NHS Vale of York Clinical Commissioning Group

NHS North Yorkshire Clinical Commissioning Group

Medicines Management Prescribing Focus – April 2022

Unintentional Paracetamol Overdose in Adults with Low Bodyweight

In February 2022 the HSIB (Healthcare Safety Investigation Branch) issued a report regarding unintentional paracetamol overdose in adult inpatients with low bodyweight (less than 50kg).

Whilst this report specifically relates to adult inpatients, the learning can also be applied to prescribing in primary care.

Following on from their investigation, the HSIB aims to increase awareness of the potential for paracetamol toxicity in adults with low body weight.

Action Required

- The MMT is asking practices to review adults prescribed all paracetamol containing products (all forms and combination products) and ensure there is an up-to-date weight (within one year) recorded in their clinical record.
- For any adult patients with a weight ≤50kg please review the dose of paracetamol and reduce the dose, if clinically appropriate – see below.
- Practices can choose to do these reviews all at the same time or as and when the patient attends for their next routine medication review.
- Now is the perfect opportunity to consider the suitability of continuing paracetamol and to consider deprescribing, where appropriate. Paracetamol is no longer recommended for chronic primary pain (NICE NG 193). Review the prescribing as part of shared decision making.

Dose Reduction

At present, there are differences in national guidance regarding the reduction in the dose of oral paracetamol required for an adult weighing < 50kg. The British National Formulary (BNF), Summary of Product Characteristics (SmPC) and Clinical Knowledge Summaries (CKS) all give different advice.

Consensus on this is being sought at a national level, but in the meantime the Medicines Management Team would advise a pragmatic approach:

Where clinically appropriate, consider reducing the paracetamol dose to 500mg up to four time per day, in adults weighing less than 50kg.

CKS guidance should be used if the patient has other risk factors.

Clinical Knowledge Summary (link)

Use clinical judgement to adjust the dose of oral paracetamol in people with risk factors for hepatotoxicity, such as liver disease or body weight less than 50kg. If risk factors (see below) *are present:*

- *Consider reducing the dose of paracetamol to a maximum of 3g in 24 hours (for example 1g three times daily) or use 15mg/kg every 4–6 hours (maximum of 60 mg/kg in 24 hours) as a guide.*

- *Monitor liver function tests if increased.*
- *Advise the person that they have been prescribed a lower dose and explain the reason why.*
- *Advise caution when using over-the-counter paracetamol-containing products; the recommended maximum total daily dosage must not be exceeded.*
- *Explain that the lower dose of paracetamol may not be stated in the manufacturer's patient information leaflet.*

Risk Factors include:

- Chronic alcohol consumption
- Chronic malnutrition
- Chronic dehydration
- Body weight less than 50kg
- Severe liver disease
- Increasing age and/or frailty — a reduction of the clearance of paracetamol has been associated with increased age and frailty. In addition, elderly people have comorbidities and polypharmacy, which can further increase risk of inadvertent paracetamol
- Long-term paracetamol use (especially in those who are malnourished)
- The use of liver enzyme-inducing drugs (such as rifampicin, carbamazepine, and phenytoin)
- Renal disease

Rationale: Why are we asking you to do this? A patient example from the HSIB report.

Dora, an 83-year-old woman who weighed less than 50kg on admission and lost further weight in hospital. While in hospital, Dora was prescribed oral paracetamol 1g four times a day. Towards the end of her admission, Dora developed multiorgan failure due to sepsis and was diagnosed with paracetamol-induced liver toxicity. Dora's paracetamol level was found to be significantly raised and treatment was started to correct this. Sadly, Dora died the day after the start of treatment.

An inquest concluded that paracetamol-induced liver toxicity was a causal factor in her death.

We would like to take this opportunity to remind all staff involved in making alterations to medication that patients should be informed of any change. Ideally, this should be done face to face, by telephone or by letter. Alternative methods of communication may be considered but must be clear and unambiguous.

Please share the information in this document with all relevant members of staff in the practice.

For any queries or feedback on this topic please contact the respective teams via: nyccg.rxline@nhs.net (North Yorkshire) or VOYCCG.Rxline@nhs.net (Vale of York).

The MMT welcomes further ideas and suggestions that you and colleagues may wish to recommend for future topics.

Many thanks,

NHS North Yorkshire and NHS Vale of York CCG's Medicines Management Team