

Clean Hands, Humble Minds: The Semmelweis Lesson, Eight Years Later - Pediatric Grand Rounds-8-28-26-Meeting Recording

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59m 47s

● **Calderon, Delia** started transcription



Calderon, Delia 0:04

We are ready to go.



Sutter, Deena E 0:07

Okay. Good morning and happy Friday, everyone. Welcome to Pediatric Grand Rounds. A few housekeeping notes. Please ensure that your devices are muted and the CME code will be in the chat.

And questions can be added to the chat at the end, or if we have time, you can raise your hand or speak up. Today, it's my pleasure to introduce Woodson Scott Jones, MD. He is the Vice Dean for Graduate Medical Education and the designated institutional official at the Joe R. and Teresa Lozano Long School of Medicine at UT Health San Antonio.

where he is professor of pediatrics and the Lois L. Brady, MD Endowed Professor. A board-certified pediatrician, former pediatric residency program director, and retired U.S. Air Force Colonel, Dr. Jones has spent his career at the intersection of clinical education, professionalism, quality improvement, patient safety, and health systems leadership. Nationally, Dr. Jones is recognized for leadership in GME, patient safety, physician well-being, professionalism education, and practical innovation in academic health systems. He has served as faculty and course director for National AAMC GME Leadership Development Programs, presented extensively for the AMC,

ACGME, NADIO, and other organizations, and authored or contributed to publications and curricula focused on clinical learning environments, well-being, professionalism, quality improvement, and the responsible adoption of AI in GME operations. Today's Grand Rounds presentation, Clean Hands, Humble Minds, the Semmelweis Lesson Eight Years Later, revisits the story of Ignaz

Semmelweis as a lens for understanding why evidence alone rarely changes practice. Drawing on the evolution of hand hygiene, central line infection prevention, clinical learning environment research, organizational culture, and emerging questions about artificial intelligence in medicine, Dr. Jones challenges clinicians and educators to pair scientific evidence with humility, trust, collaboration, and systems thinking. And I, of course, just have to add that Dr. Jones was my very first mentor as a young physician when he was assigned to be my internship training officer and tasked with keeping me in line.

Before he came to the university, he inspired me and so many other military physicians throughout his military career, especially as a Sashek Dean. And I invited him today to talk about my very favorite historical figure. So welcome, Dr. Jones.



Jones, Woodson S 2:45

Gosh, thank you, Dina. Boy, lots of memories. And you know, I'm speaking about a humble mind. You kept me pretty humble, Deena. I very much appreciate it. I still remember I just come back from four years overseas and I get this brilliant young intern who also is moving at a million miles an hour. And we had a lot of talks, Dina. And it's just been a real delight to watch your career and to see you succeed.

And I was also very delighted you asked me to revisit this talk so many years later. I say eight years later because I gave this talk initially when I had come over to UT. Well, I did it two years before, actually, for UT Passport. And then I did Grand Rounds in pediatrics, and I haven't revisited it. And so when I'm saying revisit, I'm revisiting some of the evidence.

and some of the literature that's come out and frankly, some new challenges from more than eight years ago. I also, I put interested, I put copilot up there because I think it's very important in the AI age that we begin to acknowledge when we're using AI. And I'll just say that it flies fairly well most of the time.

However, it makes big enough mistakes. I still have to keep my hand on the stick, even though I'm maybe in the cockpit a little bit more with the copilot these days. Speaking back to eight years, I had this picture on the left as well in my slide from that. Boy, time flies. This is our family at my third daughter's wedding.

not this summer, but last summer. It's just been really exciting to watch them grow. And I know, as you all know, just love to spend time with your family.

Goals and objectives are really important here. And I'm going to walk through, spend a little bit of time on this. And so when we use this term simulized reflex, it's another

way to think about if you're familiar with the Heath Brothers Change Management. They talk about the elephant. They talk about the elephant, the rider, and the path. And the elephant really describes the emotions. And

I think one of the things they point out is if you're really going to change culture, if you ignore the elephant, it's going to drag you around. Those who like us, like me, that are very analytical, we just think it's all about getting in their mind, giving them data. But I tell you, you don't move the elephant, you're in a lot of trouble. And you've got to make it easy for change too. And health system science works a lot in that area.

The second objective is sort of a, well, of course, yet I find to this day, I don't necessarily engage in this and think about it enough intentionally when I'm around my learners about how much that learning environment is shaping them now and will shape them for the future. And that we have a real responsibility when you think about that.

that. I'll touch briefly, and this is going to be brief, but I do want to introduce us to AI and what is happening very rapidly in this space. And as it moves into the clinical and the educational space, I'm an early adopter. I love it. I come out and running, and yet, I think a similar wise

And I have also thought how I've tried to just push this over on some in my office and I've had to back up and say, you know, we got to lead them along. We need to be more humble about what it can and cannot do. And how do we do this in a way that sticks, is wise,

and that our patients and our further and our faculty also adopt it and use it well to move us forward. Because it's coming, but we have to use the wise of it and have to integrate it very wisely. So with that, I'm going to jump into the story of Dr.

Semmelweis. And it's a really interesting story. If you haven't heard of it, I'm really excited to tell you about it. Well, he was trained in Vienna.

at the second Vienna School of Medicine. It was one of the leading schools in the world at the time. It was famous for its combination of laboratory work and bedside clinical medicine. And this was a real time of renaissance in medicine. It was July of 1846, he became the assistant chief of the first clinic.

when he was under the direction of Johann Klein. And among his numerous duties were instruction of the medical students, assistant at surgical procedures, and a regular performance of all the clinical examinations on the ward.

And one of the most pressing problems he was facing at the time was high maternal

and neonatal mortality due to what was described as child bed fever. 13%. That's crazy. Think about that. More than one in 10 would get this and a number died. Well, um...

Curiously, on the 2nd obstetrical ward in the same hospital had a much lower mortality rate, 2%. The only difference between them lay in their function. The first was the teaching service for medical students, while the second had been selected in 1839 for the instruction of midwives.

Everyone was baffled by the contrasting mortality figures and no clear explanation for the difference was forthcoming. This quote, disease was considered to be an inevitable aspect of contemporary hospital-based obstetrics. Sounds familiar. A product of this somewhat unknown operation in conjunction with some elusive atmospheric conditions. Well, Semmelweis was a very astute observer, and he noticed that the midwives were delivering via sideburns. Well, he could test this. So he ordered the students.

and the physicians on the ward, we're gonna start doing side births. He made them all do it.

No change. Then he noted, it was noted that the dead mothers were brought out via or by the clinician ward with the priest ringing the bell. And the prevailing explanation at the time was the sight and the sound of those bells that terrified the women.

And that was a psychological shock of knowing death was in the room and made them susceptible to the fever. Well, this fit the Iris thinking where emotional disturbance was considered a genuine cause of illness. We actually know there is a relation today. And he began, looked at this as a treatable claim. So he had the priest take a

Different route and stop ringing the bells.

No change. He tried several other things and frankly, being just so intense individual, experienced burnout. And he took a sabbatical and he went to Venice. Actually lived near Venice for four years and, you know, bridge a sigh seems appropriate here. He was taking a sigh and a break against this. Well,

During this time, when he was on sabbatical, a friend cut his finger during an autopsy.

on a woman who died of childbed fever. And his friend at his autopsy revealed the same findings found in women who died of this childbed fever. With us giving the clue.

It came to him that a smell stayed on their hands after autopsy, even after washing with soap and water. Well, why did this matter? Well, the doctors and the students would perform the autopsies in the morning before rounding on the patients on the ward. Guess who wasn't doing autopsies?

the midwives. He also noted that the women who delivered out of hospital had a rate of childbed fever more similar to the midwives. He began to sort of put this together. So what should he do? Well, he knew that chlorine and lime solutions were added to clean

wastewater, so why not try that? So he first began by requiring half of the students to clean their hands with chlorine solution after the autopsies, and the others did regular soap and water.

Well, the rate of childbirth, childbed fever immediately fell in their patients. So he ordered all physicians to do this practice. In fact, he closely monitored and he berated those who did not follow this new practice. He was known to tell them on the wards, you're killing your mothers. They did not follow this practice.

Well, within months, you see the intervention here, the rate of child childbed fever fell to that what was experienced by the midwives on their ward. This is a huge success. I mean, look at those numbers. If we saw that one of our one of our studies, you know, that would be

Very prestigious publication, and we'd be super excited, and it should have been celebrated, but it was not.

Unfortunately, his berating of his colleagues and accusations made a lot of enemies. Additionally, the philosophy of empiricism of the age that knowledge is derived from our senses and experiences, while remarkably important to scientific advancement, had its limitation. Semmelweis could not explain to his colleagues what this quote what he described putrid organic matter was. And also women who birthed in the community were known to die from this as well. No one's doing autopsies before the women who deliver in the community, not noting it was substantively less. Further, even without direct accusations, guess what?

It was tough for those physicians to accept their responsibility for the scourge of the thousands of dead mothers that had been impacted by this present, by their practice. You want to compound things, he refused to write up his findings and share it despite his friends urging him to do this.

Well, Dr. Klein, his boss, did not renew his appointment two years later, and he returned to the quote, backwaters of Hungary from Vienna at the time.

However, he went to the hospitals with the same high mortality rates. He instituted his practice, saw remarkable results again. And he finally wrote up his experiences in 1861. Well, unfortunately, the review from the foreign critics, because he's now at the backwater, not at the elite institution, were not favorable. They were very skeptical. And he became furious. And he published his open responses and he mocked his critics. He even collected his letters and published them in 1862 in a pamphlet. Well, history is not real clear on his demise. It is clear that his mental state declined over the next several years. And

After he later gained iconic status, the narrative that he was driven mad by the rejection of his practice came under greater scrutiny. Frankly, we're not really sure exactly what happened, but we do know that his wife took him back to Vienna under a false ruse. He was admitted to an insane asylum. We're not sure what happened, but he sustained some injuries and he died of sepsis within a few weeks.

This is incredibly unfortunate because it was not many years later that Louise Pasteur discovered what this putrid organic matter was, and Dr. Lister in Scotland instituted the cleaning of the surgical equipment and subsequently published the results in The Lancet in a series of six articles in March of 1867.

We're not clear on whether he was aware at all of Semmelweis's work, but even if he was...

Let's fast forward to 2003. I'm rounding in a former Soviet bloc country in Western Europe. I'm with Western European trained doctors in this former Soviet, and they trained in London, actually, and they were doing some of the leading studies on the treatment of visceral leishmaniasis.

I noticed these ID doctors, pediatric ID, were not washing their hands as we moved from patient to patient on the ward. What am I going to do? Surely they got it, but these are ID doctors. They trained in London. They got to know this is important. Well, I started yelling at them like, Dr. Semmelweis, no, I didn't yell at him. I started washing my hands.

And after we moved from room to room, what did they start doing? They started washing their hands. How could this be in the 21st century?

Well, it's the power of culture. And even though they had been trained in some outstanding places, and I'm sure they always washed their hands there, they came back to a culture that wasn't washing its hands. And they began to adopt those practices again.

What do you want to adventure, I guess, on what was the first global patient safety

challenge and the date that it was initiated?

Well...

150 years after Semmelweis, it was the Clean Care, Safer Care Initiative. And it was a major hand hygiene campaign many years later. And we're still trying 150 years later to convince skeptics or simply even more than convince skeptics convince people it's super important. I certainly know during COVID, we got it. We were very diligent with our hand washing and everything else during COVID. It's interesting as I kind of pay attention today, how we're even lapsing from some of that same very high level of recognition of the value and the importance as we move from patient to patient on our units.

But let's look inwardly at our own culture in pediatrics compared to others. Well, I'm really pleased to say, when you think of cultural change, we've done a really, really good job of moving away from blame and shame in the pediatric community and really thinking systems-based in our analysis of errors and the mistakes about what caused

this problem or this error in the patient before looking right at the individual, the learner, the trainee, the faculty, the student, and blaming them immediately. I think in pediatrics, we've really led the way in this era of change.

However, I do pause at times when I think of and look outward to culture change and engagement of communities on acceptance of new science. I don't think we've done as well in pediatrics as some other specialties.

Think of Semmelweis' reflex turned outward toward families that we've been entrusted to care for.

If we've learned that shame and data don't move clinicians, why do we still answer hesitant families with more data and frankly at times a whiff of contempt?

I will admit, I have coined a term DNFeers on the newborn nursery, standing for Do Nothing Families. We've been seeing more and more of them. They don't want to read the mice, and they don't want vitamin K, and they don't even want newborn screens.

I haven't been the best role model in rounds, at least in how I speak of the DNFeers. I do my best when I work with them in person, but how and what am I saying to your rounds impact our residents and the students? This has caused me to pause. And we need to keep in mind that relationship

is important in relationship before rebuttal, we have to keep at the forefront. And in the same lessons, and as I look at how others hear me talk of them, what is being

adopted is that skepticism, that cynicism, and frankly, that scorn of those patients who don't agree with us.

They can read it. They can see it as much as we go into the room. And so I think we need to be very careful and thoughtful and probably even more so at regaining and trying to gain the trust in the relationship of those who don't trust us any longer.

Well, many believe that part of the problem is just this, this stove piping that we've seen and how we train. And for years and years, there's this idea of we have the learner, the curriculum, and we have the education and our didactics, and then we have clinical care and the clinical learning environment, and the two are siloed with a little bit of overlap.

Now, the good news over the last number of decades, that has clearly changed. On the part of, because of friends that I know quite well, Dr. Eric Humbo, who headed up the milestones at the ACGME. And I think we've also recognized that this isn't good. We can't really think of these stovepiped environments. They are too integrated to think about as

separate type of environments. And we've also been able to look at how have we been doing in the United States. And we certainly spend the most, we spend probably the most on education as well as our healthcare. And we are certainly not the healthiest. We've gotten a lot better. We have to acknowledge that.

On the same hand, on the same time, our life expectancy is less, our infant mortality is double that of peer countries. You guys have all heard this. I don't have to go over it. Yet, on the other hand, we need to look at the green box here. And those are the gains worth looking at and acknowledging. So

not just pointing out how we're still way behind, and we are, we also need to acknowledge the gains. And I would argue that many of them are due to our greater adoption of health system sciences.

Let me frame this a different way. You know, again, we're a very research oriented department. We are doing cutting edge research in cancer. As an institution, you know, we've moved into the top 50 internationally recognized. Nature noted we were one of the top institutions in our growth over the last six years in the country.

in our growth in funded research here at UT Health San Antonio. We have much to be very proud of from what we've done in these clinical trials and the drugs that we're bringing to care. Let me frame it to you like this. What if I told you we have this new prophylactic drug for ICU patients?

We've studied it for two years in a statewide hospital system. It saved 609 lives and

amazingly saved the hospital system another \$171 million. I would want to buy stock in that company. I'd certainly want it implemented in the hospital that I'm going to. There would be grants that followed.

We would see money flow left and right into further development of this drug.

Right? I think we would all acknowledge that. But what if I was to tell you this new therapy is a clipboard, a checklist, and a central bundle kit?

I think you all know by now what I'm talking about here. This is the central line, the central line interventions that were started by a Dr. Peter Pronovost, who, unlike civilized, was highly effective at making change stick.

 **Corral, Arianna Elizabeth** 21:35

6.

 **Jones, Woodson S** 21:51

He developed the first care bundle kit. The care bundle was developed over time and experience. And it started out with a focus on a checklist. It had a systematic process for the central line placement with nursing holding a checklist and power to stop the provider. Yes, nurses with checklists empowered to stop the provider.

They also had a significant buy-in from leadership. They had executives doing rounds on the units. They had to adopt A unit each. They had to commit to regular visits, and they had to get feedback on what was working, what wasn't working. And indeed, the bundles came about through earlier projects at Michigan.

because the staff complained to the executives on rounds that they were lacking key components of the checklist, for instance, chlorhexidine to appropriate sized drapes. Also, the change was part of a comprehensive unit-based commitment to improving patient safety.

I'll tell you, it's important too. Dr. Pronovost's work was disseminated in journals, studied well. He was very collaborative in seeking feedback all along the way, all the way from the bedside to those who were implementing it. And from what I've heard and read about him, he's a remarkably vibrant, collaborative, and a passionate person.

and quite supportive rather than berating. He's now a member of the National Academy of Medicine, has led the Patient Safety Institute at Hopkins, and he's at the University's Hospital System in I believe the Cleveland area now.

Again, remarkable impact from these.

interventions. And so this adoption to scale has clearly saved lives. So 8 years ago, I called this the neglected third leg. I think it's fair to say it's not so neglected of a third leg anymore. We haven't totally fixed the very Sentinel 1999 work to err is human. You know, at this time, it was estimated about 98,000 people died in a given year from medical errors in hospital. And it was just, that's the risk that comes with hospital medicine. I remember that because I was practicing during that era. That's just the risk that comes from hospital medicine. What is this challenge that conventional norm?

And I would say since that time, we've seen, I think, remarkable progress.

You know, we've, I think if you look at the 1999 number of 44,000 to 98,000, and it's still overly quoted, that's 27 years old. So I do believe we have to come up to date and we have to look at some of the new data. Hospital acquired conditions have fell 13% just in a three-year period from 14 to 17.

That's 910,000 lives. That's not insignificant. That's 20,000 plus people who went home instead of dying. That's \$7.7 billion. I mean, that's real change. If you need a clinical example rather than an actuarial one,

Think about heart attack admissions, they drop from 218 to 139 per 1000 discharge, what I'm talking about adverse events during a heart attack admission. So that's a third fewer harms, and that's in the highest patient volume area that we work in.

So while I say it's not solved, roughly one, it's not solved, I should say, we still have one in four admissions still involves an adverse event. And frankly, I tell family members and others who are really keen on the latest procedure or the latest intervention or

want to go get this elective procedure done in a hospital, where hospitals still aren't safe places. And you don't want to go there unless you really need to. And certainly COVID erased the number of years of infection gains, but it also gave us a lot of other gains. And so this progress is real, but we still have

opportunity to move forward and have further adoption of health system science.

And so what have we seen locally? I've talked about nationally, what have we seen locally? And this is incredibly remarkable, the changes we've seen in our major participating site, which frankly, we all are a part of. The Leapfrog hospital safety grade for University Hospital is at the top in the state.

It's had four consecutive years of A grades through 2025. I remember coming here and that was our goal. We were going to be an A leapfrog organization. I was at the military before that. That was a major goal. We were going to be a leapfrog A

organization. We'd done it. And we're the only public hospital in the system in Texas to do it.

and we've done it since 2000. We did it again in 26. We're the only hospital in Bexar County with a grade A right now. Methodist had one in 24.

If you want some perspective, Memorial Hermann is often in Houston is often cited, it's a B. Houston Methodist is a national leader in quality. It's had multiple A's like university has.

Hopefully you saw the news that the Loan Institute ranked University Hospital the number one academic medical center in the country, #3 in its overall ranking of the 215 hospitals ranked nationally. This looks at equity, value, and outcomes. It looks at pay equity. You know, what's the top pay of the CEO to the frankly, the cleaning staff. It looks at your community benefit. How are you serving the underserved? And it looks at the value of care, i.e. if they look at your Medicare charges, are you avoiding unnecessary costs to these patients? And so this is a huge deal. Dr. Allsopp and we met a few weeks ago.

Was saying that he had just had a major interview.

with the newspapers in Dallas about being the only public system and being #1 in the country.

Again, I remember when we started to work with CLABSI here, it seemed impossible and CAUTI. Oh my goodness, we were spending so much time. I was in the QRM. I was in the CMT meetings. Could we possibly do it? Well, we had 26 units without a central line associated infection in 25. We had 30 units without a CAUTI.

major initiatives and we have a lot of leaders in pediatrics who are in the CMT making a difference in this area. And so

You know, as I pivot here, as I've talked about the clinical environment, we have really moved the environment. Yes, there's still an opportunity, but I think there's something for us to all to be proud of. And this is critically important. And I want us to come back and say, it's not just important to the patients we treat. Now, treat now, it's important to those learners who are under our stewardship.

It's important to those medical students who are rotating with us and not just important now in their training. It's important for years to come. And if you think about it, it's been an axiom. Guess what? The trainee actually practices the way they're trained. Can you believe that?

Of course we believe it. We know it. But we sometimes don't think practically how that ties day-to-day into what we do and how we engage and the vigor that we put

into health system sciences. So I'm going to go back to the article that first moved me the most and got me super excited and engaged as an early adopter in health system sciences.

Ironically, that's in the same field, obstetrics, that Semmelweis worked over 150 years ago.

So if you look at Ash's work, they looked at over 4,000 OB-GYN providers and they looked at their major complication rates, nearly 5 million deliveries, looking at publicly available information out in New York and Florida. Then what they did is they grouped the 4,000 graduates on the x-axis

by the hospitals that they trained in and what were those hospitals' complication rates. So if you look at Q5, those represent the graduates out of a hospital that had the lowest obstetrical complication rates, whereas the Q1 hospitals all the way on the right were the hospitals that had the highest

major complication rates. What do you see? So they controlled for USMLE scores, so it wasn't just an issue of medical knowledge.

they found the 33% difference. Let's say that again. A 33% difference in the obstetrical complication rates from those graduates who trained in a hospital with the lowest complication rates versus those who trained in hospitals with the highest major

OB complication rates.

That's significant. And I think that should cause us all to pause and think about what do we do? And not only that, then in part of another study Ash and Company did, they looked at that out to 17 years. And what they found is that it did not equalize out. It got closer, got improved, but it never

Came together in that, despite 17 years, there still remained a difference.

What does that mean? I'd recommend you pay more attention to the hospital complication rates for your doctors and where they train rather than the reputation their program might have or their medical school. Because the data certainly seems to be pointing that you'd really better be looking at those hospitals they trained in.

There's more data. So how has it matured since I last spoke? Well, we have some really interesting data in internal medicine. Now, I will point out, again, I love using AI. And some of this was pulled from AI and just got it wrong. So you notice how this says milestone and board scores impact on outcomes. Well, it just used to say milestones. And then it quoted this first article out of gray.

in JAMA. It's always important you go back and read those articles. Well, actually

reading that article, it didn't show that milestones had an impact on lower short-term mortality and readmission rates, but it did show is that ABIM certification scores did. The others two did. Looking at the vascular literature, they looked at the milestones six months before graduation for vascular surgery graduates. Then they looked at a publicly available database of more than 4,200 endovascular abdominal aortic aneurysm repairs.

and they looked at complications.

And they found that surgeons with lower milestone ratings relative to their training program peers had higher rates of major post-operative complications.

early in their independent practice. Well, guess what? The observations of their clinical competency committee six months before graduation.

had an impact on their practice. That, and if we take that seriously, that means we lean into those performance gaps and start making interventions before graduation.

Another group, if you look at Qin, they looked at professionalism and communication milestones, and again, looked at it six months before graduation.

And then they look at the early graduates patient survey experience data on what's called the CG CAPS survey that's out there, again, publicly available. And they found, guess what?

That physicians who received higher ratings on these competency domains during residency.

They received higher patient-reported experience, skills, and practice.

It's what you would expect. So it means when we see these things, how do we lean into them and begin to intervene and make a difference? It's really, really important.

And then I go back and I want to point to on the right, how training site imprints persist. And so they looked at, Phillips looked at medicine providers who provided, and you can look at Medicare,

billing and say, hey, this is a region with really high cost medicine delivery compared to another region that has lower cost Medicare billing. Then they looked at how their graduates billed for years out. Guess what? Those who practice in high billing regions continue to bill higher as graduates and those in a

lower billing region continued to bill lower. And again, I'll just briefly point to another

Ashes work by Trivovitz that looked at conservative versus aggressive management.

What they looked at, again, looking at some of the CMS billing data and some ABIM test questions that looked at

do you appropriately treat a patient conservative or aggressive? I mean conservative

when it should be aggressive or aggressive when it should be conservative. And what they found is that trainees who...

were in environments that had more conservative practice, appropriate conservative practice, actually on those test exam questions appropriately answered conservatively as to the management as expected.

And they found that those that in more aggressive environments were more often going to miss the questions where conservative practice was expected. Again, you practice as you have been trained. That's the take home point. And so I argue that we have a moral imperative here to ensure that our trainees are in clinical learning environments

that are continuously focused on improving patient safety, quality of care, and frankly, cost consciousness. They learn from our practice. And as educators, we need to keep asking ourselves, how can we do better? What are the system things that we can improve? When we see broken things in our system, not only is it impacting that patient in front of us, we're impacting our learners.

For years, and how they may choose to practice, and we have that moral imperative. I will also say that, and I mentioned before, this stove piping has come together and we've seen this overlap in how we need to think of this Venn diagram as being very, very much in overlap. And so I've talked about the moral imperative and of course, then you got to bring the stick and the stick was ACGME requirements.

And their requirement that we begin to bring these things into our practices, and...

One way that occurred was through the clinical learning environment report or review that the ACGME started. We were early adopters at Shah Shafqat when I was the dean there, and Lois Brady was as well as the DIO here at UT. We started and published together on doing clinical learning environment walks

And, you know, this was before my talk that we did here, that I did here at UT in 2016. So when I came here in 18, I was excited about this journey that we had started at Saw Shack. And I recognize that many of you, many of you may not even be aware of this program. You know why? Because in my 8 years,

Here at UT, we didn't have a single clear visit. It was a random and by region. Sasha that I left got two in the same time period. However...

However, the key was that the hospital, UH, and us, we were meeting regularly and being prepared because we knew they could come at short notice. They would interview the CEO, myself, the Dean, all in the room, and all the leaders of the hospital. They would also come in and interview a residence.

fellows, faculty, the patient safety leadership, our program directors. They'd walk around the hospital asking questions about the integration of GME into the patient safety and quality initiatives in the hospital. We would get a report at the end. We'd have to sit down all together again with the CEO of the hospital, myself, the dean, and get feedback on how we were doing and how we could prove. The bottom line is even though we didn't have a visit, what did it do?

It ensured that we were actively communicating with one another on a regular basis about how is GME engaged in the patient safety and the quality improvement environment at UH.

And I'll say we were successful at an institutional level in many ways. We were also successful at the program level in pediatrics in, I would say, many ways more so than a number of other large departments here at this organization.

I'll talk more about at the institutional level, but we were able, like at Sashek, we got partial support for UH to hire an Assistant Dean for Health System Sciences. This is Sarah Paige Ramsey, who is serving in this role now. She's involved with the UHQRM and with the VA and on the CMT.

And there's a number of other initiatives. I point out Siva. Siva, hopefully you're on this. He's our current chief resident for health system science right now. UH fully pays for that position. You guys may remember Lindsay Urkel. She was our second chief. And one of our chiefs a couple of years ago did a work with the UH nutritionist. in better capturing and recognizing our malnourished patients who are inpatient. This has not only improved their care, but this brought in a substantive amount of new CMS dollars tied to one of their major initiatives. So these chiefs have made differences and SEVA is going to continue that. I'll talk about that here in a little bit. We launched Health System Science Committee. We launched AMA modules. Now all of our incoming trainees have to complete patient safety and quality modules before they arrive. We want them to be on the same page. We want to be on the same page on our expectations in this area.

We started patient safety awareness rooms. They go into a room, there's a mannequin with a number of things not quite right in that room. How many of them can they identify? Then they get debriefed on how to file patient safety reports. Right before COVID, we were looking on bringing on the non-medical driver of health orientation.

COVID certainly brought this to the forefront of the importance of these non-medical drivers. We give a talk, Christina Drennan out of Trinity comes and talks about the

city and our history with redlining and the lines and shows how the same areas of the city have the lowest education, the lowest

Economics have the lowest access and some of them have the highest health care risk we see in the cities. And did you know, you see that red line, that red circle to the green circle? That's from the RBG. If you head out Bandera to Helotes, We have approximately an 18 to 20 year difference in life expectancy.

Say that again, 18 to 20 year difference in life and life expectancy.

Well, I'll say I'm proud of the work that pediatrics is doing with screening for non-medical drivers of health down at the Robert B. Green, doing some great work down there. We don't just leave them with this beleaguered data across the institution as well. We bring in Lisa Ochoa, who you see down in the bottom. She's a vascular surgeon.

who left their private practice on the north side, went to the south side, started many active clinics and increasing early detection to reduce diabetic associated amputations. I had coffee yesterday with Anita Fernandez, who's the vice chair of the UH Board of Managers. And we were looking at workforce development in these underserved areas of San Antonio. And we'll be going to the grand opening of the Center for Health Empowerment of South Texas, an idea of Lisa Ochoa, trying to look at a three-fold strategy of how we bring in the economic environment that incentivizes healthcare on the South Side, and also creating a pipeline from those schools for healthcare.

workers and how do we begin to better address the non-medical drivers.

We launched the health care, the health distinction track, which is critically important. We have leaders like Mr. Banos and from who speaks annually to this group. You see some of our graduates here. Marcus was cited for his work by a senior leader at UH and they were super excited he was going to be joining.

our hospitalist team. So don't underestimate the power of these initiatives and our engagement in them and how it influences and impacts hospital leaders.

And I kind of mentioned that already.

Well, guess what? The cheer went away.

Honestly, I tell you how many DIOs across the country I heard cheering. I was not. I thought it brought us and kept us at the table, kept us talking, kept us thinking about what are we actively doing. Well, we have to continue this and we have to continue to lean into the culture now that we've lost the stick. And I would like to see more and more of our Peds residents and others engaged in this health system

science

back. I want to see a whole cadre of folks signing up and wanting to be our next health system science chief resident. I'm going to need your help helping Siva. He's leaning into a newborn initiative that is going to get attention. And he's going to need us to help him carry that out. Shout out to you, Siva. Let me know. We need to help you with this.

Again, it shows that we're integrating and working together in these environments. And so it's a complex environment. And this is a complicated slide. And I think we all know that the clinical learning environment is impacted by every single one of these in different ways. In fact, this isn't fully comprehensive to how the how each one of these pushes on the environment. But quickly I'll just say. program structure and duty hours, how we handle fatigue, how we handle supervision, that sets the stage in the room for speaking up and frankly, patient safety. By the way, we do an anonymous survey each year in the fall of all of our residents on how well they're supervised. By the way, it's quite well.

Well-being, autonomy, mastery, and purpose, it determines whether people feel they can show up and they're not burned out. And if they're burned out, that impacts patient safety. That's a major issue. And so we have to lean into that environment. I think my key point here is that if you squeeze any one of these domains, It impacts another one of these domains, and you can't look at them in isolation. And that culture change is more important than coercion in any one of these environments. Well, we have some other pressures on the system that I want to quickly jump into. One is commercialization.

And the ACGME recognized that in this 2025 report. And there's data now. And again, some of it's mixed. Some of it's pretty clear that one particular study by Canon showed that hospital-acquired conditions after private equity acquisition increased falls and collapses up to 25%.

And it was in a lower risk environment. In fact, in the same study, it also looked at surgical complications went up despite their overall surgical number, surgical site infections went up doubled despite a drop in surgical volume. So we already have some evidence about commercialization and its negative impact.

on safety. And I'm concerned not just about private equity, I'm concerned about private healthcare organizations. And frankly, it's creeping into our academic centers as well, because frankly, the margins have gotten narrower, more and more push for that productivity.

And so as I come back to the story of Semmelweis, we have to keep first and foremost, as we look at this health system science, as the data grows and the impact, we've got to bring culture. We have to bring environment along with us. Critically important. We have to keep pronovost's perspective of being cheerleaders and yet continuing and persistently leaning into the environment, both in our hospital settings and both with our families in gaining trust, gaining investment, and getting them involved and seeing how important it is that we focus on changing the systems of the care that we work in to make a An improvement.

And I'm going to pivot here to another source that's coming our way. And I introduced it earlier. It was AI. But I'm going to tell a story about my dad. He was a fighter pilot during the interwar time between Korea and Vietnam. And he commented on how dangerous flying was when he was a pilot, losing a pilot almost on every assignment that he had.

And he noted the very rudimentary autopilot functions at the time. And frankly, he did not trust them. And he saw an over-reliance upon them. And he watches TV all the time. Now he's 91. And in all the time, he's just amazed at the major flying accidents they have because pilots do not know how to fly planes without autopilot. And he was telling me about this thing that's called slipping. And it's a way in which you can land a plane that autopilot cannot help with. And he was with a very experienced friend, said, you're in no way you're going to land my plane. It was a prop, single prop plane. And he did this sloppy maneuver and landed. And his friend looked at him and couldn't believe it. And he goes, because I always learn how to fly, without having to use all the instruments in the autopilot. Think about Miracle and the Hudson. Few pilots today could land the way Scully landed because of his, what he did. However, on the other hand, I'm getting on a plane Monday. If my pilot gets on and says, we're decided we're not going to use autopilot and all the automated features we have on our plane today to fly,

I think I'd get off the plane. So we need these tools, but we cannot lose what they bring, and that is still the ability to operate without them. And as we look at AI coming into this environment, how are we going to avoid de-skilling? How are we going to avoid the skills that we have not going away

So when Epic crashes, or when the instrument goes down, or when the particular scenario requires those skills that we once had, that we don't lose them. Never scaling. How do we make sure our trainees are still going to know how to do a good

exam when

Pocus takes over and these bedside new instruments are doing all of it for us. What do we do when they go down? Are they get it wrong? Or when you say that pattern's not quite right.

How do we avoid the misscaling? And how do we know, gosh, I can't always trust AI. Like in that, I told you about that particular article it pulled in which it acted like milestones was behind every one of the studies and really good. Well, no, they weren't. You had to go pull the study and look at it first. We need to teach our residents to use AI.

And we also need to teach them to know when to overrule it. I don't have the answers here, but we need to remain humble. I have to remember not to berate and or over push AI on people who are appropriately holding back at times and at other times need to know how to

push them to consider adoption, yet we have to do it wisely and carefully and bringing them along with us.

So with that, I'm going to end on saying...

I think physician leadership is critically important. And if you look at these honor roll hospitals with US News and Report, 14 of 20 of them are led by physicians.

And we're leaning into this space. The school is leaning into this space. We have a number of wonderful leadership opportunities for our faculty. And I will tell you this summer, we've launched our cross-programmatic leadership track, like we have for health system science and for educators already. We now have launched the cross-programmatic leadership track.

I would love to see this program completely full. In fact, where we're having to interview and think carefully about what residents or fellows we can allow into this program. We'll be launching our Health Care Administration Leadership and Management, ACGME program, probably in about three years from now, which again will be another leadership opportunity

for our graduates and excited about where these two adventures are going to go.

And so I'll go back and say that Semmelweis is very fondly remembered in Hungary, even to this date. There was incredible, incredible change brought about because of what Semmelweis did. And yet, because in the way he engaged with it, so much was lost. And as we look at this time of change, we need to be very thoughtful of bringing culture along with us, fully engaging with our learners, and in the environment, and realize everything that's happened in this environment can

have an impact for many, many years and come. And I'm hoping I'm inspiring you again, as it has inspired me to look at this again eight years later.

We can't slow down. And with the clear going away, we need to all take ownership, even all the more, because we've lost that external stick to bring us all to the table together to work on the clinical learning environment. So with that, I'll pause and we have a little time for questions.



Sutter, Deena E 52:29

Thanks so much, Dr. Jones. I really appreciate it. I have one question so far in the chat. I don't know if you can see that because it's kind of a bulleted point about slow acceptance of various changes, including dexamethasone. This is Dr. Weimer. Dexamethasone PO for croup increase reflex when solid food is delayed for six months.

in terms of babies overfeeding, increased side effects when theophylline dose is doubled, when recommended dosage is based on blood levels, increased UTI in males when the circumcisions are discouraged for the anti-circs. What do you think about this in actual clinical practice?

Due to just, you know, general feelings.



Jones, Woodson S 53:16

Well, again, it's really interesting. If you read one book, one I would recommend is Switch, Change When Change is Hard. It's actually, I'll be in our GME course at the AMC next week, I'll be speaking on Switch. And that's where I alluded to the fact that They talk about the rider, the elephant, the path. And that's where we see the science at times. We're like, why can't you just do this? And that's where I think Switch, if you look organization, and they looked a lot to the social science literature, and they again talk about this idea is you can't just appeal to the analytic side, the rider side, because we're in medicine mostly. We want.

the data. You don't handle the elephant. That means you speak to people's emotion as to why we need to make these changes, and you don't make change easy. So when you look at a number of those, you know, you've got to make it easy for that dexamethasone PO to be delivered. That's probably not the best example I'm trying to think of.

one that's easier right now. Yeah, by the way, thinking of, well, don't get me going off on the offline. That's another interesting one. You got to reduce all those barriers

that make it easy for people to get the answer right. Right. Every time you put up a barrier, it reduces the likelihood you're going to get adoption of this new change. So we need to think as much about that as we do the science of the change. I don't know if that answered it, but read Switch. It's my favorite book. In fact, Siva knows he's going to have to read it this year, because I think it's super important for all of us, those of us who are going to look at change management.



Arandes, Michelle 54:53

Dr. Jones, this is Michelle Arandas. Thank you so much for a great talk that I think speaks to a lot of us. You made a very brief comment about, you know, the challenges in the nursery and the dynamics of bringing families along in a hesitancy culture. And, you know, I struggle because I have a very clear sense of how I handle that as a physician and somebody who worked in an environment prior to coming back to academics where



Jones, Woodson S 54:55

Hey, Michelle.



Arandes, Michelle 55:17

I encountered a lot of this. And there is a lot in my approach for engaging the families where they are and discussions of kind of reaching a state where we're making a joint decision that's best for the child, right? But I struggle because as a program director and as a person who's training the next generation, I want to teach that same

sort of general approach that keeps our families engaged, but then we have a lot of pressure from the outside organizations around, you know, sort of holding a firm line and a lot of the noise around, you know, autonomy as a practitioner and being able to stand your ground. And I just, you know, I don't know you.

that you have an answer, but I appreciate you bringing that up. I do think that's one of those dialogues that especially in pediatrics, where we're talking about third party patients, you know, patients that are neither the decision maker, but the affected. And then we're trying to walk that line between physician rights and responsibilities and family. I just,

I think that's a dialogue we can keep having, hopefully in a respectful way in the space of academics. And, you know, again, giving residents in training both

perspectives and an opportunity to choose what is most, you know, consistent with their desire to practice. But I just wanted to put that out there because I know, you know, this is an environment where we're all in and we all do express those frustrations sometimes in rounds, at the table side, you know, hopefully not at the bedside, but just to acknowledge that even those of us that have been doing this for 30 some years still struggle with those moments.



Jones, Woodson S 56:50

Ye.

Well, I did share my struggle, right? In fact, I have to watch myself. And again, the DNFers. In fact, somebody quoted me back when last time I was up there. And again, it's not that I don't have that conversation about what my concerns. I was in Europe when the vitamin K went oral, and we saw and was hearing of the case reports of the increased complications in Germany. And actually, I talk to parents about that. I share from my experience. I've actually begun to focus as much on, you know, I use education in an interesting way. I go into the room and say, well, since you have not chosen to be vitamin K, let me tell you about petechiae and what you need to ensure if you go into the emergency room later. You know, I say, you need to make sure your doctors know you didn't get vitamin K.



Arandes, Michelle 57:35

Absolutely.



Jones, Woodson S 57:40

And if they kind of stop, you know, and your child becomes somnolent or is acting ill, they need to know your child didn't get vitamin K because they may be bleeding in their head and the doctors aren't going to think that was even a possibility. Or if this group is. So I even use sort of this different approach to say, I want you to be educated and make sure all the doctors that see your child later know what you chose not to do so they can do the



Arandes, Michelle 57:55

Agreed.



Jones, Woodson S 58:05

the best they could do at the point in time then. Have I been successful? A little bit. Some haven't been. Yeah. Thank you, though. And I very much respect your skills with that. Oh, so I'll just say one other thing. When I was in medical education, I know we have grand rounds. I started what was called the scoop.



Arandes, Michelle 58:10

Yes, yeah, no.



Jones, Woodson S 58:25

And that's the structured clinical observation of the preceptor. What I don't do enough is grab the resident and say, come into the room. I want you to observe this conversation and let's have an intentional dialogue after this encounter. And we, you know, so that was called the scoop.



Arandes, Michelle 58:37

Absolutely.



Jones, Woodson S 58:45

And I just don't, we get so busy as you know up there, Michelle. I just haven't had time at times, but I need to be very intentional. And so thank you for stimulating me in there again with that.



Arandes, Michelle 58:58

Thank you.



Sutter, Deena E 59:01

Thanks for the questions. That was great dialogue. I think we're going to wrap up because we've got a faculty meeting. I'm sure there are a lot more questions. Dr. Jones, really, I appreciate you so much for coming on. It's a great talk and you're always inspirational to us. So thanks so much. Okay, guys, remember, go ahead and claim your CME credit.



Jones, Woodson S 59:18

It's good seeing you, Deena.
Like.



Sutter, Deena E 59:23

The information is in the chat, and then we'll see you all next week.



Jones, Woodson S 59:29

Thanks, Dina. I appreciated the invitation. It was a lot of fun to revisit.



Calderon, Delia stopped transcription