## **Motherisk Update**

# Treating morning sickness PRN?

Gideon Koren MD FRCPC FACMT

#### Abstract

Question I received a telephone call from my sister who lives in the United States. She is experiencing moderate symptoms of morning sickness, but she tells me that she was advised to treat her symptoms only pro re nata meaning, when symptoms re-emerge. Does this make sense?

Answer No, it does not. Typically, nausea and vomiting of pregnancy continue for weeks and months, and in some cases until labour. It is critical to treat symptoms consistently so the woman can maintain adequate fluid and calorie intake. When symptoms improve, the dose of antiemetic medication should be decreased gradually.

#### Traitement PRN des nausées matinales?

#### Résumé

Question J'ai reçu un appel téléphonique de ma sœur qui habite aux États-Unis. Elle souffre de symptômes modérés de nausées matinales, mais elle m'a dit que son médecin lui avait conseillé de traiter ses symptômes seulement sur une base pro re nata, c'est-à-dire quand ses symptômes réapparaissent. Est-ce un conseil avisé?

Réponse Non, ce n'est pas un bon conseil. Typiquement, la nausée et les vomissements de la grossesse persistent pendant des semaines et des mois et, dans certains cas, même jusqu'au travail. Il est essentiel de traiter ces symptômes de manière constante, de sorte que la femme puisse maintenir une ingestion suffisante de liquides et de calories. Lorsque les symptômes s'améliorent, on devrait réduire graduellement la dose d'antiémétiques.

Pro re nata (PRN) is a Latin expression meaning treat-ment only as the need arises! ment only as the need arises1 rather than continuous treatment. Symptoms of nausea and vomiting of pregnancy (NVP) typically peak in the morning hours and they tend to resolve by the end of the first trimester, but some women experience symptoms throughout the day and night, and well into the second and third trimesters.2 Antiemetic medication is used to ameliorate nausea, vomiting, and retching, with the aim of allowing women adequate fluid and calorie intake. If intake is not adequate, weight loss and dehydration will often be evident. Erroneously, some health care professionals attribute the dehydration only to vomiting, ignoring the fact that sustained nausea prevents appropriate fluid and caloric intake. Moreover, even without weight loss or dehydration, there is a direct relationship between symptom control and quality of life for the pregnant woman.3

The danger of the PRN approach in treating NVP is powerfully illustrated when women who are hospitalized for hyperemesis gravidarum are treated in hospital with intravenous fluids, but sent home without first establishing an effective oral antiemetic medication regimen. Many of them need to be hospitalized again owing to recurrence of symptoms.

After a doxylamine-pyridoxine combination antiemetic medication (Bendectin) was removed from the

American market in 1983, the rates of hospitalization for severe morning sickness tripled, again demonstrating the need for continuous symptom control.4 The doxylamine-pyridoxine combination was to be taken by the mother at night when symptoms were minimal, allowing her to sustain therapeutic levels in the morning when symptoms tended to be at their worst. A PRN approach would not allow this preventive aspect of symptom management to be achieved.

In the same way you do not treat diabetes or hypertension PRN, but rather treat them continuously, one should not use the PRN approach in NVP.

In the Motherisk program, we seldom hear about this inappropriate and substandard PRN approach, and it seems that it might stem from a limit that some American insurers put on medication cost, rather than from what is needed by the expectant mother. Moreover, compounded by the lack of medications approved for NVP, American health care professionals tend to focus on vomiting over nausea, and on the conventional myth that mothers should avoid medications during pregnancy. Women have reported that this approach is often expressed by doctors as "Here is the script, but try not to take it; take it only when you cannot stand the symptoms."

This practice is contrary to rational, evidence-based treatment, and should be avoided.

### **Motherisk Update**

#### **Competing interests**

Dr Koren has served as a paid consultant for Duchesnay Inc in Blainville, Que.

- 1. Pro re nata. In: Glare PGW. Oxford Latin dictionary. Oxford, UK: Oxford University Press; 2000. p. 1156.
- 2. Clark SM, Costantine  $\dot{\text{MM}}$ , Hankins GD. Review of NVP and HG and early pharmacotherapeutic intervention. Obstet Gynecol Int 2012;2012:252676. Epub 2011 Nov 24.
- 3. Mazzotta P, Stewart DE, Koren G, Magee LA. Factors associated with elective termination of pregnancy among Canadian and American women with nausea and vomiting of pregnancy. J Psychosom Obstet Gynaecol 2001;22(1):7-12.
- 4. Neutel CI, Johansen HL. Measuring drug effectiveness by default: the case of Bendectin. Can J Public Health 1995;86(1):66-70.

MOTHERISK Motherisk questions are prepared by the Motherisk Team at the Hospital for Sick Children in Toronto, Ont. Dr Koren is Director of the Motherisk Program and is supported by the Research Leadership for Better Pharmacotherapy during Pregnancy and Lactation. He holds the Ivey Chair in Molecular Toxicology in the

Department of Medicine at the University of Western Ontario in London.

Do you have questions about the effects of drugs, chemicals, radiation, or infections in women who are pregnant or breastfeeding? We invite you to submit them to the Motherisk Program by fax at 416 813-7562; they will be addressed in future Motherisk Updates. Published Motherisk Updates are available on the Canadian Family Physician website (www.cfp.ca) and also on the Motherisk website (www.motherisk.org).