Are Patient Outcomes Better With Female Physicians? Not So Fast...

By Chuck Dinerstein, MD, MBA — December 21, 2016

While I rarely admit it, I can be intensely competitive. When I heard about JAMA’s latest article, Comparison of Hospital Mortality and Readmission Rates for Medicare Patients Treated by Male vs. Female Physicians [1] I dropped everything to read that article**. How could this be? I carefully searched the article (checking it twice) for a flaw, in methodology, results or conclusions. Finally I found a flawed assumption the authors made because, well frankly, the Center for Medicare and Medicaid Services (CMS) and the rest of us did too. Here is the problem:

“We assigned each hospitalization [and the consequent outcomes] to a physician … that accounted for the largest amount of Medicare Part B spending during that hospitalization … [who] were general internists.”

The authors based the assessment of the quality of care to only one physician. But in hospitals, this is a faulty measure. Regarding the medical diagnosis, it is a reasonable assumption that the physician receiving the largest payment is indeed the attending physician – the doctor ‘in charge.’ But here’s the problem: they assigned responsibility to one doctor, but this is not how life works in a hospital, and money is a factor. It is not one doctor who is responsible for a patient’s care in a hospital; there are several, such as consulting specialists, and they get paid as well. For the diagnostic groups considered, I would not be surprised to find three or more professionals involved with every case. And this is why the results are skewed.

As a surgeon, it pains me to say I am not the star, but if you take away my regular operating room
staff or those in change of caring for my patient post-operatively, I get different results. The concept of one physician providing all the necessary hospital care is a story from another time when Drs Kildare and Casey roamed the hospital. Today, medical care is a group activity. The Agency for Health Research and Quality’s (AHRQ) Team STEPPS program has defined ‘core’ teams involved in direct patient and continuity care, and it includes physicians, nurses, discharge planners, physical and respiratory therapists, and pharmacists. For a simple out-patient procedure, a patient will interact with a ten-person care team. For hospitalized patients, the subject of the study, the care team can easily include 25 or more people.

Teams generally take one of two forms. Typically, a team is a collection of individuals, each working in his or her own specialty. The cardiologist takes care of the heart, the infectious disease doctor cares for the infection, the discharge planner speaks with the family and patient to develop a discharge care plan, and the hospitalist oversees and fills in the gaps. Should the work of this team be attributed to the hospitalist? The assumption in the paper is yes. But does this make any sense?

You see a somewhat different story with surgery. Teams care for patients through their collective action and their joint contribution. Surgical care consists of the perioperative period (before surgery), the surgery itself, and post-surgical recovery. The best surgical team will come “together to share information, perspective, and insights; to make decisions that help each person do his or her job better, and to reinforce individual performance standards…” Should the work of this team be attributed to the surgeon-leader? Of course not, but according to CMS it is yes. This is how they reward and penalize physicians.

When the authors attribute care to a particular physician the underlying assumption is fallacious; they do not account for the care teams which are invisible in the dataset but very apparent to any thoughtful clinician. The best conclusion that the data permits is that teams lead by women physicians have better outcomes. And while it is not within the scope of the paper, it is sufficient to point out that these care teams are not wholly the creation of the team leader.

Outcomes of mortality and readmission are the result of the work of a group—not an individual, and we should acknowledge this more openly than we do. To focus on a single individual promotes a fundamental disconnect between the collaborative behavior we want to encourage and the “nudges” we employ to facilitate that behavior. There is a steady push for healthcare delivery by teams because of the increasing complexity of patients, their needs and the system providing their care. “Our challenge …. is not whether we will deliver care in teams, but rather how well we will deliver care in teams.” [2]

My problem with the paper is that it doesn’t help us understand why one group of teams may do better than another. This is the information that is of real value.

One last thought. I was concerned about how our media presented the study. There is a meme in the paper about the disparity in income by gender. Here is what the authors wrote:

“Despite evidence suggesting that female physicians may provide higher-quality
care, some have argued that career interruptions for child-rearing, higher rates of part-time employment, and greater tradeoffs between home and work responsibilities may compromise the quality of care provided by female physicians and justify higher salaries among male physicians.”

Kristen Dahlgren of NBC indicated that the study would urge “hospitals to promote and pay women equally.” Let us be very clear; Medicare payments are gender blind. Physicians are paid based upon the work they claim to have performed. If you would like to argue that hospitalist care should be rewarded at a higher rate, feel free to join a dialog that has been going on for 20 years.

There are a lot of monologs these days about fake news. Science is as likely to be a target as politics. I was struck by a comment from Tyler Cowen [2]

“… choice of emphasis is a much bigger problem than ‘fake news.’”

I do not question the results of the study I question the underlying assumption, and therefore its conclusion. Moreover, in sharing the findings with the public, the media has not been a faithful interpreter. If they read the story, they did not fully comprehend it. The American Council always tries to help us understand science’s emphasis, not the spin of various media or advocacy groups. I am proud to be part of this organization and am grateful for the opportunity and platform they provide.


[2] In an editorial published in April 2005, Paul M. Schyve, M.D., senior vice president of the Joint Commission

** Please take a moment to read my colleague, Dr. Wells beautiful review [3] of the JAMA paper, she is making good points. She raises an interesting point about women physician salaries from the JAMA commentary:

“female internists provide higher quality care for hospitalized patients yet are promoted, supported and paid less than male peers in the academic setting.”
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