



## PIC QUESTION OF THE WEEK: 12/13/2004

Q: What is the recommended dosage of metoclopramide for the induction of lactation in the biological mother of a child borne by a surrogate mother?

A: Metoclopramide (Reglan) is a centrally acting dopamine antagonist possessing gastroprokinetic and antiemetic properties. It has been used for the prevention and treatment of nausea and vomiting associated with chemotherapy and radiation treatment as well as in diabetic gastroparesis and gastroesophageal reflux disease (GERD). Dopamine is sometimes referred to as prolactin-inhibitory factor (PIF) because it prevents prolactin release from the anterior pituitary. Metoclopramide blocks the effects of dopamine, thus stimulating prolactin release and milk production. Prolactin may reach 3-8 times normal levels within one hour of metoclopramide administration and continue to be elevated for up to eight hours. Metoclopramide has been extensively used in women unable to produce sufficient breast milk. It is also being evaluated in commissioning mothers who desire to breastfeed after the child is delivered by a surrogate mother. Lastly, metoclopramide has been successfully used by adopting mothers to stimulate milk production.

The general dose of metoclopramide to induce lactation is 10-15 mg three times daily for 7-15 days. It is usually not necessary to administer the drug beyond two weeks because continued suckling and stimulation as well as emptying the breast are sufficient to maintain milk production. In the case of a surrogate, metoclopramide therapy is typically initiated a few months before the expected date of delivery. Success rates for inducing lactation in adopting women have ranged from 50-90%. The need to supplement the newborn's intake while milk production improves must always be a consideration.

### References:

- Biervliet FP, Maguiness SD, Hay DM, et al. Induction of lactation in the intended mother of a surrogate pregnancy. *Hum Reprod* 2001; 16: 581-3.
- Goldwire MA, Haley CJ, Jackowitz A, et al: Metoclopramide. In: Hutchison TA and Shahan DR (EDs): DRUGDEX® System. Micromedex, Greenwood Village, Colorado (Edition expires March, 2005).

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