

# Breastfeeding and Medication



## Breastfeeding and timing of medication

Timing of drugs with respect to medication does not help to minimise levels to which babies are exposed in chronic conditions. Although the time to maximum level is often quoted, drugs reach a steady state 3-5 days after therapy begins and the levels then remain constant across the 24-hour period. Just as it takes approximately 5 half-lives for a drug to leave the body totally, it takes 5 half-lives to reach steady state. Before this time the levels increase gradually with every dose until they reach this point. Trying to time feeds disrupts normal breastfeeding and may result in engorgement with no benefit in milk levels to which the baby will be exposed. See Fig 1 below

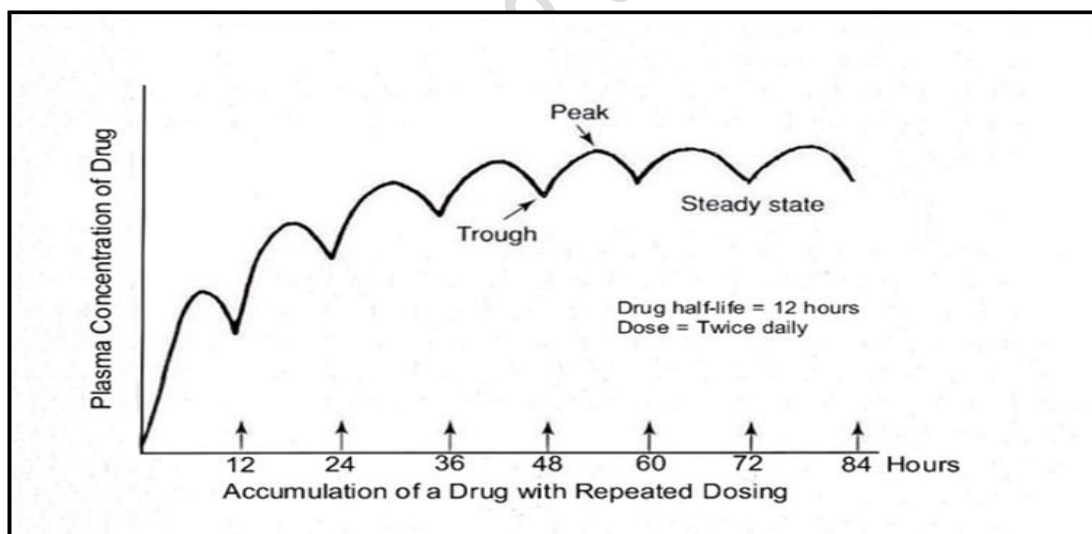


Fig 1 accumulation of drug until it reaches steady state after 5 half lives (here taken to be 24 hours)

The half-life of a drug defines how long it takes to reach steady state and also how long it takes for it to be totally cleared from the mother's body and milk. Five half-lives are taken as the closest measure in both cases.

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June 2019 *The information on this sheet is based upon my professional experience as a pharmacist with a specialised interest in the safety of drugs in breastmilk, supported by evidence from expert sources. However, I cannot take responsibility for the prescription of medication which remains with the healthcare professionals involved. I am happy to discuss the evidence by email [wendy@breastfeeding-and-medication.co.uk](mailto:wendy@breastfeeding-and-medication.co.uk)*

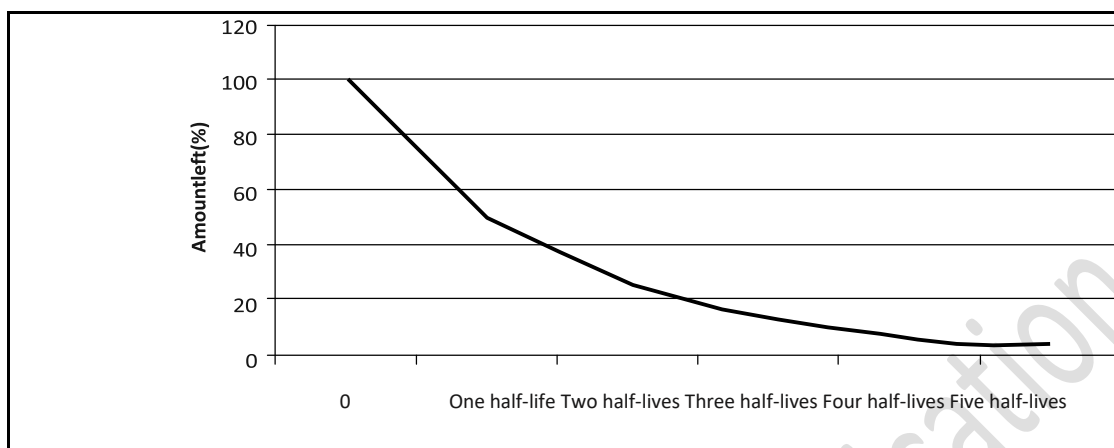
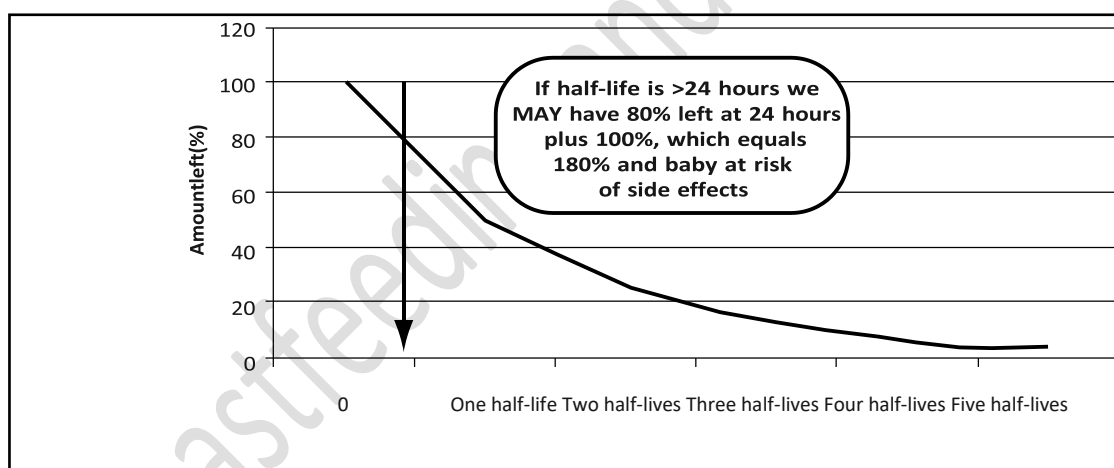


Fig 2 Percentage of drug left where half-life is 24 hours

If the half-life of the drug is more than 24 hours the level may begin to accumulate in the baby's body and be more likely to produce adverse effects e.g. diazepam half-life 43 hours. Drugs with short half lives are preferred during breastfeeding. In general long acting / slow release formulations are better avoided if possible.



Some drugs e.g. pethidine and fluconazole have longer half lives in babies under 6 weeks of age. This may lead to accumulation and appearance of adverse effects.

Half life is just one of the pharmacokinetic properties which we need to consider when determining the compatibility of a drug with breastfeeding.

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