Paracetamol

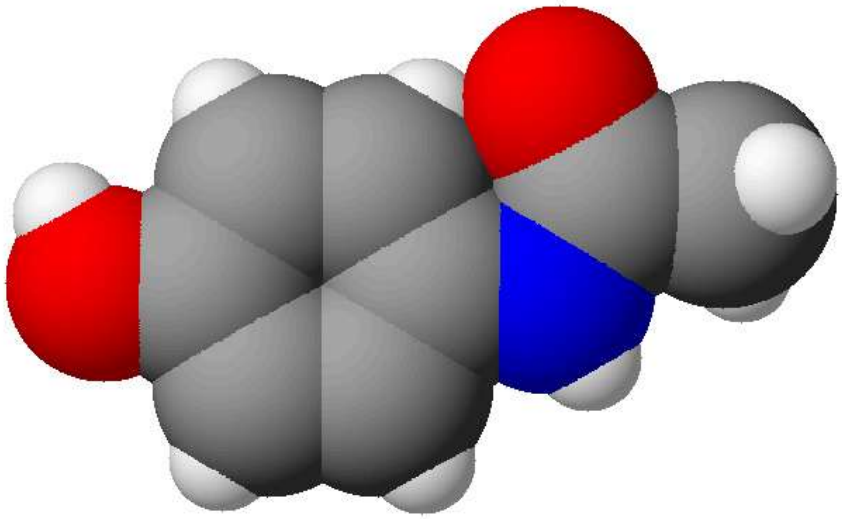
Familiarity breeds contempt

When first the Fox saw the Lion he was terribly frightened, and ran away and hid himself in the wood. Next time however he came near the King of Beasts he stopped at a safe distance and watched him pass by. The third time they came near one another the Fox went straight up to the Lion and passed the time of day with him, asking him how his family were, and when he should have the pleasure of seeing him again; then turning his tail, he parted from the Lion without much ceremony.

Aesop ~560BC

Treat paracetamol as you would any other drug:

- **Check that not charted elsewhere in drug chart**
- **Check for allergy**
- **Only use IV when strong indication**
- **Never chart O/IV or administer to such a script**
- **A patient charted iv paracetamol must be weighed**
- **Store like any other drug**
- **Know its indications and dosing if a prescriber**



Paracetamol may kill a patient through either predictable liver toxicity or known allergy. Please see reverse for more details on what you should know.

1. **Check that paracetamol not charted elsewhere in drug chart.**
    a. You should know the generic names of all paracetamol preparations: Paracetamol, co-codamol, co-dydramol
    b. But brand names can be confusing: The rule as for any drug that you do not know, look it up ! - Midrid®, Tramacet®, Migraleve®, Paramax®, Nuromol® and acetaminophen (The American name for the drug and American tourists given overdose are perhaps more likely to sue)
2. **Check for paracetamol allergy**
    a. Two cases of paracetamol "allergy" in 3 years in the Trust where drug prescribed and given despite documented allergy
    b. Paracetamol allergy in one large series: urticaria (34.4%), macular and pustular eruption (30.2%) and fixed drug eruption (12.6%). Occasionally life threatening, such as toxic epidermal necrolysis or anaphylactic shock
3. **Never chart paracetamol O/IV or administer to such a script**
    a. The IV drug has significantly different pharmacokinetics
    b. IV dose determined by weight if <50kg.
    c. IV maximum daily dose is 3g if risk factors for hepatotoxicity. The risk factors for hepatotoxicity include:
        i. Dehydration (very common in hospitalised patients)
        ii. Chronic malnutrition (low reserves of hepatic glutathione – very common in emergency admissions)
        iii. Chronic alcoholism
        iv. Hepatocellular insufficiency (ie jaundice)
        v. Patients receiving patients receiving enzyme inducers (eg antiepileptics including carbamazepine, phenytoin, and barbiturates)
    d. Did you know in the USA the maximum tablet size is 325mg for safety reasons as inadvertent liver injury was increasing until 2011.
4. **Store paracetamol like any other drug**
    a. It is dangerous in overdose
    b. A patient obtained excessive paracetamol from a clinic room where it was left out
5. **Know indications and catches with iv paracetamol**
    a. **Always weigh the patient**
    b. IV paracetamol is an effective acute analgesic agent for operative pain management and when no functioning gut. It has little place in chronic pain management or for treating pyrexia. A former preparation used in the Trust was associated with the risk of air embolism.
    c. The MHRA have noted accidental overdose with intravenous paracetamol 10 mg/mL. In most cases, this occurred in infants and neonates due to confusion between the prescription of in mg and administration in mL causing a 10-fold overdose.
    d. IV paracetamol use when oral or rectal routes available increases the risk of safety related complications
    e. In several common situations where iv paracetamol is used, as for example a pre-med, there is no clinical evidence that it provides more effective analgesia than oral paracetamol. The use is justified by analogy and surrogate evidence..

Other things of interest about paracetamol.

1) Toxicity is accumulative. In 2011 it took a few weeks to induce fatal hepatic failure in an young adult charted 1g qds intravenously by multiple doctors ignorant of the issue of weight and that intravenous paracetamol is not equivalent to oral paracetamol.
2) While it does not interact with warfarin acutely, chronic use increases the INR (common cause of loss of INR control after admission to an institution)
3) Soluble paracetamol tablets should only be used if essential as the standard preparation is more cost effective.
4) It has an antidote, but this works poorly in chronic overdose
5) The iv preparation costs 20 times as much and this adds up if used on many patients
6) Unintentional self-harm (hepatic toxicity) is more likely with narcotic combination tablets such as co-codamol as these can lead to addictive behaviour