

THE REST OF YOUR LIFE

How to Make Reading Medical Journals Palatable

Richard Nixon was in the middle of his presidency when Richard J. Castiello, M.D., helped form a small journal club that still meets every month to discuss the latest research and development in the field.

One of the founding members, Gary W. Cage, M.D., moved his practice from Bethesda, Md., to Avon, Colo., but the rest—Robert J. Carnathan, M.D., Robert Katz, M.D., and his brother Stephen I. Katz, M.D.—meet once a month at each other's homes in the Washington, D.C., suburbs, just as they have since 1971. They usually meet on a weeknight from 7:30 p.m. to 10 p.m. to talk about articles in the *Archives of Dermatology*, the *Journal of the American Academy of Dermatology*, and ancillary articles of interest they might find in publications such as *JAMA* and the *New England Journal of Medicine*.

"It keeps us reading and keeps us interested, because it's also a social event," said Dr. Castiello, a dermatologist who practices in Chevy Chase, Md. "We'll have a beer and some pretzels, but we're serious. What the journal club has helped me to do is to think and read critically. Many articles make statements of fact that aren't validated by the data they use to present those facts. They make conclusions, but they can't really back them up."

There's no official name for the group after all these years, just the "journal club." Dr. Castiello considers his participation as more than a platform for professional development. It keeps him enthusiastic about the field of medicine, which, he said, could use a big dose of collegiality.

"There was a time when I belonged to three different organizations of general doctors," he said. "They're all defunct now, because people just don't get together [to] be collegial."

Club member, Dr. Stephen Katz, said his

participation helps keep him "in touch with the real world" of clinical medicine.

"There's nothing like sitting down with three people who are in practice," said Dr. Katz, a dermatologist and immunologist who is the director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases in Bethesda, Md. "The first 20 minutes or so may be spent discussing recent developments, or the American Academy of Dermatology elections, or what the academy is doing with regard to supporting residency programs. It may [concern] some of our colleagues or new approaches to treatment, or it may concern a meeting one of us has recently been to."

He went on to offer these tips on how to assemble a journal club:

► **Be selective about who participates.**

"It has to be people who are interested in continuing to learn," he said. Limiting the group to four or five people keeps it manageable.

► **Consider your proximity to one another.** "You have to have people who live pretty close together, because after a long day at work, you don't want to start driving," he said.

► **Bring a calendar to each meeting.** This helps you plan the next meeting.

► **Read the journals before each meeting.** "That's the only way you can have a useful discussion," Dr. Stephen Katz said. "We make the assumption that everybody has read the journals before we start."

► **Keep it simple in terms of refreshments.** "We have a rule that the refreshments are not done by our spouses," he said. "It's 'open a bag' of chips or pretzels and 'open a bottle' [of] beer, water, or seltzer. It's very simple."

Last year another Dr. Katz—Stephen's son Kenneth, also a dermatologist—took such tips to heart and formed a small journal club with colleagues he trained



Since 1971, Drs. Robert Katz, Richard J. Castiello, Stephen I. Katz, Robert J. Carnathan, and Gary W. Cage have been using camaraderie to make journal reading more pleasant.

with at the University of Pennsylvania in Philadelphia. "What's nice is that we have a mix of people with different perspectives," he said. Two are trained in dermatopathology, one is in private practice, and one does a lot of work in contact dermatitis and brings a background in statistics and epidemiology to the table, as well.

Dr. Katz called the influence of his father's journal club "a good role model" because he got "to see a group of people who were committed to keeping up on the literature and had a good time doing it."

An informal journal club is just one way to keep up with the medical literature. Other avenues include taking part in existing journal clubs that might meet in a university or hospital setting, scanning headlines in the news for studies that you might want to follow up on, or carving out personal time to read print or online versions of journals relevant to your field. Most journals will send the table of con-

tents to your e-mail address if you sign up for that feature at their Web site.

"That's a nice way of seeing what's going on," said Steve Simon, Ph.D., a research biostatistician at Children's Mercy Hospital, Kansas City, Mo. "I'm the sort of person who doesn't mind having 100 e-mails in my in-box as long as I don't have 100 sheets of paper on my desk. The other nice thing about e-mail is that you can put all of those tables of contents in a special folder that you can get to when you have time."

Dilip V. Jeste, M.D., editor-in-chief of the *American Journal of Geriatric Psychiatry*, noted that while physicians might feel stretched for time to keep up with medical journals relevant to their field, it's important to devote *some* time to the endeavor. "Patients are becoming increasingly sophisticated and increasingly knowledgeable because of the publications in the media," said Dr. Jeste, chief of the division of geriatric psychiatry at the University of California, San Diego, School of Medicine.

"They are also going outside of psychiatry when they read that some study found that vitamin E is associated with increased mortality. A patient will say, 'I'm taking vitamin E because I know it's an antioxidant. Should I stop taking it because of the increased risk of mortality?' If the physician is not knowledgeable about the study, I think that will create a problem."

Dr. Jeste added that medical journals could do a better job of making material less, well, boring. "There's definitely a lot of technical jargon in some of the journals," he said. "Clinicians may not find something that is really appealing to them in an understandable language."

He noted that some journal subscribers have asked to see more clinical reviews of a topic in the journal and fewer scholarly reviews that may contain 100 references.

"The idea is to have a clinical review [that] is shorter, more succinct, with fewer references, and yet authoritative," he said. This kind of review would "talk about which treatment would be best in which patient," he added. ■

Focus on Data Collection, Not Analysis, When Reviewing Articles

The devil may be in the details, but when it comes to reviewing medical literature, Steve Simon, Ph.D., advises physicians to not get hung up on how data in a study were analyzed by the author or authors.

For example, physicians may wonder, "did they do the right statistical analysis in this study? That may be important, but it takes a lot of background to really appreciate that," said Dr. Simon, a biostatistician. "More important is how the data were collected, because if you collect the wrong data, it doesn't matter how fancy the analysis is."

By focusing on data collection, you'll begin to ask yourself such questions as, "was there an appropriate control group? Who was left out of the research? Did they measure the right outcome?"

"Those are the sorts of things that you can actually judge without having to have an extensive background in statistics or mathematics," he explained.

"You do need to understand a little

bit about the statistics, like what a *P*-value is and what a confidence interval is, but don't get really worried about the particular type of data analysis done. For the most part, if there's a problem with the research that makes it difficult to generalize the results, it's a problem with data collection and not with data analysis," said Dr. Simon.

He also cautioned against drawing conclusions about a study without reading both the abstract and full text of an article. "One reason is that the abstract will sometimes be inconsistent with the paper," he said.

"There's also a tendency to report the most statistically significant results in the abstract as opposed to the ones that are of most clinical importance. Finally, sometimes the conclusions are drawn too strongly in the abstract and qualifiers appear only in the paper itself," Dr. Simon added.

He recommended the following books for help with interpreting studies

that appear in medical journals:

► "Evidence-Based Medicine: How to Practice and Teach EBM," 3rd ed., by Sharon E. Straus, M.D., et al. (Edinburgh: Churchill Livingstone, 2005).

► "How to Read a Paper: The Basics of Evidence Based Medicine," 2nd ed., by Trisha Greenhalgh (Oxford, England: BMJ Books, 2004).

► "Medical Uses of Statistics," 2nd ed., by John C. Bailar III and Frederick Mosteller, ed. (Waltham, Mass.: NEJM Books, 1992).

► "Statistical Reasoning in Medicine: The Intuitive *P*-Value Primer," by Lemuel A. Moyé (New York: Springer-Verlag, 2001).

► "Statistics as Principled Argument," by Robert P. Abelson (Mahwah, N.J.: Lawrence Erlbaum Associates, 1995).

► "Studying a Study & Testing a Test: How to Read the Medical Evidence," 5th ed., by Richard K. Riegelman, M.D. (Philadelphia: Lippincott, Williams & Wilkins, 2004).