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Will the Traditional Physical Examination be Another Casualty of Covid 19?

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I read with concern a news headline in the September 2020 issue of *Cardiology Today* entitled, “Telehealth shift during COVID-19 pandemic show capacity to safely deliver cardiology care”. The implication was clear. Other than observation, physical examination is not required for safe patient care anymore. I should say that the article itself *doesn't* say this. The article does point out that certain visits, such as the discussion of test results and seeing patients in areas difficult to access, can occur virtually. But as this article title implies, and I'm sure many feel, performing a physical examination can be largely eliminated. Even before the pandemic we have all seen practitioners either go through the motions or simply eliminate most of a traditional physical exam in their patient encounters and really only use the patient history, patient observation, and a multitude of ancillary tests in their decision-making process.

With this pandemic, there is not much one can do but go along with a limited or even an observation only physical examination. Clearly, limiting close patient contact with those infected with COVID-19 is important for provider safety. Additionally, when patients are in isolation, it is extremely difficult to do a physical examination. One cannot hear much with the “toy” stethoscope intended for use with isolated patients. And given the frequency of asymptomatic carriers, it is common sense to limit physical close contact and thus limit physical examination with any patient.

After this pandemic is over what will become of the physical exam? It is now becoming acceptable to see and bill patients virtually with no actual patient contact or in person with very limited examination. Students, residents, and fellows now go through their training trying to

avoid physical contact with patients. And they watch their attending physicians doing the same. Performance of, and the skills required to do a good physical examination will be significantly diminished. Trainees simply don't have enough opportunity to learn physical examination skills or how to rely on those findings in their decision-making process. Minimal use of the physical examination will soon become standard practice. This change was already occurring but is now being accelerated. And, it will be here to stay; the numbers of individuals that have the ability to train others in advanced examination techniques will decline as they age.

However, with every predicament there is opportunity. The comprehensive physical examination many of us learned needs to evolve as it takes too much time to learn and perform. What is needed is to develop a reasonable abbreviated format for examination that combines a sanctioned limited physical examination that is based on recognizing decision points¹ with optional handheld ultrasound to aid in medical diagnoses. Inclusion of bedside ultrasound is not a new idea in patient evaluation.² But, the idea of developing an abbreviated combined physical examination with limited ultrasound that can be performed with alacrity is new. The bedside ultrasound should become an optional part of the physical examination, like all the other optional techniques used occasionally during a patient encounter, and not just something that is added on at the end. Frankly, it could replace many of those specialized techniques we were once taught. It is important to emphasize that ultrasound should not be utilized unless there is a clear reason. Anyone who reads ultrasound knows that all sorts of confusing findings can be found on indiscriminate scanning which could result in unnecessary patient worry and additional unnecessary testing. Total time spent performing this new examination (including ultrasound) should have a goal of about 5 to at most 10 minutes. With this change in bedside evaluation, the

real goal of the patient examination could be obtained. This goal is recognizing normal from abnormal and either coming up with a diagnosis or categorizing the findings in a clinically useful fashion that facilitates medical-decision making.¹

This “new” means of patient examination needs to be agreed upon by experts and then sanctioned by organized medicine to become the new standard. It is confusing for learners to decide what to include in a physical examination and when to include sonography. The following example makes this clear. It is said that many mitral stenosis murmurs are “silent”, which simply means it is hard to hear and I suspect many learners never try. Maybe those learners would be better served learning to appreciate the basic findings on an echocardiogram. I remember (in 1980) being on a senior medical school ER elective and seeing an approximately 30-year-old patient present with atrial fibrillation with a rapid ventricular response and pulmonary congestion. In general, patients with atrial fibrillation shouldn’t go into congestive heart failure unless something else is going on. I spent extra time listening in the left lateral decubital position for the murmur of mitral stenosis or an S3. The murmur was present, and a new diagnosis rheumatic heart disease was tentatively made. The extra time I spent listening to recordings of mitral murmurs to be able to recognize them could have been more productively spent, with today’s technology, learning the basics of echocardiography. And the patient encounter time spent listening for that murmur could have been spent performing a limited bedside sonogram which would have more reliably resulted in the diagnosis of mitral stenosis as well as information about his aortic valve, left ventricular function, left atrium, and pericardium. He still would have required an official quantitative echocardiogram interpreted by a cardiologist, but we would have had so much more information sooner. Learners today are taught that

everyone with atrial fibrillation should have an echocardiogram. So, we may eventually get to the same place, but generally in a less efficient, haphazard fashion.

How does one learn what to include and what not to include in the physical examination and when to perform the sonogram? This comes from years of experience. Why can't those with years of experience just come to a consensus on what to include in an examination and teach this in an algorithmic fashion. With the example above we could teach that simply finding the atrial fibrillation would have been enough to trigger performance of a limited cardiac ultrasound before ordering an official echocardiogram.

Implementing this change to the traditional physical examination would require a major shift in current medical education. It needs to be introduced in medical school and become a required component of Internal Medicine residency training programs. If time efficient techniques are developed and taught, the value in this approach will be obvious. This could help restore the specialist in Internal Medicine to the previously held position of the sagacious diagnostician, a position which has been eroded with the introduction of so many other specialties with their own imaging techniques and procedures.

How can this change be accomplished? This needs to come from the major academic organizations in medical education and practice. A good place to start is with the organization that supports this journal, The Alliance for Academic Internal Medicine (AAIM) who state: "The AAIM is the largest academically focused specialty organization representing departments of internal medicine at medical schools and teaching hospitals in the United States and Canada."

This topic is clearly important to the AAIM as evidenced by its position papers as well as multiple articles published this journal, *The American Journal of Medicine*.^{3,4}

Implementation of this change in approach to patient examination doesn't have to be that difficult to accomplish. It has been done before when new technology replaced old.⁵ Once the basic format of this new examination is developed, chief residents along with other instructors interested from each Internal Medicine training program could be trained and then become the trainers. As these limited ultrasounds are really just an additional part of the physical exam like the other tools used by physicians, they wouldn't require specific licensing nor billing. Thus, this wouldn't result in expensive licensing examinations or interfere with the official billable ultrasounds. This new physical examination should simply help direct patient care more effectively.

We live in a time of rapid change. The traditional physical examination is rapidly going by the wayside and this is being accelerated with this pandemic. This change presents an opportunity to improve bedside diagnostic effectiveness by changing the physical examination into a time efficient technique that incorporates optional bedside ultrasound. Action *now* is required to safeguard bedside medical diagnostic accuracy and effectiveness.

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