Reducing oral paracetamol doses in adults
Local Guidance

There is variation in practice around the country in reducing the dose of oral paracetamol in particular groups of adult patients. The following information is provided to help inform decisions in this area.

There is information to suggest that pharmacokinetics of paracetamol is altered in severe liver disease. There are case reports of malnourished patients, frail elderly patients, and patients with a history of liver disease developing acute liver failure following administration of oral paracetamol at a dose of 4g daily (1g four times a day).

A reduction of the maximum dose of oral paracetamol to 3g in 24 hours (1g three times a day) should be considered for malnourished patients or patients with Child Pugh C cirrhosis (i.e. decompensated cirrhotic patients), irrespective of a patient’s weight.

This is the current practice of the liver unit at Leeds Teaching Hospitals, as well as some other liver units around the United Kingdom. Evidence for this is limited and is mainly based on case studies and expert consensus.

Some clinicians consider a dose reduction of oral paracetamol in patients who weigh less than 50kg. There are documented case reports of 4g oral paracetamol causing acute liver failure in patients with low body weight. However, in these cases these patients also had other risk factors such as malnourishment or chronic alcoholism.

Currently, there is insufficient evidence to suggest that low body weight is an independent risk factor for developing acute liver failure from oral paracetamol. However, low body weight may be a symptom of an underlying condition which would be an indication for reducing oral paracetamol doses. In addition, a reduction of the clearance of paracetamol has been associated with increased age and frailty. If a patient has a low body weight, increased age and/or fraility the risks and benefits of oral paracetamol should be considered. This includes their risks for hepatotoxicity and the potential risks of alternative treatments (e.g. NSAIDs, opioids), which may also be problematic for patients with conditions associated with low body weight.

If patients are prescribed a lower dose they should be made aware of the reasons why and advised accordingly, including purchase of paracetamol containing OTC medicines. Note that the above guidance is for oral paracetamol only - guidance on the dosing of IV paracetamol for patients under 50kg is available in the BNF and product literature, and should be followed.

References and Provenance

Date produced: April 2018   Last reviewed: April 2020   Valid until: April 2022

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