PATIENT SAFETY TECHNOLOGY CHALLENGE

Prepping Participants of Competitions and Events around Patient Safety

WHAT IS PATIENT SAFETY?

Patient safety is an attribute of and practice within health care systems, and it involves and affects all stakeholders within those systems. Its aim is to make care and systems continually safer by reducing harm and preventable mortality.

The Agency for Healthcare Research & Quality defines patient safety as:

> *"a discipline in the health care sector that applies safety science methods toward the goal of achieving a trustworthy system of health care delivery. Patient safety is also an attribute of health care systems; it minimizes the incidence and impact of, and maximizes recovery from, adverse events."*

WHY PATIENT SAFETY?

Even before the pandemic, medical errors were estimated to be the third leading cause of death in the U.S., contributing to 250,000 deaths per year and even more permanent disabilities. While traditional approaches to patient safety have resulted in short-term improvements, these "spot removals" have not yet moved the needle on reducing medical errors in the U.S.

The pandemic created another "pandemic" of medical mishaps. During COVID-19, the Centers for Medicare and Medicaid Services and Centers for Disease Control and Prevention observed further "substantial deterioration" in patient safety metrics. As healthcare systems diverted their attention and resources to pandemic preparedness and response, overwhelmed, exhausted, and eventually diminished frontline teams struggled to observe traditional patient safety processes.

These existing practices can be supplemented by modern tools and autonomous technologies to create environments that are wired to optimize safety. Patient safety technology solutions have never been more feasible and necessary but often are off-the-radar of innovators, and the new Patient Safety Technology Challenge is seeking to galvanize fresh approaches for integrating novel approaches.

We bring this issue to you to lean on your fresh perspective and tech acumen. Now is the moment to focus intently on driving patient safety improvement by deploying the same technologies and advanced analytics that have made other industries progressively safer. YOU are the future leaders in tech, business, and healthcare and you can be part of the solution!

RESOURCES FROM ACROSS THE WEB

- **The Basics:** The following resources help you dive into the topic of patient safety and help understand the problem as you innovate.
  - o [What exactly is patient safety?](#)
  - [Patient Safety 101](#)
  - [How many people are affected each year?](#)
  - [What's the cost?](#)
  - [Challenges and opportunities for improving patient safety through human factors and systems engineering](#)
  - [Collection of statistics about common patient safety harms](#)
- **Videos:** Here are some videos that help break down the issue and look to the future of what an autonomous future may look like.
  - o [What is patient safety](#)
  - o [What is medical error](#)
  - o [What an autonomous healthcare future may look like](#)
- **Stories:** Stories help us understand how problems affect people and humanize the issue. You'll find a collection of written and recorded stories below that provide additional context on the issue but also show the impact patient safety has on individuals and families who experience these tragedies.
  - [Collection of written and video-recorded stories](#)
  - TedTalks to serve as informational as well as human connections:
    - https://www.youtube.com/watch?v=Lu-HcylvuU8
    - https://www.youtube.com/watch?v=qmaY9DEzBzI
    - https://www.youtube.com/watch?v=l3FkYdnc-FY
    - https://www.youtube.com/watch?v=h7ok9TzEHys
  - [Recent article in The Guardian in the UK related to sepsis](#)
- **Timely articles:** The following list of articles may be updated over time as we identify helpful and timely articles that have been posted about patient safety.
  - [Forbes: When Medical Error Becomes Personal, Activism Becomes Painful](#)
  - USA Today: [As COVID-19 spread, the feds relaxed rules, and hospitals tried to contain the outbreak. Other infections may have risen](#)
  - New England Journal of Medicine: [Health Care Safety during the Pandemic and Beyond — Building a System That Ensures Resilience](#)
  - The Guardian: [Burnout in doctors doubles chances of patient safety problems, study finds](#)
  - JAMA: [Progress in Patient Safety in Anesthesia](#)
  - Wolters Kluwer: [Three potential patient safety risks that can be addressed through technology](#)