Exploring Patient Safety Solutions

An Educational Podcast Discussion Guide

Graduate-level curriculum focused on solutions *(policy, technology, administrative)* to existing healthcare safety problems featuring some of the leading experts

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Up Next for Patient Safety

Pittsburgh Regional Health Initiative

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Introduction

Medical errors aren't inevitable. Approximately 70% of medical errors and harms are preventable. Yet, an estimated 250,000 Americans will die each year from a preventable medical error. Recent data suggest this number was even higher during the COVID-19 pandemic as medical errors and harms increased. Medical errors affect all age groups, all races, all income and educational levels, health professionals, academics, and managers. In short, everyone is at risk.

The deaths are labelled "preventable" because solutions exist now, and even more powerful solutions would be possible if the nation had a central home for patient safety research, discovery, and innovation. Other high-risk, complex industries have achieved outstanding safety records by deploying available technologies, analytics, machine learning, and heavy doses of ingenuity and common sense.

There are many barriers to overcome, however, that are unique to health care. The ***Up Next for Patient Safety*** podcast was created to examine these barriers and the best paths to ensuring patient safety today. In this course material, experts from a variety of disciplines discuss the challenges we must overcome and how they might be surmounted. The solutions look at lessons to learn from other industries and countries, and systematic issues like fragile accountability, inequities, and perverse payment structures.

This discussion guide serves as a roadmap for using the podcast to supplement educational programs in patient safety. The guide has been crafted to facilitate integration of the podcast into existing curricula to expose students to these challenges and potential solutions around patient safety. Learning objectives and pre- and post-listening questions are provided for each episode to spark reflection on important topics in patient safety and can be used to supplement in-class or online discussions among students.

Today's students of patient safety will have the unprecedented opportunity to learn from healthcare delivery using advanced technologies and data sharing, as well as lessons learned over the past 30 years. ***Up Next for Patient Safety*** provides a glimpse into the future of safer health care. We hope you will find this guide to be a valuable supplement to your curriculum.

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Episode 01

Medical Error & the NTSB

32 minutes

On this episode of *Up Next for Patient Safety*, special guest host **Harry Litman**, host of the *Talking Feds* podcast, interviews **Robert L. Sumwalt**, former chairman of the National Transportation Safety Board (NTSB) (2017-2021), and **Dr. Karen Wolk Feinstein**, president and CEO of the Pittsburgh Regional Health Initiative, on the persistent problem of medical error and patient safety in health care along with a new proposed solution: a National Patient Safety Board (NPSB).

After the severity of the patient safety and medical error crisis, our guests explore how the NTSB's progress in transportation and aviation inspired the idea of a similar entity for the healthcare industry.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Understand the scope of medical errors in the United States and impediments to patient safety.
- Learn how the NTSB achieved their current safety record in the transportation and aviation industry.
- Explore how a new independent federal agency, an NPSB, could advance patient safety.

Pre-listening Questions

1. Why do you think an industry dedicated to healing allows so many people to die in their care from preventable errors?
2. Examine the safety record trajectory for transportation (aviation in particular) compared to health care. What are some of the reasons for the disparity between the two?

Post-listening Questions

1. What was the most important takeaway from this episode related to aviation safety improvements inspired by the NTSB?
2. How important was it that the NTSB was set up as an independent federal agency?
3. Would an NPSB cause us to reimagine how we approach addressing patient safety in a more systematic and structured manner in the United States? Why or why not?
4. Is setting up a new federal agency possible? How could a coalition overcome opposition?

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Episode 02

The Answer Is... Big Data

38 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein** interviews **Dr. David Classen**, professor at the University of Utah School of Medicine, and **Michael McShea**, group chief scientist at the Johns Hopkins Applied Physics Lab in the Health and Human Systems group of the National Health Mission Area on the current state of our healthcare data infrastructure and analytical capabilities to advance safety.

Listen as our guests explore how existing solutions applying autonomous safety technologies and predictive analytics could anticipate harm and intervene to prevent harm before it occurs. These capabilities have already been implemented in other industries.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Understand the evolution of our current healthcare data infrastructure capabilities and the barriers that impede progress.
- Learn about new and existing safety technologies within and outside of the healthcare industry.
- Explore the future of healthcare safety with autonomous technology solutions and advanced analytics.

Pre-listening Questions

1. What do you know about existing data and advanced analytics tools available to improve health care?
2. Can you imagine how “autonomous safety technologies” make space travel, aviation, nuclear power, and manufacturing so safe?

Post-listening Questions

1. What was the most important takeaway from this episode related to potential data and analytics improvements within patient safety?
2. What are the main barriers that limit the adoption of new technologies in health care?
3. How can we accelerate the adoption and implementation of autonomous technologies and big data analytics in the healthcare industry?

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Episode 03

Paying for Safety

37 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein**, president and CEO of the Pittsburgh Regional Health Initiative, interviews **Jessica Brooks**, president & CEO of the Pittsburgh Business Group on Health and CEO & founder of US Health Desk, and **Nancy Guinto**, executive director of the Washington Health Alliance, as they examine the financial incentives that impede progress on healthcare safety and quality.

Listen as our guests explore how safety incentives are frustrated by our healthcare payment systems and consider how a new financial strategy could influence and prioritize safety.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Understand the relationship between safety and our reimbursement and payment systems in the United States.
- Consider how different payment approaches and strategies incentivize safety.
- Explore how prioritizing safety could reduce healthcare costs.

Pre-listening Questions

1. How does the current fee-for-service payment structure work against better care and reduced costs?
2. How can we build support for “value-based” payment systems that reward better care, not more care from preventable error?

Post-listening Questions

1. Why is payment reform so essential to prioritizing patient safety?
2. What have been the main barriers to shifting toward value-based payment models, and how do we address them?
3. What is “tiering and steering,” and do you think more employers should advocate for that strategy when negotiating contracts with healthcare systems?
4. What do you think are the most effective strategies for changing payment to encourage safety in health care?

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Episode 04

Factoring Humans + Machines

39 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein** interviews **Dr. Jonathan L. Gleason** *(formerly, at the time of recording)* executive vice president, chief clinical officer, and chief quality officer at Jefferson Health, and **Dr. Raj Ratwani**, vice president of scientific affairs at the MedStar Health Research Institute, director of the MedStar Health National Center for Human Factors in Healthcare, and associate professor at the Georgetown University School of Medicine, as they explore how human factors engineering can be applied within health care to help humans and machines work better together.

Listen as our guests explore the basics of human factors engineering and human–computer interaction as they relate to the healthcare industry, while also making the case for how these disciplines can transform patient safety.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Understand human factors engineering and human-computer interaction and how they relate to improving patient safety.
- Learn about the evolving role that technology plays in delivering care and supporting healthcare workers.
- Explore the promise of human factors engineering and how it could reshape our approach to designing safe systems in health care.

Pre-listening Questions

1. What do you know about human factors engineering and the ways that it could be applied in the healthcare setting?
2 Why have healthcare systems and health professionals not embraced human factors engineering like other industries?

Post-listening Questions

1. What was the most important takeaway from this episode related to human factors engineering and patient safety?
2. How could we engineer better systems to support patient care?
3. Why do you think we have so few human factors engineers in health care, and how would you incentivize more doctors to become knowledgeable about human factors engineering?
4. How does the increasing digitization of health care change how providers conduct their work? Could human factors engineering make transitions easier?

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Episode 05

Safety with Equity

35 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein**, president and CEO of the Pittsburgh Regional Health Initiative, interviews **Dr. Cara James**, president and CEO at Grantmakers In Health, and **Dr. Kimá Joy Taylor**, founder of Anka Consulting and a nonresident fellow at the Urban Institute, as they examine health equity issues in patient safety and explain how Black and Brown people are at greater risk of medical errors in the United States.

Listen as our guests highlight ongoing initiatives to reform healthcare practices and what additional work is needed to create a fair and just opportunity for every person in the United States to be as safe and healthy as possible.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Identify health equity concerns in patient safety.
- Learn about the connections among health equity and our data infrastructure and data collection systems.
- Explore what policies and actions would create more equitable and safer health care.

Pre-listening Questions

1. What connection comes to mind when you hear the phrase “equity and patient safety”?
2. What factors influence racial/ethnic disparities in patient care and health outcomes?

Post-listening Questions

1. What was the most important takeaway from this episode related to equity in patient safety?
2. What powerful step would you take to build more equitable systems and processes related to patient safety?
3. Why did the participants consider a robust data infrastructure and data collection on race and ethnicity so important?

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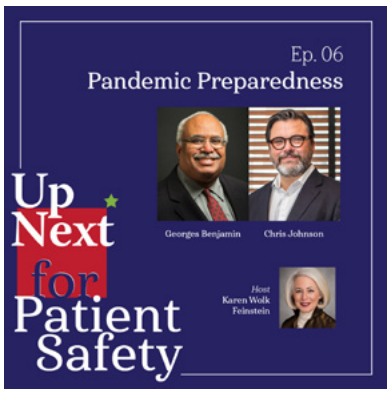
Episode 06

Pandemic Preparedness

34 minutes



On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein**, president and CEO of the Pittsburgh Regional Health Initiative, interviews **Dr. Georges Benjamin**, executive vice president at the American Public Health Association, and **Chris Johnson**, president and co-CEO at TeleTracking, as they discuss what the COVID-19 pandemic revealed about our public health and healthcare systems, especially in their technological shortfalls to address the crisis.

Listen as our guests explore how the lessons we've learned from the COVID-19 pandemic response could be applied to improve healthcare safety overall.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Identify the barriers that limited the U.S. public health system's COVID-19 response.
- Discover different methods and technologies to enhance public health systems and population health.
- Explore how technology and effective data systems can better manage future pandemics and save lives.

Pre-listening Questions

1. How has the COVID-19 pandemic highlighted and exacerbated existing safety issues in our public health and healthcare systems?
2. As the pandemic continues, what opportunities do you see to address patient safety amid staffing shortages and overall burnout?

Post-listening Questions

1. What was the most important takeaway from this episode related to improvements to pandemic preparedness and patient safety?
2. What challenges for the current healthcare workforce can existing technologies and tools reduce?
3. How do you think the pandemic will accelerate the healthcare industry's adoption and acceptance of digital solutions and technology?
4. How could we reduce the gap and more effectively integrate our public health and medical systems?

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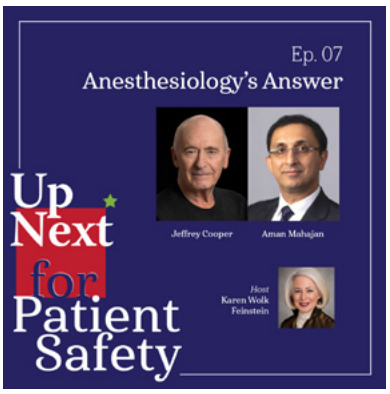

Episode 07

Anesthesiology's Answer

46 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein**, president and CEO of the Pittsburgh Regional Health Initiative, interviews **Dr. Jeffrey Cooper**, professor of anesthesia at Harvard Medical School and founder of the Center for Medical Simulation, and **Dr. Aman Mahajan**, professor and chair of anesthesiology and perioperative medicine, bioinformatics, and pharmacology and professor of bioengineering in the Swanson School of Engineering at the University of Pittsburgh and chair of UPMC Perioperative Services, as they discuss the factors that led to the specialty of anesthesia leading the way in patient safety compared to other medical specialties.

Listen as our guests explore what others can learn from anesthesia, a specialty that embraced technology, a culture of safety, and created its own Patient Safety Foundation.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Understand the key factors and figures that propelled the specialty of anesthesia to be a pioneer in patient safety.
- Examine how anesthesia built a culture of safety on new technologies, systems thinking, and multidisciplinary teams.
- Explore the barriers that prevent broad adoption of safety technologies in health care.

Pre-listening Questions

1. What is your understanding of anesthesia as a specialty? What reasons might have propelled this specialty to the forefront of safety?
2. The anesthesia specialty's safety record far surpasses those of its peers. What factors do you think have contributed to its success?

Post-listening Questions

1. What was the most important takeaway from this episode related to improvements in patient safety for other specialties beyond anesthesia?
2. What role does the culture within anesthesia play in their embrace of patient safety?
3. How has simulation affected patient safety, and what might other specialties learn from anesthesia's use of simulation?
4. What barriers remain in spreading the lessons and model of safety from anesthesia to other specialties in health care?

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Episode 08

Looking Back to Move Forward

53 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein** and special guest co-host **Martin Hatlie** of Project Patient Care and MedStar Institute for Quality & Safety lead a conversation with **Dr. Carolyn Clancy** of the Veterans Health Administration, **Dr. Kenneth Kizer** of Atlas Research, and **Dr. David Mayer** of MedStar Institute for Quality & Safety as they discuss the origins of the patient safety movement in the United States and their involvement in shaping it.

Listen as our guests reflect on lessons from the history of the movement—with its inherent challenges and opportunities—and how it can inform current efforts to eliminate patient harm.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Understand the origins of the patient safety movement in the United States.
- Identify the barriers to progress on improving patient safety since the Institute of Medicine report *To Err Is Human* was published in 1999.
- Explore the potential role of technology in advancing patient safety.

Pre-listening Questions

1. What do you know about the history of the patient safety movement?
2. How much progress do you think has been made on patient safety over the past three decades?

Post-listening Questions

1. What was the most important takeaway from this episode related to the long and often frustrating journey toward patient safety?
2. Despite the attention and efforts directed toward patient safety, why is progress at a relative standstill, and what barriers continue to face the movement?
3. What role can and should technology play in advancing the patient safety movement?
4. Healthcare leadership has at times failed to prioritize safety. How could leaders influence patient safety today?

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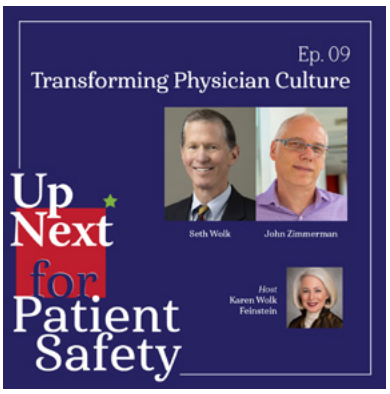

Episode 09

Transforming Physician Culture

41 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein**, president and CEO of the Pittsburgh Regional Health Initiative, interviews physician **Dr. Seth Wolk**, adjunct professor in the Department of Health Management and Policy in the School of Public Health at the University of Michigan and former system chief medical officer of Spectrum Health, and technology design researcher **John Zimmerman**, Tang Family Professor of Artificial Intelligence and Human-Computer Interaction in the School of Computer Science at Carnegie Mellon University, as they discuss approaches to changing physician behavior and the barriers to broader adoption of innovative methods and technologies that could make healthcare systems safer.

Listen as our guests explore insights about human-computer interaction that can relieve the human burden for preventing medical error and lead to seamless integration of safety tech into clinical care.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Identify the key factors for resistance to behavior change among physicians.
- Understand the role of AI in health care and how it could support physicians in improving safety.
- Explore how the medical education system could be modified to enhance physician acceptance of patient safety practices and technology.

Pre-listening Questions

1. How could AI and machine learning advance patient safety?
2. For what reasons do many physicians reject the introduction of new safety technologies, AI, and safety science practices?

Post-listening Questions

1. What was the most important takeaway from this episode related to transforming physician culture?
2. What should we consider when designing new technologies to improve their uptake by physicians and other healthcare workers?
3. What will change the physician culture to prioritize safety and accept every proven intervention protocol and practice?

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Episode 10

Doctors Evaluating Doctors

1 hour 10 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein**, president and CEO of the Pittsburgh Regional Health Initiative, interviews internist and professor **Dr. Thomas Gallagher** of the Departments of Medicine and Bioethics and Humanities and associate chair for patient care quality, safety, and value at the University of Washington, and pediatrics professor **Dr. Gerald Hickson**, chair of medical education and administration and founding director of the Center for Patient and Professional Advocacy at Vanderbilt University Medical Center, as they speak on the concept of physician peer review—doctors evaluating each other—and how physicians' accountability to each other can impact patient safety.

Listen as our guests explore how physician performance data can be made more accurate and actionable by having the right people, policies, and procedures in place within healthcare systems.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Define "peer review" and "professionalism" within the clinical setting.
- Understand how physician performance data can be applied to strategies for improving healthcare safety.
- Identify the barriers to accessing data on physician performance across health systems.

Pre-listening Questions

1. What do you know about the physician peer-review process? Is it a sufficient mechanism for ensuring patient safety?
2. Can you suggest other accountability mechanisms to guarantee physician adherence to safety protocols?

Post-listening Questions

1. What was the most important takeaway from this episode related to physician peer review and accountability?
2. How critical are data to performance improvement and accountability, and what challenges might prevent open disclosure of adverse events, near misses, and physician performance?
3. How would you introduce more content in safety science, quality engineering, and human factors engineering in the education of health professionals?

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Episode 11

England & Norway Chart the Course

42 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein**, president and CEO of the Pittsburgh Regional Health Initiative, interviews **Dr. Carl Macrae**, professor of organizational behavior and psychology at Nottingham University Business School in England, and **Dr. Siri Wiig**, professor of quality and safety in healthcare systems at the University of Stavanger in Norway, as they share insights into the forces leading England and Norway to recently establish national patient safety boards.

Listen as our guests explore what inspired action on patient safety, the tactics that helped them build broad support for a national agency, and the challenges of implementation.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes here.

Discussion and Reflection Questions

Learning Objectives

- Understand the global perspective on patient safety and the factors that precipitated national efforts to address patient safety in England and Norway.
- Describe the strategies that helped to garner support for national patient safety agencies.
- Examine the barriers to implementing a national patient safety agency.

Pre-listening Questions

1. Are patient safety shortcomings and medical error national or global problems?
2. What makes improvement in patient safety and reduction of medical errors so difficult to achieve?

Post-listening Questions

1. What was the most important takeaway from this episode related to improvements to patient safety in England/Norway?
2. What lessons can the U.S. take from England and Norway with regard to establishing a national agency focused on patient safety?
3. What questions and gaps still remain from England and Norway's NPSB-like entities?
4. Do you think a new national agency focused on patient safety will be more difficult to establish in the U.S.? Why or why not?

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Episode 12

Systemic Solutions

57 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein**, president and CEO of the Pittsburgh Regional Health Initiative, interviews leading historian and researcher **Dr. Kathleen Sutcliffe,** the Bloomberg Distinguished Professor at Johns Hopkins University and author of *Still Not Safe: Patient Safety and the Middle Managing of American Medicine*; and physician leader and innovator **Dr. Vivian Lee**, president of health platforms at Verily Life Sciences and author of *The Long Fix: Solving America's Health Care Crisis with Strategies that Work for Everyone*, as they speak on the opportunities to remake the landscape of patient safety by shifting our perspective on where to find the solutions.

Listen as our guests explore how advances in data technologies and systems thinking can help us revolutionize healthcare safety over the next decade.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes page.

Discussion and Reflection Questions

Learning Objectives

- Understand why some of the past efforts to improve patient safety in the U.S. have failed.
- Gain insight into new technology solutions with the potential to transform health care.
- Identify opportunities to redesign the healthcare system for safer care.

Pre-listening Questions

1. In what ways do you think organizational design influences patient safety in healthcare settings?
2. What barriers do you think have limited the adoption of advanced technologies for improving safety in health care?

Post-listening Questions

1. What opportunity for transformation discussed in this episode is most needed in health care today? Why?
2. How could a more personalized healthcare system be safer for patients?
3. Do you think safety has been feminized within health care? Why or why not? And if so, what effect do you think it has had on efforts to improve safety?
4. What disciplines could most effectively collaborate to transform healthcare safety?

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Episode 13

Lessons from a Netflix Film

53 minutes

On this episode of *Up Next for Patient Safety*, host **Dr. Karen Wolk Feinstein** interviews transportation safety expert **Chris Hart**, founder of Hart Solutions LLC, pilot, attorney, and former chair of the National Transportation Safety Board, and aviation journalist **Andy Pasztor**, formerly of the *Wall Street Journal* and a central figure in the Netflix documentary "*Downfall: The Case Against Boeing*," to discuss how a "culture of speed" at Boeing led to tragic consequences and how to protect safety in our revenue-driven approach to health care.

Listen as our guests explore what happens when safety takes a backseat to profit.

A full transcript of this episode with links to our speakers and related resources can be found at our Show Notes here.

Discussion and Reflection Questions

Learning Objectives

- Understand what the case of the Boeing 737 MAX crashes can teach us about health care.
- Learn what the aviation industry has done to create accountability and address safety concerns.
- Describe the role that leadership plays in influencing an organization's and a system's prioritization of safety.

Pre-listening Questions

1. What parallels do you see between the Boeing 737 MAX crashes and errors in health care?
2. How do you conceptualize the relationship between the desire for speed in productivity and efficiency and its potential impact to patient safety?

Post-listening Questions

1. What is your most important takeaway for what we can learn from the Boeing 737 MAX crashes that applies to health care?
2. What are some of the largest barriers to collaboration and transparency within healthcare safety?
3. Do you think the public is as concerned about patient safety as it is about safety in other industries? How do you think more attention could be brought to patient safety issues?

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NOTES

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An Educational Podcast Discussion Guide

1st Edition

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