Paediatric dosing information for Paracetamol and Ibuprofen within RACH

Author: David Annandale (pharmacist)
Approved: DTC (May 2018)
Publication date: Aug 2018
Review date: Aug 2019
Version: 1

Introduction

This guideline is intended to clarify the information given in the BNFc. The guideline provides dosing information for the appropriate use of paracetamol and ibuprofen within the Royal Alexandra Children’s Hospital (RACH). This guideline does not cover cautions, contraindications or dosing reductions in patients with renal or hepatic impairment. See BNFc for this information.

General Prescribing Guidance

DO prescribe according to the patient’s weight
DO NOT prescribe according to the patient’s age

DO prescribe the dose in mg (milligrams)
DO NOT prescribe the dose in mL (millilitres)

IF THE PATIENT IS OBESE: DISCUSS WITH PHARMACY TEAM
(National guidance is expected Summer 2018 – this guideline will be reviewed and updated accordingly)

ORAL Paracetamol Dosing

No paracetamol dose should be greater than 1 g every 4–6 hours (max QDS)

Pain or Pyrexia with discomfort

Neonate 28 weeks to 32 weeks corrected gestational age

- 30 mg/kg per day MAX in THREE divided doses. (10mg/kg per dose)

Neonate 32 weeks corrected gestational age and above

- 60 mg/kg per day MAX in FOUR divided doses. (15mg/kg per dose)

Post-operative pain

To avoid confusion this dose should only be used for day case patients within the RACH. If this dose is used in other locations within the RACH this must be clearly documented on the prescription chart.
Child 1 month and above

- 75 mg/kg per day MAX in FOUR divided doses (18.75mg/kg per dose).
- Clearly document on drug chart if using this dose.

For dosing information for the below indications refer to the BNFc

- Prophylaxis of post-immunisation pyrexia following immunisation with meningococcal group B vaccine
- Pyrexia with discomfort in children with risk factors for hepatotoxicity

**Oral Paracetamol formulations**

Paracetamol suspension is available as

- 50mg/mL (250mg in 5mL)
- 24mg/mL (120mg in 5mL)

It is worth taking this into consideration when prescribing so doses are easy for nurses or care givers to administer.

**Rectal dosing**

Refer to BNFc for information

**IV Paracetamol dosing**

These doses are **maximum doses** and should be **reviewed after 48 hours** where reduction should be considered or hepatic function monitored.

See table on next page
<table>
<thead>
<tr>
<th>Age/Weight of Child</th>
<th>Dose</th>
<th>Max Dose in 24 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preterm Neonate over 32 weeks corrected gestational age</td>
<td>7.5mg/kg every 8 hours</td>
<td>Max 22.5mg/kg daily</td>
</tr>
<tr>
<td>Neonate</td>
<td>7.5mg/kg every 4-6 hours</td>
<td>Max 30mg/kg daily</td>
</tr>
<tr>
<td></td>
<td>Max. FOUR doses in 24 hours</td>
<td></td>
</tr>
<tr>
<td>Child body weight under 10kg</td>
<td>7.5mg/kg every 4-6 hours</td>
<td>DO NOT PRESCRIBE AS PER BNF-c</td>
</tr>
<tr>
<td></td>
<td>Max. FOUR doses in 24 hours</td>
<td></td>
</tr>
<tr>
<td>Child body weight 10-50kg</td>
<td>15mg/kg every 4-6 hours</td>
<td>Max 60mg/kg daily</td>
</tr>
<tr>
<td>Child body weight over 50kg</td>
<td>1g every 4-6 hours</td>
<td>Max 4g daily</td>
</tr>
</tbody>
</table>

**Oral Ibuprofen dosing**

**Usual MAX dose is 400mg THREE times a day**

Mild to moderate pain, Pain and inflammation of soft-tissue injuries, Pyrexia with discomfort

Child 1–2 months

- 5 mg/kg 3 times a day.

Child 3 months and above

- Maximum 30 mg/kg per day in THREE divided doses (5-10mg/kg THREE times a day).

**For dosing information for the below indications refer to the BNFc**

- Pain and inflammation in rheumatic disease including juvenile idiopathic arthritis
- Post-immunisation pyrexia in infants
- Closure of ductus arteriosus
Oral Ibuprofen formulation

Ibuprofen suspension is available as:

- 20mg/mL (100mg in 5mL)

It is worth taking this into consideration when prescribing so doses are easy for nurses or caregivers to administer.

References:

https://www.medicinescomplete.com/mc/bnfc/current/PHP2632-paracetamol.htm?q=paracetamol&t=search&ss=text&tot=357&p=2#_hit
Accessed 23/7/18

https://www.medicinescomplete.com/mc/bnfc/current/PHP6461-ibuprofen.htm?q=ibuprfeno&t=search&ss=text&tot=159&p=1#_hit
Accessed 23/7/18