

Integrating Food and Medications as a Way of Life

Jackie Boucher, MS, RD, LD, CDE, Editor-in-Chief

Reprinted with permission from *Diabetes Spectrum* 22:68-69, 2009

The subject of medication adherence has been discussed for quite some years, but the research in this area is still emerging. Only recently has the focus shifted from studying adherence of single-condition patients taking one or more medications to that of patients taking multiple medications for coexisting conditions. Improving adherence in the latter group is much more com-

plicated and less well understood.¹ Limited research exists examining the issue of medication adherence for these patients, yet one thing we do know is that as the number of medications increases, adherence to medication regimens decreases.^{1,2}

From a patient perspective, having multiple medications and coexisting conditions makes life more complicated. Recently, I was

a guest speaker at a cardiac support group for women. My topic was "Key Things Every Woman Should Know About Nutrition."

The support group members ranged in age from 35 to 80 years, but their questions were all very similar. One question that had the women most perplexed was, "How do I eat when I have so many medications, and some require fasting, and some do not?"

Clinical Diabetes

Editor

Tom A. Elasy, MD, MPH

Associate Editors

Michael J. Fowler, MD
Martha M. Funnell, MS,
RN, CDE
Davida F. Kruger, MSN,
APRN-BC, BC-ADM
Michael Pignone, MD, MPH
Russell L. Rothman, MD,
MPP
Mark E. Splaine, MD, MS

Editorial Board

Robert M. Malone II,
BSPHarm, PharmD, CDE,
CPP
David G. Marrero, PhD
Theodore Speroff, PhD
A. Brian Thomson, MD

Vice President, Publications

Martha Ramsey

Director, Scholarly Journals

Christian S. Kohler

Manager, Periodicals

Production
Keang Hok

Managing Editor

Debbie Kendall

Associate Publisher

Howard Richman

Advertising Production

Specialist
Julie DeVoss

Director, Membership/

Subscription Services
James Skowrenski

Manager, Membership/

Subscription Services
Jeremy N. Baird

Associate Director, Billing &

Collections
Laurie Ann Hall

American Diabetes Association Officers

Chair of the Board

George J. Huntley, CPA

President, Medicine & Science

R. Paul Robertson, MD

President, Health Care & Education

Sue McLaughlin, BS, RD,
CDE, CPT

Secretary/Treasurer

T. Edwin Stinson, Jr

Chair of the Board-Elect

Nash M. Childs, PE

President-Elect, Medicine & Science

Richard M. Bergenstal, MD

President-Elect, Health Care & Education

Christine T. Tobin, RN,
MBA, CDE

Secretary/Treasurer-Elect

Gerard B. Nee, CPA

Vice Chair of the Board

John W. Griffin, Jr.

Vice President, Medicine & Science

Robert R. Henry, MD

Vice President, Health Care & Education

Elizabeth Mayer-Davis,
MSPH, PhD, RD

Vice Secretary/Treasurer

Dwight Holing

Chief Executive Officer

Larry Hausner

Clinical Diabetes

A PUBLICATION OF THE AMERICAN DIABETES ASSOCIATION®, INC. TM

Clinical Diabetes Mission Statement

The mission of *Clinical Diabetes* is to provide primary care providers and all clinicians involved in the care of people with diabetes with information on advances and state-of-the-art care for people with diabetes. *Clinical Diabetes* is also a forum for discussing diabetes-related problems in practice, medical-legal issues, case studies, digests of recent research, and patient education materials.

ADA Mission Statement

The mission of the American Diabetes Association is to prevent and cure diabetes and to improve the lives of all people affected by diabetes.

Clinical Diabetes (Print ISSN 0891-8929, Online ISSN 1945-4953) is published quarterly by the American Diabetes Association®, Inc., 1701 N. Beauregard St., Alexandria, VA 22311. Single issue rates are \$45 in the U.S., \$65 in Canada and Mexico (for Canada GST included), and \$75 in all other countries. Periodical postage paid at Alexandria, VA, and additional mailing offices. For subscription information, call toll free (800) 232-3472, 8:30 a.m. to 5:00 p.m. EST, Monday through Friday. Outside the U.S., call (703) 549-1500.

Claims for missing issues must be made within 6 months of publication. The publisher expects to supply missing issues free of charge only when losses have been sustained in transit and when the reserve stock permits.

Postmaster: Send change of address to *Clinical Diabetes* COA, 1701 N. Beauregard St., Alexandria, VA 22311-1717.

©American Diabetes Association®, Inc., 2009.

Printed in the USA.

Advertising Representatives

Pharmaceutical/Medical Accounts

B. Joseph Jackson, President; Paul Nalbandian, Vice President, Business Development; Charles Novak, Vice President, Sales; The Jackson Gaeta Group, Inc., 33 Smull Avenue, Caldwell, NJ 07006, (973) 403-7677



Opinions expressed in signed articles are those of the authors and are not necessarily endorsed by the American Diabetes Association.

This question led to many related questions, such as, “How long do I wait to eat after taking a medication that requires no food when my next pill requires food?” or conversely, “How long do I wait to take a medication that requires no food if I have just eaten because my other medication requires that I take it with food?” The main problem was that most of the women learned about whether to take specific medications with or without food, the drug-nutrient interactions, and when and how often to take their medications, but none had learned how to put it all together within the context of their daily life.

Merely taking medications adds complexity to life, but taking them with or without food at different times of the day also complicates the traditional method of eating based on hunger cues. Instead of eating being a way of life, medications for these women has become the way of life, and eating has become a secondary component. We often tell our patients to eat when they are hungry. We review the physiology of eating, and we talk about the relationship between diabetes medications and eating (when to take the medicines in relation to meals, how to make carbohydrate choices, and so forth). But are we spending enough time talking about all the different medications they take, the patterns of their eating throughout the day, the ways all of their medications affect their eating schedule, and, overall, how these issues can change their life?

Complexity of medication regimen has been identified as inversely related to adherence.^{1,2} Studies have shown that patients are less adherent

when they feel that their medications are hard to take,³ but the variables contributing to their feeling that medications are hard to take have not been studied. Most research about food and medications relates to drug-nutrient interactions,⁴ and there seems to be a complete lack of information about whether medication adherence is affected by how medications may change eating or vice versa.

So how can we help patients fit medications into their life and usual eating patterns? In her article in recent issue of *Diabetes Spectrum*,⁵ Barbara Kocurek, BS, PharmD, BCPS, CDE, provided a table with strategies for improving medication adherence. Her strategies for addressing medication complexity focused on reducing medications, simplifying doses, and discussing side effects. Kocurek and John D. Piette, PhD, in the same issue of *Spectrum*,⁶ both mentioned the importance of communication. Collaborative and proactive health communication is important to help patients achieve their goals.⁷ Patients prefer collaborative and proactive communication regarding their treatment; they also appreciate it when we discuss abnormal measurements such as blood pressure⁷ or blood glucose and how these measurements change medication treatment. If we apply this to our discussions of food and medications, based on my experience with the women’s cardiac support group, patients would like help putting their medication schedule within their eating pattern so that they can maintain some of the normalcy they associate with their life before their diagnoses.

So, when you have patients with coexisting conditions and multiple medications, take some time to assess their meal and medication patterns and help them achieve the way of life they desire. Taking medications is like any other behavior, such as eating a nutritious diet, getting adequate physical activity, or refraining from tobacco use. We need to help patients fit their medication-taking into their existing lifestyle rather than making it the focus of their life.

REFERENCES

- ¹Williams A, Manias E, Walker R: Interventions to improve medication adherence in people with multiple chronic conditions: a systematic review. *J Adv Nurs* 63:132–143, 2008
- ²Odegard PS, Gray SL: Barriers to medication adherence in poorly controlled diabetes mellitus. *Diabetes Educ* 34:692–697, 2008
- ³Mann DM, Ponieman D, Leventhal H, Halm EA: Predictors of adherence to diabetes medications: the role of disease and medication beliefs. *J Behav Med*. Electronically published ahead of print on 30 January 2009 (DOI: 10.1007/s10865-9202-y)
- ⁴Genser D: Food and drug interaction: consequences for the nutrition/health status. *Ann Nutr Metab* 52 (Suppl. 1):29–32, 2008
- ⁵Kocurek B: Promoting medication adherence in older adults . . . and the rest of us. *Diabetes Spectrum* 22:80–84, 2009
- ⁶Piette J: Cost-related medication underuse: a window into patients’ medication-taking concerns. *Diabetes Spectrum* 22:77–80, 2009
- ⁷Naik AD, Kallen MA, Walder A, Street RL: Improving hypertension control in diabetes mellitus: the effects of collaborative and proactive health communication. *Circulation* 117:1361–1368, 2008

Jackie Boucher, MS, RD, LD, CDE, is vice president for education at the Minneapolis Heart Institute Foundation in Minneapolis, Minn. She is editor-in-chief of *Diabetes Spectrum*.