
All staff should have knowledge of Association of Anaesthetists 2016 guidance.	■ Percentage of staff with knowledge of the guidance and its contents.
All staff prescribing anti-emetics should know the dose and appropriate drug for the prophylaxis and treatment of postoperative vomiting.	■ Percentage of drug and dosage given as per guidance.

Incidence of postoperative vomiting in the postoperative period at an institution.	■ As above.
Institutions should have documentation of the number of rescue treatment anti-emetic doses given.	■ Percentage of rescue treatment anti-emetic doses given.
Institutions should use opioid sparing techniques where appropriate.	■ Documentation of use and indication of opioid sparing techniques.
Institutions should have documentation of unplanned admission rates due to postoperative vomiting.	■ Percentage of unplanned admissions due to postoperative vomiting.

Quality improvement methodology

Risk assessment

- Draw out a process map from the time of preassessing child to the time discharged from recovery. Which members of staff are most reliable at calculating risk? Do they have any lessons to share with their peers?

Administration of appropriate anti-emetics for prevention and treatment

- Look at the process map for a child undergoing anaesthesia from admission to being discharged from recovery. Look for parts where the process is not taking place or where it could be made more unified. Identify which groups of children are not meeting the standards and identify common features that can be improved.

Mapping

ACSA standard: 1.4.1.2
GPAS 2020: 2.3.11, 2.3.14, 4.2.18, 6.4.5, 6.5.30, 6.7.1, 10.3.32, 10.5.19, 10.9.2
Curriculum competence: PA_BK_07
CPD matrix code: 2DO2

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8.6 Implementing thromboprophylaxis in paediatric surgical patients

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Why do this quality improvement project?

Venous thromboembolic disease (VTE) is a preventable cause of morbidity and mortality. More than 80% of paediatric VTE occurs in children with one or more risk factors. The Association of Paediatric Anaesthetists collated and reviewed the available evidence and published the Clinical Practice Guidance on the Prevention of Perioperative Thromboembolism in Paediatric Patients in 2017.[1] Awareness and implementation of national guidance is variable, quality improvement projects can serve to increase familiarity with guidance, ensure best practice and drive procurement of necessary equipment.

Background

The need for evidence-based thromboprophylaxis in adults is now widely accepted. There are few areas of strong evidence to guide practice in the paediatric population. The Canadian registry of VTE in paediatric practice estimated the incidence to be 5.3/10,000 patients.[2] A more recent, single-centre study in Australia reported 8/10,000 patients.[3] Both of these studies recorded symptomatic VTE only, so may have underestimated the true incidence. There are two peaks in incidence of VTE – infants less than two years old and adolescence. Central venous catheters are the most common risk factor for paediatric VTE. Most children do not require VTE prophylaxis, and routine prophylaxis is not recommended for young children.

In adolescence, not only does the physiology of the coagulation system mature but additional risk factors become relevant (eg smoking, obesity, the estrogen-containing oral contraceptive pill). The Association of Paediatric Anaesthetists (APAGBI) guidance highlights some key points regarding risk assessment and methods of VTE prophylaxis. This focuses largely on adolescents (13 years and above).

Best practice

- The recommendations made in the APAGBI Clinical Practice Guidance Prevention of Perioperative Thromboembolism in Paediatric Patients are suggested as best practice.[1]
- Key recommendations include early mobilisation, optimal hydration and timely removal of central venous catheters.

Suggested data to collect

Inclusion criteria: age 13 years and over undergoing anaesthesia for surgery or radiology.

Data:

- weight
- presence of risk factors
- length of surgery
- method(s) of thromboprophylaxis used (none, antiembolism stockings, intermittent pneumatic devices, pharmacological)
- contraindications to thromboprophylaxis.

Quality Improvement methodology

Compliance with the guideline should be measured and run charts may be used to drive improvement.[1]

Case example

A survey was carried out among the anaesthetists at our institution, to establish the level of awareness of both local and APABGI guidance and to determine if there were any problems instituting prophylaxis, such as the availability of equipment. A data collection was then carried out over five days to assess compliance with the current APAGBI guidance.

Barriers to best practice were identified, including confusion surrounding current guidance and equipment not being standardised nor readily available at all times. Following this, local guidance was simplified and posters with the new guidance were displayed in the relevant clinical areas. Education sessions were also delivered.

Only below-knee antiembolism stockings are now available. With the introduction of an electronic patient record a prompt has been built into the theatre checklist to ensure compliance. The findings have driven the procurement of intermittent pneumatic devices for every theatre. This resulted in greater awareness and compliance with guidelines and improved patient safety.

Mapping

ASCA standard: 1.2.1.5

Curriculum competences: Higher Level Training Annex D PA_HS_01

CPD matrix codes: 1E05; 2D02

GPAS 2020: 2.3.32, 2.5.17, 2.5.19, 2.5.55, 2.7.2

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8.7 Postoperative pain management in children

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Why do this quality improvement project?

Children should receive adequate pain relief following surgery to reduce complications associated with pain. Parents are often responsible for their child's postoperative care, including pain management. Giving clear information to parents about postoperative pain management is important to ensure optimal comfort for every child.

Background

Pain is a common experience following surgery and is often poorly managed in children both in hospital and at home following ambulatory surgery.[1,2] It is most severe in the first 24-72 hours but can persist for weeks. The presence of acute pain can lead to several long-term consequences, including risk of developing persistent postsurgical pain and sensitisation to nociceptive stimulus from subsequent procedures.

Children rely on their parents/carers to give them medication to relieve pain. Barriers to effective pain management identified by parents include: fear regarding the addictive nature of analgesic medications and concerns regarding their adverse effects.[3] Effective postoperative pain management requires good communication between the child, parents/carers and the healthcare team. It is recommended that postoperative analgesia is planned and discussed prior to surgery with the paediatric anaesthetist responsible for initiating the plan.[4] A Delphi process completed by paediatric pain and quality improvement experts in Canada identified indicators for poorly managed postoperative pain.[5] These included: parents not being or feeling involved in the decision making about their child's pain management and a lack of documentation in the medical records regarding pain management.[5]

Further recommendations are that clearly presented information be given to patients and their families regarding assessing pain and the administration of analgesia at home.[4] Evidence suggests that parents have greater understanding if they have information regarding pain management prior to surgery (often in the form of a leaflet), and that this can decrease parental anxiety and increase satisfaction.[6,7]

Best practice

Methods of postoperative pain management should be discussed with the patient and their family and written information given to them. This should be recorded on the anaesthetic record.

Suggested data to collect

Standards	Measures
Methods of postoperative pain management should be discussed with the patient and their family.	■ Use patient feedback and surveys. The Association of Anaesthetists children and families questionnaire includes the question 'Did you get clear instructions about how to management any pain or other problems at home?' (https://www.apagbi.org.uk/professionals/professional-standards/peer-review).
Written information should be available for patients and their family.	■ Are there separate leaflets that discuss administration of simple analgesia, stronger oral analgesia such as morphine, regional analgesia and central neuraxial blockade (caudal, epidural analgesia) and patient or nurse controlled analgesia?

These leaflets should be available in different formats and include essential information about postoperative analgesia.	■ The quality of the information leaflets should be evaluated to include: on paper and online, include step down analgesic plan, describe how further supplies of analgesia can be obtained, include contact information for advice on pain management, including a telephone number.
The discussion about the postoperative pain management plan with the patients and parents/carers should be documented on the anaesthetic chart.	■ Review of anaesthetic preassessment medical records for paediatric cases to establish whether the postoperative analgesia plan discussed with parents has been documented.

Quality improvement methodology

In the preparation and planning stage, it is important to meet with parents and carers. This allows discovery of what they would like included and how they would like to be able to access them (for example, in-person, online or paper). Focus groups can discuss this and review available information leaflets for clarity of message and language. Resulting information can be used to adapt leaflets to ensure they include key information. In the implementing change stage, parents and caregivers should play a key role, ensuring information produced is reviewed feeding back into further development.

Simple survey data from patients and parents/carers can clarify what information they recall receiving, alongside audit data regarding documentation of a postoperative analgesia plan in anaesthetic preassessment records. A group of stakeholders involved in paediatric preassessment can should:

- set a time specific, measurable, improvement aim. For example, > 90% of anaesthetic charts should include a postoperative analgesia plan
- decide on specific changes that could lead to this improvement. For example, redesign anaesthetic preassessment charts to include a prompt to record discussions regarding the postoperative analgesia plan.

Mapping

ACSA standard: 1.4.5.1

GPAS 2020: 10.2.15, 10.2.16, 10.3.31, 10.3.35, 10.5.19, 10.5.6, 10.9.11, 10.9.2, 10.9.3, 10.9.4

Curriculum competences: P1_BK_07, P1_BK_11, PM_BK_02, PM_BK_03, PM_AK_26, PM_AS_26

CPD matrix code: 2D05

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