LETTERS

Letters to the Editor

Iodine in breastfeeding

Aust Prescr 2016;39:4
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I refer to the breastfeeding article[1] by Neil Hotham and Elizabeth Hotham to express my concern about the inclusion of iodine as a drug contraindicated in breastfeeding. In the Table titled 'Examples of drugs contraindicated in breastfeeding' it mentions iodine with the comment 'High doses (>150 micrograms daily) lead to risk of infant hypothyroidism'. I could not find anything in the text or the references of the article that supports this view.

First, iodine is not a drug but an essential element required for normal thyroid function. Therefore including it in a table as an example of drugs contraindicated in breastfeeding is totally unacceptable.

Second, the maternal recommended daily intake for iodine during pregnancy and lactation is 250 micrograms. Given that mild iodine deficiency has been widely prevalent in Australia and continues in women of reproductive age, the National Health and Medical Research Council recommends a daily supplement of 150 micrograms for pregnant and lactating women.[2] The World Health Organization states that a maternal intake over 500 micrograms per day is excessive but not necessarily harmful.[3] It is possible to cause infant hypothyroidism by massive doses of iodine directly to the infant or via mother's milk over a prolonged period of time.

Finally, I think this article is more likely to cause harm than do good by deterring iodine supplementation during pregnancy and lactation. I would ask that a correction be published.

CJ Eastman
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Sydney

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2. National Health and Medical Research Council. NHMRC public statement. Iodine supplementation for pregnant and breastfeeding women. Canberra: Commonwealth of Australia; 2010. www.nhmrc.gov.au/_files_nhmrc/publications/attachments/new45_statement.pdf [cited 2016 Jan 4]
3. Andersson M, de Benoist B, Delange F, Zupan J; WHO Secretariat. Prevention and control of iodine deficiency in pregnant and lactating women and in children less than 2-years-old: conclusions and recommendations of the Technical Consultation. Public Health Nutr 2007;10 12A:1606-11.

Neil Hotham and Elizabeth Hotham, the authors of the article, comment:

We agree with Professor Eastman that the main issue of concern is the dose of iodine supplementation. It would have been preferable had the term 'cautionary use' been adopted in relation to iodine rather than suggesting an absolute contraindication for doses over 150 micrograms.*

As Professor Eastman notes, the National Health and Medical Research Council recommends that all Australian women who are pregnant or breastfeeding take a daily supplement containing 150 micrograms,[1] to help achieve the recommended daily intake of 270 micrograms. Hale and Rowe advise limiting doses to not exceed the recommended daily intake,[2] given the risk of hypothyroidism (even if transient) in the infant.

Lactating women with thyroid disorders should be counselled to seek specialist advice.

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1. National Health and Medical Research Council. NHMRC public statement. Iodine supplementation for pregnant and breastfeeding women. Canberra: Commonwealth of Australia; 2010. www.nhmrc.gov.au/_files_nhmrc/publications/attachments/new45_statement.pdf [cited 2016 Jan 4]
2. Hale TW, Rowe HE. Medications and mothers' milk. 16th ed. Amarillo (TX): Hale Publishing; 2014.

* *Australian Prescriber* has corrected the article by deleting iodine from the list of contraindicated drugs.

Radiopharmaceuticals in breastfeeding

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In the article on drugs in breastfeeding,[1] I was dismayed at the inclusion of 'radiopharmaceuticals' in the table of drugs contraindicated in breastfeeding. There was little elaboration within the article as to the reason for this. The other drugs listed have sufficient evidence of the potential for serious adverse effects to the infant. This evidence simply does not exist for diagnostic radiopharmaceuticals.

Breastfeeding mothers regularly refuse timely diagnostic studies (to their detriment) on the basis of this misinformation touted by clinicians with little knowledge of radiology and risks. I kindly request

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that instead of 'referring to the obstetric information service' that you instead speak with the local nuclear medicine specialist.

Giles Craig
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REFERENCE

1. Hotham N, Hotham E. Drugs in breastfeeding. Aust Prescr 2015;38:156-9.

Neil Hotham and Elizabeth Hotham, the authors of the article, comment:

We thank Dr Craig for his comments and recognise that inclusion in the list of contraindicated drugs without qualification could be misleading. It is important for women to discuss any concerns with a specialist. In addition, there is sound advice available from the centres and references cited in our article.

It is essential to distinguish between radiopharmaceuticals. There is universal agreement that iodide (^{131}I) is incompatible with breastfeeding, as the iodide concentrates not only in the maternal thyroid gland but also in breast tissue and breast milk. Permanent discontinuation is advised.[1,2]

For other radiopharmaceuticals, such as technetium, recommendations related to breastfeeding should be cognisant of the radioactive half-life of the pharmaceutical. For some, no interruption of breastfeeding is necessary, whereas for others, expressing breast milk for periods from 3–48 hours has been recommended (based on the individual isotope). Hale and Rowe advise that, for any radiopharmaceutical, the withdrawal period for higher doses should be a minimum of five half-lives of radioactivity and possibly up to 10.[3]

By comparison, for non-radioactive products such as gadolinium-based and iodinated contrast media, there is expert consensus that no interruption of breastfeeding is necessary.[4-6] Despite this, the Australian product information for these products has a range of suspension recommendations from 24 hours (meglumine diatrizoate and sodium diatrizoate) to complete cessation (meglumine iothalamate). These examples highlight the pitfalls of relying on the product information in clinical practice.

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