Don’t Throw the Baby Out With the Bathwater

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How many times have we looked for the easier way when caring for patients with diabetes? A number of examples come to mind: using a sliding-scale versus a pattern or algorithm approach to insulin; having patients run 200-mg/dl blood glucose levels versus normal blood glucose levels the majority of the time; or relying on the 5.07 filament test versus performing a more comprehensive foot exam. These are but a few instances in which easier is not always better for our patients.

Doing what we’ve always done because it’s easier (such as using sliding scales), or, conversely, dropping tried and true practices because an apparently simpler method gains favor, can result in “throwing the baby out with the bathwater.” Hopping from one procedure or goal to another without an overall integrated approach to care can decrease the overall quality of care we provide for our patients.

A few years ago, I asked a physician why he used a sliding-scale approach to insulin. His reply: “I don’t want to be called unnecessarily.” But is what’s best for his schedule and workload also best for his patients?

The sliding scale is still in common usage, although there is no scientific documentation that it is either a safe or an effective way to manage insulin therapy. We know that a blood glucose level reflects the body’s response to previous insulin, food, and activity; it does not predict the next insulin dose. Logically, then, we need to address what is happening now—the food about to be eaten and the anticipated physical activity—rather than what has already occurred. If the blood glucose level is high and you give more insulin, or the blood glucose level is low and you give less insulin, then you’ll wind up with either too much or too little insulin to handle the food and physical activity now. The result will be a roller-coaster effect on blood glucose.

By contrast, an algorithm approach starts with a baseline for insulin administration, with boluses given based on patients’ food intake and activity level. Patterning allows for treatment changes to address patterns of low blood glucose levels, illness, higher food intake, or lower activity levels. These changes are usually based on blood glucose patterns over a 3- to 5-day period. Not as simple as a sliding scale, perhaps, but certainly more effective at achieving overall glycemic control.

Now let’s turn to our second example. Despite all evidence from the Diabetes Control and Complications Trial and the U.K. Prospective Diabetes Study, a surprising number of practitioners still consider 200 mg/dl an acceptable blood glucose level. Why? Certainly pharmaceutical company representatives, research journals, and nationally known experts stress the importance of overall blood glucose control. But what has been taught in many of our medical schools is still taught, despite mounting evidence that it is just plain wrong.

Blood glucose levels of 200 mg/dl are not acceptable. Women with gestational diabetes should have fasting blood glucose levels ≤ 105 mg/dl and 2-hour postprandial levels ≤ 130 mg/dl. For those with type 1 or type 2 diabetes, although the criteria have been increased to 90–130 mg/dl fasting and < 180 mg/dl 1–2 hours postprandial, the ideal is still 70–110 mg/dl before meals and 80–140 mg/dl 2 hours postprandial. The exception to these standards is for young children and elderly individuals who need greater protection from hypoglycemia.

Does it take more effort from health professionals to achieve normal blood glucose levels the majority of the time without undue hypoglycemic reactions? Certainly. It takes education, and, for professionals who do not have the time or expertise, it takes referral to diabetes specialists. But is it better for patients’ health? Without a doubt.

Many physicians, including some who are board certified in endocrinology, may not have the interest or desire to work with people who have diabetes. There is no board certification for diabetologists, and even they may not have an adequate support team to provide this level of care for patients with diabetes. Certified diabetes educators, be they nurses, dietitians, pharmacists, physicians, or other health professionals, may be more up to date in diabetes care than other health care professionals.

Nurses, dietitians, and pharmacists who are board certified in advanced diabetes management may have greater diabetes management skills than their colleagues, at least in clinics that are not diabetes care centers. We know enough about the importance of blood glucose control to realize that patients need to receive care from practitioners who have the expertise to help them achieve it.

Now, on to our third example. The current recommendation is to perform a full foot examination once...
a year and at least an observational check at each visit for patients with insensate feet. Use of the 5.07 filament is recommended to evaluate the neurological status for those who have low-risk feet. It’s quick, it’s easy, and it does serve to identify more foot problems than no exam at all.

But if you were diagnosed with diabetes, wouldn’t you rather be informed earlier that you had mild neuropathy rather than later that you already had moderate or severe neuropathy? When the filaments first came into use, the guidelines were that someone who could not feel the 4.17 filament had mild neuropathy, someone who could not feel the 5.07 filament (considered insensate) had moderate neuropathy, and someone who could not feel the 6.10 filament had severe neuropathy. For patients found to have insensate feet, full foot checks were indicated for each visit. This meant, in addition to a filament test, obtaining a history from the last visit; observing for sores, decreased blood flow, color, temperature, nail condition, calluses, corns, and other conditions; and checking the vibratory responses and the dorsalis pedis and posterior tibial pulses. Today, it seems we place more emphasis on identifying undetected foot problems through the annual foot exam than on following through for patients with known foot problems with more complex and frequent care as needed.

Some may consider the situations and interventions discussed above to be insignificant. But often, such issues, inadequately addressed, lead to much larger problems in the form of serious complications resulting from damaged blood vessels and nerves.

The message, then, is this: when new procedures or recommendations emerge, it is not enough merely to decide whether to throw out one practice in favor of another simply on the basis of their relative ease for practitioners. We must instead take new information as it emerges, integrate it into the total management picture, and adapt our practices according to what evidence and experience have shown to be most effective for our patients.

References


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