

## **Preparation for the Hyperemesis Pregnancy**

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### **Abstract**

Patients with a history of hyperemesis gravidarum are likely to have recurrence during subsequent pregnancies. There are things that they can do in preparation for pregnancy to make the symptoms better and the stress of the illness less. A review of what can be done and the evidence it is based on is presented.

## **Introduction**

A discussion of how to advise patients to prepare for pregnancy when they have a personal history of hyperemesis gravidarum (HG) is important because they will likely have HG again. Seventy-nine per cent report severe nausea and vomiting in second pregnancy. Thirty percent report that the severity of the nausea is the same as their first pregnancy, 26% worse and 44% better than first pregnancy. Those that report an improvement are likely to attribute that to earlier diagnosis and more aggressive treatment (personal correspondence, Fejzo, 2010). Although some earlier studies show lower recurrence risk, this number is consistent with the 80% recurrence risk seen by Koren & Maltepe (2004) and the difference is likely due to the methods used to ascertain cases of HG. We list below several approaches to include medical and social preparation, along with references to the literature supporting these approaches.

### **Medical Preparation for the Hyperemesis Pregnancy**

If possible, patients should be advised to begin pregnancy at or near their ideal body weight. Low pre-pregnant weight is associated with more hospital admissions (Rochelson, Vohra, Darvishzadeh, & Pagano, 2003) and high pre-pregnant weight is associated with more nausea and vomiting (Klebanoff, Koslowe, Kaslow & Rhoads, 1985).

Patients should be advised to start vitamin supplementation prior to pregnancy. Vitamin supplementation in early pregnancy is associated with less nausea and vomiting of pregnancy (Emilianova, Mazzotta, Einarson & Koren, 1999). In this study vomiting during pregnancy is associated with a two fold lower probability of vitamin supplementation in early pregnancy. Lack of vitamin supplementation prior to 6 weeks gestation has the highest correlation with vomiting. In order to ensure that vitamins are taken during the first 6 weeks of gestation, they would likely need to be started prior to pregnancy.

Currently, the role of testing and treatment for helicobacter pylori is unclear. Studies have been mixed on an association between H pylori and HG. In a review by Goldberg, Szilagyi & Graves (2009) 14 case-control studies were found looking at H pylori and HG and ten of these studies showed a positive association. However, the heterogeneity among the studies made conclusions difficult regarding an association.

Also, there have only been case reports on treatment of H pylori and improvement in symptoms and there have been no studies on screening and treatment between pregnancies and symptoms in a subsequent pregnancy. This could be an interesting topic for future research.

Patients should be instructed on the importance of treating early symptoms and instructions on how to receive early medical care should be given. Early treatment has been shown to prevent severe illness. Withdrawal of Bendectin/Diclectin resulted in dramatic increase in hospitalizations presumably because patients who would have been treated with early symptoms progressed to more severe disease (Neutel, 2000). Preemptive therapy in women with a history of HG has been shown to decrease the incidence of severe symptoms. In the study by Koren & Maltepe (2004) women with a history of severe nausea and vomiting or HG during a prior pregnancy were instructed to start anti-emetic therapy as soon as they were aware of pregnancy, or by the initial onset of symptoms. Only 44% in the study group had severe symptoms; 80% of controls had severe symptoms. Some women with HG develop symptoms as early as prior to the missed period, and most will develop symptoms prior to the typical timing of the first OB appointment. Because of this, counselling and prescription of preemptive medications is best done prior to pregnancy. In order to accomplish this, those medical providers who see the patients when they are not pregnant (general practitioners) need to be aware of the importance of early treatment and be comfortable advising and/or prescribing medications for a patient planning pregnancy. Counselling about the importance of preparation and early treatment for subsequent pregnancies can also be done during the first pregnancy with HG or at the postpartum visit. There should be a process for access to early prenatal appointments for patients with a history of HG.

### **Social Preparation for the Hyperemesis Pregnancy**

HG also has dramatic effects on the social and family functioning of the patient. Preparation for these effects may prevent some of the stress of dealing with these changes. Eighty three percent of women with nausea and vomiting of pregnancy say it affects their ability to perform usual daily activities and 34% alter their daily schedules (O'Brien & Naber, 1992). The stress of these changes can be devastating for the woman and the fetus. In the study on termination 66% of women cite inability to care for family

and self as a prominent reason for termination of pregnancy with HG (Poursharif, Korst, Macgibbon, Fejzo, Romero & Goodwin 2007). Patients and their families should anticipate the need for rest and possibly hospitalization. At home they may need help with household chores, childcare and even self care. Having a plan in place for help during pregnancy would hopefully help with the stress that otherwise may lead to termination.

Women with HG may miss weeks to months of employment. Some are unable to return to work until after delivery. From the Hyperemesis Education and Research (HER) foundation online survey data 28% lost their job due to HG, and 36% quit their job due to HG (MacGibbon, 2005). Since these numbers are from a majority of American women, these rates may be lower in countries with better pregnancy and disability leave laws, but even when laws are in place, some women still may not qualify for leave, or the leave may be longer than allowed. Also, the inability to work can cause significant stress even if there is job and/or income protection. Forty per cent cite inability to work as a prominent reason for termination in the study by Poursharif et al. (2007). Patients should be prepared for the possibility of a prolonged absence from work. They should be encouraged to review sick leave policies, review disability and family leave laws and policies and to consider the possibility of missed work for their spouse or another caregiver.

HG can be expensive. Costs associated with HG include missed work for mother, missed work for spouse, costs of childcare and household help. In the US, medical costs can be overwhelming. Patients in the US should review their medical coverage prior to pregnancy and look particularly at their maternity coverage, medication coverage, home care coverage, deductibles, annual maximum, and the cost of insurance if not working.

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