

AN INTERVIEW WITH PROFESSOR DAVID CANFIELD

Brief Intro of Prof Canfield –

Professor David Canfield
The W. Proctor Harvey Teaching Professor
Master Teacher, Harvey Society,
Clinical Professor of Medicine and Cardiology
Georgetown University School of Medicine
Washington, DC

Visiting Professor
Uniformed Armed Services School of Medicine
Bethesda, MD

Emeritus Director of Medical Education
Gagnon Cardiovascular Institute
Morristown, NJ

Professor Canfield is actively teaching in several medical institutions and affiliated hospitals. He teaches medical students, internal medicine and pediatric residents and fellows of cardiology and sports medicine. His main interest is teaching bedside medicine and physical diagnosis. Professor Canfield visited Johns Hopkins University School of Medicine to participate as a faculty preceptor for the last session of APECS (Assessment of Physical Exam and Communication Skills) for the academic year 2018-2019 before the summer break. During the visit, I had a chance to meet him and ask a few questions on his view regarding APECS and future vision as we successfully complete a year with him being a key player in this novel initiative to improve clinical skills and reduce burnout among residents.

Dr. Apurva – Hi Prof. Canfield, thanks for taking the time to speak with me today. The first question I have for you is, “Being involved in teaching bedside medicine and clinical skills for almost fifty years, how do you feel residency education has changed since the time you were a student?”

Professor Canfield- Residency education has changed dramatically in the last 50 years. The Physical Diagnostic skills needed in residency have not been well taught recently. Historically, residents did bedside rounds with master clinicians and learned basic medicine with these mentors at the bedside. Over the period as the new electronic devices have come in to play in diagnosis, the emphasis on physical diagnosis has diminished to a point, where I think many of us are very alarmed at the knowledge of residents in bedside medicine and their lack of clinical skills. I think, though what is happening now is a whole rebirth of the teaching of bedside medicine that is being pioneered by Faculty at great institutions like Johns Hopkins University, Stanford University and Saint Peter’s University Hospital. It is all based on the Royal College of Physicians of Edinburgh’s PACES exams, which are used to examine their residents’ ability to examine patients at the bedside. Here at Johns Hopkins bedside teaching has been emphasized. I’m very

encouraged, as not only is Bedside Medicine being perceived as being important by the Institution, but I believe the residents perceive it as something that they want to learn and practice. With the systems that have been developed here at Johns Hopkins and other places, we are now in a position to train them well in the art and science of Bedside Medicine.

Dr. Apurva – Great to know that. As you mentioned, with the emerging digitalization in the field of medicine and promising role of technology aka artificial intelligence as a tool to advance patient care, how do you think bedside medicine will be transformed in the future?

Professor Canfield – I think that's a really good question. I believe that the danger with technology is that much of it is attractive and taken for its face value as reported by manufacturers. It is up to us to make sure that we have thoroughly tested these digital tools and devices before we incorporate them into our medical armamentarium. Look at the pharmaceutical industry and the way we scrutinize their new drugs. Many may look very promising until it is thoroughly tested and then not so much. Similarly, we have to be very careful with new technology. I have seen technology come and go over the last 50 years. Some of it has stayed with us and has been a wonderful part of our modern practice of medicine like echo, MRI and CT scan. We just have to be very careful to make sure that whatever technology we use is carefully tested.

Dr. Apurva – That's a very valid point, Professor Canfield. So being a vital part of this initiative to test resident's clinical skills at the bedside known as APECS for almost a year now, what are your thoughts about this initiative?

Professor Canfield - I think it's the most exciting thing that I have witnessed in my fifty years of medicine. This is an opportunity to teach bedside medicine and physical diagnostic skills that have been proven with evidence-based methods. We are testing residents one on one at the bedside and then we are teaching them one on one after testing with the same patient used for the test. Proctor Harvey was the Chief of Cardiology at Georgetown University with whom I had worked for 45 years. He once said, "Dave, the important thing about bedside medicine is not only we are practicing good medicine, but we are "practicing the fun of medicine."" How much fun is it to sit and review lab reports or sit at a computer for hours doing entries in the electronic medical record? We talk about the increased burnout rate of young physicians and though I can't prove this right now, I firmly believe if we give them the "fun of medicine", the burnout rate is going to be much less. In addition, indeed, we are going to have excited young physicians who are having fun at the bedside coming up with accurate diagnoses based on their physical diagnostic skills. I tell my students that if you do not know Bedside Medicine you will be a slave to the diagnostic machines. If you know Bedside Medicine, you are the master of the machines.

Dr. Apurva – Beautiful! How has been your experience as a star faculty preceptor for the APECS initiative for the last one year? Do you see any difference from the time we started?

Professor Canfield – Yes, definitely I do. When we started back in November, we were all committed to doing APECS but we were a little unsure about the methodology and the exact system that we are going to have. It is only after the efforts of Dr. Brian Garibaldi, Joyce Luckin and others here at Johns Hopkins

that it has transformed over the year into a program; into something that we know exactly what we are going to follow next year. We have learned from things that did not go as well as we had wanted them to, but the program has grown and is now at a stage where one can write it out and define it precisely. I think that all the physicians who were faculty preceptors in this program now know what the processes are and what they need to do. I am confident that it is going to get better with time but there has definitely been a big change since last year.

Dr. Apurva – Thanks a lot for the brilliant appreciation. As you very well know, the unique feature of APECS that is very different from the actual exam by Royal College of Physicians is the dedicated one on one feedback session at the end of each cycle. What is your opinion on that?

Professor Canfield – I am a PACES examiner here in the United States for Saint Peter’s University Hospital I understand why PACES is important and why this is done in a certain way that does not change. However, I think that what we are doing here at Johns Hopkins is more than just a testing modality. It is a teaching modality where the resident comes in the examination room with a certain knowledge set and engages with an actual patient. While they take a history or examine the patient, two examiners are observing the resident and taking notes based on a preset form so that when the resident comes back after the session, they can provide appropriate feedback. They can positively reinforce the methods the resident did correctly as well as teach those things that they missed. For example a scenario of feedback “You did a great job on this but look, one thing that you missed was if you had just moved your hand when you were palpating a little further to the right” and demonstrate that to the resident with his own hand on the patient asking him if he felt the parasternal heave followed by a discussion on it. Therefore, when the resident leaves the room, he not only has recognized his strengths by positive reinforcement but also has had a one on one teaching experience with the examiner. My take is that the residents like it and feel it is a revelation for them. Hence, we will end up creating better doctors who are now motivated to learn more, to go back to the bedside and try some of these new techniques. Moreover, there has never been a time when I am involved as an examiner when I have not learned something new, so it is a learning process not only for the resident, but also a learning process for the examiners.

Dr. Apurva – That’s really interesting aspect you shared with us. What is your take on using technology as bedside tool such as POCUS (Point-of-care Ultrasound) – as an additional station in the APECS? Do you believe that technology helps in improving patient care?

Professor Canfield – Yes, I think that as I mentioned before, I have a stern eye towards new technology. It is not that I am against technology, but I want to make sure that it contributes. It should not be just some shiny new gadget that we are enthralled with. ECHO is an accepted technology for confirming diagnosis. When it is used at the bedside after physical diagnosis, you have an instant confirmation, which saves the time it takes to send the patient to the lab. In addition, I think that is neat because the problem with ECHO or with any of the laboratory tests is that you have to wait for the results. This way you have an instant feedback on the confirmatory diagnostic test for your physical diagnosis.

Dr Apurva – A prior study from Johns Hopkins reported that interns spend only 12% of their time at the bedside as compared to 40% on the computer. Given that, what advice do you have for interns who aspire to master bedside medicine and clinical skills?

Professor Canfield - Well I think it's hard and I feel that at some point we are going to have to re-evaluate the EMR. I have grave concerns about the way EMR has been rolled out. I know it sounded like a wonderful idea when the government mandated it and I know it has been very expensive for institutions to roll it out. I have a feeling just from my own personal experience as a patient (just because we teach medicine does not mean that we are not also patients) that I notice a big difference in the one on one that I have with my caregivers. Often the physicians are engaged in their computer, they are asking questions that are generated by the medical record, and I am not so sure that that is the best thing for me. However, it is what it is and currently the intern needs to learn how to meld the patient contact with his responsibility to filling out EMRs and whatever he or she can do to make it a more worthwhile encounter for the patient. Be it whether they are showing the patient the EMR or taking the EMR to the bedside or whatever they are doing to include the patient and to make sure that the patient encounter is still valuable.

Dr. Apurva – “Less time on patients, more with electronic health records and digital medicine, has been one of the primary reasons for residency burnout.” Do you agree with that?

Professor Canfield – I do agree with that. I think that it is a valid point when you look at the amount of time that physicians have to spend at the computer just doing data entry. I have no idea what the correct answer is, but I think unless we do something, we are going to see an increase in physician burnout. More and more residents and fellows seem exhausted, just from doing work that they never really bargained for when they went to medical school. They went to medical school to diagnose and treat people and they wanted to help people. I truly believe that is the motivation of our young physicians and I am so impressed with them. They are in it for the right reason. They should not be data entry clerks!

Dr. Apurva – As we are pleased to share that we will continue this APECS initiative as part of the AMA Reimagining Residency Innovative Program in an attempt to improve bedside clinical skills and reduce burnout among residents, would you like to share your thoughts on the future of this initiative?

Professor Canfield – A number of things have come together in the workout of the APECS program. The initial effort of doing the testing and the data gathering needed to develop what exists now, is simply brilliant. Then they had the one year that we have had to shake out any of the problems, to cement it into a viable program. Now, finally funding allows us to move forward and involve more and more residents and faculty along with more medical institutions. I know Georgetown University is working to get on board with Brian and the people at Johns Hopkins. Already, Stanford University and University of Alabama are on board and I think everyone has the same problem that residents do not know physical diagnosis. Eventually, at some point, there will be a critical mass that is reached, and everyone will realize that we cannot ignore this anymore and will start teaching bedside medicine in both Medical Schools and Residency Programs. At that point, I believe there is true hope for American Medicine.

Dr. Apurva – Thanks a lot Prof. Canfield for sharing your valuable thoughts with us today!