360X Care Transitions for a COVID-19 Patient

The complex course for this patient, who survives a severe case of COVID-19, involves transitions across long-term acute care hospitalization, home health, ambulatory care (PCP and Specialists) and skilled nursing. The efficiency and coordination of his complicated trajectory to recovery is optimized by CoP alerting, 360X enabled care transitions, FHIR scheduling and DaVinci payer prior authorization. The standards used include C-CDA, Direct, HL7® FHIR® and IHE.

Participating Organizations: DirectTrust, eClinicalWorks, Epic, MatrixCare, MedAllies, Netsmart, Nextgen
Supporting Organizations: Health Level Seven International, IHE International, The Office of the National Coordinator for Health Information Technology

AI Automation at the Edge

Sepsis is a costly and life threatening condition resulting in multiorgan failure. Beating conditions like sepsis requires rapid detection and mitigation of risks. Recovery at home is often preferred, yet medical teams often lack the capability to perform constant surveillance for emerging risks across their patient cohorts, especially in rural settings. We will demonstrate an early warning system driven by clinical AI at the Edge, fed by at-home post-operative monitoring and automated clinical care escalation and coordination processes.

Participating Organizations: BPM+ Health, HealthFlow, RedHat
**AI Enabled Workflow Transformation**

Dr. Martin is a primary care physician with a medium sized community practice. Dr. Martin’s patients depend on her for their care coordination, which includes supporting patient needs ranging from providing patient history when a patient is hospitalized to communicating referrals to local resources. Using natural language processing and standard based document exchange, Dr. Martin is able to convert unstructured documents such as PDFs and faxes into documents that can be automated by the EHR. This improves workflow while still maintaining the original file that can be faxed to his local community. By embracing Direct Secure Messaging and Cloud Fax, Dr Martin is able to forget about the modality and focus on the message to close care gaps, improve outcomes, and optimize workflows.

**Participating Organizations:** Consensus, eFax, Epic, jSign, Kno2, MatrixCare, RedHat

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**Automated Situational Awareness Reporting**

Using the HL7 Situational Awareness for Novel Epidemic Response FHIR IG, hospitals will have access to a vendor agnostic all-hazards information sharing protocol necessary to support bed and resource availability reporting. This approach focuses on modern, automated, and non-intrusive methods to access hospital data in real-time during a disaster scenario.

**Participating Organizations:** Centers for Disease Control and Prevention, Cerner, Texas Health Services Authority

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**Healthcare Surveillance for Pandemic Response**

The ability to respond rapidly to a pandemic requires effective and efficient data sharing between healthcare and public health agencies. This demonstration, about an essential worker who has contracted COVID-19, highlights how critical information can flow seamlessly between clinical care and public health to respond to a crisis.

**Participating Organizations:** Centers for Disease Control and Prevention, Cerner, Epic, InductiveHealth Informatics

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**Heart Transplant**

Michael has been fighting heart failure for several years and now his cardiologist feels his only option is a heart transplant. She refers Michael to the transplant team as he waits in the hospital for a donor heart. Michael is at the top of the transplant list and when a heart becomes available the team acts quickly to confirm the donor is appropriate and schedule surgery. The surgery is a success and Michael recovers in the cardiac ICU and step-down floor as he gains strength and gets ready for his release from the hospital. Throughout his journey Michael depends on the ability of his clinical team to rapidly communicate medical data. The cardiologist sends data and images on his condition, the viability of the donated heart is quickly assessed with interoperable data transfer, and medical device connectivity in the OR, ICU and step-down floor assures his clinical team can quickly and easily monitor and document his care.

**Participating Organizations:** Cerner, InnoVision Medical, Qvera

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**Journey of COVID-19 Vaccinations**

A nurse receives her first COVID-19 vaccine in her home state, and travels on assignment where she needs to complete her COVID-19 vaccine series before beginning her assignment. Each provider is able to query their local Immunization Information System (IIS) for her vaccine history, and they each report the vaccination to their IIS. Both jurisdiction IISs are responsible for reporting their COVID-19 to the central data repository used by CDC to inform public health decisions locally and nationally.

**Participating Organizations:** Centers for Disease Control and Prevention, Cerner, Epic, ICON, STChealth

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**Managing Mental Health & Pain Management**

Our patient, Halley, has extreme chronic pain and seeks drugs at various clinics in and near the university she attends. Halley receives opioids and eventually overdoses and is rushed to the ED. Her overdose is reported to Public Health. At discharge, her case is assigned to a case manager. During outpatient treatment, Halley’s case is identified for a clinical trial giving her access to a mobile app that connects her to a broader care team to help her make informed decisions about her health.

**Participating Organizations:** Cerner, Netsmart
Patient-Centered Care for Chronic Disease

George Bench, 71, is a retired postal worker. In his late 60s, George was diagnosed with Type 2 Diabetes. Over the last year, his condition has deteriorated, due in part to forgetting to take his medication and not understanding the severity of his condition. This has also resulted in limited mobility. To help him better manage his chronic condition and improve his mobility, his PCP referred him to home health. In January, George and his wife changed their MEDICARE Advantage health plan. While their previous PCP no longer accepts their insurance, their new PCP is already up to speed on his care via his connected records. Watch as his providers leverage event notifications, use the CommonWell smart record locator service and access his health plan history to better coordinate care and help George live his best life.

Participating Organizations: Brightree, CAQH, Cerner, MatrixCare

Stop Sepsis: Alert & Workflow Management

Natasha, a 40 year old Caucasian female presents to the ER of an academic medical center with indeterminate complaints of abdominal pain and malaise. Routine labs and imaging were performed in the ER. Based on the results of tests, a CT abdomen was ordered. The CT is reviewed while pulling priors and medications from different institutions. The report is sent back to EMR, and the physician pulls up images that show a perforated small intestine. She had microbiology labs sent to Public Health and sepsis treatment protocol was implemented. The patient was transferred to the ICU and responded appropriately to treatment.

Participating Organizations: Baxter Healthcare, Epic, Luminare, Philips

The Calm Healing Environment

Tina has been admitted for care at a hospital where the focus is on creating a calm healing environment for both the patient and caregiver by providing clinical decision support, auto-charting, and removing unnecessary audible alerts. Caregivers are frequently inundated with data to interpret, audible alarms, and charting activities that take away from optimal patient care. Additionally, devices creating audible noises within the patient’s room are not conducive to a calm healing environment. Data and alert fatigue lead to delays in treatment and add stress to the overall patient experience. The ability to auto-chart data, receive automated clinical decision support notifications, and to silence audible alarms allow the clinician time to better prioritize patient care and workflows.

Participating Organizations: Epic, Smiths Medical, Spok, Vyaire Medical

The Healthy Hospital

The health of your hospital infrastructure is critical to better patient outcomes and lower care delivery costs. This requires improvements to risk management practices and new operational efficiencies. Healthy hospitals need comprehensive network visibility across the campus, data center, cloud and clinical environments as well as real-time threat detection, response and security controls for all connected devices. This ensures on-time delivery of the right data and services, more streamlined workflows, higher productivity and reduced risk.

Participating Organizations: Arista, Forescout, Medigate

The Newborn Experience

A patient, 38-weeks pregnant with twins, arrived in labor and was admitted to the hospital with prolonged rupture of membranes persisting 24+ hours. The patient is febrile with 102 temp and diagnosed with sepsis. She is placed on a fetal monitor that assesses both fetal heart tones, uterine contractions, and maternal vital signs. This real-time data is sent back to the care team. The newborns are delivered and transferred to the NICU where they receive antibiotic infusions. Birth reporting is provided to the state registry.

Participating Organizations: Brightree, Epic, Centers for Disease Control and Prevention, Cerner, Genesis Systems, OBIX

Work, Cancer Care & Streamlined Public Health Reporting

This demonstration shows how a worker in a high-risk-for-cancer job category is diagnosed with and treated for cancer. The use case demonstrates a streamlined approach using real-time interoperability and standards-based public health reporting. The use of automated triggering and reporting of structured data aims to improve the completeness and quality of the data reported as well as patient outcomes.

Participating Organizations: Centers for Disease Control and Prevention, Endosoft, Shasta Networks

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