



Drugs Commonly Used For Children



Introduction - Drugs and Children

- This presentation identifies some of the drugs children are given in nursing. We look at the drugs uses, how it is given, and who can and can't be given it.
- Medication dosing errors occur in up to 17.8% of hospitalized **children**.
- Pirmohamed et al (2004) research suggested that ADR's in children were a large burden on the NHS relating to morbidity, mortality and extra costs.
- Rashed et al (2012) also suggested that the importance of identifying the reasons behind ADR's is to create prevention strategies for the future.



Paracetamol (Acetaminophen)



The Most Commonly used medication both in hospitals and in the community

- Uses - To relieve pain and lower raised temperature.
- Who can have it - From neonates (28 weeks) onwards.
- How is it given - most commonly by mouth, also given rectally and by IV
- Who can't have it - alcohol dependents



Paracetamol - Is It All Good??

- Pre-emptive administration before vaccinations is thought to reduce antibody response.
- Mounting evidence linking use of paracetamol to the increases in prevalence of childhood asthma.
- Should only be used for comfort not to reduce fever - no evidence to show that it reduces risk of febrile convulsions.

Ibuprofen

- Uses - To relieve pain, lower raised temperature and reduce inflammation of soft tissue injuries, also in NICU to close patent ductus arteriosus
- Who can have it - From one month
- How is it given - By mouth or IV
- Who can't have it - Not to asthmatics, those with renal failure, gastrointestinal problems, lupus, liver problems, low platelets (oncology) also caution with cardiac impairment.



Ibuprofen - Is It All Good?



- It is now recommended it be used with caution to close ductus arteriosus - moderate sized duct usually doesn't need to be closed until the age of 1 or 2 years.
- Significant hypothermia has been documented after therapeutic use or an overdose.
- Renal toxicity - many febrile children will be mildly dehydrated which is difficult to detect.

Ibuprofen and/or Paracetamol?

- No evidence that reducing fever reduces mortality - in fact current evidence suggests may actually adversely affect outcome.
- Little is known about long term effects.
- NICE 2007
 - antipyretic agents do not stop febrile convulsions and should not be used specifically to reduce temperature.
 - Not to administer the 2 drugs at the same time, but to consider the alternative if child does not respond to first drug.
- Little evidence of any benefit or harm (either with fever or comfort) of using both together.
- Combination of both can have summative effect and lead to hypothermia.
- Complacent use in hospitals directly affects the administration of these medicines in the home - age related dosage at home may lead to under or over dosing.

Midazolam /benzodiazapine

- Uses - Given to children with convulsions lasting > 5mins also a sedative for procedures, pre med and anti epilepsy medication
- Who can have it - From neonate
- How is it given - By I.V and buccal cavity
- Side Effects - respiratory depression
- Warning in a few patients can cause opposite affect to sedation





Salbutamol (Albuterol)



- Uses - To manage bronchoconstriction and asthma
- Who can have it - from 1 month
- How is it given - By I.V, aerosol (inhaler), nebulised inhalation or dry powder
- Side effects - tremor (very common), headache, sweats and tachycardia (fast heart rate)
- Advise caution in diabetics due to potassium regulation however remember ABC



Salbutamol



Hey Johnny, when that... you're hurting the environment.

- The use of intravenous salbutamol in patients with acute respiratory distress syndrome is unlikely to be beneficial and could worsen outcome - 34% of patients in the salbutamol group died compared with 23% in the placebo group.
- Use of inhalers with spacers and nebulisers have same outcome as long as staff are properly trained in use of spacer.

Gaviscon Infant

- Uses - To relieve gastro oesophageal reflux and dysphagia
- Who can have it - From neonate
- How is it given - Given by mouth, mixed with feeds or water for breast fed babies
- Who can't have it - Not where water loss is likely or if there is an intestinal obstruction.



Cefotaxime (pronounced with a K)

- Uses - An antibiotic usually first line on most wards (broad spectrum antibiotic covers anaerobes and aerobes).
- Who can have it - neonate - based on weight
- How is it given - By I.M, I.V

