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SAFETY OF WARFARIN IN BREASTFEEDING

Question:
What is the safety of warfarin in breast feeding women?

Answer:
Drug safety during breastfeeding can be assessed by determining the magnitude of infant exposure ie. the dose ingested via milk and infant pharmacokinetics, and the drug's inherent toxicity. The infant's dose (mg/kg) can be expressed as a percentage of the maternal dose (mg/kg). For drugs with relatively low toxicity, an infant dose that is less than 10% of the maternal dose (weight-adjusted) is probably compatible with breastfeeding. However, for drugs with greater inherent toxicity (eg. immunosuppressives), this cut-off is too high and even low drug exposure may be contraindicated. Higher exposure for a given dose may occur in premature infants and those with impaired renal or hepatic function due to reduced ability to eliminate drugs[1,2].

Warfarin: In general, warfarin is stated to be compatible with breast feeding on the basis that several studies have failed to detect this drug in the breast milk of lactating women[1,3-6]. This is not at all unexpected given the physicochemical properties of warfarin including a high degree of protein binding, an acidic nature and ionisation at physiological pH. These properties all tend to limit the transfer of this drug into breast milk[1,3,7] .
In the worse case situation, transfer of warfarin into breast milk may occur up to the assay limit of detection, which was 25mcg/L[6]. This would suggest that at worst, a suckling infant would ingest only 4.4% of the weight adjusted maternal dose.
These data do not preclude the possibility of higher concentrations of warfarin transferring in to breast milk however, and/or for cumulative dosing to produce toxic effects. However, in at least 18 infants, no adverse effects or prolongation of prothrombin times were observed[1,3-6].

Conclusion:
As with any drug therapy in breast feeding women, it is necessary to consider risks in terms of benefits. However, the consensus is that maternal warfarin use does not pose significant risk to normal, full-term breast feed infants. Infant exposure may be further minimised by feeding immediately prior to dosing

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