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Luke Grzeskowiak

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Use of Domperidone to Increase Breast Milk Supply: Are women really dying to breastfeed?

Luke E Grzeskowiak

Luke E Grzeskowiak, PhD, BPharm (Hons), GCertClinEpid, FSHP

1. School of Paediatrics and Reproductive Health, The Robinson Research Institute, The University of Adelaide, Adelaide, South Australia, Australia

E-mail: Luke.Grzeskowiak@adelaide.edu.au

Corresponding Author:

Luke Grzeskowiak

The Robinson Institute, The University of Adelaide

Lyell McEwin Hospital

Haydown Road

Elizabeth Vale, 5112

South Australia, Australia

T: +61 8 8133 2133

F: +61 8 8182 9337

E-mail: Luke.Grzeskowiak@adelaide.edu.au

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As outrageous as it may seem, recent reports would have you believe that women are indeed risking their lives to breastfeed their infants. The potential for domperidone to prolong the QT interval and increase the risk of fatal cardiac arrhythmias among susceptible users has been known for a number of years.¹ Of particular interest is the concept of susceptibility, as original case reports of fatal cardiac arrhythmias involved the administration of high dose intravenous domperidone to cancer patients. This led to warnings by the Food and Drug Administration in the United States and its subsequent complete withdrawal from the US market, in addition to the withdrawal of the intravenous formulation from other markets. The oral form of domperidone, however, has remained available for use in many other countries.

Further evidence supporting the association between the use of domperidone and sudden cardiac death emerged through the publication of two case-control studies in 2010.^{2,3} These studies led to further regulatory warnings and prompted the European Medicines Agency's (EMA) Pharmacovigilance Risk Assessment Committee (PRAC) to recently undertake a review of domperidone-containing medicines, the findings of which have recently been made public.⁴ The committee considered that benefits in relation to the symptomatic management of nausea and vomiting outweighed associated risks, but recommended that dosing be restricted to a maximum of 30mg daily and that it not be used for longer than one week.⁴ An important caveat of this investigation is that it sought to determine whether the benefits of domperidone use outweighed associated risks only for its *approved* indications. As such, the review did not consider any aspects of use among lactating women.

This raises significant questions regarding the relevance and generalizability of this EMA PRAC recommendation. Concerns regarding a lack of generalizability are highlighted in a recent study, where an increased risk of sudden cardiac death was only observed amongst those >60 years of age (aOR 1.64; 95%CI 1.31, 2.05), and not among those ≤60 years of age (aOR 1.1; 95%CI 0.35-3.47).² Furthermore, the risk was significantly increased among males (aOR 2.23; 95%CI 1.59, 3.13), but not

females (aOR 1.25; 95%CI 0.93, 1.67), of all ages combined.² The combination of being female and aged <60 years could be **associated with** an ever lower risk.

Despite its use being 'off-label', domperidone remains widely used in clinical practice for women experiencing low milk supply,⁵ with no reports of significant adverse effects. In contrast, evidence from a recent systematic review and meta-analysis demonstrated that domperidone is well tolerated by breastfeeding mothers and is associated with modest improvements in breast milk volume (**overall increase of 75%; 95%CI: 55%- 95%**).⁶ This is important, as breastfeeding is associated with significant reductions in infant morbidity and mortality,^{7,8} as well as providing long-term benefits for the mother, with reductions in the incidence of certain cancers.⁹

These wide-ranging benefits **greatly** are thought by many to outweigh what amounts to largely theoretical risks associated with the use of domperidone for low milk supply.⁶ That said, **the use of domperidone, or any other galactagogue, should never be considered a magic bullet nor as a substitute for effective non-pharmacological breastfeeding support and encouragement, but it can be used safely and effectively where appropriate.**^{6,10} Precautions and contraindications relating to domperidone use in susceptible individuals are already present in the product information. As such, further restrictions regarding the use of domperidone for lactation do not appear warranted,¹⁰ and risk **subjecting** breastfeeding women to the status of therapeutic orphans.

Conflict of Interest:

The authors have indicated that they have no financial relationships or conflicts of interest relevant to this article to disclose.

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