

## A letter from America

### *To my friend in echocardiography*

I keep promising to let you know what is happening in echocardiography here. Then I get so tied up with the problems I just can't get the time to write. So, once again this year I'm late with my letter. The good news is that I can let you know the very latest.

This year's big issues are rapidly turning to items concerning quality in echocardiography. You know what I mean, training, certification, testing, overreading of studies, and the like. It is surprising to me how many people look at quality issues as threatening. I wish it wasn't that way.

I know it's hard for you to believe that American physicians are concerned about quality at all, especially since last year's big issue was money. You must ask yourself, "what happened?"

### **A follow up**

One thing to realize is that last year's problems with our health care system did not go away. Since my last letter to you everyone is *still* concerned about *money*; too much is being spent on health care. Significant changes in our health care system continue, even though our congress enacted no new health care legislation last term. None of the president's threats came true, but no matter. The eerie quiet in Washington and the distractions of our lay press belies the fact that things are worse since I wrote a year ago.

First, there is a head over heels movement to "managed care", even though no one is very sure just what "managed care" is. Administrators claim it is a way to cut costs. Physicians claim it will destroy quality health care. Patients claim it will limit access. Maybe they are all right. I figure it is our voluntary/involuntary version of your NHS, a plan (or plans) with set benefits. Managed care is a radical departure from American "on demand" medicine (for doctors and patients).

Second, all current changes bring on the need to cut costs. To do that, many hospitals and practices are hiring management consultants to analyze their patient care operations. All of these very young people are nicely dressed, quite polite, and ready to tell physicians that we are very inefficient and employ way too many people in the health care system. Of course, many jobs are being cut including those of doctors and nurses as well as other allied health professionals. Few specialty jobs are available to our young people. This is one way to limit cardiologists.

Third, early reports indicate there is a clear anger arising from patients about being kept out of the hospital or away from the doctor by all these new rules that act as cost cutting measures. Our inpatient post cardiac catheterization holding room closed a few months ago, there were so few inpatients

being done. Almost all of our diagnostic cardiac catheterizations are now done on outpatients. Now there are endless hours for patients and their families in the outpatient waiting rooms. Nobody ever counts the number of working hours lost by members of families for the sake of a hospital bed. Whatever our changes, the patients and families are paying.

So Hillary is off the front pages and Bill has a new Congress of alleged evil Republicans. Hospitals are still closing and doctors are still whining about the whole mess. Until the OJ trial is over, nobody is going to talk or write much about anything, not even health care. But there is one notable exception.

### **Quality**

While all of this goes on there is a growing awareness about the importance of quality. When patients have to tolerate inconvenience, the natural reaction is to ask what they are waiting for. If we restrict access, will quality suffer? What is quality? Is it simply the availability of any test we want? Is it simply defined by the cost of a machine or a study? Who defines quality? Is it the fact that the physician smiles or is on time? Is quality just preventing mistakes or is it developing a system where we all do our best? These are all important questions.

Some folks say these managed care plans won't care about quality, only price. I disagree because I've got this belief that every concerned physician wants to do a good job. I also believe that every insurance company, managed care plan, and even your NHS is concerned about quality. Poor quality wastes money. It even hurts people.

I suspect you avoid the issue of quality like we do. Physicians don't want to deal with it because it seems like if we define quality then we exclude certain people. Whatever the reason the medical profession backs away, the result is that the lawyers over here have a field day. They have decided to establish quality review through the courts and litigation. I do believe they will continue until we physicians set our own quality standards.

The problem is, very few people want to attempt to define quality (as it makes a lot of people angry). I have been chairing the American Society of Echocardiography effort to come up with a series of recommendations for quality and I have learned my lessons well. Years of effort and consensus building have seen arguments, damaged relationships, name calling, and all sorts of things. Then when we really get confused, we ask a lawyer for advice. Over here, we seem to have agreed not to be afraid and to take a stand.

You know the situation. You remember those conversations about quality we had when you said you were really worried that

**Duke University  
Medical Center,  
Durham, North  
Carolina, USA**  
Joseph Kisslo, MD  
Professor of Medicine

Correspondence to:  
J Kisslo, Box 3818, Duke  
University Medical Center,  
Durham, NC 27710, USA.

there were too many ultrasound machines and too many people doing examinations and mistakes being made. You also said that most folks weren't trained very well on how to use ultrasound machines and there were many who were not trained how to interpret echo studies. Just buy a machine and set yourself in business is how it is over here. In fact, I just had a call an hour ago from a physician in a community just north of here who wanted to come for three days next week to learn all about echo. He has no previous experience but his machine is being delivered in 10 days. I diplomatically said no way.

But I made a huge mistake. I said no way, as if excluding the individual. Rather, I should have found a way to bring that physician up to speed, as long as we both were willing. Quality cannot be exclusive.

Quality in echocardiography has too long been defined simply by the price of the ultrasound machine. Just buy the latest machine with the latest upgrade and there you are, quality! It is amazing to me how many people begin telling me about their labs by describing their equipment (maybe we learned it from the cath people). I think these days are thankfully ending.

#### Changes are coming

Well, there are some changes coming. Let me tell you about a few:

*Echo machines*—It looks as though newer generations of echo machines are recognizing these changes. So many things are being included to automate measurements and do things for us. Despite this pitiful commentary on the skills of the echo community at large, this is probably a good trend.

*Continuous quality improvement*—Almost all US hospitals are now working with a process called continuous quality improvement (CQI). It's a process that has been going on in industry for some time. I'm told the US auto industry learned it from the Japanese auto industry (thankfully, given the state of US automobiles several years ago). CQI therefore turns out to be an adopted management methodology that uses teams of physicians, sonographers, managers, and other health care professionals to identify and analyze problems, identify possible solutions, test applications of the solutions, and then implement changes. Notice I said "teams". It's interesting, because the CQI process *does not place blame. Rather, it seeks solutions to problems.* This is hard for most people to realize but it is at the heart of any quality process.

There are a few more reasons why CQI is now so important that we haven't yet discussed.

- Our Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has recommended all facilities under its influence establish quality assurance and improvement programs. To us, accreditation by the JCAHO is most important.

- As long ago as 1982, the Inter-Society Commission for Heart Disease Resources published a document entitled *Optimal*

*resources for ultrasonic examination of the heart.*<sup>1</sup> This document attempted to define a cardiac ultrasound examination, to describe its applications, and to provide resource guidelines for personnel (training, experience, and case loads). Other documents have followed.<sup>2-27</sup> It appears that a reasonable consensus now exists among the concerned professional societies as to the proper content and practice of cardiovascular ultrasound.

- The complexity of the conduct, interpretation of results, and clinical application of these techniques have advanced to the point where the fund of knowledge and skill levels required for their proper performance and interpretation are exceedingly high.

*Quality and the American Society of Echocardiography*—The American Society of Echocardiography (ASE) is about to publish recommendations for CQI programs in echocardiography. Sure enough, we have been arguing for years. Some people say that no standards should be cited, others say that there should be standards and tests for everything.

Since the ASE document is not yet approved I can't give you the details until it is final. I can tell you that it is the result of years of work. It is best to describe it as a cookbook for building CQI programs that provides a creating quality assessment and improvement program by using previously published standards. Along these lines, there is precious little new territory entered.

It does say things that may be deemed radical by some factions, like "a physician should be trained to read echoes according to accepted standards". Seriously, this frightens many people. You remember our chat last year about the growth of echo and the growth of health care costs. You are I both know what's coming. This whole echo business is going to grow and grow until someone asks the logical question "are you trained". Whomever is paying is likely to be the one that asks.

I should add that the ASE approach is based upon people talking to one another through review sessions, periodic comparisons, and local conferences. Quality can't be judged by comparisons to a set of standards written on journal pages but must also be measured by living comparisons to each other. ASE will strongly recommend that echo should not be done in isolation. We hope not to have people thinking they are doing a good job when their results are really dreadful but no one talks about it. The process may be new for medicine but makes sense.

*Standards*—I'd like to think that the establishing of standards is meaningful. I noticed when I wrote to you last year that you had just published physician training standards for echocardiography in the UK.<sup>27</sup> We've had ours for much longer than a decade and I would be very surprised if more than 20% of our cardiology training programs really train candidates to level II (6 months and 300 studies, our level to perform and interpret independently). Too bad there is no enforcement.

I can tell you that we started counting the studies performed by our trainees about two and a half years ago. Before I told the fellows we were counting they performed about 50–60 in three months. Then I simply stated they couldn't sit for board examinations unless they fulfilled the standards. Now they average 170–190 in three months. Forget the numbers, they really are learning something.

Our sonographers are doing much better. All types of standardized training programs are now available and many are going on to get their registry certifications which consist of filling training requirements and then passing a series of examinations to prove competence.

In our hospital, and in many others, there is a salary premium for registered sonographers. There is also a lot of personal pride. Registry is a voluntary standard but there is reasonable compliance. The days of "on the job" training for cardiac sonographers are almost a thing of the past.

Strange thing is, the patients don't seem to inquire about physician or sonographer qualifications, however. I suspect your patients are just like ours. Anyone in a white coat must be qualified. Given the excessive insurance programs we have, or the governmental mandate with universal access to health care that you have, the patients probably will never ask because they are not involved in the choices for health care providers. They will presume somebody is taking care of this. Nobody is checking here; how about over there?

*Examination for physicians*—There is a new and growing movement here in the US to establish a physician examination in echo. Our various Boards of this and that wouldn't do it. In June, the American Society of Echocardiography will offer its first norming examination (doesn't count). It's all voluntary right now. The hope is that people will look to the examination as another guide to assess where they stand in regards to quality.

I should confess that I get a little miffed about the exam. I have been heard to say, "Who are these people to examine me?" "Only human" says my wife.

#### Other things you should know

All this business about CQI, documents, recommendations and examinations is likely to scare most reasonable practitioners of echocardiography. Sometimes it is hard for foreigners to differentiate just who is trying to set standards in the US. Here are a couple of items to help you understand us and why we do things this way:

- The right to license physicians resides with the states, not the national government. Thus for 50 states there are 50 licenses.
- A medical license allows one to do just about anything in medicine and surgery, trained or not. The only time I can get into trouble is if something bad happens (like getting sued).
- Among our alphabet soup of organizations related to internal medicine and cardiology (ACP—American College of Physicians,

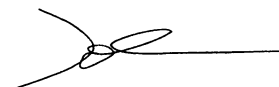
AHA—American Heart Association, ACC—American College of Cardiology, ASE—American Society of Echocardiography, ASIM—American Society of Internal Medicine, and other various professional groups) only the ACP, ACC, and ASE have established *any* training standards in echo known to me. Standards cannot be made mandatory, except by the government. If we try without the government we may restrain another individual's ability to earn a living (restraint of trade and we get sued again).

● Remember, though, that this is America. It is probably illegal here for one organization to promote a profession, set educational standards, *and* then offer a test that, in some way, assesses competence. If we do, then it is a monopoly and we get sued another time. My understanding is that we have laws that protect the average untrained, ill educated person and the real effect of these changes that promote quality are not likely to come for many years.

So, it is obvious, we can't mandate anything in the US. Everything must be voluntary and there must be a consensus. But I should tell you that we are very, very close to our ASE statement on quality in echocardiography. What's more important is that many of our physicians and sonographers now want recommendations because they want to do a good job. With this grass roots support my suspicion is that there will be overwhelming acceptance. The goal here is, after all, to help people get better and to improve patient care.

As we always seem to note in these conversations, the world is small and our problems are common. That's what we're up to. We always seem to learn so much from each other. I'll let you know when the ASE article is published. By the way, what are you doing about quality? Write and let me know. In the meantime, all the best.

Sincerely,



- 1 Popp RL, Fortuin NJ, Johnson ML, Kisslo JA. Optimal resources for ultrasonic examination of the heart. Report of the Inter-Society Commission for Heart Disease Resources. *Circulation* 1982;65:423–31.
- 2 Sahn DJ, DeMaria A, Weyman A, Kisslo JA. Recommendations regarding quantitation in M-mode echocardiography: results of a survey of echocardiographic measurements. A report from the American Society of Echocardiography. *Circulation* 1978;58:1072–83.
- 3 Henry WL, DeMaria A, Gramiak R, King DL, Kisslo JA, Popp RL, et al. Report of the American Society of Echocardiography Committee on Nomenclature and Standards in Two-Dimensional Echocardiography. *Circulation* 1980;62:212–5.
- 4 Martin RP, Kisslo J, Quinones MA, Popp RL, Feigenbaum H, Tajik AJ, et al. Report of the American Society of Echocardiography committee on physician training in adult M-mode and two-dimensional echocardiography. Raleigh: American Society of Echocardiography, 1982.
- 5 Filly K, Hagen-Ansert S, Hagan A, Carney D, Kisslo J, Christie L, et al. Report of the American Society of Echocardiography committee on education and training of the echocardiographer (cardiac sonographer). Raleigh: American Society of Echocardiography, 1982.
- 6 Henry WL, DeMaria A, Feigenbaum H, Kerber R, Kisslo J, Weyman AE, et al. Report of the American Society of Echocardiography committee on nomenclature and standards: identification of myocardial wall segments. Raleigh: American Society of Echocardiography, 1982.



- 7 Bommer WJ, Shah P, Allen H, Meltzer R, Kisslo J. The safety of contrast echocardiography. *J Am Coll Cardiol* 1984;3:6-13.
- 8 Bommer WJ, Shah P, Allen H, Meltzer R, Kisslo J. *Report of the committee on contrast echocardiography of the American Society of Echocardiography*. Raleigh: American Society of Echocardiography, 1984.
- 9 Pearlman AS, Gardin JM, Martin RP, Parisi AF, Popp RL, Quinones MA, et al. Guidelines for optimal physician training in echocardiography: recommendations of the American Society of Echocardiography committee for physician training in echocardiography. *Am J Cardiol* 1987;60:158-63.
- 10 Pearlman AS, Gardin JM, Martin RP, Parisi AF, Popp RL, Quinones MA, et al. Guidelines for physician training in transesophageal echocardiography: recommendations of the American Society of Echocardiography committee for physician training in echocardiography. *J Am Soc Echocardiogr* 1992;5:187-94.
- 11 Gardner CJ, Brown S, Hagen-Ansert S, Kisslo K, Kwan OL, Menapace F, et al. *Educational outline in echocardiography and Doppler echocardiography*, 3rd ed. Raleigh: American Society of Echocardiography, 1987.
- 12 Gardner CJ, Brown S, Hagen-Ansert S, Harrigan P, Kisslo J, Kisslo K, et al. Guidelines for cardiac sonographer education. Report of the American Society of Echocardiography sonographer education and training committee. *J Am Soc Echocardiogr* 1993;5:635-9.
- 13 Sahn DJ, Baker DW, DeMaria A, Gessert J, Goldberg SJ, Gutgesell H, et al. *Report of the American Society of Echocardiography Doppler standards and nomenclature committee: recommendations for terminology and display for Doppler echocardiography*. Raleigh: American Society of Echocardiography, 1982.
- 14 Silverman NH, Sahn DJ, Allen HD. *Report of the standards committee on nomenclature of the Society of Pediatric Echocardiography and the American Society of Echocardiography: nomenclature for cardiac septa*. Raleigh: American Society of Echocardiography, 1986.
- 15 Meyer RA, Hagler D, Huhta J, Smallhorn J, Snider R, Williams R. Guidelines for physician training in pediatric echocardiography: recommendations of the Society of Pediatric Echocardiography committee on physician training. *Am J Cardiol* 1987;60:164-5.
- 16 Popp RL, Winters WL, Williams SV, Achord JL, Friesinger GC, Klocke FJ, et al. Clinical competence in adult echocardiography: a statement for physicians from the ACP/ACC/AHA task force on clinical privileges in cardiology. *J Am Coll Cardiol* 1990;15:1465-8.
- 17 DeMaria AN, Crawford MH, Feigenbaum H, Popp RL, Tajik AJ. 17th Bethesda Conference: Adult cardiology training. Task force IV: Training in echocardiography. *J Am Coll Cardiol* 1990;7:1207-8.
- 18 Essentials and Guidelines for an accredited program for the cardiovascular technologist. Joint review committee for education in cardiovascular technology. Chicago: American Medical Association Committee on Allied Health Education and Accreditation, 1990.
- 19 Essentials and guidelines for an accredited program for the diagnostic medical sonographer. Joint review committee for education in diagnostic medical sonography. Chicago: American Medical Association Committee on Allied Health Education and Accreditation, 1994.
- 20 Sahn D, Kisslo J. Report of the Council on Scientific Affairs: ultrasonic imaging of the heart: report of the ultrasonography task force. *Arch Intern Med* 1991;151:1288-94.
- 21 Ewy GA, Appleton CP, DeMaria AN, Feigenbaum H, Ronan JA, Skorton DJ, et al. ACC/AHA guidelines for the clinical application of echocardiography: a report of the American College of Cardiology/American Heart Association task force on assessment of diagnostic and therapeutic cardiovascular procedures (subcommittee to develop *Guidelines for the clinical application of echocardiography*). *J Am Coll Cardiol* 1990;16: 1505-28.
- 22 Fyfe DA, Ritter SB, Snider R, Silverman NH, Stevenson G, Sorensen G, et al. Guidelines for transesophageal echocardiography in children: report of the committee on standard for pediatric transesophageal echocardiography of the Society of Pediatric Echocardiography. *J Am Soc Echocardiogr* 1993;5:640-4.
- 23 Hurwitz R, Ritter SB, Snider RA, Silverman NH. Guidelines for pediatric diagnostic and treatment centers. *Pediatrics* 1992;87:576-80.
- 24 Meyer RA, Hagler D, Huhta J, Smallhorn J, Snider R, Williams R, et al. Guidelines for physician training in fetal echocardiography: recommendations of the Society of Pediatric Echocardiography committee on physician training. *J Am Soc Echocardiogr* 1990;3:1-3.
- 25 Kisslo J, Millman DS, Adams DB, Weiss JL. Interpretation of echocardiographic data: are physicians and sonographers violating the law? *J Am Soc Echocardiogr* 1988;1: 95-9.
- 26 Kisslo J, Adams DB. Reporting of preliminary data: time to take our sonographers "off the hook". *J Am Soc Echocardiogr* 1991;4:6-9.
- 27 Monaghan M, Anderson V, Chambers J, Leech G, Marin M, Nihoyannopoulos P, et al. Training in echocardiography: British Society of Echocardiography guidelines. *Br Heart J (suppl)* 1994;71:2-5.