INTEROPERABILITY SHOWCASE™

HIMSS

Demonstration tours are self-guided and begin at 15 or 45 minutes past each hour. Please go to the demonstration area to get started.

Tours Beginning 15 Minutes Past Each Hour

- Pregnancy & Surgical Complications
- Nationwide Connected Care
- Multimodality Care Transition Optimization
- Advance Directives: The Patient's Voice
- ICU Patient Care in an Isolation Room
- Cardiac Care & Tribal Health
- Patient Device Association: Closing the Gaps
- Pandemic Response & Vaccine Coordination

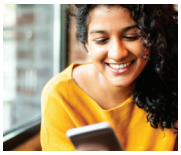
Tours Beginning 45 Minutes Past Each Hour

- Referrals: Digital Freedom from Fax
- Complete Care for Special Needs
- Detect Human Trafficking with Automation
- Connected Medication & Supply Management
- Chronic Diabetic Care Management
- Reporting, Work & Cancer Care Continuum
- Behavioral Health & Addiction Management

Pregnancy & Surgical Complications[15]

During a routine ultrasound, the fetus is diagnosed with a birth defect of the abdominal wall, which requires multiple neonatal surgeries to repair. On delivery day, the mother is admitted to the hospital and vitals are checked for mother and fetus with a fetal monitor. Fetal surveillance results show that the fetal heart rate is absent variability with recurrent late decelerations occurring. Following team discussion, the patient agrees to a C-section. The mother is transported from labor and delivery on a transport monitor, which docks with a bedside monitor in the Operating Room (OR). At that time, the patient is placed on an anesthesia delivery system. During the C-section delivery, the mother experiences a severe reaction to anesthesia with subsequent respiratory failure. While the mother is immediately intubated and placed on mechanical ventilation, the baby is safely delivered. Following delivery, the mother is transported to the ICU where her monitoring is seamlessly transferred to a bedside unit that connects to her ventilator. The newborn is transferred to the care of the NICU surgical team and prepared for surgery to repair the abdominal wall. This showcase follows the care of both mother and baby as they move across multiple care areas with real-time, gapless clinical documentation to their electronic medical records.

Participating Organizations: Epic, Mindray, OBIX, Vyaire



Referrals: Digital Freedom from Fax[45]

While rollerblading in her neighborhood, Juliette falls and breaks her arm. She visits her primary provider and discovers she needs surgery. This forces her to navigate the complex workflows of referrals and prior authorizations to get the care that she needs. It is important to Juliette that she is able to receive care from specific providers, and she expects her healthcare network to support this choice. Luckily, her providers have enabled cutting edge technology to quickly transform her documents from faxes to structured data. This structured data comes with the original document and is used to index and sort the unstructured documents directly into her chart. She experiences no delays and is seen quickly by a specialist. The Surgery Center can work with their referral partner's fax technology while also providing structured data to their Payer, expanding their network to better serve their community. When the Surgery center can support incoming unstructured documents from Direct Secure Messaging to legacy fax technology, the structure of the document stops being a barrier, and communication flows freely to work with Juliette's whole care community. Communication between these community partners (e.g., urgent care centers, PCP, surgery center, and insurance) are all handled efficiently, ensuring Juliette's providers are focused on her immediate care, rather than time-consuming administrative tasks.

Participating Organizations: Consensus Cloud Solutions (clarity, eFax, signal), Epic, Summit Healthcare

Nationwide Connected Care[15]

Navigating the healthcare system can be cumbersome, particularly when you have a chronic condition. But when you have a later onset chronic condition and have a demanding career that moves you every three to six months to a different city or even state, managing one's health can be almost impossible. Meet Oscar. He is a traveling nurse who was diagnosed with multiple sclerosis (MS) in the last year by his home base PCP in New York. Months later, while on a travel nurse assignment in Louisiana, Oscar acquires a respiratory infection and is diagnosed with pneumonia. Follow his health journey through acute inpatient, standalone ED, PCPs and specialty settings in a coordinated management of his chronic and acute conditions. Regardless of where his care occurs, Oscar and his providers have access to his health records nationwide via the CommonWell Health Alliance nationwide network. Watch as his providers leverage event notifications, smart record locator services and discrete data exchange via FHIR at a national scale to coordinate care and help avoid readmission. Working together, Oscar's providers were able to coordinate his care across thousands of miles, different providers, venues of care and health IT systems. Oscar was able to help manage his own care and be a more empowered patient thanks to his connected personal health record. The end result: Oscar is able to continue pursuing his love of nursing and traveling, while also seeing positive health outcomes.

Participating Organizations: athenahealth, Cerner, CommonWell Health Alliance, eClinicalWorks, Health Gorilla, MatrixCare, MEDITECH

Complete Care for Special Needs Patients[45]

Joey, a 12-year-old, was diagnosed with autism spectrum disorder (ASD)and attention deficit hyperactivity disorder (ADHD) at 5 years old and asthma at 7 years old. Joey is taking Vyvanse for ADHD, Albuterol for asthma, has bi-weekly nebulizer treatments and sees a psychiatrist. Joey has not seen a dentist in over 2 years and is experiencing oral discomfort. He currently does not have health insurance and needs medication assistance immediately. Joey is struggling in school and his parents are unsure of their legal rights and accommodations. They are also struggling to manage the numerous appointments, medical records and care plans from the various professionals who offer services to Joey. Understandably, his family is overwhelmed and needs some support. The problem is exacerbated by disconnected care planning, lapses in care coordination, logistical complexities in the delivery of clinical and non-clinical services and a lack of information and insights where they are needed most – at the point of care and delivery of social services. Orchestration, coordination, and consolidation of data between all of Joey's providers is vital to helping him and his family receive the care and social services he needs to thrive. Come learn how to enable seamless interactions between

Joey and his multidisciplinary care team, from intake to appointment and care plan management to patient participation, education, and monitoring. By leveraging a connected care platform, the care team can automate care coordination, referrals and connections with healthcare consumers while also making the information and intelligence available at scale that is required to personalize care. Within this scenario, we are personalizing Joey's care experience while meeting his clinical and non-clinical needs – all while easing the strain on his family as they look after and help manage his well-being. This is interoperability with a purpose.

Participating Organizations: Dedalus Group, Rx.Health

Multimodality Care Transition Optimization[15]

Our patient, Donnie Boyd, is a 75-year-old morbidly obese man with a history of type II diabetes, chronic obstructive pulmonary disease (COPD), high blood pressure and hyperlipidemia with a 100-pack year smoking history. He had consistently refused COVID-19 vaccination until he was recently hospitalized, intubated and admitted to the ICU with complications from COVID-19. Prior to this hospitalization he had been living alone independently, however, he had received weekly home health services for assistance managing his multiple medical conditions. Unfortunately for Donnie, not only did his long hospitalization leave him very debilitated, but he also developed several long COVID sequelae: a rash, major depressive disorder and COVID headaches.

Our demo begins with Donnie being discharged home from the hospital. As Donnie transitions across multiple healthcare facilities including home health, primary and specialty care, and admission to a skilled nursing facility his care is optimized as his providers use the latest multi-modality protocols, technology, and standards of interoperability. The patient's trajectory to recovery is optimized through: IHE 360X enabled care transitions, Condition of Participation Admission Discharge and Transfer (ADT) alerting, FHIR and 360X Scheduling, DaVinci payer prior authorization and SMART on FHIR patient cost transparency. The standards used and demonstrated include C-CDA, HL7®, Direct, and HL7® FHIR®.

Participating Organizations: Bamboo Health, eClinicalWorks, Epic, Kno2, MatrixCare, MedAllies, Mettle Solutions, Netsmart, Nextgen

Detect Human Trafficking with Automation [45]

Combating human trafficking is a complex task often seen as insurmountable given the lack of awareness and shared understanding of what constitutes trafficking, often with victims hidden in plain sight. Worse, individual attitude and bias towards victims leads to inconsistent response by law enforcement and evaluation by healthcare workers. The impact of the overarching lack of awareness around human trafficking results in healthcare practitioners missing the signs of when a patient is being held captive. This results in the patients' continued suffering of physical and mental abuse, exacerbating the fear that their current reality will go unnoticed. Often, in the case of human sex trafficking, the best domain for detection and escalation is within the Emergency Department (ED). The ED is a controlled environment, with a workforce accustomed to working under protocols, and workflow informed by the latest research and best practices. But challenges remain; lack of awareness, training, data access, and clear measurable objectives means detecting human sex trafficking in the ED often falls on an overly stressed clinical workforce whose attention may be diminished. Unfortunately, most clinical providers still don't have access to usable tools to help them identify and safely help victims of human trafficking.

Please join us as we demonstrate automated interoperable processes that ensure consistent, unbiased, and measurable quality outcomes. Follow the patient as they move through registration, triage, examination, and discharge. The structure of our software solutions works in concert to assist and direct the detection of human trafficking processes consistently in a high-volume, complex emergency department.

Participating Organizations: Cerner, Red Hat, Smile CDR, Trisotech, Visible Systems Corporation

Advance Directives: The Patient's Voice[15]

Patients rightly expect that care will be aligned to their personal values and wishes, yet far too often their voice isn't heard or understood completely. Over the past two years, this disparity has become significant as many patients have come to the emergency room alone and unresponsive, only to receive undesired critical care. A patient's advance directive or advance care plan can provide valuable information needed to guide the care team in their activities; however, only 37% of the US population have either, and the availability and detail vary dramatically. This leaves medical practitioners relying on a combination of family input (if available) and their best clinical judgment to deliver the best care possible. Given these information gaps, even the best-intentioned clinical actions may lead to unwanted care and even patient harm ("wrongful life"). In this demonstration, participants highlight the use of standards-based interoperable technology and intelligent process automation within an Emergency Department setting. Providing the patient's healthcare wishes in context and enabling the delivery of goal-aligned care for all patients anytime and anywhere. This patient-centric, state of the art interoperable solution focuses on the orchestration of a patient's advance directives through the implementation of data (HL7® FHIR®), knowledge (CDS Hooks/CQL), and process (BPM+ Health) standards to: (1)empower pre-authorization and other burden reduction tools to deconflict clinical workflows while ensuring the patient's wishes are met; (2) leverage data automation to remedy the crippling Health IT inefficiencies cluttering clinical workflows; (3) increase velocity and decrease burden across the full cycle of clinical interoperability.

Participating Organizations: ADVault, Inc., Cerner, HealthFlow, Red Hat, Trisotech

Connected Medication & Supply Management [45]

Follow this clinically integrated medication and supply management journey as Pamela Richard, a 67-year-old, is admitted for heart valve replacement. While a routine yet acute procedure, several teams are working behind the scenes to help ensure a safe and successful surgery. This team of nurses, pharmacy staff and supply chain personnel play an integral part in delivering the care for Pamela – from patient care to medication procurement, management, and delivery. To accomplish a successful procedure, this multi-disciplinary team relies on technology and connectivity to minimize risk and ease staff burden.

This use case will illustrate how these technologies and their ability to integrate are pivotal in delivering intended healthcare outcomes. This demonstration tracks Pamela's journey, including care and medications from the OR to the inpatient setting; looking behind the scenes in the central pharmacy to understand the daily workflow to manage, prepare, and distribute medications and the actionable insights needed to improve efficiencies both clinically and operationally. Next, Pamela is followed through her postoperative clinical care, which automates the processes to accurately inform, administer, and document her medication delivery and improve nursing efficiency. This connectivity platform optimizes data exchange between devices and the EMR, combined with cloud-based analytics to help provide critical advantages in near real-time workflow insights for Anesthesiology, Pharmacy, Supply Chain and Nursing.

Participating Organizations: BD, Epic

ICU Patient Care in an Isolation Room [15]

Severely infectious patients, such as those with COVID-19, put healthcare workers (HCWs) at greater risk of infection due to their frequency and time in contact with infected patients. The HCWs commonly enter the patient room to administer care to the patient and manage the therapeutic equipment. This management of the patient's therapy often requires monitoring with physiologic patient monitors and therapeutic support with ventilators and infusion pumps which may be delayed due to the need for HCWs to protect themselves by donning personal protective equipment (PPE) to enter the patient room and doffing the PPE upon leaving. This process can exceed 15 minutes depending on the PPEs used.

Infectious diseases confer a synergistic burden on and risk to the patient due to the requirements for isolating the patient including subpar and impaired coordination of care and family visits, increased rate of adverse events, and increased depression. Remote control and monitoring can be used to improve patient care by eliminating some treatment delays, reduce the infection risk to the HCW and help preserve the limited supplies of PPE. Medical devices that support open interoperability technology can provide remote access to view parameters and adjust settings thereby increasing efficiency, saving the costs of the PPE and most importantly increasing the safety of the HCW.

Participating Organizations: Ascom, Draeger, Epic, OR.NET

Cardiac Care & Tribal Health [15]

Anthony is a Native American and a Veteran. He has historical medical records in both the Indian Health Service Resource and Patient Management System which are used by the local tribal health centers and the Veterans Affairs (VA) VistA system at the nearby VA hospital. Anthony has chest pains and visits a cardiologist. The cardiologist performs diagnostic imaging and schedules the patient for interventional radiology in the hospital. The hospital care team, informed by the outside interventional radiology images, performs cardiac catheterization and stenting. Due to undiagnosed kidney disease, Anthony has an adverse reaction to the IV contrast solution used in placing the stent and becomes hemodynamically unstable with severe Acute Kidney Injury. Anthony is prescribed continuous renal replacement therapy on a system that sends auto-documentation of treatment data to the EMR. Anthony is also prescribed insulin delivered via a syringe pump using auto-programming and auto-documentation interoperability to achieve normal glucose levels without contributing to patient fluid overload. After recovery, Anthony later follows up with his cardiologist for additional imaging on progress. By leveraging interoperability standards such as HL7® FHIR® and DICOM, this demonstration achieves "care without boundaries" with shared medical records and continuity of care across technical, organizational, and geographic boundaries.

Participating Organizations: Baxter, Epic, Peraton, Qvera

Chronic Diabetic Care Management[45]

Fatima presents to the ED via ambulance after confusion with a headache, a heart rate of 126 beats/min, and high glucose readings. She has a history of repeat ED visits for her type 2 diabetes. Fatima was recently in a motor vehicle accident and is wheelchair bound due to a right femur fracture - open reduction and internal fixation. Her surgical incision site looks red and is hot to touch. Fatima stated that she had not felt well for several days due to fever, nausea, and vomiting. She tests negative for COVID-19 and flu. The ED queries the state immunization registry and sees that she does not have her flu shot or second Covid-19 vaccination. Fatima is a professor without family members to help her at home and has difficulty managing her diabetes and foot care. The ED physician sees Fatima is struggling to adjust to her new lifestyle due to her immobility and isolation from the COVID-19 pandemic. She is concerned that the patient will return to the ED without proactive care and orders home treatment. Follow Fatima on her transitions of care journey that incorporates various parts of the healthcare ecosystem using Direct Secure Messaging, HL7® FHIR®, and 360X.

Participating Organizations: Brightree, Cerner, MatrixCare, Netsmart, STCHealth

Patient Device Association: Closing the Gaps[15]

In today's fast-paced healthcare environment, patients and medical equipment are constantly on the move. Staffing ratios and documentation guidelines spread nurses focus thin. As a result, establishing device associations to a patient can be burdensome and often missed. Julie, a 37-year-old sepsis patient, begins to recover in the ICU. Since patients are waiting in the ED for an ICU bed, Julie is rapidly transferred to a step-down unit when a bed is available. The medical devices at her ICU bedside need to be disassociated from Julie, and the devices in the step-down unit need to be associated with her. This use case highlights how the new Point-of-Care Identity Management (PCIM) standard facilitates automating the association process and reduces errors and omissions.

Point-of-Care Identity Management seamlessly associates devices to patients to ensure accurate, timely data flow. This use case demonstrates how patient-device associations are established, both by manual scanning through the Association Reporter and Manager or by automatic association through real-time locating systems (RTLS) technology. Even when a rapid transfer and stat med order causes the nurse to manually program the infusion pump outside of the automated workflow, the infusion pump is associated with Julie. Throughout her care journey, bedside medical devices are correctly associated with Julie, which ensures messages and data contain the appropriate patient identification and can flow directly into Julie's electronic health record. Alerts from associated devices are managed to assure an on-duty nurse gets the alarm in a timely manner to respond to the patient's needs. Ensuring seamless and accurate patient device association is essential in promoting continuity of care, responding appropriately to alerts, maintaining accurate and comprehensive medical records, and above all ensuring patient safety.

Participating Organizations: B Braun, Epic, GuardRFID, InnoVision Medical Technologies, SPOK

Reporting, Work & Cancer Care Continuum[45]

Akari, a seasonal lifeguard at her community's outdoor swimming pool, shared concern about an unusual mole on the top of her right shoulder with her Primary Care Provider (PCP). Given her work outside during the summer months and a physical exam of the concerning mole, the PCP suspects melanoma. According to the American Cancer Society, this year, "about 99,780 new melanomas will be diagnosed (about 57,180 in men and 42,600 in women). About 7,650 people are expected to die of melanoma (about 5,080 men and 2,570 women)." Yet, the 5-year survival rate is 99% for localized melanoma with "no sign that the cancer has spread beyond the skin where it started." Early recognition and intervention are key to survival and Akari is referred to a Dermatologist, who does a biopsy of the lesion and sends a sample to Pathology. This demonstration follows Akari through these care transitions and to an Oncologist, who reviews the pathology report which confirmed the diagnosis of melanoma. Akari and her care team develop a treatment plan, which includes recommendations about altering her sun exposure. Watch as interoperability enables Akari's care team to identify the appropriate diagnosis, recommend the strongest treatment plan, and facilitate automatic reporting to the state cancer registry and cutting-edge cancer research while Akari completes her treatment plan.

Participating Organizations: Cerner, Centers for Disease Control and Prevention, OptimizeRX, UiPath

Pandemic Response & Vaccine Coordination[15]

Riku, a fully vaccinated patient, needs proof of vaccination to enter a concert venue and has lost his CDC vaccination card. He logs into his EHR's patient portal and notices that only his first vaccine dose is visible but is easily able to query the local immunization registry from within the portal to pull in his second vaccine dose. He uses QR codes generated directly in the patient portal following the Verifiable Clinical Information standard as the proof of vaccination he needs to enter the concert venue. When Riku later goes to get his booster, his PCP's EHR unsuccessfully reports the dose to the immunization registry. Clinic staff can see the errors returned from the registry and correct the issues to successfully report Riku's booster vaccination. After receiving his booster, Riku starts to develop symptoms that are consistent with COVID-19. As his symptoms worsen, he goes to the hospital for immediate help. Upon registration, the hospital EHR queries the state immunization registry and directly saves the response to Riku's vaccine history in the EHR. A PCR test is ordered to test for COVID-19, and upon positive result, a case report is generated and sent outbound, including vaccine information indicating a breakthrough case. The Association of Public Health Laboratories (APHL) receives the case report, routes to the right public health jurisdiction, and sends a reportability response back to the EHR end-user.

Participating Organizations: American Immunization Registry Association, Cerner, Epic, Nextgen, Shasta Networks, STCHealth

Behavioral Health & Addiction Management[45]

Jorge, a nurse, was injured while trying to lift a patient alone. Diagnosed with a herniated disc, he was counseled and prescribed pain medication; the medication provided limited relief, leaving Jorge exhausted and depressed. After returning to work, Jorge begins to divert drugs from his patients to better alleviate his pain. Fortunately, his hospital has a drug diversion solution in place that identifies this activity, and Jorge is placed on suspension until successfully completing an Intervention Program. Jorge attends a clinic to help him with his recovery. Utilizing an enhanced prescription drug monitoring program (PDMP) for access to the state's PDMP, the treatment facility can see that the patient has a limited controlled substance prescribing history through other providers. Reviewing Jorge's care records from other organizations through the health information exchange, it is found that Jorge had several encounters with other providers about his pain and depression, so it's clear Jorge has sought assistance and potentially also controlled substances elsewhere. Once Jorge successfully completes the Intervention Program, he returns to work at the hospital. Fortunately, Jorge's employer is armed with the same drug diversion detection solution that first alerted to his initial diversion. With this solution, they are able to provide the proper safeguards and support to help ensure Jorge doesn't relapse.

Participating Organizations: Cerner, IatricSystems