PRESIDENT'S MESSAGE

The Point of Care

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Cardiovascular ultrasound and ultrasound imaging in general are undergoing a technologic and cultural upheaval. If you practice in an echo lab with a traditional referral base of cardiologists, primary care, and inpatient services, you may not be aware of how much of this changing paradigm has already been established. Not only are emergency physicians applying cardiovascular ultrasound to the care of patients, but critical care doctors, oncologists, internists, residents, and medical students also have access to portable devices including hand-held ultrasound platforms that are increasingly a daily part of patient care.

Is this a good thing? There is no denying that if I were to suffer a sudden hemodynamic collapse and would wind up in an emergency department, I would want it to be one in which the emergency physicians were fully trained in POCUS (point of care ultrasound) and knew how to apply it to patient care. When I first became a lab director in the early 90s, we did full and complete studies on every patient, even follow ups. With 3 sonographers, our maximum daily output was about 25 studies and the inpatient wait was 2 days and outpatient delay about 4 weeks. As things evolved over the next 2 decades, it was clear to me that the insistence of a pristine and complete study on every patient, regardless of the indication or how many previous studies they had, was hurting patients by limiting access. Along with many other labs, we developed protocols for limited and follow up studies for specific indications. We all have taken the Friday afternoon call at 4:45PM—the patient who is 3 days post-pericardiocentesis and feels fine but has a 10 beat per minute increase in heart rate. To me, it is simpler to do a 10 image study than to worry all weekend that the patient deteriorated. But simpler still would be for a trained critical care doctor to use POCUS and decide NOT to call the echo lab at all.

Several studies have demonstrated that hand-held devices in the hands of trained internal medicine residents allowed the classification of patients with new presentations of heart failure into systolic and diastolic 15 hours or more earlier on average than could be accomplished by the cardiology service and the echo lab. Other studies have suggested that an entirely normal hand-held POCUS obviates the need for a full "high-end" study. Does this mean we will be doing fewer echocardiograms in the future? Probably not. The most recent issue of *JACC* contains an analysis of big data using the Nationwide Inpatient Sample. The evidence appears clear, echocardiography is underutilized in many areas of the country in patients presenting with heart disease (MI, CVA, CHF etc.), and the mortality was lower in patients who underwent echocardiography during their admission. There is other evidence in the literature that oncology patients do not receive recommended echocardiographic surveillance in the majority of cases, and that many patients presenting with CHF do not have an assessment of EF despite the guidelines. In my opinion, while echo is over-utilized in certain situations and should not be unquestionably supported for the use in every health screening—it is clearly underutilized in patients who truly need it. I see POCUS as part of the continuum of care.

Since ours is an organization of cardiovascular ultrasound experts, with broad involvement from many specialties, our involvement with POCUS should be as collaborative as possible. There are many areas of training, research, and advocacy that are natural areas where we can work with our colleagues who are working in a variety of settings that use cardiovascular ultrasound. If our goal is to ensure "the right test at the right time" then we can all agree that "The Point of Care"—IS the PATIENT.

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