

Use Case Title: Detecting Human Trafficking

Short Description: 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.

Value: Interoperable, clinically valid, quality measures for detecting signs of child sex trafficking with an ED, orchestrated by clinical workflow and decisions in any hospital environment.

Participating Vendors: Cerner, Redhat, Smile CDR, Trisotech, Visible Systems Corporation

Scenario	Vendor	Products	Standards
<p>Introduction to use-case Patient (Pt) is a 16 year old female who was dropped off at the Emergency Department (ED) Pertinent history: assaulted by a peer at age 13 with other peers present who did not intervene, reports of bullying to the point of moving schools. No relationship to parents. History of drug and alcohol use.</p>	Trisotech, Cerner, SmileCDR, Visible Systems, Red Hat	Trisotech Process Animator, Red Hat OpenShift, Smile FHIR Server	BPM+ Health (BPMN) FHIR v4
<p>Introduce Patient and Personas</p> <ul style="list-style-type: none"> ● Patient - 16 year old female ● Registrar - Carl Hartman is our Registrar. Carl is a 55 year old white male who has been working in this role for 8 years and started his career in data entry with another hospital system ● Primary Nurse - Janey Chatterly - 45 year old Latino female, 12 years in emergency care nursing, background in population health and pediatrics. ● Licensed Independent Provider - Meghan Gotta - 32 year old white female, is a mother. Pediatric emergency background, right out of residence 	Cerner, Trisotech, SmileCDR, Red Hat	Trisotech Digital Enterprise Suite, Red Hat Fuse, Cerner Millennium, SMILE PRODUCT NAME	BPM+Health, FHIR v4 FHIR Patient Resource
<p>ED Arrival/Registration</p> <p><i>Our patient presents to Emergency Department (ED)</i></p> <ul style="list-style-type: none"> ● Patient Medical History is consulted in local EMR ● National HIE Registries are consulted for outside medical records <p><i>Pt transferred to Triage Room</i></p>	Cerner, Trisotech, SmileCDR, Red Hat	Trisotech Digital Enterprise Suite, Cerner Millennium, SMILE PRODUCT NAME, Red Hat Fuse	BPM+Health, FHIR v4 FHIR Encounter Resource
<p>Nursing (Triage, Emergency Treatment Room)</p> <p><i>Patient presents with bruising and abrasions on her back. Scars from self harm as well as from a previous injury. Severe dehydration. EHR from previous visit indicates the Greenbaum Survey should have been triggered. Orders Placed: IV Insertion and Fluids</i></p> <ul style="list-style-type: none"> ● Nurse Triage Data Collection ● ED Prescreen ● Administer CST Greenbaum Survey ● Sex Trafficking Suspected. Alarm sent to Social Worker 	Cerner, Trisotech, SmileCDR, Red Hat	Trisotech Digital Enterprise Suite, Cerner Millennium, SMILE PRODUCT NAME, Red Hat Fuse	BPM+Health, FHIR v4 FHIR QuestionnaireResponse Resource FHIR Task Resource (Social Worker referral note)



<p><i>Pt transferred to ED Exam Room</i></p>			
<p>Exam Room with Licensed Independent Provider <i>Patient tearful during the pelvic exam and could not tolerate the speculum.</i> <i>Orders Placed: Urine Pregnancy Test, Urinalysis, Bloodwork (CBC, BMP, etc), Collect Patient Data</i></p> <ul style="list-style-type: none"> ● Holistic check for Alarm Signs of Human Trafficking ● Clinician Completes examination ● Findings Recorded in Medical Record ● Suspicious Findings. Alarm sent to Social Worker ● Diagnosis ● Immediate Care Delivered ● Discharge Planning <p><i>Orders Placed: Consult to SW/CM, Pelvic Exam, STI testing</i></p>	<p>Cerner, Trisotech, SmileCDR, Red Hat</p>	<p>Trisotech Digital Enterprise Suite, Cerner Millennium, SMILE PRODUCT NAME, Red Hat Fuse</p>	<p>BPM+Health, FHIR v4 FHIR Observation Resource FHIR Task Resource (Social Worker referral note)</p>



Data exchange standards (examples below):

Role	Vendor	Product	Category	Prot ocol	Interop Body	Interop Profile	Interop Actor	Interop Message	Send or Receive	Transaction Description
Producer	Cerner and Red Hat	Millenium and Fuse	Electronic Health Record and Integration	FHIR	/Patient	USCORE	Registrar	/Patient	GET / PUT	<i>PUT resource to SMILE FHIR SERVER</i>
				FHIR	/Observations [array]	USCORE	Licensed Independent Provider	/Observation	GET / PUT	<i>PUT resource to SMILE FHIR SERVER</i>
				FHIR	/Encounters [array]	USCORE	Registrar	/Encounter	GET / PUT	<i>PUT resource to SMILE FHIR SERVER</i>
				FHIR	/QuestionnaireRespon ses [array]	USCORE	Primary Nurse	/QuestionnaireResp onse	GET / PUT	<i>PUT resource to SMILE FHIR SERVER</i>
Consumer /Producer	Trisotech and SmileCDR	Digital Automation Suite and FHIR Data Fabric	Workflow and Decision Engine and FHIR Server	FHIR / BPMN	/Encounter	SUBSCRIPTION	Registrar	/Encounter	SUB	<i>BPMN Start Trigger/ FHIR SUBSCRIPTION on ENCOUNTER RESOURCE from SMILE FHIR SERVER</i>
				FHIR/ BPMN/ DMN	/Patient	USCORE	Nurse	/Patient	GET	<i>BPMN Service Task/GET Patient resource from SMILE FHIR SERVER/ Extract Chief Complaint and compute Age in Years/DMN Decision Task: Prescreen for Trafficking</i>
				FHIR/ BPMN	/QuestionnaireRes ponse	USCORE	Nurse	/QuestinnaireRe sponse	Get	<i>BPMN Service Task/GET QuestionnaireResponse from SMILE CDR SERVER</i>
				FHIR/ BPMN/ DMN	/Task	USCORE	Nurse	/Task	PUT	<i>DMN Greenbaum Decision/ BPMN Service Task/ PUT Social Worker Referral Note Task on the SMILE CDR FHIR SERVER</i>