

What Nurses Need to Know about rBGH

Recombinant Bovine Growth Hormone (rBGH) is a genetically-engineered growth hormone that is injected into cows on 10 – 15% of the U.S. dairy farms to increase their milk production. Unfortunately, the use of rBGH also increases disease rates in cows and creates the potential for human health risks. Nurses have an opportunity to help eliminate this practice by encouraging their hospitals (and nursing homes and schools) to purchase dairy products from dairies that do not use rBGH.

Also known as rBST (recombinant Bovine Somatotropin), rBGH has been shown to increase the incidence of 16 different veterinary conditions in cows. These include mastitis, chronic diarrhea, reproductive problems, and low birth weight calves.

The American Nurses Association adopted a resolution in June of this year calling for healthier food in health care, including the elimination of rBGH in dairy production. The ANA has also adopted the Precautionary Principle to guide our practice and advocacy and calls for us to act on early and credible scientific warnings rather than delay action until more scientific evidence is developed. In addition to the adverse health impacts on dairy cows, there are a number of indicators that rBGH may pose human health risks. For example, dairy cows treated with rBGH produce milk with greater levels of insulin-like growth factor (IGF-1). Studies indicate that elevated levels of IGF-1 promote an increased risk of cancer in humans.

An additional concern is that cows who receive rBGH are more likely to suffer from mastitis and therefore require antibiotic treatment. The use of antibiotics in agriculture creates the conditions for antibiotic resistant organisms to develop in the affected animals, and in our air, soil and water, thus contributing to the significant and costly problem of antibiotic resistance that we face in health care today. This additional use of antibiotics in dairy production could simply be avoided by eliminating the use of rBGH.

Worldwide, the vast majority of dairy farms are producing milk without the use of rBGH. The European Union, Canada, Japan and other countries have, in fact, banned its use. The Humane Society has also condemned its use.

In the U.S., there are no restrictions on the use of rBGH. Nurses have the ability to help stop the use of rBGH through the purchasing power of the hospitals (and nursing homes and schools) where we work. We are calling upon the nursing profession to help eliminate the use of rBGH by asking these institutions to purchase rBGH-free dairy products.

To this end, we have created a template for a letter that you can use to send to the Director of Food Services and the administrators in the hospitals where you work and throughout your state. You can find this letter in our online Nurses' rBGH Toolkit, along with a factsheet, summary of the scientific literature, and a video that

you can use to educate yourself, other nurses, patients and the decision-makers who establish the food purchasing policies at your institutions. To visit the online Nurses' rBGH Toolkit, go to: www.noharm.org/us/nurses/rbgh. We encourage you to download this information and share it with others. We also encourage you to print out and send a postcard to Dannon and to Yoplait which asks them to provide yogurt that is rBGH-free. Finally, included in the toolkit is a dairy purchasing guide for hospitals and a state-by-state listing of the brands of dairy that are rBGH-free. Nurses can use this listing when choosing dairy products for personal consumption, and to advise patients and food services.

Health Care Without Harm, an international coalition working to create the healthiest, safest, and most sustainable hospitals, has taken a formal position on rBGH and calls for eliminating its use. (See: <http://www.noharm.org/details.cfm?ID=1104&type=document>). There is also an excellent eight-page referenced booklet, **Know Your Milk**, developed by Oregon Physicians for Social Responsibility. (See: http://www.psr.org/site/DocServer/Brochure2007_Final.pdf?docID=4521).

We are confident that our voices, as nurses, will be an important addition to the choir of concerned consumers who are demanding that our food be safe and healthy.

What Nurses Can Do About rBGH in Dairy Production

Use the online Nurses' rBGH Toolkit at: www.noharm.org/us/nurses/rBGH

1. Educate yourself and other nurses
2. Ask your hospital to purchase rBGH-free dairy products
3. Educate your patients
4. Educate the public and other hospital staff
5. Purchase organic or rBGH-free dairy products
6. Send Dannon and Yoplait a postcard asking them to provide rBGH-free yogurt
7. Start a green team or food committee at your hospital or health care facility

References:

- Anderle P. et al, In Vitro Assessment of Intestinal IGF-1 Stability, Journal of Pharmaceutical Sciences, Jan. 2002, 91:1.
- Broom D. et al, Report of the European Union Scientific Committee on Animal Health and Animal Welfare on Aspects of the Use of Bovine Somatotropin, <http://europa.eu.int>.
- Chan J. et al, Plasma insulin-like growth factor-1 and prostate cancer risk: a prospective study, Science, Jan. 23, 1998, 279(5350):563-566.
- Doohoo I. et al, Report of the Canadian Veterinary Medical Association expert panel on rBST, section 7.

Freedom of Information summary for Posilac®, FDA, November 1993, Section 6-j.

Giovannucci E et al, A prospective study of plasma IGF-1 and binding protein-3 and risk of colorectal neoplasia in women, *Cancer Epidemiology, Biomarkers & Prevention*, 2000, 9:345-349.

Hankinson S. et al, Circulating concentrations of insulin-like growth factor 1 and risk of breast cancer, *Lancet*, May 9, 1998, 351(9113):1393-1396.

Kimura T. et al, Gastrointestinal absorption of recombinant human insulin-like growth factor-1 in rats, *Journal of Pharmacology and Experimental Therapeutics*, 1997, 283:611-618.

Kronfeld D., Concerns about bovine somatotropin, *Journal of the American Veterinary Medical Association*, July 15, 1993, 203(2):190-192.

Kronfeld D., Recombinant bovine somatotropin and animal welfare, *Journal of the American Veterinary Medical Association*, June 1, 2000, 216(11):1719-1720.

Moschos S. and Mantzoros C., The Role of the IGF System in Cancer: From Basic to Clinical Studies and Clinical Applications, *Oncology*, Nov. 4, 2002, 63(4):317-332

Xian C. et al, Degradation of IGF-1 in the adult rat gastrointestinal tract is limited by a specific antiserum or the dietary protein casein, *Journal of Endocrinology*, 1995, 146:215-225.

Yu H. and Rohan T., Role of the Insulin-Like Growth Factor Family in Cancer Development and Progression, *Journal of the National Cancer Institute*, Sept. 20, 2000, 92(18):1472-1489.

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