



# FIRST TO KNOW<sup>®</sup>

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Under the editorship of Wulf H. Utian, MD, PhD, DSc(Med), NAMS Medical Director, Honorary Trustee, and Executive Director Emeritus, *First to Know* presents commentary on the latest, breaking scientific articles as suggested by members of The North American Menopause Society (NAMS), the leading nonprofit scientific organization dedicated to improving women's health and quality of life through an understanding of menopause and healthy aging. Opinions expressed in the commentary are not necessarily endorsed by NAMS or by Dr. Utian.

## Dietary supplements lead to more than 20,000 ED visits a year

*Limited regulatory framework for supplements creates a challenge in accurately monitoring their safety.*

Geller AI, Shehab N, Weidle NJ, et al. Emergency department visits for adverse events related to dietary supplements. *N Engl J Med.* 2015;373(16):1531-1540.

**Summary.** A study conducted by the US Food and Drug Association and the Centers for Disease Control and Prevention found an estimated 23,000 emergency department (ED) visits in the United States every year are attributed to adverse events (AEs) related to dietary supplements such as herbal or complementary nutritional products and micronutrients (vitamins and minerals). These are commonly used in the United States, but national data on AEs are limited.

The researchers used nationally representative surveillance data from 63 US EDs obtained on 3,667 cases from 2004 through 2013 to describe ED visits because of AEs related to dietary supplements, which resulted in an estimated 2,154 hospitalizations (95% confidence interval [CI], 1,342 to 2,967) annually.

Clinicians attributed 88.3% of AEs to only one supplement (compared with multiple supplements). More than half of ED visits for supplement-related AEs involved female patients.

Most of the patients were young adults aged between 20 and 34 years, unsupervised children, or older adults. After the exclusion of unsupervised ingestion of dietary supplements by children, 65.9% of ED visits for single supplement-related AEs involved herbal or complementary nutritional products, and 31.8% involved micronutrients.

Herbal or complementary nutritional products for weight loss and increased energy were commonly implicated. Weight-loss or energy products caused 71.8% (95% CI, 67.6 to 76.1) of supplement-related AEs involving palpitations, chest pain, or tachycardia.

Among other injuries cited were severe allergic reactions, nausea, and vomiting, which were tied to a broad variety of supplements. It is not known whether any of these AEs were fatal because deaths were not tracked.

Among adults aged 65 years or older, choking or pill-induced dysphagia caused 37.6% (95% CI, 29.1 to 46.2) of all ED visits for supplement-

related AEs; micronutrients were implicated in 83.1% (95% CI, 73.3 to 92.9) of these visits.

**Comment.** There are several important messages in the Geller and colleagues article that are relevant to improving the health of menopausal women.

First, assessing intended, current, and past dietary supplement use is critically important for avoiding AEs and ED visits. Although midlife women using products for menopausal symptoms were not specifically identified in the article, this population was represented in the study.

Women were disproportionately involved in ED visits for AEs associated with dietary supplements. Emergency department visits were related to products women might use at menopause (eg, those for weight loss, energy, sexual enhancement, sleep/anxiolysis, pain/arthritis relief, skin/hair health, multivitamins, and calcium), and visits occurred across all age groups, including midlife.

Second, creating new and/or updating the few available decision aids about dietary supplement use for midlife menopausal women (and other age groups) should be a priority.<sup>1</sup> Decision aids are tools that provide education, help clarify personal treatment values, and facilitate shared decision making with healthcare providers. Decision aids for these dietary supplements should reflect the scant evidence for efficacy in treating menopausal symptoms<sup>2</sup> and questions about purity.

For example, in one study, mycotoxins associated with fungal contamination were found in nine different dietary supplements intended to treat menopausal symptoms,

including products based on soy, red clover, flax seed, and black cohosh.<sup>3</sup> Interactive, computer-based, decision aids can be easily personalized and programmed to provide the most accurate and up-to-date information available. They can help avoid the oft-repeated conversations that occur across individual patients and thereby save time by helping to facilitate more streamlined discussions with healthcare providers.

Finally, consideration should be given to adjusting the important nationally representative surveillance database used by Geller and associates so that it could more fully account for the specific product involved. For example, if the database included the ability to use a bar code scanner, the exact product involved in the AE could be scanned and systematically recorded. Such data could better identify specific products, ingredients, or manufacturers that might warrant additional scrutiny for purity and safety.

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#### References

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2. Nonhormonal management of menopause-associated vasomotor symptoms: 2015 position statement of The North American Menopause Society [published online ahead of print September 21, 2015]. *Menopause*.
3. Veprikova Z, Zachariasova M, Dzuman Z, et al. Mycotoxins in plant-based dietary supplements: hidden health risk for consumers. *J Agric Food Chem*. 2015;63(29):6633-6643.

Post your thoughts and comments regarding your patients' use of dietary supplements on our [Member Forum](#) and discuss how you advise women who express a desire to use supplements for vasomotor symptom relief.