Humber Area Prescribing Committee

ORAL PARACETAMOL IN ADULTS

Paracetamol is metabolised mainly in the liver by glucuronic acid conjugation and sulphuric acid conjugation with a small fraction metabolised by cytochrome P450 to a hepatotoxic metabolite N-acetyl-p-benzoquinone imine (NAPQI). At therapeutic doses, NAPQI is conjugated with glutathione and inactivated and eliminated in the urine. 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).

Weight	Daily oral dose	Max oral dose
≤40kg	500mg FOUR times daily	2g in 24 hours
40kg to 45kg	500mg FOUR times daily	2g in 24 hours
46kg to 50kg	1g THREE times daily	3g in 24 hours
>50kg	1g FOUR times daily	4g in 24 hours
>50kg with risk factor for hepatotoxicity	500mg-1g FOUR times daily Reduce dose if needed regularly for more than 7 days	4g in 24 hours

Risk Factors for hepatotoxicity with paracetamol

- Dry body weight under 50kg
- Elderly/frail
- Renal insufficiency (eGFR < 30ml/min dose must be ≥ 6 hours apart)
- Decompensated liver disease
- Chronic malnutrition
- Chronic dehydration
- Cachexia
- Chronic alcohol consumption or regular consumption of alcohol in excess of recommended amounts
- Long-term treatment with liver enzyme-inducing drugs e.g. carbamazepine, phenytoin, primidone, rifampicin, phenobarbital, St John's Wort or other drugs that induce liver enzymes

Document and version control	**This information is not inclusive of all prescribing information and potential adverse effects. Please refer to the SPC (data sheet) or BNF for further prescribing information.**		
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1	Luke Storr/Jane Morgan	Senior Pharmacy Technician/Principal Pharmacist HUTH	New document

References: BNF, British Hepatology Pharmacy Group: Prescribing weight-adjusted oral paracetamol in adults - Position Statement March 2022