Paracetamol poisoning in children

Version 3.2

Use to manage all ORAL ingestions in patients aged less than 16 years

Includes overdoses due to therapeutic excess

Manage and document any co-ingestions separately

Note times & tasks in the boxes below

DD/MM/YY

Current date

HH:MM

Current time

DD/MM/YY

Date of ingestion

Time of ingestion (24-hour clock):

口 Single ingestion
口 Staggered; last tablets taken at HH:MM

HH:MM

Hours passed since

HH:MM

Timing unclear

HH:MM

Sample needed at

Blood sampling delegated to

HH:MM

Sample taken at

Result checking delegated to

HH:MM

Start NAC before

NAC administration delegated to

HH:MM

NAC started at

Patient details

Full name

DOB

Unit number

(Use sticker if available)

Sources of further advice

口 Go to toxbase.org or toxbasebackup.org for online management advice regarding paracetamol poisoning, including IV and other routes

口 Username: Password

口 National Poisons Information Service (NPIS) is available anytime if remaining uncertainties after advice from ED senior

口 0344 892 0111

口 Liver unit referrals should be made to the liver outlying registrar at the Birmingham Children’s Hospital (see box 7 for criteria)

口 0121 333 9999

Significant ingestion?

Work out ingested dose in mg/kg

In toddlers taking e.g. swig from Calpol bottle use max. possible dose (e.g. total mg in bottle) in calculation

Total

mg

Dose

kg

Patient weight

mg/kg

Disregard any additional kilos in excess of 110kg

If pregnant, enter pre-pregnancy not actual weight

口 Yes, as one of the below

口 Ingested dose >75 mg/kg/24h

口 Reported dose unreliable

口 No, as none of the above

NAC treatment needed?

口 YES, as one or more of the below

口 4-15h after single ingestion, level on or above treatment line

口 >15h after single ingestion, paracetamol is still detectable

口 >4h after last tablets of a staggered ingestion taken, paracetamol is detectable

口 >4h after an ingestion of uncertain timing, paracetamol is detectable

口 INR >1.3 *

口 ALT >53 IU/L *

口 NO, as none of the above

NAC can be stopped

N

Manage self-harm unless ingestion was truly unintentional, and address any safeguarding issues

NB: discuss with ED senior if other blood results abnormal, or patient complains of nausea or abdo pain

口 If need to delegate a task to someone else, record this in the relevant box on LEFT paper edge

口 If not already, prescribe NAC as per boxes 7-9

口 Prescribe any adverse reactions as per box 9

口 Record blood results in boxes 5-6

口 Obtain INR, venous gas, U&E, LFT, paracetamol level and FBC

口 Record actual time blood was taken in box on LEFT paper edge

口 Hand drug chart to patient’s nurse and ensure urgency is clearly understood

口 Admit to CAU (NB: check if liver unit referral criteria are already met (see box 6))

口 Is NAC Rx needed (see box 3)?

口 Creatinine raised?

口 New rise above normal or >10% from previously elevated value

口 If so:

口 Start NAC immediately (do not wait for blood results) and admit to CAU

口 NB: check if referral to a liver unit is required (see box 6 for criteria).

口 Otherwise await blood results

口 If NAC treatment needed (see box 3)

口 Start NAC and admit to CAU

口 NB: check if referral to a liver unit is required (see box 6 for criteria)

口 If serum creatinine is abnormal (i.e. new rise above upper limit of normal or >10% from previous abnormal value)

口 Admit to CAU

口 If none of the above

口 Patient is not a risk of liver toxicity

This patient was managed by

Print name

Signature

Role

Disclaimer:

This is a clinical template; clinicians should always use judgment when managing individual patients
For the first infusion, start by preparing the appropriate volume of a 50mg/mL NAC solution shown in column Ⓐ. Administer only the volume shown in column Ⓑ.

For each of infusions 2-4, discard 190mL from a 500mL bag of Glucose 5%. Add one NAC ampoule to bag (giving 320mL of a 6.25mg/mL solution). Administer only the volume shown in column Ⓑ.

In a 60mL syringe, draw up 30mL Glucose 5% and 1 ampoule NAC = 40mL solution. Administer only the volume shown in column Ⓑ; expunge excess. Run via syringe driver.

Run time 1h

For 12kg patient as per table in box 8

NAC regimen

- NB: For children >39.9kg use NAC regimen on adult proforma instead
- N-Acetylcysteine (NAC) ampoules contain 2G NAC in 10mL (200mg/mL)
- Regimen consists of 4 infusions given consecutively over 21h
- Tick applicable weight range (in pregnancy, here: ACTUAL weight)
- Prescribe NAC on fluid page of drug chart as per example in box 9

NAC example prescription

For 12kg patient as per table in box 8