PARACETAMOL - CLINICAL INITIATIVE NURSE - ED - SCH

PRACTICE GUIDELINE ©

DOCUMENT SUMMARY/KEY POINTS

- This guideline covers the ordering of one initial stat dose of analgesia in the Emergency Department by an accredited ED Registered Nurse and does not cover the use of paracetamol as an antipyretic agent for fever.
- Paracetamol is a widely used analgesic and antipyretic agent which has a well-documented safety record when used in optimum dosage. It is commonly used within paediatric emergency departments for safe and effective pain relief in mild pain.

CHANGE SUMMARY

Based on recent recommendations from the Therapeutic and Drugs Administration and actioned by the SCH Drug Committee, all medications containing codeine have been removed from the imprest at SCH. Accredited nurses can no longer:

- Prescribe Painstop® as a standing order or a Nurse Initiated Medication(NIM)
- Prescribe Panadeine® as a NIM

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	19th July 2017	**Review Period**: 3 years
Team Leader:	Nurse Educator	**Area/Dept**: SCH Emergency Department

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READ ACKNOWLEDGEMENT

- All Emergency Department clinical nurses and medical officers need to read and acknowledge they understand the contents of this document.
- **Discretionary Acknowledgement**:
  - Emergency Department manager to determine if any other staff are to read and acknowledge they understand the contents of this document.

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1 Introduction

Paracetamol is a widely used analgesic and antipyretic agent which has a well-documented safety record when used in optimum dosage. Paracetamol is commonly used within paediatric emergency departments for safe and effective pain relief in mild pain.

This guideline covers the ordering of one initial stat dose of analgesia in the Emergency Department by an accredited ED Registered Nurse and does not cover the use of paracetamol as an antipyretic agent for fever.

1.1 Purpose/Scope

The purpose of this guideline is to ensure that the Nurse Initiated paracetamol promotes timely, safe and appropriate pain management of children presenting to the SCH Emergency Department. Only registered nurses who have undertaken the Emergency Department Education Programme in Triage, Clinical Initiatives Nursing and Nurse Initiated Analgesia and are deemed competent will undertake this practice.

1.2 Responsibilities

Emergency Department managers are responsible for ensuring that registered nurses who undertake this practice are provided with the appropriate knowledge and training.

Registered Nurses are responsible for ensuring they are professionally accountable and work within their own scope of practice.

1.3 Abbreviations and definitions

- **Mild Pain:** pain assessed and scored as between 1/10 and 4/10 utilising a Pain Assessment tool.
- **Moderate Pain:** pain assessed and scored as between 5/10 and 7/10 utilising a Pain Assessment tool.

2 Indications

Paracetamol can be used as an analgesic agent for patients who present with painful conditions or injuries where pain has been assessed as scoring between 1/10 and 4/10 using a Pain Assessment tool and no exclusion criteria are present.

3 Precautions

3.1 Hepatotoxicity

The risk of hepatotoxicity may differ depending on coexisting conditions. Therefore, all paracetamol prescriptions should be preceded by a careful risk assessment and a through medication history. If the patient is at risk of hepatotoxicity (Table 1: Risk Factors for hepatotoxicity) then consultation with a senior doctor must occur:

Table 1: RISK FACTORS FOR HEPATOTOXICITY [1-8]

1. Impaired liver function which may be associated with any of the following and compounded by previous paracetamol administration prior to admission.

- Prolonged fasting or dehydration (e.g. poor oral intake for greater than 24hrs)
- Chronic under-nutrition
- Intercurrent febrile illness
- Underlying hepatic injury or metabolic problems
- Younger age (under 2 years)
- Obesity
- Genetic predisposition (e.g. family history of hepatotoxic reaction)

2. Co-administration of drugs which induce hepatic microsomal enzymes (Cytochrome P450 inducers)

- Anticonvulsant e.g. barbiturates, carbamazepine, primidone
- Anti-tuberculosis agents e.g. isoniazid, rifampicin
- Alcohol

3. Co-administration of other products containing paracetamol (e.g. liquid cough/cold remedies).

- These products are not generally recommended in young children. However, if they are used, the paracetamol component must be included in calculations for the maximum total daily dose.

4. Administration and dosing errors

- Lack of awareness or understanding of the multiple paediatric dose strengths and formulations of paracetamol: e.g. infant drops (100mg/mL) and liquid paracetamol (120mg/5mL or 240mg/5mL)[9]
- Potential overdosing of an overweight child by administering a dose according to actual body weight OR dosing an underweight child according to the age group printed on the product.
- Exceeding the total allowable dose by dosing every 4 hours

- Do not administer paracetamol to patients who have had any paracetamol containing medication in the last 4 hours or 4 or more doses or 60mg/kg in the last 24 hours.
- Educate caregivers about the different products and strengths of paracetamol that are available, e.g., infant drops (100mg/mL) and other liquid paracetamol (120mg/4mL or 240mg/mL). Adult strength formulations (including “slow release” preparations) should not be administered to young children. The SCH Brochure “Paracetamol and Ibuprofen for Infants and Children Parent & Carer Information” can be used with parental education.

4 Assessment

Prior to administration of paracetamol, the registered nurse must undertake and **clearly** document a full assessment to include the following:

- Primary assessment of airway, breathing and circulation, inclusive of neurological assessment if indicated.
- Time and mechanism of any injury
- Location of pain and description of pain, if appropriate (i.e. sharp, stabbing, constant, dull, radiating)
- Allergies
- Previous Medical History (including obstructive sleep apnoea, respiratory illness, recent surgery)
- Other medications and analgesia used or previously initiated (medication name, product, dose, time, frequency)
- Pain score
- Immunisation status
- Children fasting for anaesthesia may be given oral analgesia
- Eligibility for administration of paracetamol. (See Precautions and Exclusions)

5 Exclusions

1. Proven allergy to paracetamol
2. Pain score above 4/10
3. Fever
4. Administration of paracetamol within:
   - The previous 4 hours or
   - Administration of 4 or more doses in the last 24 hours or
   - 60 mg/kg or more in the last 24 hours. (See precautions below)
5. Patients at risk of hepatotoxicity must be discussed with a senior doctor

The use of paracetamol in treating fever associated with acute infections is controversial. This guideline is not intended to cover the use of paracetamol for fever alone. Please refer Paracetamol - SCH Practice Guideline to address patients presenting with pain and fever and consult a senior Consultant.

6 Dose Calculation

- Ideal weight should be used to calculate dose for obese children (see Drug Dosing for Overweight and Obese Patients SCH Practice Guideline.)

6.1 Paracetamol

- **ORAL:** 15 mg/kg/dose every 4 to 6 hours. Maximum 60 mg/kg/day
  (Maximum single dose 1g and maximum 4 g in any 24 hour period)
- **RECTAL**[++]: 20 mg/kg/dose every 6 hrs (Maximum 90 mg/kg/day)

[++]*Where possible, the oral route of administration should be used over rectal as rectal absorption can be erratic and delayed. Rectal suppositories must not be cut for dosing purposes. Use suppositories if the calculated dose is equivalent to the available rectal dose suppository. Alternatively, liquid paracetamol drops (100mg/mL) can be used rectally but suppositories are preferable*.

Note: Liquid paracetamol is not licensed for rectal administration

The rectal route should not be used in the immunocompromised child or those with a coagulopathy.

7 Expectations of the Registered Nurse Initiating Medication

The registered nurse must clearly document an assessment of the patient's eligibility for nurse initiated paracetamol, as set out in assessment guidelines. If this assessment is completed at triage with the CIN then triage documentation of patient assessment is sufficient.

If the patient has left triage and returns to ask for pain relief or is identified as requiring pain relief, then it is the responsibility of the CIN to reassess the patient and document findings before prescribing the nurse initiated paracetamol.

If deemed appropriate for administration the nurse must adhere to the Medication Handling in NSW Public Health Facilities 2013 and SCH Safe Prescribing Guidelines. Prescription of the dose must be entered into the ONCE ONLY MEDICINES section on the front of the PAEDIATRIC NATIONAL MEDICATION CHART, stating the route, dose, date and time. The Nurse Initiator must sign and print their name, and document "NIM" to indicate Nurse initiated Medication in the Prescriber Section of the chart.

Post administration, re-evaluation of pain and analgesic effectiveness should occur hourly and be clearly documented in the patient's notes. Adverse events and management should be clearly documented in the patient record.

7.1 Time/Dose Limits

Subsequent doses of paracetamol containing products cannot be initiated by the Registered Nurse. A Medical Officer must review the patient and prescribe all further medications. Medical review is also essential if the child has received paracetamol or paracetamol-containing product within the last 4 hours or is at the max dose of 60/kg/day (based on ideal body weight) in the previous 24 hrs.

7.2 Outcomes

Children identified as experiencing mild and moderate pain with no exclusion criteria present, will receive effective and timely pain management, reducing patient discomfort and distress, prior to seeing a Medical Officer or Nurse Practitioner.

8 Related Documents

This document is to be read in conjunction with the following:

- Medication Handling in NSW Health Public Health Facilities Policy
- CIN Position Description - SCH
- Drug Dosing for Overweight and Obese Patients SCH Practice Guideline

9 References

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