



Children's Health Ireland
at Crumlin

Policy for the Nurse Led Pre-Operative Administration of Oral Paracetamol by Nursing Staff in the Surgical Day Ward of CHI Crumlin

Policy

Procedure

Policy

Guideline

Document Approval / Sign-off			
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Document Control / Change Record			
Revision	Date Approved	Review Date	Reason for Change
		11.07.22	Post-trial feedback

This document is to be used on Surgical Day CHI at Crumlin until a cross-site CHI policy is implement

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1.0 Introduction

Paracetamol is the most commonly delivered analgesic for children undergoing surgical procedures at CHI – Crumlin. IV paracetamol is associated with increased costs and risk of adverse drug events compared to oral paracetamol.

This policy is designed to help facilitate the preoperative administration of oral paracetamol which is analgesically equivalent, safer, and more cost effective than IV paracetamol.

2.0 Aim of the policy

This policy gives authority to two RCN/RGN working on Surgical Day Unit to check and administer oral paracetamol to a patient for a once off preoperative administration without a prescription documented on the medication Kardex. The nurses must have successfully completed relevant training and be signed off as competent to administer same.

3.0 Scope of the-policy

This policy sets out the guidance for the preparation and administration of oral paracetamol to patients on the SDU admitted for surgery within the criteria of this document

4.0 Applicable to

This policy is applicable to:

- Registered nurse (RCN/RGN) Internship Nursing Students and Post Registration in Children's Nursing students that fulfil the following criteria:
 - Is competent to draw up and administer oral medications
 - Has successfully completed orientation to Surgical Day Unit
 - Has successfully completed training on the 'Policy for the Pre-Operative Administration of Oral Paracetamol by Nursing Staff in the Surgical Day Unit and is signed off competent to implement this policy.
 - This competency will include nursing education on the following:
 - Indications, contraindications for paracetamol
 - Recognition and management of complications associated with this medication
 - Interactions of this medication with the patient's current medical state
 - Potential drug allergic reaction to this medication
 - Review the Preoperative Paracetamol Algorithm
 - Procedure for reporting adverse reactions to the HPRAPlease note this list is not exhaustive.
- Clinical Nurse Managers / Clinical Nurse Facilitator
 - Ensure nursing staff are aware of this policy
 - Ensure that all RCN /RGN's on SDU attend relevant training and are signed off as competent to implement the policy
 - Ensure adverse reactions to paracetamol are reported correctly to the HPRA

This policy does not apply to:

- RCN /RGN's who have not successfully completed relevant training and are signed off as competent to implement the policy.
- Undergraduate nursing students
- Health Care Assistants

5.0 Definitions and Abbreviations

Abbreviations used in this policy include:

mg – milligram

g – gram

mL – millilitre

kg – kilogram

PPP – Paracetamol Preoperative Policy

6.0 Authorisation

This policy is authorised by CHI at Crumlin Drugs and Therapeutics Committee, Nurse Practice Development Committee and the Department of Anaesthesia for use by competent RCN /RGN's in Surgical Day Unit of CHI at Crumlin.

7.0 Specific Staff Responsibilities

- Only staff employed on SDU who are trained and signed off as competent to administer oral paracetamol for the purpose outlined in this policy
- Intern and post registration student nurses who have completed training and achieved competency on SDU may act as second checkers for paracetamol administration

8.0 Procedure for administration of paracetamol

8.1 Inclusion Criteria

The following conditions must be met before implementing the policy:

Patients admitted to the Surgical Day Unit who require general anaesthesia.

- The patient is scheduled for surgical procedure on that day (ideally within 2 hours)
- No contraindication to paracetamol administration (as per the Paracetamol Algorithm below)

The SDU nurse responsible for admitting the patient to the ward must complete the standard nursing admission to SDU (Surgical Day Unit Nursing Assessment 1A form), and patient preoperative nursing checklist before oral paracetamol is administered.

Assessment may include, but is not limited to:

- Review of medical history
- Documentation of allergy history, including any allergy to paracetamol
- Baseline Vital Signs, level of consciousness and appropriate clinical scores e.g. pain scores
- Review current health status, e.g. allergies, sensitivities, physical assessment

- Relevant blood work
- Review of potential risk factors and/or contraindications for paracetamol administrations in **8.2 below**
- The medication must be administered according to hospital Medication policy.
- **One single dose ONLY pre-operatively** is permitted to be administered in accordance with this policy
- The nurse admitting the patient to SDU is responsible to ensure the paracetamol is administered in accordance with this policy.

8.2 Exclusion Criteria

Patient Specific Contraindications

- Patient is less than 2 months of age
- Patients who are unable to be weighed
- Patients who have taken paracetamol in the last 4 hours (or have had 4 doses in the last 24 hours).
- Allergy to paracetamol (or any of excipients being given)
- Calpol® and Paralink® oral liquid contain sorbitol – not suitable for use in patients with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrose isomaltase insufficiency
- Established liver impairment
- Immunocompromised patients with ongoing care of malignant Haematology/Oncology or Immunology, or any patient at risk of developing febrile neutropenia currently receiving chemotherapy
- Full stomach (e.g. pyloric stenosis, bowel obstruction)
- Nausea / vomiting

Link to all other paracetamol containing products on the Irish market

<https://www.hpra.ie/homepage/medicines/medicines-information/find-a-medicine/results?page=1&field=&query=Paracetamol>

General advice is to check all other medicines both prescribed and over the counter for paracetamol content especially cold & flu remedies, migraine medication, nasal decongestants (Sudaplast, Sinutab), children's teething products (Teedex, Dozol).

Also check for duplication of route – that a patient isn't using paracetamol suppositories at home as well as paracetamol orally.

Procedure Specific Contraindications:

- Upper endoscopy
- Microlaryngobronchoscopy
- Foreign body in GI tract or airway
- Patient's booked for examination under anaesthesia ONLY

Where the SDU registered nurse has any concerns regarding the administration of paracetamol to a patient, he/she should contact the consultant anaesthetist in theatre responsible for operating list the patient is booked on to discuss.

8.3 Preparation and Administration of Paracetamol

- Patients must be \geq age 2 months.
- Patient must be weighed and weight recorded on Drug Kardex® by the admitting nurse
- Following assessment by the SDU nurse, he/she will make a clinical decision if the patient reaches the criteria for inclusion under this Policy
- The SDU nurse responsible for admitting the patient to the ward must complete the standard nursing admission to SDU (Surgical Day Unit Nursing Assessment 1A form), and patient preoperative nursing checklist before oral paracetamol is administered. Documents must be (signed, dated and name printed)

Assessment may include, but is not limited to:

- Review of medical history
- Documentation of allergy history, including allergy to paracetamol
- Baseline Vital Signs, level of consciousness and appropriate clinical scores e.g. pain scores
- Review current health status, e.g. sensitivities, physical assessment
- Relevant blood work
- The medication must be administered according to hospital Medication policy.
- **One single oral dose ONLY pre-operatively** is permitted to be administered in accordance with this policy
- The SDU nurse determines that the patient has not taken paracetamol in the last 4 hours (or has not taken paracetamol 4 times in the last 24 hours)
- The SDU nurse calculates the dose of paracetamol (as outlined in Table 1 below). **Ensure that the individual dose does not exceed 15 mg/kg for oral dosing Maximum of 1 gram**
- The SDU nurse obtains the medication from the locked medication cupboard in the SDU treatment room.
- The SDU nurse documents clearly: Date, time, route and dose of medication administered to the patient in the space provided on the front of the patient's drug Kardex, in the 'ONCE ONLY MEDICATION ORDERS' section on front page. The RN will also document in 'Additional instructions box' & "Prescribers signature box" that the Paracetamol is administered as per the SDU Paracetamol Protocol (PPP)
- The dose is checked and drug Kardex signed by a second SDU nurse also.
- Read out the child's full name, date of birth and hospital number and verify with the parent/guardian if present and the second nurse checking the medication.
- Ensure the **patient name, hospital number, and date of birth** are correct on both the Health Care Medical record and the identity bands.
- **The nurse must witness the ingestion of the Paracetamol by the child.**

Any patient who falls within the exclusion criteria or who declines paracetamol should be referred to the Consultant Anaesthetist managing the list the patient is booked on to, to have appropriate analgesia/antipyretic prescribed. This must be documented clearly to ensure complete and accurate record of all doses administered. In the event of refusal by patient or parent/guardian,

the reason for refusal must be documented in the pre-op checklist and nursing notes by the registered nurse.

8.4 Dosage

- **A single dose of 15mg/kg** may be administered. This dose must not exceed the maximum of 1 gram, irrespective of weight. The formulation may be given as infant or 6+ paracetamol. For oral doses please refer to Table 1
- Doses detailed in Table 1 below are weight-based doses in accordance with CHI Formulary (rounded to the nearest measurable dose)
- Liquid paracetamol medicines for use with children should be administered with an appropriate graduated oral syringe to assist accurate administration.

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9.0 Oral Paracetamol Dosing

**** The doses in the table below have been rounded up or down for ease of measurement. All doses are approximately 15mg/kg ****

- For patients <10kg, round weight to the nearest 0.5kg
- For patients >10kg, round weight to the nearest kg

Table 1: Oral Paracetamol Dosing

Weight	Oral Dose (15mg/kg, rounded to nearest measurable dose)
5kg	75mg
5.5kg	80mg
6kg	90mg
6.5kg	100mg
7kg	110 mg
7.5kg	115mg
8kg	120mg
8.5kg	130mg
9kg	135 mg
9.5kg	145mg
10kg	150mg
11kg	160mg
12kg	180mg
13kg	190mg
14kg	210mg
15kg	230 mg
16kg	240mg
17kg	250mg
18kg	270mg
19kg	280mg
20kg	300mg
21kg to <26kg	350 mg
26kg to <30kgs	400mg
30kg to <46kgs	500 mg
46kg to <60kgs	750mg
≥60kg	1g

10.0 Products available:

- Paralink® Oral Solution 120mg/5mL (licensed for children 2 months to ≤ 6 years)
- Calpol® SF Suspension 120mg/5mL (licensed for children 2 months to ≤ 6 years)
- Calpol® 6-Plus Suspension 250mg/5mL (licensed for children >6 years)
- Paracetamol Tablets 500mg (licensed >6 years)

11.0 Potential Adverse Effects:

Side effects are rare but include hypersensitivity reactions including skin rash, flushing, anaphylaxis and bronchospasm; abnormal hepatic function; severe coetaneous adverse reactions (SCARs); hypotension; malaise. Rare reports of blood dyscrasias including thrombocytopenia and agranulocytosis – not causally related to paracetamol.

12.0 Overdose

Immediate medical attention is required in the event of overdose, even if there are no significant early symptoms. Liver damage and less frequently renal damage can occur following an overdose. Symptoms of an overdose can include, but are not limited to, nausea and vomiting, right side subcostal pain and tenderness.

For specific management of paracetamol overdose/poisoning consult the National Poisons Information Centre 01 8092566. Information is also available on Toxbase via the National Poisons Information Centre Website <https://www.poisons.ie/Professionals>

The CHI *Hospital Formulary* is available to all staff members via the intranet. All staff are advised to use the formulary in conjunction with the administration of medications. The formulary can be referenced for information on Adverse Effects and Overdose.

13.0 Action in event of adverse reaction

- Inform the relevant consultant anaesthetist and the senior nurse on duty of adverse reaction. The patient should be reviewed by the consultant anaesthetist and a plan of action documented and in medical notes.
- Nursing staff responsible for the patient are required to monitor closely and record vital signs at regular intervals.
- Medical and nursing staff looking after the patient are responsible to document the adverse reaction in the patients' health care record and inform the patient and/or parent/guardian of what has happened
- A medication incident form should be completed by the staff member who identifies the adverse reaction
- The health care professional who discovers the adverse reaction should report this to the Health Products Regulatory Authority via the website www.hpra.ie using the error reporting form at <https://www.hpra.ie/homepage/about-us/report-an-issue/human-adverse-reaction-form>. Refer to the CHI Medication Policy for more information

14.0 Action in the event of an error or near miss

The staff member who identifies the error or near miss is responsible to

- Completed a medication incident form as per hospital incident reporting procedure.
- Inform the relevant consultant anaesthetist and the senior nurse on duty of the error or near miss.
- The patient should be reviewed by the consultant anaesthetist and a plan of action documented and in medical notes.
- Nursing staff responsible for the patient are required to monitor closely and record vital signs at regular intervals.
- Medical and nursing staff looking after the patient are responsible to document the error or near miss in the patients' health care record.
- Seek advice from the consultant anaesthetist and ADON for the ward with regard to informing the patient and/or parent/guardian of what has happened. Follow Hospital Policy in relation to Open Disclosure in relation to medication errors.

15.0 Instruction for Storage and Handling of Paracetamol

To be stored in a locked medication cupboard on SDU. The keys will be held on the person of the registered nurse on SDU ward at all times.

16.0 Implementation and Education Plan

- This Policy will be disseminated using existing communication structures within CHI.
- The education programme for the administration of paracetamol to patients on SDU preoperatively will be designed collaboratively, delivered and managed by the ward clinical Nurse Facilitator
- Nurse training records and completed competency booklets will be stored in CNM office on SDU.

17.0 Evaluation and Audit

An audit will be carried out every 6 months to validate adherence to this Policy and evaluate metrics and safety. This audit will be carried out in collaboration by Pharmacy, Anaesthetics, and Nursing from the participating departments.

Appendix 1



Administration Policy for Day Case Surgery

1

ASSESS PATIENT

CONTRAINDICATIONS

Patient Specific

- Liver Failure
- Paracetamol given <4 hours ago
- Allergy
- Full stomach / gastric motility disorders
- Nausea / Vomiting
- Patient <2 months of age
- Patients unable to be weighed
- On active chemotherapy & immunocompromised
- Sorbitol metabolic insufficiency

Procedure Specific

- Upper endoscopy
- MLB
- Foreign body in GI tract / airway
- Examination under anaesthesia only

Yes

OMIT

2

None

3

Is preoperative sedation required?

Yes

*Notify anaesthesiologist.
May need co-administration of paracetamol & sedation*

No

Give 15mg / kg

(to a maximum of 1000mg PO / NG as per dosage table)