Use of drugs during lactation

Most commonly used drugs are relatively safe for breastfed babies. The dose received via milk is generally small and much less than the known safe doses of the same drug given directly to neonates and infants.

Drugs contraindicated during breastfeeding include anticancer drugs, DMARDS (e.g. MTX, leflunomide), lithium, oral retinoids, iodine, amiodarone and gold salts.

Drugs affecting milk

Drugs can affect milk secretion or composition by affecting factors such as mammary gland development, milk secretion and hormonal regulation of lactation. Prolactin is necessary for human milk secretion and may be affected by drug use. Dopamine agonists such as cabergoline reduce prolactin and are sometimes use therapeutically to stop lactation. Dopamine antagonists such as domperidone, metoclopramide and most antipsychotics, SSRI, opioids may increase prolactin and milk production.

Points to remember before prescribing in lactating mother

1. Prescribe a drug only if it is indicated.

2. If a drug is needed, prescribe it at the lowest effective dose.

3. The infant should be monitored for adverse effects such as failure to thrive, irritability and sedation.

4. Feeding immediately prior to a dose may help to minimize infant exposure as concentrations in milk are likely to be lowest towards the end of a dosing interval.

5. Temporarily suspend breastfeeding (and express milk) for potentially toxic drugs, such as cytotoxics and radiopharmaceuticals. It may not be possible to continue breastfeeding if lengthy treatment with a toxic drug is needed.

6. Select alternative routes or products to minimize systemic exposure in the mother. For example, choose a poorly absorbed fibre laxative over a stimulant laxative.

7. Choose drugs with a relatively short half-life, such as sertraline rather than fluoxetine, to minimize drug exposure in milk.

8. Advise the mother to feed the infant before taking her medicine so that the drug concentration in milk will be at its lowest.

Analgesics

1. Paracetamol, ibuprofen, naproxen and codeine are considered to be safe.

2. Sumatriptan has a short half life of approximately two hours and infant exposure can be almost completely avoided by expressing and discarding breast milk for approximately 8 hours after dosing.

3. Limited data on tramadol suggest low transfer into breast milk although where possible, it would be preferable to use agents which are more established such as codeine and paracetamol.

4. Morphine is usually considered 'safe' because of low transfer into milk and high first-pass metabolism.

Antihypertensive

All the antihypertensive drug safe in lactation. But it is better to avoid diuretic, because it may reduce lactation.

Antidiabetic

Insulin is safe.

Among OADs-metformin is safe. Among sulfonylurea glipizide, glyburide can be used but glimiperide and gliclazide should not be used.

Antiplatelet

1. Transfer of aspirin into breast milk appears to be low but it is best avoided due to the theoretical risk of Reye's syndrome.

2. Clopidogrel if given to lactating mother the infant should be monitored for appearance of bruise or other bleeding mark.

Nitrates

1. Topical use of nitroglycerin for anal fissures by nursing mothers appears to have no adverse effects on their breastfed infants.

2. It should not be used topically on the nipples during breastfeeding.

3. Sublingual and intravenous nitroglycerin have not been studied during breastfeeding.

4. Observe infants for flushing and discomfort after breastfeeding

Antilipid drugs

1. Statin- should avoid in lactation. Breast feeding must be stopped before starting statin.

2. Fenofibrate- no relevant published information. Should avoid.

Anthelminthics

Mebendazole or pyrantel pamoate considered to be 'safe' due to poor absorption from the gastrointestinal tract.

Antibiotics

1. Antibiotics such as penicillins, cephalosporins and macrolides are considered to be compatible with breastfeeding. (Though theoretical risks of alterations to infant bowel flora and allergic sensitization).

2. The safety of metronidazole is controversial due to the possibility of high transfer into breast milk.

3. Techniques that may be considered for minimizing infant exposure include choosing an alternative antibiotic such as amoxycillin/clavulanic acid (if appropriate), alternating breast and bottle feeding, or withholding breastfeeding during the treatment course. If breastfeeding is to be withheld, the mother should be encouraged to continue to express breast milk while on the antibiotic course but to discard the milk. This will help to maintain lactation and enable the mother to resume breastfeeding at the end of the course.

4. The transfer of tetracyclines into breast milk is low but they are usually avoided due to the possible risks of inhibiting bone growth or causing dental staining.

5. Fluoroquinolones should also be avoided in breastfeeding as they have been reported to cause arthropathies in immature animals.

6. Sulphonamides such as sulphamethoxazole are unlikely to be problematical in most situations but are best avoided in infants with hyperbilirubinaemia or glucose-6-phosphate dehydrogenase deficiency.

Anticoagulants

1. Heparins (unfractionated and low molecular weight) are considered 'safe' since these agents have a large molecular weight and do not cross into breast milk to a significant extent.

2. Warfarin is also considered to be compatible with breastfeeding as transfer is low, and adverse effects and changes in prothrombin time have not been detected in breastfed infants. However, it would be prudent to monitor the infant's prothrombin time during treatment.

Anticonvulsants

1. Carbamazepine, phenytoin, lamotrigine and sodium valproate are generally considered to be compatible with breastfeeding although the infant should be observed for evidence of central nervous system depression.

2.There are insufficient data to comment on the safety of gabapentin in breastfeeding. Better avoid gabapentin.

Antidepressants

1. Selective serotonin reuptake inhibitors (SSRIs) transfer into breast milk to varying extents. Paroxetine is reported to have the lowest transfer into breast milk. Fluoxetine transfers to a greater extent. Data on citalopram suggest that the relative infant dose of citalopram is intermediate between paroxetine and fluoxetine. Based on these data, paroxetine is the preferred SSRI in breast feeding women.

2. Most tricyclic antidepressants are considered to be compatible with breastfeeding due to low transfer into breast milk and this is supported by extensive usage data.

3. Moclobemide has low transfer into breast milk and is considered compatible with breastfeeding.

Antihistamines

1. Promethazine, dexchlorpheniramine and diphenhydramine are considered to be safe through extensive usage. (The infant should monitor for evidence of sedation or irritability).

2. There is less data on the non-sedating antihistamines, although loratadine and fexofenadine are likely to be safe due to low transfer into milk.

Benzodiazepines

1. Sporadic use of benzodiazepines with a short plasma half-life such as midazolam and temazepam is unlikely to be problematcal due to low quantities transferred into breast milk.

2. Agents with a long half-life such as diazepam may accumulate in the infant with prolonged exposure and may be associated with lethargy, poor sucking and reduced weight gain.

Decongestants

1.A short course of pseudoephedrine is unlikely to be problematical.

2. Topical decongestant nasal sprays or drops are usually preferred due to lower infant exposure.

Social drugs

1. Caffeine exposure may be as high as 34% of the weight-adjusted maternal dose and side effects such as restlessness and irritability have been reported in infants exposed via breast milk.

2. Alcohol- infant exposure following maternal ethanol ingestion may be as high as 20% and has been associated with impaired psychomotor development. Alcohol consumption should be minimized during lactation (e.g. by withholding breastfeeding for about two hours after ingestion of a standard alcoholic drink).

3. Nicotine has been detected in the plasma of breastfed infants, and smoking is best avoided by breastfeeding mothers. However, as a general rule, the short-term use of nicotine replacement therapy is far preferable than continued smoking.