



The Evolution of Healthcare

Patient Safety in the Post-Pandemic Era

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Introduction

In our 2020 report based on Patient Safety: The COVID-19 Virtual Edition, held by Informa Markets, we highlighted how patient safety was repositioned in the COVID-19 pandemic, looking at developments that included emergency management frameworks, contact tracing and disinfection.

Nearly two years on, today's focus has shifted towards reflecting on which tactics were more impactful, and how the healthcare industry could maintain this momentum as the world continues to emerge from the pandemic.

The 2021 edition of the Patient Safety Congress brought together healthcare speakers online to discuss patient safety beyond COVID-19; present on innovations within infection control, CSSD and patient safety; and delve into discussions on important trending issues.

In this report, we share perspectives from healthcare leaders speaking at the 2021 event on lessons learned from the pandemic and what the future has in store. Topics include building safety cultures within health systems, harnessing data-driven insights, integrating AI and – importantly – preventing the next pandemic.

The report was produced with a contribution from BD, a global medical technology company that is advancing the world of health by improving medical discovery, diagnostics and the delivery of care. BD is among the leading companies in patient and healthcare worker safety and the technologies that enable medical research and clinical laboratories.



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Crucial processes

Building patient safety cultures within organisations has become even more crucial during the COVID-19 pandemic.

From implementing vital documentation processes and integrating technology within healthcare organisations, to sterile processing and infection control, as well the mental burnout faced by clinicians, the pandemic has put a spotlight on the importance of adopting proper processes for patient safety.

Speaking at the session *Pandemic's effect on non-COVID care and treatment, The Corniche Women's and Newborn Hospital Experience*, **Jane Kelly**, Quality Director; Quality and Patient Safety at The Corniche Women's and Newborn Hospital, Abu Dhabi, said: "Regardless of difficulties the pandemic brought, healthcare staff remained focused on providing quality care."

Although there is emphasis on providing COVID care, as quality experts we must ensure that care remains constant for patients who are not afflicted with COVID," she said.

Patient management

Kelly said that as the pandemic progressed, they were better able to manage COVID positive and non-COVID patients by establishing colour-coded zones.

Pathways were developed for newborn babies as well as elective OBs/Gyne and emergency cases that were constantly reviewed and updated. An admission screening procedure was introduced for patient safety while a Personal Protective Equipment table ensured that staff was kept safe at all times, said Kelly.



She added: “The psychological impact of the virus was huge and we knew we had to keep our staff mentally well to continue to care for our patients, and for this our senior executive team was available to answer their queries.”

“We know that the best way to keep our patients safe is to show evidence-based care; for this we keep our policies and guidelines up to date,” concluded Kelly.

Broader safety strategies

Addressing the opening session, *The changing face of safety: The impact of COVID19 on defining and improving safety in healthcare* **Dr Kathy Leonhardt**, Principal Consultant for Quality & Patient Safety, Joint Commission International (JCI), Wisconsin, USA, said that healthcare organisations need to adopt broader safety strategies, apply quality improvement using tools, and leverage technology in digital tools to bring safety into organisations to achieve next generation Quality 4.0.

“The pandemic has made us more transparent and we have realised the good and the not-so-good in our efforts to improve safety across the globe,” she said.

New processes have been created and existing ones have been disrupted. “This includes use of technology which many were not familiar or comfortable with, such as using telemedicine through the computer, e-visits and using different tools for patients to communicate with their families. All these changes impacted the outcomes and risks which also impacted patients,” said Dr Leonhardt.

Healthcare workers bear brunt of pandemic

In an interview session *Tackling post-pandemic clinician mental health* with **Cynthia Makarutse**, Senior Conference Producer, Informa Markets, **Dr Marjorie Morrison**, psychologist and CEO, Psychub, said, “Healthcare workers bore the brunt of the worst because when everybody else was going home, they were going to work. They were treating people – they are the true heroes of COVID.”

She also said that the mental health spectrum had widened during the pandemic and since every person, including healthcare workers, already had underlying issues, the pandemic exacerbated it.

“When everyone was at home, they were going to work and deal with everyone else’s anxiety. I think healthcare providers, clinicians and technicians are going to have the toughest of recoveries because it is only so long that you can work in this chaotic, traumatic environment before you start to see repercussions.”

Makarutse said that mental health in clinicians is not a new topic but COVID-19 has affected people in various ways and has brought mental health to the forefront, not only for healthcare workers but for people in general.

Dr Morrison said, “Mental health has been an issue for a very long time but has pretty much been ignored. Now in the US, four out of 10 people are reporting signs of depression and anxiety, which is up four times higher than it was pre-COVID.

And we don’t need to be a specialist to understand why this has happened. There is a crisis, as well as uncertainty, which was a common thread with almost everyone in the world since everybody was undergoing the same experience.

Addressing the session *Building a patient safety culture within a large health system post-COVID*, **Dr Iahn Gonsenhauser**, Chief Quality & Patient Safety Officer, Ohio State University Wexner Medical Center, focused on the fundamentals of creating a safe culture and strategies to identify and cope with stressful situations within the workplace.

He said: “In these times, one in five Americans suffer from significant behavioural symptoms, including anxiety and depression which are the most common. We have seen during the pandemic that the number has more than doubled to about 40-45 per cent of all Americans who will be considered as clinically diagnosable with behavioural health issues.”

He added workplace safety and culture also includes psychological safety, and speaking up is fundamental to creating patient safety within an organisation.

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Iahn Gonsenhauser
Chief Quality & Patient
Safety Officer, Ohio
State University Wexner
Medical Center

Reimagining Patient Care and Safety with Medtech Innovation in MENA



Maher Elhassan, Vice President & General Manager, BD Middle East, North Africa & Turkey

The human capacity for burden is like bamboo – far more flexible than you’d ever guess at first glance,” said renowned author Jodi Picoult. This remark exemplifies what we witnessed in terms of human resilience and adaptability when the global pandemic wreaked havoc on work and life. And this was especially true in the case of the healthcare industry.

Healthcare providers from across public and private sectors rushed to the frontlines to preserve mankind, and tackle issues such as health and safety, prevention and rapid testing, diagnostics, administration and so on. We witnessed a society-wide effort to preserve and adapt communities. And it’s worth praising the strides made by governments and organisations from across the MENA region in enduring these challenges while adjusting to the circumstances.

For us at BD, our role evolved to become among the to-be first responders in this case, and work closely with stakeholders by bringing medical technologies, expertise, and initiatives to do what we do best – advance the world of health by improving medical discovery, diagnostics, and the delivery of care. We’re deeply honored to have made an impact on society by ensuring the front lines had what they need to address the crisis.

As the region now transitions from a response stage to mapping its way back to recovery, healthcare providers continue to face severe challenges. Some of these include overworked medical staff and care givers that are on the verge of burnout which can lead to medication errors; rise in operating costs due to overburdened or inefficient healthcare models; errors in diagnostics as well as the continued spread of infections. These amongst many other challenges if not addressed, can affect healthcare systems at large and negatively impact patient care and safety.

Fortunately, advances in medical technologies and innovations can not only support healthcare providers in addressing their pain points but also reimagine the healthcare systems from the ground up.





For example, with automated medication storage, medication dispensing and point of care verification, hospitals and pharmacies can improve patient safety across the entire continuum and better enable clinicians to deliver the right care to their patients at the right time.

Similarly, data analytics can play a vital role in improving healthcare efficiencies. With an enormous amount of data being generated each day, healthcare providers can make the most use of it to turn it into actionable intelligence. With integrated analytics solutions, stakeholders can unlock clinical performance, identify system weaknesses, improve patient safety, and reduce associated costs.

Another crucial aspect of healthcare providers' responsibility is ensuring diagnostic accuracy. Several studies have found that poor diagnostic results have led to improper diagnoses, delays in treatment or other consequences. And thus, to set patients on the right clinical path, a timely and accurate diagnosis is critical.

From the point of preparation to specimen collection, to transportation, analysis, and reporting – the entire discovery journey can be enhanced through integrated diagnostics solutions. With access to high-quality results in less time, clinicians can feel confident that accurate information is informing a more optimal diagnosis and shaping treatment plans.

Combating the spread of infections and antimicrobial resistance has become a priority for healthcare providers in the region. While there has been increased awareness and progress, gaps remain for improving early detection efforts to help drive infection prevention.

Using advanced insights and clinical surveillance technologies, stakeholders can help improve patient outcomes by assisting clinicians with the identification of at-risk patients, streamline workflows for reporting, and tracking interventions and outcomes over time to improve processes and empower patient outcomes.

Research has found that between 30 and 70% of patient safety events are preventable, while 15% of hospital expenditure and activity in OECD countries can be attributed to treating safety failures. MedTech innovation is at the forefront of tackling these challenges and driving transformation in healthcare to delivering sustainable models that prioritize patient care and safety.

Embracing these advancements is essential for us to build stronger healthcare systems. A combined effort between MedTech solution providers and healthcare stakeholders will undoubtedly help accelerate this journey. Let's join forces to deliver meaningful impact in our communities.

Infection control in the post-COVID era

Spotlight on sterile processing

The pandemic has changed the outlook on sterile processing, even for those working within the same healthcare facilities.

Panellists at the session on *International Association of Healthcare Central Service Material Management (IAHCSMM) - View from the IAHCSMM Board: A candid conversation on the future of sterile processing* moderated by **Damien Berg**, Vice President of Strategic Initiatives for IAHCSMM, discussed how, over the past five years, regulatory agencies have been paying more attention to sterile processing.

Monique Jelks, Sterile Processing Expert; Board Member, IAHCSMM, said, “Over the last year, people recognised what we do, because now everyone wants everything sterilised so that they don’t get COVID.”

She also said: “Over the past year, we have taught non-surgical people more about sterile processing than previously, because they wanted Personal Protection Equipment sterilised. We also had the big push for the N95 mask because everyone is trying to figure out how to reuse it.”

The panellists discussed that it was time to create job processing professionals; not just technicians, but individuals who have chosen the field as a career and as professional healthcare workers.

Casey Czarnowski, Sterile Processing Educator, Stanford Health Care; Board Member, IAHCSMM said, “What gratified me being a sterile processing professional was when people would come and say, ‘can you guys handle COVID?’ and I’d say we’ve been handling COVID for about like 50 years now.”

Wakeup call

According to **Marjorie Wall**, Director of Sterile Processing, Kaiser Permanente; President-Elect IAHCSMM Board of Directors, “Global issues related to infections in 2015 provided a wakeup call for the industry. For us to be able to continue growing and innovating in our field, we had to get comfortable in two things – one was giving voice to our technicians and building them as professionals, making them feel psychologically safe to be able to speak up, and offer their ideas on how to work safely in our department.”

Brian Reynolds, Assistant Chief of Sterile Processing Service, V.A Medical; Board Member, IAHCSMM, said that it was important to listen to staff instead of comparing data all the time.

“Having the knowledge and expertise of staff is key because they are doing it every day. We often get to the point where we say the data says ‘this’ - but we don’t listen to the people who are doing the actual job.”

Infection control strategies

At the session *IPC in outbreaks – lessons learned*, moderated by **Dr Maria Fernanda Bonilla**, Staff Physician, Medical Subspecialties Institute, Cleveland Clinic Abu Dhabi, panellists said that only by practicing proper infection control strategies could infections be controlled in the future.



Prof Tawfik A. M. Khoja, Prof of Public Health, Imperial College London; Family and Community, said: “Among the lessons learnt from COVID-19, we understand that quality and patient safety roles have become diverse, multi-sectorial and multi-disciplinary, and involve a lot of people from within and outside the healthcare industry.”

Studies show that in Europe there are nine million patients with infections acquired during their stay in hospitals, while seven to 15 per cent of patients had infection problems in high and middle-income countries, he said.

Prof Souha S. Kanj, Professor of Medicine, Head, Division of Infectious Diseases, Department of Internal Medicine, Chair, Infection Control and Prevention Programme; Co-Director, Antimicrobial Stewardship Programme; American University of Beirut Medical Center, Beirut, Lebanon, said: “More than ever we have learnt about infection control practices during the COVID-19 pandemic.”

People who did not think that infection control practices were important are now totally convinced that these practices are a must. But we cannot talk about practices without stressing the importance of proper hand hygiene, as well as precautions on transmission processes.”

The panel discussion *Identifying and addressing new risks to patient safety (post-COVID) – do we need new strategies?* moderated by **Dr Afrah Packirsaibo**, Senior Conference Producer, Healthcare, Informa Markets, highlighted risks to patient safety.

Rola Hammoud, Chief Medical Executive, Clemenceau Medical Center Dubai, said: “The pandemic created very high risks to patients because the disease was new. Other risks were propagation of the infection itself which was concerning and huge and needed to be mitigated.”

At the level of hospitals, we could do this by putting in place a very thorough infection control programme. Outside hospitals, the risk was very huge, and while some countries were good at mitigating, many others were not.”

Dr Ahmed Mohamed Elsheikh, Quality & Patient Safety Director, Security Forces Hospital, KSA, said: “I would like to elaborate on health systems’ risks which may continue for a while because of business nature.”

Most of us were overlooking the burnout factor for healthcare workers during the pandemic. We were tackling two pandemics at the same time - the disease and the pandemic affecting the mind, which is burnout.”

Preventing the next pandemic

During the session *Infection Prevention and Control during the COVID-19 era and beyond*, **Dr Shafi Mohammed**, Director, Infection Control and Occupational Health; Co-Chairman, Infection Control Committee, Cleveland Clinic, Abu Dhabi, said that the world has gone through three waves and there could be a potential fourth if proper acts were not put in place.

“Since the beginning of the pandemic, several public health measures have been put in place such as travel restrictions, masks and vaccinations - but what is the effectiveness of these measures?”

Quoting several studies that have been carried out, Dr Mohammed said that restrictions on travel and lockdowns saw a dramatic drop in COVID-19 cases in China and Thailand. Universal masking also proved effective against infections.

Studies have also shown that the higher the number of people taking the vaccine, the greater the reduction in deaths, hospital admissions and Intensive Care Unit admissions.

“We have seen dramatic changes in processes and outcomes and measures related to infection prevention and control, such as the high use of hand soap and alcohol, and in the highest use of PPEs, masks and antibiotics.”

He added, “there has been a slight reduction in multi-drug resistant pathogens despite an increase in the use of antibiotics, which proves that hand hygiene prevents transmission of infections.”

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Director, Infection Control and Occupational Health;
Co-Chairman, Infection Control Committee,
Cleveland Clinic, Abu Dhabi



Technology impact on patient safety

Integrating AI into healthcare

If integrated into health systems properly, Artificial Intelligence (AI) will enable healthcare workers to demonstrate better empathy and care.

Addressing a special session on *'The role of artificial intelligence and machine learning in Patient Safety'* **Dr Samer Ellahham**, Medical Director of Continuous Improvement, Director of Accreditation, Cleveland Clinic Caregiver, Senior Cardiovascular Consultant, Heart and Vascular Institute, Cleveland Clinic Abu Dhabi, UAE, said that integrating AI into healthcare can make processes more efficient.

"If AI is integrated into medical records of patients, it will be very helpful for a caregiver," he said. AI is not the future but the present, defined as building machines capable of thinking like human beings.

Allaying common concerns of machines taking over jobs of humans, Dr Ellahham said that AI is not here to replace humans but to provide support by making processes more efficient and precise, while dealing with a large number of data to make not only appropriate suggestions but also predictions.

"AI is affecting all walks of life especially healthcare and it can be approached as patient-centred, data driven, healthcare enhanced communications and medical diagnostic imaging," he added.

Non-invasive patient monitoring is all about AI, he explained, that provide an appropriate evaluation of the patient through portable tools. Such machines are easy to use with fewer complications, while also being highly accurate and portable, with data even transmissible to the smartphone.

Clinical documentation has direct impact on patient safety

Likewise, accurate clinical documentation and data have a direct impact on patient safety. Speaking at the session on *Supporting patient safety through high quality clinical documentation* **Tammy Combs**, Trainer and Director at AHIMA CDI and Clinical Foundations, said: "We often think about the direct impact clinical documentation has on patient safety, but it is important to understand how it works. Clinical Documentation Integrity (CDI) teams document in real case scenarios and we have several examples of the impact that documentation integrity has on patient safety itself."

CDI programmes that healthcare organisations can initiate are a representation of the patient's clinical status. "These CDI programmes include what happens during the patient's stay, how sick the patient was, the diagnosis, and what was the treatment plan - all of which are recognised through clinical documentation."

Combs said that it was important to review data thoroughly. "We look at data for many different reasons. There are many avenues through which patient data is reviewed as it impacts reimbursement for many organisations. The review also shows the quality of care that is provided, and supports research as well, among many other utilisations of that coded information through data analysis," she added.

"It is important to think of CDI being at the core of the patient record because it is telling the patient's story, and we want to make sure that we are telling an accurate story; for that we have to make sure that the documentation is meaningful, timely, accurate and also reflects the scope of services that were provided," Combs continued.

Documentation that is complete and consistent, timely and clear, precise and legible and reliable will show the true picture of a patient's health condition.

"When we look for complete documentation for a patient's medical records, we are looking for maximum and thorough content, and relevant information. Documentation should also be consistent and not contradictory."

Exponential growth in use of HIT

There has been an exponential growth in the use of Healthcare Information Technology (HIT) in healthcare systems over the past decade.

Speaking at the session *Patient safety impact of Health Information Technology (HIT) on patient safety* Eric Woo, Regional Director, Asia Pacific Regional Office, ECRI Institute, said, "A World Health Organisation survey found in a study done between 2010–2015 in 96 countries that there was a huge spike in the adoption of health IT in healthcare systems."

The idea of getting IT involved in the healthcare delivery system today is primarily driven by clinical and operational efficiency and effectiveness in terms of care, especially for patient monitoring.

The study also showed that the growth was driven by funding, ecosystem, infrastructure, policies, legal framework and people and processes he said.

International experiences in HIT showed incident trends such as medication errors, patient identification errors, laboratory related errors, blood transfusion and more which were mainly due to contributing factors including data input, transfer and output mainly due to data quality, system interoperability, as well as people and processes.

Dr Woo said that among the interoperability challenges highlighted by studies include having an integrated system design which limits the effort to improve the workflow, and also hinders the model of care as well.

Another international challenge that hinders HIT interoperability is cybersecurity. "During the pandemic, the number of hackers trying to hack the hospital system to get data from the hospital staff and hold the hospital ransom increased."

Medical devices today are managed by undertaking risk assessments.

"Today, technology is managed from a technological perspective, such as availability of technical parts for better integration. We see insufficient consideration of risk particularly in different generations of devices that have impacted people and processes."

It is also important to identify risks associated with integrating medical technologies. A robust plan, a committed resource, and comprehensive understanding of current people and processes, as well as technological factors, is important," Dr Woo concluded.

"Today, technology is managed from a technological perspective, such as availability of technical parts for better integration. We see insufficient consideration of risk particularly in different generations of devices that have impacted people and processes."

Eric Woo
Regional Director, Asia
Pacific Regional Office,
ECRI Institute



About the report

The Evolution of Healthcare: Patient Safety in the Post-Pandemic Era is the latest report in a series looking at the latest trends shaping healthcare, based on opinions voiced by healthcare leaders at Informa Markets' Healthcare events.

Prevalent insights on value-based healthcare were drawn by an expert Informa Markets team from commentary during Patient Safety Congress Online, a virtual event brought by the organisers of Arab Health, Medlab, Africa Health and FIME.

From 4-6 November 2021, healthcare professionals came together to discuss patient safety beyond COVID-19; present on innovations within infection control, CSSD and patient safety; and delve into discussions on important trending issues. The commentary from their sessions was analysed and distilled to form the key insights shared in this report.

Previous reports

2020

- The Evolution of Healthcare – Africa
- The Evolution of Healthcare – Value-Based Healthcare
- The Evolution of Healthcare – Patient Safety

2021

- The Evolution of Healthcare – Healthcare Transformation

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