

Medical Training magazine

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MAGAZINE

MEDICAL EDUCATION & TRAINING

iEXCEL: The Transformation of Health Professions Education

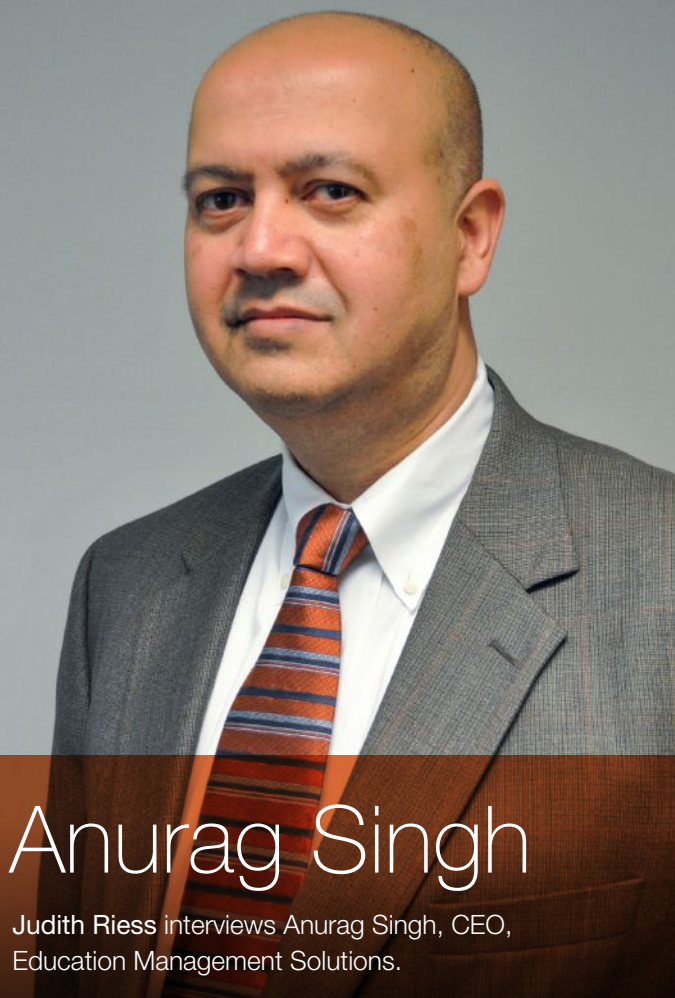
SURGICAL EDUCATION

A New Approach for Changing Times

PERFORMANCE ASSESSMENT

Bridging Data from the Simulation Laboratory to the Clinical Setting





Anurag Singh

Judith Riess interviews Anurag Singh, CEO, Education Management Solutions.

Above
Anurag Singh,
CEO, Education
Management
Solutions.

MTM: Please tell us about the Florida Hospital program and the opportunities it provides for better patient safety.

Anurag Singh: Florida Hospital is leveraging a deep understanding of the value simulation training has provided for improved passenger and crew safety for the airline industry and military troop preparedness. They are developing and piloting programs that apply these concepts to the goal of improving patient safety. Florida Hospital's simulation team leadership possess a deep and extensive knowledge of how to plan and execute scalable and highly effective simulation training programs across multiple (or joint) military sectors. Historically, impactful training across joint branch military teams can be challenging – not unlike the challenges in inter-disciplinary training for medical teams. Through applying their rich joint military training expertise, they are defining specific programmatic goals and formulating standard operating procedures – then mapping them to simulation training content, scenarios, and defining

training tempos that will yield specific results. Florida Hospital is prepared to be a driving force in improving patient safety through impactful simulation training programs – including programs implemented even before a new hospital is opened for business.

MTM: What do you see as the role technology will play in future education and training of healthcare professionals?

AS: Medical education does not stop upon graduation or upon passing a board certification examination. The challenges facing all disciplines in healthcare require every clinician to persistently improve knowledge, training and skill sets. As technology continues to revolutionize how medicine is practiced, training technology will be persistently injected into ongoing professional development programs. Clinicians today and in the future, are going to be faced with increasing challenges to master new technology and treat patients across both time and distance. Training tools must be available in real time and at their fingertips. Training on demand and training in place are no longer “nice to have” items – they are critical requirements. Technology will play a critical role in providing the right training – at the right time.

MTM: What impact does simulation and other teaching tools have on the training of healthcare professionals?

AS: Simulation and virtual training tools currently have a huge impact on the training of healthcare professionals. Undergraduate and GME programs already have widely embraced simulation training as a core component of curriculum. In fact, it is very challenging for any medical training program to compete for students without a robust medical simulation training program. As the focus on patient safety continues to accelerate – there will be an increased priority on simulation training as a critical tool to measure and evaluate entrustable professional activities or EPAs. Hospitals will no longer be willing to accept residents and new medical graduates that cannot show EPA readiness on day one. Tracking ongoing competencies over the course of an entire career will be a critical component in improving patient safety. Simulation is a critical tool in providing impactful hands-on training programs – and more important – measuring performance over time.

MTM: You have an exciting new program that can positively effect training outcomes please tell us about the program.

AS: Training has the most impact when it is tailored to the learner, can be reinforced, and delivered in incremental segments. Adult learning has a different dynamic from learning in traditional academic settings. For active clinicians, EMS understands that training must be easy to use and fit within already crowded schedules. A lot of our recent technical innovation has focused on where and how learning can migrate to the palm of the hand. One of our new innovations targets collaborative caring for a patient over time. Communication lapses across individual caregivers and patient care teams that operate in silos are a primary cause of ineffective patient treatment. Traditional medical training has long focused on treating the patient during a specific incident, versus developing and delivering an integrated patient care plan over time. Our newest technology solution is geared toward providing team based training programs to focus

on inter-professional education, or IPE. It is a collaborative web-based platform, delivered through any mobile device or tablet. The scenarios provide practice for a variety of different disciplines to develop and deliver integrated care plans over time and span multiple medical encounters. Participants can train together (synchronously) or as their schedule permits (asynchronously). The web-based platform supports live chat and video tele-conferencing for real time collaboration. A learner with only a five-minute window for training, can still participate and find value in their sessions. We feel this type of Inter Professional Education (IPE) training tool provides an interactive and robust learning environment that literally fits in the palm of the hand. If training opportunities are convenient, they are more likely to be frequently used. The more critical IPE concepts are reinforced through repetitive practice and they result in better training outcomes.

MTM: Please talk about the culture of 'openness' and the sharing of 'data' and 'best practice' and reporting requirements that would foster a 'culture of safety'?

AS: One of the new buzzwords in medical training lately revolves around inter professional education. What does this really mean? How does it differ from TeamSTEPPS? How can this be applied to active practice? One of the technology tools intended to foster "openness", "data sharing" and "best practice" for patient safety was supposed to be accomplished through the adoption of electronic medical records. What has this really yielded? Is there more data sharing or less? Talk to a doctor in active practice today and you will find out that what has actually happened is more time spent in following documentation protocols in the EMR that do not provide more actionable intelligence for their fellow practitioners. What is missing is the good, old fashioned – pick up the telephone – and collaborate culture that used to exist. Focusing on how and when to communicate, whether it is face to face, via telephone or electronically is key to providing a true interdisciplinary and strategic approach to developing individualized patient care plans that not only treat the immediate

issue for the patient today – but take into consideration the entire continuum of patient care. Technology that promotes these concepts – not inhibits them – will be how we truly measure competency tracking and patient safety improvement over time.

MTM: In your opinion, how does the healthcare sector and industry ensure that new protocols, procedures and training are delivered more uniformly?

AS: Training programs need to be based on patient safety goals and an understanding of where and how patient safe-

ty gaps occur. For example, what are the "hot zones" in a hospital? If you consider patient workflows as an arterial system – where are there clogged arteries? It is not only a question of individual competency – it is a question of workflow management and team communication. New training protocols need to take these "clogged artery" scenarios into consideration. Similar to how our national responders plan for disaster preparedness – do our medical systems and individual hospitals train proactively for patient ebbs and flows? These are the frequently seen, seldom trained scenarios.

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Second – how do healthcare systems ensure that every patient at every location is treated according to the same standard operating procedures? Building integrated simulation training programs – managed centrally, and that include integrated assessments of curriculum, learner performance as well as instructor performance will ensure that patient quality of care is standardized based on a standardized training program. If the same training is not in place at each location, then you can be assured that the same standard operating procedure will also not be followed – resulting in gaps and inconsistent patient care. All of these factors result in patient safety risk. Consistently delivered quality training programs are critical to mitigating risk for healthcare systems.

MTM: *How do you think industry and healthcare practitioners can work together more effectively to achieve better outcomes?*

AS: Industry and healthcare practitioners need to partner actively together in order to jointly develop highly effective training and implementation tools. Industry cannot “evolve in a vacuum”. We must persistently partner with our customers to make sure technology is built to the needs of our customer community. Virtually every aspect of every product in the EMS portfolio is built in partnership with our customer partners. We are experts in technology and custom development. But it is our customers who are the experts in healthcare. Combining forces and working together closely can be a powerful way for improving patient safety, and driving real results.

MTM: *Do you think industry can help to establish standards across the healthcare sector? If so, how?*

AS: Industry can partner with each other to ensure that standards of information sharing are created and jointly embraced. Data in silos serves no long-term purpose and does not advance patient safety. The pathway the electronic medical record companies have established encourages me. They realized that data in silos had a direct and negative impact on patient safety. Through developing

open standards, these barriers are being removed for better data interoperability. The medical training community needs to engage in a similar effort, in order to support the continued expansion of the industry.

MTM: *What impact has technology had on patient outcomes and what impact do you see for the future?*

AS: Better training yields better outcomes in virtually every industry. The industries that have embraced simulation – particularly aerospace – have proved the dramatic value simulation provides for improved outcomes. Technology has had an enormous value in patient outcomes. For example – the Da Vinci surgical device began as a tool for virtualized medical practice. Its widespread adoption as a standardized operating tool has dramatically improved the recovery time for a myriad of surgical procedures. With widespread adoption of simulation training – we will continue to see specific patient safety improvements – particularly related to cases that may be rarely encountered, but carry a high mortality rate. Persistent training on these scenarios will create a better prepared clinical workforce – and yield better patient outcomes.

MTM: *In your opinion, how does industry work with healthcare organizations to ensure that the training provided ensures competency?*

AS: While industry partners with associations to map competency requirements for training tools – there is room for much improvement. The next step really needs to be how are these competencies being measured – and WHERE are they being measured beyond the academic level? Historically – the focus has been on competency measurement at the GME or undergraduate level. Post graduate and through active practice – competency focus is on specific capabilities – one example is ongoing Advanced Life Saving (ALS) certification. Where the measurement of competency level is not only at the academic level but THROUGHOUT the career of a practitioner.

MTM: *What measurements need to be*

taken to prove not only knowledge but skills have been mastered?

AS: One of the key challenges to creating combined knowledge and skills assessments is identifying and measuring “gaps” in learning. If you think of training as a wheel, it is composed of didactic, lecture based learning, virtual or online learning, and laboratory, or hands-on simulation based clinical skills learning. Individuals absorb concepts differently across different learning modalities. Where a learner may score quite highly on an assessment following presentation of concepts delivered in a didactic format, that same learner may perform quite poorly in a hands-on, skills based simulation focused on the same material. Likewise, an individual may perform quite highly in an individual skills encounter, but perform poorly when tasked with a similar scenario in a team based environment. The first element for identifying and filling these “gaps” is to understand that learning is absorbed differently by individuals. Only when core concepts are presented and reinforced across all learning modalities do you create the opportunity for true mastery of the core concepts.

Likewise, it is not only about measuring the knowledge, it is about measuring the ability to apply the concepts to decision making in the real-world environment. While we discuss medical training, this applies across all learning concepts.

The second element involves tracking both knowledge and skill sets over time in a systematic way. In today’s medical education, skills are tracked over the duration of a student’s undergraduate and graduate education. Why should this concept not continue across the lifespan of a career, tying together all of their education? All learning degrades over time and all learning concepts require systematic and regular reinforcement. Applying key data driven and analytic concepts to ongoing professional education makes sense. If metrics can support understanding the time required for a specific degradation of a skill set – imagine the power of ongoing education that gets in FRONT of the training gap – making sure the gap is never created. **MTM**