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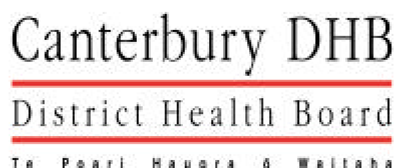

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SAFETY OF LOW-DOSE ASPIRIN IN BREASTFEEDING

Question:
What is the safety of low-dose aspirin (eg 100mg daily) in breastfeeding?

Answer:
We are not aware of any data describing the safety of low-dose aspirin in breastfeeding[1-5]. However, there is a reasonable amount of data describing the transfer of aspirin into breast milk following antipyretic/analgesic doses[1]. Under these circumstances, chronic maternal use of aspirin has been associated with an infant dose (mg/kg) of up to 4.0% of the maternal dose (mg/kg)[1]. In itself, this value suggests aspirin is likely to be safe in breastfeeding as it is below our arbitrary cut-off of 10% (that guides drug safety). However, antipyretic/analgesic doses of aspirin (eg 300-900mg per dose) have been considered contraindicated in breastfeeding [1,3] due to reasons that include:
a) association of aspirin use with Reye's syndrome (aspirin use in children has been discontinued in many countries for this reason)
b) potential for bleeding secondary to impaired platelet function

There are two case reports suggesting infant exposure to aspirin via breast milk may be considerable. There is a case report of suspected salicylate toxicity in a 16-day old infant[6]. The infant's mother took aspirin 3.9g/day while breastfeeding and denied giving aspirin to the child[1,6]. In another case, maternal aspirin ingestion (2.4g/day) was associated with infant serum salicylate concentrations that were 29% of maternal concentrations. The assay was conducted when the infant was 9 weeks old (born at 36 weeks gestation) and when the infant was 50% breast and formula-milk fed[7].

Maternal ingestion of antiplatelet doses (eg 75-100mg daily) of aspirin during breastfeeding would not be expected to be problematical in healthy term infants. If it is assumed that the average woman weighs approximately 60kg and that the aspirin dose is 100mg/day then maternal dose would be approximately 1.667mg/kg/day. On a weight-adjusted basis, the infant receives 4% of this ie 0.0667mg/kg/day.
Compared with therapeutic doses that have been used for treating fever or rheumatological conditions in infants (60mg/kg/day) the dose via breast milk is approximately 0.1% of a therapeutic analgesic/antipyretic/anti-inflammatory dose.

Conclusions:
It is generally recommended that aspirin should not administered to children. It is further considered that maternal use of antipyretic/analgesic doses of aspirin is best avoided in breastfeeding due to the theoretical risk of Reye's syndrome. Furthermore, safer alternatives such as paracetamol, diclofenac and codeine exist.
Maternal use of antiplatelet doses of aspirin is unlikely to be problematical given the low dose that the infant is likely to receive. As always, it would be recommended to use the lowest effective dose (eg 75 or 100mg daily) and monitor the infant for evidence of adverse events such as easy bruising or gastrointestinal upset.

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References:

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