Scottsdale Institute
COLLABORATION | EDUCATION | NETWORKING

AI to Advance Patient Safety Summit

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Hosted by:

UC San Diego Health

NATIONAL ACADEMY OF MEDICINE

Joan & Irwin Jacobs
Center for Health Innovation

Introduction



It was 25 years ago that the Institute of Medicine (IOM) – now the National Academy of Medicine (NAM) released the sentinel report, "To Err is Human" with the follow-up report "Crossing the Quality Chasm." With this backdrop, an esteemed group of patient safety experts, AI researchers, hospital and industry leaders and policy experts gathered to engage in robust discussions and **Robert El-Kareh, MD**, MPH, MS, Associate Chief Medical Officer at UC San Diego (UCSD) challenged the group to tackle key questions facing our field:

- **How do we prioritize patient safety in AI efforts?**
- **How do make decreasing harm and making patients safe our true measure of success?**



Chris Longhurst, MD, MS, Chief Clinical & Innovation Officer at UC San Diego (UCSD) applauded efforts throughout the healthcare system to improve patient safety using technology and shared a provocative question, "have we made progress?" He lamented that traditional patient safety efforts have not moved the needle, and that change needs to occur. "We have got to make more progress. We just have to. And on the bright side, we have new tools," said Dr. Longhurst optimistically.

Over the next two days, panels engaged with the expertise and thought leadership of the gathered attendees to explore different facets of AI in Patient safety all with the aim of leaving the meeting with a plan of action to advance the work together.

Creating a National Agenda for AI in Patient Safety

David Bates, MD, MSc, Director, Center for Patient Safety Research at Brigham and Women's Hospital and Medical Director, Clinical and Quality Analysis at Mass General Brigham opened the conference sharing his perspective on the state of patient safety. "AI has made advancements in patient safety that we could not achieve previously," he observed. In 2023, Dr. Bates and his colleagues published "The Safety of Inpatient Health Care" study in the New England Journal of Medicine that showed that adverse events are found in one in four inpatients. A second study published in 2024 found that adverse events occurred in 7% of outpatients. "Most institutions don't know how much harm they have," said Dr. Bates. "And without this knowledge, it is really hard to work to prevent it."

SELECTED GEMS

- AI is at a fever pitch. It is time to bring together the AI movement with the Patient Safety Movement.
- A study revealed over 500 metrics including triggers, adverse events, safety issues and more with great variation and very low agreement on what should be used in the healthcare setting to measure harm. Efforts should be made to standardize these to improve reporting.
- Today's definition of preventable harm must expand considering that AI can be leveraged to prevent adverse events previously thought to be out of reach.
- Don Berwick's quote "We need constancy of leadership for improvement" holds true in the age of AI. When leadership is lost, harm increases as people lose sight of goal.
- AI is not simply a technology, it is a societal, political and technical shift.
- We have the equivalent of a jumbo jet going down every day with the adverse events hidden across multiple, disconnected hospitals. We need a national strategy such as the NTSB to identify harm and enable improvement.
- While some say that patients and doctors should now be partners, it is important to remember Berwick's philosophy that caregivers "should be guests in our patient's lives."
- Healthcare leaders and business partners are encouraged to embrace a disciplined approach as stewards to the safe and ethical use of AI. The key parties of patient safety and well-being are very rarely included on AI design teams. Going forward, we should engage the right people in every stage of the development and deployment of AI.
- While in the long run, AI may save costs, the question remains as to who will benefit from those savings. We need to fundamentally change our payment model to no longer incentive payment for harm. The economics should follow the outcomes.
- There is an opportunity to develop a patient safety index and educate the public on what an error is and why it matters to the patients and families.

Changes in Patient Safety and Studies



David Bates, MD, MSc

Director, Center for Patient Safety Research, Brigham and Women's Hospital

Medical Director, Clinical and Quality Analysis, Mass General Brigham

Dr. Bates' research of longitudinal studies has shown that, when repeated, there were similar rates of harm across all metrics. He identified four key differences in the patient safety arena as compared to when the studies where initially conducted:

- Records have migrated from paper based to electronic health records (EHR)

- Hospitals are now using triggers to identify adverse events
- The complexity of outpatient care has increased
- There is longer life expectancy leading to more complex medical issues

The Diagnosis errors are less likely to show up in analyses, which is a problem. "These errors are conspicuous by their absences as demonstrated by the abundance of malpractice lawsuits," Dr. Bates observed. He is pushing for CMS to develop metrics of harm and for ARHQ to develop regulations on responsible use of AI. "Care should be much safer than it is, and that is in our reach," said Dr. Bates.

Patient Safety Movement Changed by AI



Laura Adams
Senior Advisor
National Academy of Medicine

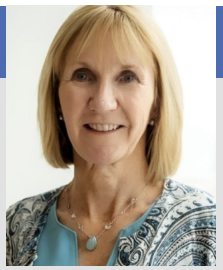
Laura Adams shared four key differences in the patient safety movement with the advent of AI:

- **Speed**: The speed at which AI is evolving is "almost beyond our comprehension" showing promise that the shortcomings we experience today with AI may not be there tomorrow.
- **Scale**: AI enables rapid, efficient, widespread, and more affordable deployment of solutions, such as AI-enabled systems in hospitals that monitor patients at risk for falls versus employing sitters, who are often difficult to recruit and retain, and can be costly.
- **Ubiquity**: While technologic advances such as EHRs affected a limited number of processes such as clinical, documentation, and billing, there is no aspect of healthcare that AI won't touch, including administrative processes, care delivery, marketing, research, finance, customer service, human resource management, quality improvement, and so forth, resulting in profound change.
- **Democratization**: Anyone with a smart phone can tap into some of the most powerful generative AI tools in the world. This represents, in essence, a revolution in access to expertise once afforded to only the very few.

Proposed NAM AI Code of Conduct Commitments

- Advance and protect human health and connection as the primary aim
- Ensure equitable distribution of risks and benefits
- Engage people as partners with agency in every stage of the AI lifecycle
- Renew the moral well-being and sense of shared purpose to the healthcare workforce
- Monitor and openly share methods and evidence of AI's performance and impact on patient safety
- Innovate, adopt, collaboratively learn and continuously improve

Guests in Our Patient's Lives



Patricia McGaffigan, MS, RN, CPPS
Senior Advisor, Patient and Workforce Safety
President, Certification Board for Professionals in Patient Safety, Institute for Healthcare Improvement

The Lucian Leape Institute, IHI's patient safety think tank, completed an 18-month project to address AI through the lens of patient safety. They conducted expert interviews, analyzed the landscape, and conducted an expert panel to identify benefits and risks of AI using three clinical use cases. The resulting report includes core guardrails and key recommendations to support the safe use of AI for various health care audiences, including patients, clinicians, safety professionals, health care systems, AI developers, health care systems, safety professionals, researchers, and regulators and policy makers. "We must serve and safeguard patients as guests whose lives we first and foremost have a duty to protect," said McGaffigan.

Regulatory Oversight of AI & Industry Perspectives

While it is unclear who will step up to regulate AI technologies in healthcare, leaders are preparing for them to become part of everyday care in the healthcare system. Both the FDA and ONC are playing a role in the regulatory evaluation of AI devices and tools based on how the technology is classified. Healthcare leaders and industry partners have an important role to play in engaging and improving regulatory processes while at the same time ensuring that new technologies reach the patients and healthcare workforce they are designed to impact both safely and effectively.

SELECTED GEMS

- AI-driven healthcare technology is being developed by a mix of traditional partners, health systems and lots of new market entrants, many fueled by venture capital (VC). Firms are investing in technologies that address issues on the consumer experience and access side seeking to overcome challenges with coordination of care.
- Both VC and health systems see promise in customer service solutions to handle 85% of calls to handle patient scheduling and other issues through connection to EHRs, scheduling systems, etc.
- As healthcare workers use of AI grows, so do the risks. In the new model of generative AI, anyone can write a prompt, creating many points to evaluate which introduces more variables and risk.
- Achieving the next generation of functional tools will take investment and effort from all parts of the healthcare ecosystem. Digital health transformation was driven by the combination of public and private funding, and we are poised for this evolution thanks to that investment.
- Regulation won't be "one size fits all" for AI technologies. The FDA and ONC must choose what to regulate, what to remove and when to allow the industry to continue moving forward.
- Many regulatory statutes are not designed to contemplate AI. Most of the 1,000 devices including AI have been approved through the FDA's 510(k) pathways, and the majority of those went through as a predicate device, not requiring clinical evaluation of the tool.
- The FDA has an important role to play in terms of safety and effectiveness, providing a foundation of safety that can be leveraged while evaluating the concerns with speed to market that could keep beneficial technologies out of the market.





- Guardrails are needed, and work must be done to improve safety reporting while navigating the regulatory landscape with emerging AI technology, leveraging PSOs, HIPAA and AI Assurance labs.
- The amount of variation in how health systems enter their data is a problem. Poor data coming in leads to poor decisions coming out. Can AI help healthcare implement incentives or penalties for non-compliance to data standards to help overcome this issue?
- A new serious safety event list from AHRQ and CMS is launching, and rates of harm will begin to be reported in 2025 with a three-year voluntary roll-in before reporting becomes mandatory. As hospitals implement these measures, it will create greater awareness to how much harm occurs and in turn will lead to creation of standards.
- Mandatory reporting and new regulations are helpful, but industry resistance could hinder implementation. There must be a commitment to not let these patient safety efforts be shut down by detractors.

VC Investment in Generative AI



Amir Dan Rubin

CEO and Managing Partner
Healthier Capital

"Successful companies start with such questions as, 'Is there a problem here for a customer, is there a sufficient market, is there a potential viable economic model, is there a way to distribute or sell the offering?' When looking at healthcare revenue and margin pool opportunities, Health-Tech is a sector with significant anticipated growth—including in software, AI solutions, and tech-enabled services. When turning to Generative AI uses in the health systems, there are current solutions being implemented for administrative areas such call center and revenue cycle automation, clinical care workflow support, data analytics and clinical decision support, and care innovation and redesign approaches.

Good Data = Good AI



Micky Tripathi, PhD, MPP

Former Assistant Secretary for Technology Policy, National Coordinator for Health Information Technology and **Acting Chief Artificial Intelligence Officer** at the U.S. Department of Health and Human Services

The Office of the National Coordinator (ONC) has historically been involved with EHR regulation, data standards and other areas related to healthcare technologies. "All of this is critically important for AI", said Dr. Tripathi. "You don't have good AI if you don't have good data." Having the right foundations in place is necessary to have successful and safe use of AI in healthcare going forward. "It is startling how powerful the current models are even though they don't have good data," he observed. "It is also astounding how big the pitfalls are on the ground when you don't have the right information."





AI Advances in High-Harm Areas of Patient Safety

With increasing demand and complexity, it is hard to imagine how we can deliver healthcare without AI. As healthcare systems use AI to identify patient safety risks, they will also need to develop teams and robust processes developed to act upon the information. The successes, failures and lessons learned of numerous AI pilots at healthcare systems highlight both the promise and the risks of these technologies. And despite concerns about the speed with which AI is entering the healthcare environment, there remains much optimism about the ability for AI to address areas of high harm in patient safety.

SELECTED GEMS

- To measure safety, there is the ability to deploy AI and Machine Learning (ML) driven algorithms that can identify diagnostic errors with reasonable accuracy across an ever-increasing number of signals in real time. Looking forward, the opportunity is to create and deploy algorithms to proactively predict adverse events.
- Efficiency gains to cut down providers administrative workload will allow providers to devote that time to differential diagnosis. AI can assist here, too, provided AI gets the right information to make the right diagnosis helping physicians build trust and comfort in generative AI guidance.
- AI use cases are proving that it can help with hospital throughput and getting patients the right care at the right time, with generative AI poised to overcome previous challenges due to the sheer amount of data.
- Focusing AI on cases that are more difficult to detect can improve patient care, provided they are developed with nurses and doctors. With the right alerts, issues can be detected more quickly, aiding in provision of the right care.
- Customization of the EHR can lead to failure of AI technologies if they are not tested within each facility. While business partners should lead to ensure they are deploying safe technologies, facilities bear responsibility for ensuring they work as intended within their customized systems.
- There is room for both AI Assurance labs and health system testing, putting some of the onus on the vendors and labs to identify big issues and systematically remove them. Every hospital can't do this by themselves, but they must take responsibility to have a monitoring system when implementing generative AI tools to spot, evaluate and address errors.





- AI will highlight disparities within the capabilities and resources of the health systems that will be using these technologies. Work must be done to ensure that all health systems can benefit from advances supported by AI.
- While AI use cases are prolific, the question remains about the ability to scale – both for the vendor to support and the provider to expand successful AI technologies across their system.
- Pursuit of perfection in AI will slow progress. The current state should be the standard, asking if AI is improving efficiency, accuracy and safety compared to current performance.
- One of the big fears is that AI will make physicians 20% more efficient which leadership will use to add 20% more work. A more impactful approach will be to change reimbursement providing the funding and time to help physicians improve.
- Training will be necessary to improve the ability to test AI, including standardized algorithms and protocols to truly know where it fails. This leads to the need to train physicians in the appropriate and safe use of AI, and equipping physicians when the use of AI is hidden.
- Selecting the right metrics depending on the type of practice is important, and using ML to find the right data and comparators can help physicians improve care.
- There is a generational aspect to use of AI, and the inclusion in medical education will further this gap creating a challenge to bringing everyone to the same level of adoption and effectiveness.

A Framework for Advancing AI



Hardeep Singh, MD MPH

Co-Chief, Health Policy, Quality and Informatics Program, Center for Innovations in Quality, Effectiveness and Safety, Michael E. DeBakey Veterans Affairs Medical Center and Baylor College of Medicine

When Dr. Singh thinks about AI and healthcare, he looks at it across three domains:

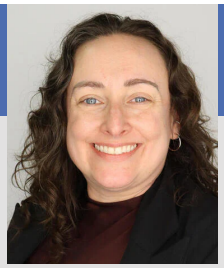
1) **Safe AI**
2) **Safe use of AI**
3) **Using AI to improve patient safety**

"There is a lot of recent momentum in safety despite the challenges of the past 25 years," said Dr. Singh. He posits that if policymakers were to think of using AI to maximize the ability of health IT and AI to improve patient safety, they would focus on high-priority areas where we know advances can be accomplished. "Diagnostic errors have been harder to address and remained on the sidelines, but there is a significant amount of interest in tackling them using AI," Dr. Singh said. "But progress requires us to go beyond news headlines like ChatGPT beat the doctor. We need rigorous evaluation of AI applications in the real world to assess if AI can reduce diagnostic errors and help patients."





AI Use Cases: Progress and Patience



Jennifer Cowart, MD, SFHM, FACP

Chair, Quality Subcommittee
Mayo Clinic Florida

Dr. Cowart reviewed two use cases where Mayo Clinic has used generative AI to impact care pathways demonstrating cost reduction and a positive impact on care. Studies have shown that boarding in the Emergency Department (ED) is likely to exist when hospital occupancy is above 85% and there is an increase in medication errors, reduction in patient satisfaction and increases burnout for workforce all while decreasing the hospital's ability to respond to other issues.

The Mayo Clinic created an algorithm to determine likelihood of an ED patient needing to be admitted. Based on the success of the pilot, they are now rolling this out across the system. In other use cases, they are testing the ability to support decision making around patient placement, to improve throughput and to better code care to improve reimbursement. "The reality of these projects is that they take time to do them right and do them safely," said Dr. Cowart, "but each show promise to reduce unsafe care."

Implementation Drives Variation



David Classen, MD, MS

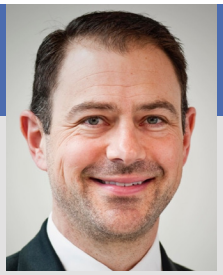
Professor of Medicine, Division of Epidemiology University of Utah School of Medicine

Senior Scientist, PascalMetrics

"With every health system customizing their EHR system, there is a real risk that AI will fail unless you test AI within your facility," said Dr. Classen. "It is not about the vendor," observed Dr. Classen, "it is about the implementation." He cautioned that when evaluating an AI tool, health systems should be cognizant of this and think carefully about how it will be implemented to ensure they achieve the desired results.

"After ten years of meaningful use, we still haven't solved the problems of implementing health IT safely and effectively. AI has the capability to do so," said Dr. Classen. He observed that when testing AI application tools – sepsis, readmission and clinical deterioration – in actual operations, they aren't performing nearly as well as they are being marketed. "We are going to find that there is enormous variation within these AI applications at the frontlines of care and a lack of awareness within health systems that these problems are even present. AI Assurance labs alone won't solve the problem," Classen warned, "but instead these AI applications must be tested constantly within each of the hospitals and health systems."

Perfection Should Not Be the Standard



Rod Tarrago, MD

CMIO Health Data, AI, and Pediatrics
Amazon Web Services

Rod Tarrago, MD is encouraged by the sheer number of explorations into the use of AI but notes that the challenge is the ability to scale. "So much is happening in isolation, and we need to work through that," he said. "There is also an intense focus on the bright shiny objects when some of the most impactful areas are the 'boring' areas like Medication Reconciliation." He shared the automotive analogy of self-driving cars which are not yet vastly deployed, while lane change warnings now exist on most new cars. He cautioned that seeking the most advanced solution may prevent us from even getting started on this journey. "Let's not make perfection our standard, let's make the current state our standard," Dr. Tarrago advised.



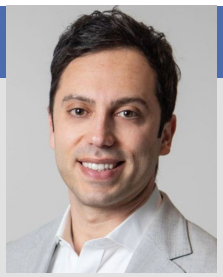
Emerging Frontiers in AI in Safety

The cost of AI models and technology is falling exponentially, making concepts that seem astronomically expensive possible. As these systems are developed and mature, health systems are working to build their infrastructure and teams today to prepare for tomorrow's technology. The potential of emerging AI technologies stands to both reduce risk and improve outcomes, especially as health systems improve data quality and adhere to standards that provide accurate and reliable comparisons.

SELECTED GEMS

- Innovation is driving rapid advancements which are also bringing down the costs of AI technologies.
- Monitoring healthcare's physical environments is needed to identify patient harm, and AI driven computer vision has the potential to uncover patient safety issues leading to solutions.
- While there will be push back, it is important to press forward with regulations that will create accountability on health systems and their partners to improve patient safety.
- As inequity is known to cause harm, an equity lens is needed to ensure AI contributes to reducing bias rather than expanding it.
- AI has the potential to tap the rich information captured in the massive amount of free text data within EHRs to uncover trends, supplement research and prevent future safety events.
- Safety event reporting is necessary but can be burdensome. Leveraging AI and LLM to improve collection, entry and maintenance of data has the potential to make the information useful, helping health systems overcome the barriers to use AI to advance patient safety.
- AI technologies must be tested against all populations, including pediatrics. Developing tools for adults and expecting them to work for children can lead to significant harm.
- Simply automating existing processes will only perpetuate the problem. There must be substantial system redesign to make appreciable change in the safety profile of healthcare.
- Use cases and studies in this space are demonstrating that incorporating patient generated data is incredibly valuable, and many see this as an increasing trend with future technology development.
- As data gets more prolific, there can be a move away from the traditional root cause analysis process to use of AI to identify correlations that humans will miss when evaluating issues.

Just Build It



Andrew Gostine, MD, MBA

CEO
Artisight

Every idea deserves exploration. Artisight's platform was built to address traditional safety issues, such as patient falls and pressure injuries. In the operating rooms and in-patient beds, Artisight addresses throughput constraints with solutions like remote nursing, and prediction models for staffing requirements, patient length of stay, and readmission risk. New this year, they are now able to load a patient's entire medical record into a single model to power state of the art predictive modeling for more complex medical problems including blood clots, sepsis, surgical complications, and delirium. The aim is to speed time to adoption for health systems by demonstrating hard ROI with foundational technologies like computer vision, video language models, ambient documentation, and general-purpose prediction engines. Dr. Gostine encourages continued exploration with a bold look to the future. "If we can deliver value with an idea that seems astronomically expensive, we will build it with the right health system partner," he said. "With the accelerated availability of AI compute power and capacity, the costs for moonshot ideas are quickly falling within reach.

Finding Answers in Free Text Data



Tejal Gandhi, MD MPH CPPS

Chief Safety and Transformation Officer, Press Ganey Associates LLC

Press Ganey is using PSO data which includes over five million safety events in their system. While the coded data quality is challenging, the free text data has valuable information about what occurred in healthcare settings. Dr. Gandhi chose a non-traditional use case, using AI large language models to search for patients with disabilities that experienced safety events, to determine if they could associate the disability with the safety issue that occurred. The use case has proven that they are able to reliably use AI to sort through free text data to identify patients with disabilities, which is often not captured in patient demographic data. The AI also identified the kinds of safety events these patients experience- opening a new opportunity to learn how organizations can prevent future safety events.

"We know that inequity increases harm, and that there are groups that are more vulnerable to harm," said Dr. Gandhi. With concerns swirling around AI's potential to expand bias, she is eager to find ways that AI can help reduce bias.

Standardized Reporting to Remove Barriers



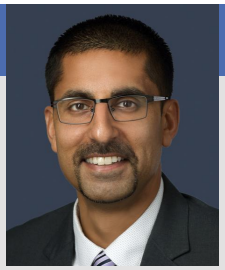
Barbara Staruk

Chief Product Officer
RLDatix

RLDatix is working with their partners to standardize safety event form entry using AI with the aim of driving consistency across health systems. "We are at a point in the healthcare ecosystem that we must build trust," said Staruk. Their approach is to use LLM to identify the data for the form fields by using the provider's voice narrative. Through this technology, they improve both accuracy and frequency of reporting. They are then able to use models to identify common trends that focus a health system's patient safety efforts. Staruk identified four barriers in using AI to advance patient safety including:

- Unclear governance structures
- First of type evaluations
- Intellectual property permissions
- General unease

No One Left Behind



Raj Ratwani, PhD, MPH

VP of Scientific Affairs
MedStar Health

Dr. Raj Ratwani agrees that there is a risk of leaving behind smaller institutions and non-AMCs as has been the case in other areas. Rural and community-based hospitals are often under-resourced and operating on older technology and simply cannot keep up with the resource and cost investments necessary. "We have a digital divide at the organizational level where those organizations that are under resourced do not have digital health technologies that could benefit their patients," he observed. Another area of concern is with pediatric hospitals. "We have a history of developing EHRs for adult populations and pushing them into pediatric medicine leading to significant harm. We cannot repeat this with AI."

System Overhaul



Roger Bohn, PhD

Professor Emeritus
UC San Diego School of Global Policy and Strategy

Roger Bohn, PhD, observed that we tend to seek what he calls "plug compatible solutions," those which leave the entire system the same by attempting to place solutions within it. He challenged the group to follow the experience of other industries that have recognized the need for complete system redesign to make appreciable change in the safety profile of healthcare. Simply automating existing processes will only perpetuate the problem. "I fear that we may be in a somewhat similar situation in healthcare if we are unable to take the time to figure out how healthcare works," said Bohn.

AI, Implementation Science and Patient Safety

Health systems are eager to implement AI technologies to improve caregiver burden and satisfaction, improve patient safety and quality and drive workflow efficiency and productivity. With the rapid proliferation of these technologies across health systems, it can be a challenge to stay true to the tenants of implementation science to help ensure responsible deployments that maintain and hopefully improve patient safety.

SELECTED GEMS

- Health systems are implementing AI faster than any other technology in history. At the same time, they must be cautious to balance speed against safety.
- Health systems are seeking support in governance and responsible deployment, ROI and value measurement and implementation to keep up with AI implementation.
- Ambient listening can serve as a powerful enabler to reduce clinician burnout. At the same time, it is important to think about potential unintended consequences from the perspective of patients and patient care.
- Evaluation, testing and implementation of AI enabled technologies is happening independently across health systems, creating an opportunity to collaborate and become more efficient at selecting and developing effective solutions.
- Opportunistic screening of public health issues is a great opportunity for AI with consideration given to ensuring care extends to those who may be outside of a health systems current patient population so as not to increase disparities in care.
- AI use cases should start at workflow redesign, picking pilots that will have a measurable outcome.
- If you can't fix the problem without AI, you can't fix it with AI. Look at generative AI to determine the increment gain from AI and whether it will fundamentally reshape efforts.
- Putting critical processes on AI systems poses a future challenge – will we retain the training and experience to function without the technology aid?
- Implementation science tenants are important to consider and should include mixed methods to pull perspectives from patients and clinicians. Social scientists, human factors engineers and human design experts should be involved through tool design, evaluation and implementation.



Scottsdale Institute AI Use Case Survey Preview



Eric Poon, MD, MPH

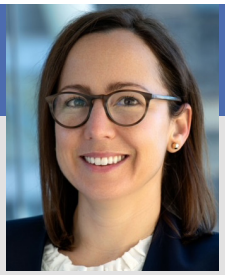
Chief Health Information Officer
Duke Medicine

Dr. Eric Poon shared a preview of results of the Scottsdale Institute's recent "Why Health Systems are Deploying AI" survey of 46 non-profit US health systems. The top goals for implementing AI in health systems include Caregiver Burden/Satisfaction (72%), Patient Safety/Quality (57%) and Workflow Efficiency/ Productivity (57%). The survey identified 37 AI Use

Cases across ten categories with the highest use cases across imaging and radiology, early detection of sepsis, risk of clinical deterioration and ambient notes. Remarkably, every survey respondent reported implementation activities with ambient notes. "I can't think of any technology that has reached this level of implementation so quickly," said Dr. Poon. He continued, "At the same time, survey respondents cautioned that we need to balance speed against safety."

He advised that we need help in determining how to evaluate these tools across different settings, and this needs to take place rapidly. He observed that health systems are reinventing the wheel and evaluating similar technologies on their own. "With AI, you need to kiss a lot of frogs to find your prince or princess," quipped Dr. Poon. "What we need to do as a community is become more efficient frog kissers."

Proactive Screening and Planning for Patients

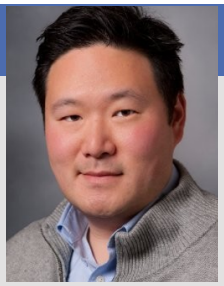


Ashley Beecy, MD
Medical Director of AI Operations,
New York-Presbyterian

Assistant Professor of Medicine,
Department of Medicine, Division of Cardiology
Weill Cornell Medicine

New York-Presbyterian is looking to apply AI-enabled opportunistic screening to public health issues like heart failure to get patients the care they need earlier and reduce chronic disease. They have developed and deployed use cases focused on reviewing diagnostic tests to identify patients with cardiovascular conditions. "While it is promising that we are finding potential patients," said Dr. Beecy, "we must be careful to ensure they get connected to the downstream care that will impact their clinical outcomes."

Transformation is the Key to AI



Vincent Liu, MD, MS
Chief Data Officer
The Permanente Medical Group/
Kaiser Permanente

"Some have said, 'If you can't fix the problem without AI, you can't fix it with AI,' and we have to start figuring out if that is really true" said Dr. Liu. When evaluating AI technologies, he suggests examining the following categories:

- **Patient facing or direct to consumer: With the cost to compute decreasing, there is a case to be made to deploy technologies to patients directly.**
- **Business of medicine (operational): These productivity and back office tools are becoming commoditized and will drive costs down.**
- **Practice of medicine (clinical): While there are early examples of benefits to patients, more work is needed to capture true value.**

"If we just put AI on top of what we already do, we will not produce new value," said Dr. Liu. "We will need to transform how we deliver care to really capture the value in those clinical use cases."



Patient Safety and Patient Advocacy

For all the talk of patient safety, the patient voice is too often omitted from the discussions meant to advance the efficacy and safety of their care. Past challenges of incomplete and disconnected data sets and the difficulty of getting a complete view of the patient, both inside and outside of the healthcare system are on the cusp of dissolving as AI offers new capabilities to healthcare providers and patients alike. But a commitment is needed to diligently and consistently bring the patient to the table when making decisions to implement AI technologies. There is a desire to create a protected system that allows free and open communication, inclusive of patient data, that can provide the full picture of the patient situation.

SELECTED GEMS

- Despite many years of patient safety advocacy, many feel that the progress made is dismal. Healthcare professionals need to maximize the agency of patients so that they can achieve their maximum healthcare potential.
- While AI tools can provide useful advice on a potential diagnosis or treatment, patients will still be cared for in a flawed system where human error can easily led to another tragic event. Change must be systematic and focus on preventing inevitable human error from reaching patients.
- Soon, patients using AI to meet their unmet needs is not going to be noteworthy, it is going to be normal.
- With physician and nurse shortages building, burnout increasing among pediatric specialists and financial pressures, there is a crisis looming. Healthcare leaders can make an impact by leveraging educated and motivated patients using AI to assist in care to improve the healthcare system.
- There is optimism that the introduction of AI will enable the patient population to interact differently with healthcare.
- The inability for patients to self-report patient harm or safety events creates a huge gap and will continue to hinder progress.
- EHR data sets powering AI are inaccurate and incomplete, and the way information gets put into medical records and the permanence skews results and impedes progress.
- Patient Advocacy groups are working to amplify their voice, advocating for greater federal oversight of AI enabled technologies, including continuing their efforts to bring about a patient safety self-reporting system.

Removing Bias with AI Assisted Diagnosis



Sue Sheridan

President and CEO
Patients for Patient Safety US

Sue Sheridan shared a personal story about misdiagnosis and how she eventually used AI to empower herself with information to find the appropriate course of care. Following the issues, she began to reflect on what happened, asking several "What ifs" along the diagnostic journey and uncovering numerous missteps, some attributable to bias and misperceptions. "We have experts in the room that know how much bias occurs in care," said Sheridan. "We need to measure AI against humans, not perfection," said Sheridan.



Mobilizing Patients in the Patient Safety Revolution



Leilani Schweitzer

Co-Founder
Comms Corps

"Patients are the most abundant, motivated and underutilized resource in healthcare," said Leilani Schweitzer. She challenged the group to imagine what the impact of educated and motivated patients using AI to assist in care could do to improve the healthcare system. "Rather than seeing this as a threat," she said, "it should be seen as an opportunity to put humanity back into healthcare."

The Future of Patient Safety



Beth Daley Ullem

Co-Founder
Patients for Patient Safety US

PFPS identified four AI Patient Safety Priorities including data integrity and bias, efficacy, payment and transparency and shared improvement. "Our aim is to make sure that the AI that is about us is not done without us," said Beth Ullem. While difficult to achieve, co-developed AI will be incredibly more powerful, and PFPS is seeking to work with the healthcare ecosystem to incorporate the patient voice into development efforts. They see safety's future across four dimensions:

- **Harness data proactively and rationalize burden/reporting**
- **Improve safety incentives to bend the curve to transparency and improvement**
- **Integrate real time data analytics to augment workforce and patient co-intelligence/activation**
- **Engage patient generated data into analytics to identify and prevent harm**

CLOSING REMARKS

Laura Adams closed the session calling for the establishment of a national research agenda on patient safety and "Provider, Patient, and AI" needs to be the first priority. "With a focus on the patient safety priorities and new AI tools identified, there is incredible potential to work together and achieve breakthroughs," said Adams. She applauded the fact that each speaker, both on the stage and in the audience, contributed to a new body of thought that can fundamentally change the healthcare system provided we take action. "We are the only industry that can inflict a defect on our customers and then bill them to fix it," she quipped. She noted that AI will not fix the incentive structure and urged that the incentives for health systems to primarily provide "sick care" must shift to keeping people healthy noting that "we need to recognize that bad systems bring out the worst in good people," she said.

Adams believes we need to create a moonshot to accomplish the aims of advancing patient safety in the era of AI. "We can't sprinkle a few pennies to do this. With the appropriate funding to address incentives and the other barriers that have impeded us for the last 25 years, and we can do this," said Adams.

DR. GLAUCOMFLECKEN ON PATIENT ADVOCACY

Will Flanary, MD



Will Flanary, MD shared how social media is influencing patient advocacy. His journey through medical school and residency included two bouts with cancer and a medical emergency that changed his perspective. "Becoming a standup comedian was too hard, so I became a doctor instead," he joked. His Twitter (now X) account, "Dr. Glaucomflecken" started with very specific ophthalmology jokes and expanded to cover broad, but often misunderstood, aspects of the healthcare industry, educating and entertaining people at the same time.

Following a medical emergency, insurance issues were the biggest challenge he faced. Surprise billing left him with over $25,000 in charges that took a nine-month battle with the insurance company to resolve. "That experience changed my comedy," he said. He started to post videos about the challenges within the healthcare system. This opened the floodgates for people on TikTok to vent their frustrations with the healthcare system. He began covering lesser-known topics including the complicated "chain of command" led by PBMs impacting the cost of prescription medications.

His experience in making the videos taught two things about patient advocacy:

1) **Know that there is a problem, and**
2) **Know what the problems are.**

He is using his comedy as a form of education. "Explain the way things work in a way that makes sense and be understood," he advised. "If you have enough people that understand the problem, then you can begin working to fix it."

A recent partnership with Nuance has him diving into the world of AI and social media's perceptions. The feedback includes distrust of AI, the fear that AI would take away jobs and concerns about privacy and trust. On the positive side, others see the ability for AI to free up time and increase productivity. "AI has a bit of a PR problem, and you have to grapple with that now or later," he advised. "You have to find a way to get that information to people in an accessible, distilled way that meets them where they are."

A recent partnership with the New England Journal of Medicine (NEJM) is designed to increase uptake of the research they are producing, creating videos based on published studies. The early results show high levels of engagement. "Social media advocacy is built on trusted voices, trusted research and innovative outreach to change the tide from what AI is feared to be doing to what it can do for healthcare."

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