



Teaching the definitional difference between DOs and MDs

To the Editor:

What is the difference between the differential diagnosis of a DO and that of an MD? That question is the defining difference between these two schools of patient care. The osteopathic physician has an expanded differential diagnosis, and because of this expanded differential, this awareness of “other,” and the education to deal with this added information, a DO has expanded practice rights.

Examples of these expanded differential diagnoses go beyond musculoskeletal examinations. Of course, MDs and dentists are taught that dental pain may be the first manifestation of thyroiditis. The education of osteopathic physicians takes this to other levels, not only tracing referred pain, but offering osteopathic manipulative treatment options.

Of course, this expanded differential is taken for granted by our osteopathic profession, so much so that we rarely discuss it as a definitional difference.

Why does it matter?

Currently, patient care in the United States is being taken apart and reformulated with different definitions. Doctors are being referred to as “content providers.” Information technology (IT) has stepped into the equation and created mathematical models of *predictive modeling*. Data mining via data science—the marriage of gambling theory, statistics, programming, data analysis, visualization design, and entrepreneurship—has entered the health care world, and IT leaders are arguing that *they*, not physicians, are the “content providers” in health care.

Information technology can break down a problem into much simpler segments and reformulate how it can be approached and solved. Although physicians are focusing on electronic medical records (EMRs) in their offices, hospitals, nursing homes, hospice corporations, and so on, we are losing sight of the enormous data pools that these EMRs provide third-party payers. Information that was once on paper and scattered in thousands of data repositories is now being centralized and reviewed in data mining centers. Information technology corporations are stepping into our profession and telling those who are paying the bills that they have predictive modeling solutions to diagnoses, treatments, safety, and cost. The government, the insurance industry, and the hospital industry are listening. Who has the courage to argue with anyone that presents hundreds of millions of terabytes of information to back up their pre-

sentations? If you have any questions about how IT changes and drives the economy, look no further than the stock market. Huge computer models have been created that trade stocks in measurements of time that humans can neither analyze nor react to. Welcome to the future of health care.

Let me explain how this is already impacting us as a profession, and how the sophisticated process of the differential diagnosis will save the profession.

In the traditional family practice model of health care, the osteopathic physician was trained to provide clinical care in all environments—offices, hospitals, skilled nursing homes, home visits, emergency community settings (i.e., on the street)—and also had on-the-job training to teach medical students, interns, and residents. Look at the model presented to students today: There are physicians segregated to their offices; other physicians are hospitalists; others skilled nursing facilities (SNFists) (skilled nursing home care only); and other physicians are housists (house calls). The model has been broken down even further with the placement of focus-educated clinicians into the equation. Physician assistants, nurse practitioners, physical therapists, and the like, have been brought into the equation, all equally adept at using the drop-down menus that the people from IT have provided for us in the EMRs. These EMRs now have links (in offices, hospitals, hospices, skilled nursing care centers) with treatment protocols and electronic order entry, which, of course, then link to the clinical pharmacologist or other allied health professional to implement. Cognitive skills have been co-opted by the IT staff, and they are being paid money that is now no longer in the system to pay physicians. In addition, IT is meeting with administrative staff much more frequently than physicians to explain to the corporate heads why they—IT—are now the content providers. Is content under the control, under the power, of physicians, or is content under the control of the IT industry?

We cannot oppose the development of predictive models about best methods to optimize outcomes; that would be stupid and not in the best interest of our patients.

The ACOFP and the AOA know that payment models predict how our students choose practice patterns. If an emergency department physician is paid three times what a family physician is paid for two-thirds of the hours worked, medical students will vote with their feet and move into emergency medicine. If we break our profession into two basic segments—cognitive medicine and procedure medicine—and if the allied health professions are *given* the title of full practitioners in cognitive medicine via IT, then

younger physicians will choose procedure medicine as the last safe haven for their careers.

As of today, cognitive medicine is the most valued component of our profession. To secure control of our profession, the AOA has forcefully stepped back into the field of play and each of us, as osteopathic physicians, must forcefully step back into the field of play to keep our hard-earned practice rights. Information technology cannot provide a differential diagnosis other than what is entered into the datasets. The fuzzy logic of the human brain exceeds all existing models of IT. In public display after public display of technology, I have challenged IT experts to show how their product can take a chief complaint of “headache” and diagnose nonmetastatic colon cancer from that chief complaint (i.e., via the diagnosis of anemia). No product *yet* can do this. With all of the physicians that have taken “jobs” in IT (vs. continuing to practice their profession as clinicians),

this may some day change, but it has not yet happened, and I don't see this form of technological advance within the next 10 years. So cognitive medicine is still the most valued component of health care.

Within the field of cognitive medicine is the osteopathic profession. Again, what separates us by definition is the differential diagnosis of the osteopathic physician and our ability to add treatment options as osteopathic physicians. We need to master the use of information. Information will be aided and enabled by technology so that we can *direct* its use opposed to *being directed* by IT staff. This can only happen if we use our osteopathic differential diagnosis and treatment protocols. If we do not do this, our profession will be replaced by a dropdown menu followed by an allied health professional.

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