Submission Profile

Title: Eliminating Goals of Care Blindspots in New York State

Submission ID: 558835547

Call: 2022 HIMSS Global Health Conference Call for Proposals

Submission Type: Abstract

Status: Accepted

Status Date: 11/19/2021

Category:

Primary Topic: TC02 - Care

Additional Topic(s):

AUTHOR Information:

Dr. Jonathan Austrian, MD
Associate Chief Medical Information Officer, Inpatient Clinical Informatics
NYU Langone Medical Center

j

Phone:

Fax:

AUTHOR Disclosure Information: Dr. Jonathan Austrian, MD, Associate Chief Medical Information Offic

Gender?	Identify Male
What is your role on this submission?	Primary Speaker
Is your organization a Davies Award organization?	Yes
Has your organization achieved Stage 6 or 7 on at least one HIMSS Maturity Model?	Yes
If you have a Twitter account, please enter it here.	
If you have a LinkedIn account, please enter it here.	No Answer
Did you have a proposal accepted through the HIMSS21 Call for Proposal?	No
Select your Worksite	Academic Medical Center
Select Principal Professional Title	Clinical Informaticist

Length of Time in Field (Years)	11 - 15 years
Biography of your professional background (2000 characters max, including spaces). Please do not post the actual resume/CV. If submitting multiple proposals with the same speaker, please ensure you use the same speaker biography for each proposal submission. Please note that the last biography entered or changed on the proposal application will be the one used on the conference website.	As a physician Informaticist, Jonathan Austrian is committed to employing, teaching, and studying the tools and methodology of health information technology to advance the delivery of healthcare that he found so frustrating during his education and training. He accomplishes these goals in his applied informatics role as the associate chief medical information officer, inpatient clinical informatics, his research role as part of the MCIT Clinical Informatics Group, and his educational role in the Department of Medicine, School of Medicine Application of Clinical Informatics. Austrian spent his career at NYULMC, applying clinical informatics principles and technology in the deployment and optimization of health information systems. In the legacy ICIS Eclypsis Electronic Health Record (EHR), he assisted with the transition from paper to digital documentation for all providers. Since 2012, Austrian has helped lead the deployment and adoption of Epic Systems, the electronic health record, in Tisch Hospital, Langone Orthopedic Hospital, the Perlmutter Cancer Center, NYU Langone Hospital Brooklyn, Kimmel Pavilion, and NYU Long Island. He oversee inpatient documentation templates; clinical decision support for patient safety, quality and value; and critical workflows, including handoff, advance directives, and high-risk medications (insulin, anticoagulation). In particular, Austrian is the MCIT lead overseeing critical enterprise initiatives, including the Value Based Management Program (lab and medication utilization interventions, digital pathways, and patient class optimization) and Supportive Care (eMOLST integration, ACP navigator, Mortality Predictor Machine Learning Algorithm). Clinically, he practices as a hospitalist.
Public Speaking Experience - (2500 characters max, include spaces). List the most recent three presentations you have made at regional and national meetings. Identify speaking organization, date, program and name of your presentation.	Epic, 4/21, Clinical Decision Support Monthly Forum, "Democratizing Data: BPA Slicer Dicer." Epic, 5/21, Epic XGM, "Mandatory surprise question to promote advance care planning." Epic, 5/21, Epic XGM, "Clinical Pathways for COPD."
Speaker Introduction (750 characters max, including spaces). Should your proposal be accepted, please provide a written introduction of yourself. Please write in 3rd person, present tense and in a business-like tone.	Dr. Austrian is the medical director for inpatient clinical informatics at NYU Langone Health as well as a practicing hospitalist. He went to medical school at Weill Cornell and residency in internal medicine at Montefiore Medical Center. He is board certified in internal medicine and clinical informatics. In his role, he has particular interests in advance care planning, clinical decision support, and application of machine learning algorithms in clinical care.

Victoria Javier, BSN, RN
Director, MCIT Clinical Systems, Epic Inpatient Clinical Documentation & Stork
NYU Langone Medical Center
Phone:
Fax:

AUTHOR Disclosure Information: Victoria Javier, BSN, RN, Director, MCIT Clinical Systems, Epic Inpati

Gender?	Identify Female
What is your role on this submission?	Co-Speaker
Is your organization a Davies Award organization?	No
Has your organization achieved Stage 6 or 7 on at least one HIMSS Maturity Model?	No
If you have a Twitter account, please enter it here.	No Answer
If you have a LinkedIn account, please enter it here.	No Answer
Did you have a proposal accepted through the HIMSS21 Call for Proposal?	Yes
Select your Worksite	Hospital, Multi-Hosp Sys, Integrated Delivery Sys
Select Principal Professional Title	Dir, Other Clinical Depts/Lab Services/Pharmacy
Length of Time in Field (Years)	11 - 15 years

Biography of your professional background (2000 characters max, including spaces). Please do not post the actual resume/CV. If submitting multiple proposals with the same speaker, please ensure you use the same speaker biography for each proposal submission. Please note that the last biography entered or changed on the proposal application will be the one used on the conference website.	Victoria Javier is a Registered Nurse with over 30 years of highly developed clinical, education, supervisory, and informatics experience. She started her nursing career as a bedside nurse in an Adult Cardiac Unit. Over the years, she worked in various capacities in Education, Clinical Informatics, and Administration. Victoria's clinical informatics career started in 1999 as an Informatics Educator at Hackensack University Medical Center in New Jersey. After a few years, she transitioned as an Epic Clinical Systems Analyst when the hospital transitioned to another EMR, Epic. She is certified in two Epic applications, Clinical Documentation and Security Administration. Victoria joined NYU Langone Health in 2011 as a Senior Clinical Systems Analyst, then developed into the role as Lead. In 2012, she became the Director of Clinical Systems responsible for the Epic Clinical Documentation and Stork teams. In her current role as Director, Victoria has led numerous successful implementations in multiple academic medical centers. She was instrumental in the implementation of the Epic EHRs and complex cross-application integration with two medical centers, now referred to as NYU Brooklyn and NYU Long Island through NYULH mergers. She was involved in the implementation of numerous state-of-the-art technologies at the new NYULH Kimmel Pavilion and Hassenfeld Children's Hospital. Most recently, Victoria led the optimization of EMOLST integration across the NYULH enterprise. This initiative streamlined and significantly improved the workflow for identifying patients with eMOLSTs generated by other institutions, increasing the number of patients with eMOLSTs than previously known. This project also promoted workflow efficiency by improving the time and number of clicks in accessing MOLST within the registry and accurately identifying the correct patient.
Public Speaking Experience - (2500 characters max, include spaces). List the most recent three presentations you have made at regional and national meetings. Identify speaking organization, date, program and name of your presentation.	I have presented in various forums including but not limited to podium presentation at the Rutgers International Technology Conference in Cambridge, MA and at numerous Philippine Nurses Association of New Jersey (PNANJ) Educational Conferences and Leadership Seminars.
Speaker Introduction (750 characters max, including spaces). Should your proposal be accepted, please provide a written introduction of yourself. Please write in 3rd person, present tense and in a business-like tone.	Victoria Javier has been a Registered Professional Nurse since 1989. She worked as a nurse in various capacities from a bedside nurse, clinical Informatics educator, and administrator. She has been in the informatics field since 1999 and is certified in Epic Clinical Documentation and Security Administration. She is currently the Director of Clinical Systems at NYU Langone Health, and is responsible for the Epic Clinical Documentation and Stork teams. Victoria has led numerous successful EMR implementations, complex cross-application integration, as well as state-of-the-art integratable and interoperable technologies across the health system.

Content:

Provide a brief summary description (1000 characters max, including spaces) as it should appear in marketing materials, if selected.	Care teams must know patient end-of-life preferences to ensure they provide care consistent with patient goals. Many states, including New York, have created statewide registries of patient goals of care through a mechanism of electronic medical orders for life sustaining therapy (eMOLST). While these registries are helpful in collecting patient preferences from across health systems, access to patient preferences at the point of care remains a challenge. In collaboration with a health information exchange, the state eMOLST registry, and our EHR vendor, we architected a solution where eMOLST status for our patients established throughout the New York State registry would display directly in our EHR at the point of care. This process ensured seamless visibility of eMOLST status to care teams, helping them to provide goal concordant care.
Presentation Format. Please refer to the Presentation Format link on the left of page.	60 Minute Lecture
If submitting an Essential Conversation session, please list how you will facilitate this session with attendees. If not submitting an Essential Conversation session, please continue. (2,500 characters max, including spaces).	No Answer
If submitting a proposal for a SPARK session, please provide a URL to a video of approximately three minutes that highlights the speaker's style and delivery for a presentation of this type. If not submitting a SPARK session, please continue.	No Answer
Level of Presentation. Please refer to the Level of Presentation link on the left of page.	Introductory
What is the primary professional role for which your presentation is targeted?	Quality Professional
What is the secondary professional role for which your presentation is targeted?	Government or Public Policy Professional
What is the third professional role for which your presentation is targeted?	Advocacy Grp Focus on Pt, Family Mbr, Caregiver

Learning Objective 1. Please refer to the Bloom's Taxonomy Learning Objective link on the left of page for a list of acceptable active verbs that must be used to begin each learning objective (do not use Understand or Learn, bullets or numbers, etc. see approved list). Each learning objective should be one sentence, short and concise (300 characters max, including spaces, do not use periods).	Illustrate how health information exchanges can be successful intermediaries between health organizations and centralized registries
Learning Objective 2. Please refer to the Bloom's Taxonomy Learning Objective link on the left of page for a list of acceptable active verbs that must be used to begin each learning objective (do not use Understand or Learn, bullets or numbers, etc. see approved list). Each learning objective should be one sentence, short and concise (300 characters max, including spaces, do not use periods).	Design a workflow that successfully incorporates outside information directly into clinical workflows to help support advance care planning
Learning Objective 3. Please refer to the Bloom's Taxonomy Learning Objective link on the left of page for a list of acceptable active verbs that must be used to begin each learning objective (do not use Understand or Learn, bullets or numbers, etc. see approved list). Each learning objective should be one sentence, short and concise (300 characters max, including spaces, do not use periods).	Assess the success of incorporating third-party data to improve care team access to patient goals of care preferences

Learning Objective 4. Please refer to the Bloom's Taxonomy Learning Objective link on the left of page for a list of acceptable active verbs that must be used to begin each learning objective (do not use Understand or Learn, bullets or numbers, etc. see approved list). Each learning objective should be one sentence, short and concise (300 characters max, including spaces, do not use periods).	No Answer
Learning Objective 5. Please refer to the Bloom's Taxonomy Learning Objective link on the left of page for a list of acceptable active verbs that must be used to begin each learning objective (do not use Understand or Learn, bullets or numbers, etc. see approved list). Each learning objective should be one sentence, short and concise (300 characters max, including spaces, do not use periods).	No Answer
Please enter the first multiple choice question 1 (250 characters max, including spaces).	Correct patient matching is critical to ensuring safe and accurate incorporation of external data into the EHR. Which vendor provided the primary patient matching solution for our health system?
Please provide one correct answer to question 1. Be sure to indicate A. - D. (250 characters max, including spaces).	A. The health information exchange.
Please provide the reason why the above answer to question 1 is correct. (250 characters max, including spaces).	A. The Health Information Exchange already supported patient matching for other 3rd party vendors and our EHR vendor. Consequently, the process of patient matching with the eMolst registry was an extension of existing patient matching workflows.
Please provide three incorrect answers to question 1. Be sure to indicate A. - D. (750 characters max, including spaces).	B. the eMolst registry C. the EHR vendor D. a dedicated patient matching vendor
Please enter the second multiple choice question 2 (250 characters max, including spaces).	How did the health system incorporate eMolst status in the EHR?

Please provide one correct answer to question 2. Be sure to indicate A. - D. (250 characters max, including spaces).	C. As a patient flag in the patient header (storyboard) in the institution EHR
Please provide the reason why the above answer to question 2 is correct. (250 characters max, including spaces).	The presence of an eMolst was visible to all care team members as a patient flag in the storyboard. This flag contained a link to directly access the most up to date eMolst in the registry.
Please provide three incorrect answers to question 2. Be sure to indicate A. - D. (750 characters max, including spaces).	A. As a pop up alert upon chart opening B. only in the dedicated Advance Care Planning section in the EHR D. the presence of eMolst status was unavailable in the EHR. Providers were educated to go to the registry to check for the presence of an eMolst
Please enter the True/False question 3 (250 characters max, including spaces).	To measure the success of this initiative, the organization counted the volume of eMolsts that would otherwise have been unavailable to the care team without introduction of this intervention.
Please provide one correct answer to Question 3.	True
Please provide the reason why the above answer to question 3 is correct. (250 characters max, including spaces).	The purpose of incorporating eMolsts generated externally was to ensure that care teams had visibility to all eMolst creations regardless of origination.
Background -(2,500 characters max, include spaces) Please provide an introduction/background of your topic. If the topic category for this proposal is Pandemic Response, please also include the following information: Describe the clinical problem the application of information and/or technology described is being utilized to present. Define the key performance indicators (KPIs) used to assess progress. Summarize the observed improvement in performance on KPIs for the project.	In the beginning of the Covid pandemic, New York City was the epicenter, accounting for 15% of the COVID-19 cases nationwide. Health systems had to quickly develop strategies to address the unprecedented numbers of individuals with serious illness, including their advance care planning needs. Clinicians used Medical Orders for Life Sustaining Therapy (MOLST) to document healthcare preferences for individuals with serious illness and advanced frailty. MOLST is part of the national Physician order for Life Sustaining Therapy program. The eMOLST is a digital version that is created and incorporated into the New York State eMolst registry. Health care systems in New York City worked to rapidly incorporate eMOLST to support advance care planning during the Covid crisis. Despite its importance, significant barriers to incorporating the eMOLST into patient care workflows have limited its potential. In order to determine if patients had eMOLSTs generated outside the health system, the clinician had to proactively search the eMOLST registry based on patient demographics. This step required significant time and cognitive load and, as a consequence, health institutions had limited visibility into eMOLSTs for our patients generated at outside institutions. The objective of our work was to enhance the visibility of eMOLST status from within the electronic health record (EHR) regardless where the eMolst was generated and streamline the review of those eMOLSTs. The KPI was the volume of eMOLSTs now visible to care teams that would otherwise not have been available within the clinical workflow.

Organization - (2,500 characters max, include spaces) Provide a brief description of the organization(s) presenting this topic (include description of organization, staff, location, patients, clients, partners, if applicable). If the topic category for this proposal is Pandemic Response, please also include the following information: Identify the governance structure, including identifying the subject matter experts and collaborative processes utilized in the selection of all the information and technology tools utilized and the design of the workflow for the project described in the submission.	NYU Langone Health is one of the nation's premier academic medical centers. Located in the heart of Manhattan, with additional facilities throughout the New York City area and Florida, NYU Langone consists of six inpatient locations. Specialists at NYU Langone treat a full range of medical conditions in both inpatient and outpatient settings at locations throughout New York City's five boroughs; Long Island; New Jersey; Westchester, Putnam, and Dutchess Counties; and Florida. Our outpatient care also includes the Family Health Centers at NYU Langone, one of the largest Federally Qualified Health Center networks in the nation. Our growing outpatient network brings our world-class medical services directly to the communities where our patients live and work. When more complex care is needed, we bridge the gap between our community-based practices and our hospitals to provide a seamless healthcare experience. NYU Langone is also affiliated with NYC Health + Hospitals/Woodhull in Brooklyn, NYC Health + Hospitals/Bellevue and NYC Health + Hospitals/Gouverneur in Manhattan, and the VA NY Harbor Healthcare System. The eMolst stakeholder group was comprised of the Advance Care Planning coordinator, the physician informaticist, and experts from the interfaces, health information exchange, the eMolst registry, and Epic teams. Through solutioning sessions, we determined that the most successful approach was to leverage existing interfaces and add new elements to them.
Methods - (2,500 characters max, include spaces) Describe the study/project/process implementation used and provide a timeline of the study/project/process. If the topic category for this proposal is Pandemic Response, please also include the following information: Describe the clinical workflow developed to improve performance on the described clinical problem. Identify the information and technology solutions utilized to enable improved performance as part of the described workflow. Share how data driven decision making is utilized to identify opportunities to optimize the technologies, interfaces, and workflows described in the submission.	In response to the Covid-19 pandemic, our health system partnered with the state eMOLST registry, a common health information exchange (HIE), and our EHR vendor. Rather than develop a new patient matching infrastructure directly with the eMOLST registry, we leveraged the HIE's existing patient matching service. The HIE had an existing feed from the eMOLST registry that provided the HIE with patients' eMOLST numbers, which are the primary identifier of patients in the eMOLST registry. The HIE then matched those patients' eMOLST numbers in its database with patient IDs created when patients had encounters in our institution. To ensure the availability of eMOLST status in real time, the HIE updated its clinical event notifications service to include the eMOLST number, if it exists, for all new or existing patients at our institution. Our institution created and deployed a new interface to extract the eMOLST number from that message and populate it in our EHR's database. Finally, we devised a new workflow within the EHR to promote awareness of a patient's eMOLST status and ensure the content was readily available to clinicians. An eMOLST banner in the header signaled the presence of an eMOLST number (and hence an eMOLST in the registry) or the presence of a locally scanned MOLST document. Hovering over the banner displayed more details about a patient's advance care planning preferences including a link to the eMOLST registry. If the patient had an eMOLST number, selecting the link would pass the user's credentials and the patient's eMOLST number to the registry allowing the user to seamlessly access that patient's eMOLST document. If there was no eMOLST number, the user would still access the registry, which would suggest possible patient matches based on demographic data or enable the creation of a new eMolst. As part of the internal validation, we used data provided to us directly from the eMolst registry of eMolsts generated from our own institution. This cohort is the gold standard as we knew these patients all have eMolsts. We then reviewed the cohort generated by the health information exchange of our institution's patients with eMolsts. By comparing these cohort and working with the health information exchange and eMolst registry, we were able to identify improvements to the patient matching workflow to more reliably capture and deliver patients' eMolst status's to our organization.

Challenges - (2,500 characters max, include spaces) Describe any barriers or challenges. What considerations and best practices should an organization follow to mitigate these barriers?	One of the major safety issues was to ensure safe patient matching as patients had to be matched correctly from the eMolst registry to the Health Information Exchange, and then from the Health Information Exchange to our EHR vendor. We overcame this challenge through multiple solutions. First, we compared a cohort of our patients known to have an eMolsts to the list of patients provided by the health information exchange. By reconciling these lists, we optimized and ultimately validated the correct matching logic amongst the vendors. Furthermore, when matches did not meet our institution's standards, eMolst results went to an error queue to be managed by our IT team in collaboration with health information management. Similarly, patients with multiple medical record numbers also went to the error queue for human intervention. Another challenge was ensuring the eMolst URL within our EHR linked to the appropriate activity on the eMolst website. Prior to implementation, there was one static URL that passed patient demographic and user information to the eMolst site to at least narrow down the potential patient matches presented to the user. Following implementation, patients that had an eMolst number (hence an exact match) needed a different URL than those who did not yet have an eMolst. Working with our vendor, we created dynamic URL's that displayed a different link depending on the eMolst status of the patient.
Results/Findings - (2,500 characters max, include spaces) Include any outcomes/impact data such as the key performance indicator/s utilized and/or the pre-implementation performance and current performance data.	We successfully implemented this technical workflow on May 4, 2021. As a result of this partnership, our academic health system identified an additional 1,557 patients with eMOLSTs generated by other institutions, representing 11.5% more patients with eMOLSTs than previously known. Given that our academic health system currently contributes 13.5% of all eMOLSTs to the state registry (K. Orem, personal communication, July 13, 2021) and 25% in the New York City area, and that patients frequent multiple health systems, the anticipated benefit to other health systems would be significantly greater.
Conclusions - (2,500 characters max, include spaces) Describe your conclusions	The Covid pandemic highlighted the importance of assessing goals of care and ensuring patients' preferences were available at the point of care. Governmental registries, such as the New York State eMOLST, can help overcome patient data siloes by centralizing the storage of this important information. However, clinical usage of this data was limited as the data was not easily accessible at the point of care. We describe a clinical and technical workflow that enabled care team members to visualize a patient's eMOLST status directly within their clinical workflow. Most importantly, this technical architecture leveraged common vendors and processes that are readily scalable to other institutions. Patients deserve to have their advance care preferences honored regardless of the care setting in which they might find themselves.
Replicability - (2,500 characters max, include spaces) Provide a description of how this may be replicated in other settings. Also include limitations for replication. Identify any variables which could impact an implementation (cost, available infrastructure limitations, funding/payment models, governance structure, etc.)	The intervention described here is readily scalable to other institutions, particularly those in New York State. The Intervention involved a statewide eMolst registry, as well as a large health information exchange used by many organizations in the state, as well as a very common commercial EHR. There was no "custom code" and we leveraged standard interfaces. While these partners might not exist outside of New York State, the concepts of leveraging the HIE as a trusted agent among a registry and a health system are readily applicable elsewhere. Finally, the eMolst and end of life planning are central issues facing all health systems and patients throughout the world.
Next Steps/Follow Up Research - (2,500 characters max, include spaces) Provide next steps or follow up research.	Now that we have access to the presence eMolsts data, we are working to better incorporate the content to help ensure goal concordant care. Specifically, we want to further insure that code status orders that are part of the patient's eMolst are not in conflict with the code status order placed on the patient in the EHR. We will leverage clinical decision support tools (CDS) to help ensure that there is no discrepancy that could potentially lead to care that is in conflict with the patient/surrogates stated wishes. We will study the implementation of this CDS to a) understand baseline how much discordant orders are present in our health system and b) determine how CDS could reduce the presence of these conflicts.

	Furthermore, we are working to directly ingest the eMolst document PDF from the eMolst registry into our system. This functionality will enable patients and proxies to view their eMolst directly through the institutional patient health portal.
The Global Health Conference experience has been reframed as a year-long, digital experience that culminates at the in-person Global Health Conference. Speakers' whose proposals are accepted may be required to deliver their session in one or more formats, e.g. in a live session occurring at HIMSS22, in a pre-recorded session prior to HIMSS22 for on demand access later, and/or for delivery in a hybrid digital environment where some aspects of the session may be pre-recorded. Additionally, declined proposals may be considered for other thought leadership opportunities across HIMSS's vast array of educational offerings.	Yes, I have read and agree to the above statement