Editorials

Which Probiotics Should I Take? A Practical Guide for Family Physicians

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Which probiotics should I take? We have all heard this question from our patients in clinical practice. In 2012, approximately 3.8 million adults[1] and 300,000 children[2] were using probiotics—a fourfold increase over the previous five years. This question begets many further clinical questions: Which manufacturer? Which species or strain? For which clinical condition? Improved understanding of the roles of the gut microbiome in health and disease has brought probiotics to the forefront of clinical practice.[3] Each probiotic provides a transient microbiome that may confer a health benefit to the host by modifying the gut microenvironment.[4] Probiotics do not reinoculate the gut microbiome and are recoverable only in stool samples for one to two weeks.[5] Probiotic foods such as yogurt are therefore as effective as supplements in providing an ongoing delivery mechanism.

In this issue, Wilkins and Sequoia present the clinical evidence of probiotics for the treatment of gastrointestinal conditions in infants, children, and adults.[6] This article reviews the literature and offers practical information on the studied products (species and strain), as well as third-party tested products.

According to the Dietary Supplement Health and Education Act (DSHEA) of 1994,[7] nutritional supplements, including probiotics, are considered food rather than drugs. They are not regulated for clinical application, which results in so-called health claims rather than disease-based claims. The DSHEA requires that dietary supplements meet current good manufacturing practices, but unfortunately, there are substandard products that meet this threshold.

How do we determine a quality standard for the probiotics that we recommend to our patients? Assuring them that products meet DSHEA standards and are generally recognized as safe is necessary but not sufficient. Some physicians avoid over-the-counter probiotics and order from nutritional supplement companies that sell high-quality products only to licensed professionals. These manufacturers provide quality-control data that include an expiration date and number of viable colony-forming units at expiration as assurances of the probiotic viability throughout the lifespan of the product.

In my practice, I recommend probiotics in varying combinations and dosages. Studies show that specific probiotic species or strains demonstrate specific clinical effects. There is good evidence supporting the effectiveness of probiotics for the treatment of irritable bowel syndrome and ulcerative colitis.[8,9] Importantly, there is compelling news about the benefit of probiotics for the prevention and treatment of antibiotic-associated diarrhea and *Clostridium difficile*–associated diarrhea.[10] These data have changed my antibiotic prescribing practices to include the probiotic *Saccharomyces boulardii* because it is not eradicated by antibiotics.

When recommending probiotics, check for the National Science Foundation's certification of good manufacturing practice (http://www.nsf.org/regulatory/regulator-nsf-certification). Use the specific probiotic species and strains that have been studied.[6] I always make sure that the product states that the dosage recommended is viable at the expiration date, and that the expiration date is printed on the bottle. When these requirements have been met, I know that I am offering my patients the highest quality of probiotics to help prevent and treat disease.

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