

36th Annual

Management Innovations Poster Session

2020 MANAGEMENT INNOVATIONS POSTER SESSION

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MAYO CLINIC

Expanding After-hours Access for Echocardiography Services

Authors: Robert S. Platou, MHA; Ryan A. Fix, MHA; Ron Buono, RDCS; Stacy Girard, MBA; Kara Washington, MBA

Background: The Department of Cardiovascular Diseases (CVD) at Mayo Clinic Arizona (MCA) provides a full-range of echocardiography services to the Phoenix-metro area. Echocardiograms are complex 80 minute appoints in which a specially trained cardiac sonographer takes multiple ultrasound images of the heart. These images are interpreted by an echo-trained cardiologist to determine overall cardiac function. Overall demand for echocardiograms at MCA has steadily increased by six percent on average per year over the last five years while the physical footprint of the hospital Echo Lab has remained unchanged. It is common practice for outpatient echo labs to only operate during normal business hours. Due to space constraints the Echo Lab provided limited after-hour outpatient echo services until 7:00 pm on weekdays. With the increasing dynamic of patient consumerism as well as the growing demand for after-hours services, CVD practice leadership hypothesized that an expanded after-hours outpatient delivery model could help meet the increasing demand of working patients and allow the Echo Lab to better utilize their fixed capital assets and increase access.

Objective: To pilot expanded after-hours hospital outpatient echocardiography services while achieving the following objectives:

- Increase capacity and volumes of hospital-based outpatient echocardiograms
- Increasing access for patients while maintaining or improve payer mix
- Achieve a favorable financial impact

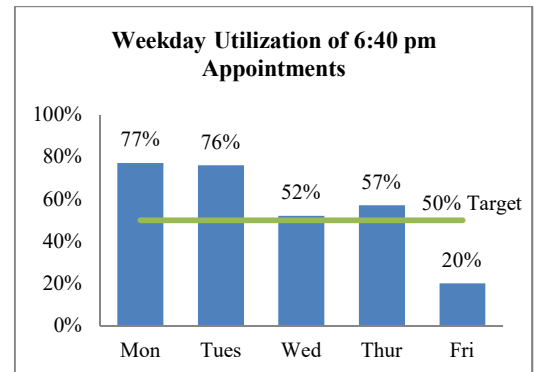
Planning/Research Methods: To prove this new pilot concept, CVD leadership received MCA leadership’s approval to hire three incremental sonographer staff. Planning was conducted by Echo Lab leadership team which consisted of physician leadership, administration, and supervisors of the sonographer and nursing staff. After-hours services were defined as any appointments after 4:00 pm. With the additional staff the Echo Lab leadership team believed they could increase after-hours outpatient echo access by 225%. This could be done by increasing the number of 4:00 pm and 5:20 pm appointment slots and adding new 6:40 pm appointment slots Monday – Friday. This would extend hospital outpatient Echo Lab operations until 9:00 pm. Multiple stakeholder engagement meetings were held with echocardiography cardiologists and sonographer staff to inform them of the new late shift staffing model. Based on echo cardiologists’ input a new late shift was created to cover the hours of 1:00 pm – 9:00 pm late shift and was combined with nightly call assignments. This required an additional 0.5 FTE of a cardiologist. Change management tools such as ADKAR (an acronym for Awareness, Desire, Knowledge, Ability, and Reinforcement) were needed to ensure the success of the proposed pilot. Prior to implementation, a FEA (an acronym for Financial Effect Analysis) of the proposed pilot was completed based on a sensitivity analysis for different fill rate scenarios to determine financial viability. Achieving a 50% fill rate would be the minimum threshold for success.

Implementation Methods: Physician and sonographer staff members were informed of the new shift six months in advance. New staff schedules were created and EHR calendar templates were updated. A soft go-live of the pilot was started in October 2018 with full implementation starting January 2, 2019 and lasting through May 31, 2019. Fill rates were tracked daily by the Echo Lab supervisor and volumes and demographic information was captured in the Echo Information Management System (EIMS) database.

Results: The pilot achieved or exceeded many operational and financial targets. However, the appointment utilization rates for Fridays were less than the 50% threshold and were subsequently discontinued. The success of this pilot confirmed that there is patient-consumer demand for after-hours echocardiography services. The expanded after-hours model was reinitiated in September 2019 and continued year-round in 2020.

Results of the January 2, 2019 –May 31, 2019 pilot included:

- After-hours echos increased by 679 (198% increase)
- Total hospital-outpatient echo volumes increased 36%
- Overall after-hour appointment utilization rate: 80%
- 6:40 pm appointment utilization rate: 56%
- 6:40 pm appointment demand varied by weekday
- Non-government patients accounted for 50.1% of all pilot patients compared to 44.0% for all echo patients
- 52% of 6:40 pm patients were under the age of 65 compared with only 43% for all other echo patients
- Late shift echos accounted for 27% of gross hospital Echo Lab revenue
- The increase in the number of after-hours echos accounted for 75% of the total increase in gross revenue for the MCA Echo Lab by October 2019



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What's getting on your nerves? Creation of Neurology Advisory Group

Authors: Alexander G. von Bormann M.Sc., MBA; Karen Helfinstine, MA Ed; Sarah Yeakel MHA, MBA; Nathan Guyse MHA, MAE

Background: Physician burnout is prevalent across institutions as patients become more complex in care, electronic health record increases administrative burden, and financial pressures weigh heavy. The burnout leaves physicians increasing in feelings of cynicism, feeling ineffective at work and emotionally exhausted (Levin et al, 2016). The Department of Neurology at Mayo Clinic, which consists of 123 physicians, saw an increase in burnout in staff satisfaction surveys between 2017 and 2019. On further analysis, a decrease in physician flexibility and autonomy was contributing to burnout. In response, the Department developed a forum for physicians to engage in an advisory group format with leadership. The plan included inviting physicians who did not hold a leadership position to allow an informal forum to network with colleagues, create a space to allow a greater sense of engagement, and cross-pollinate ideas across divisions. In addition it provided a venue to discuss opportunities that would affect their work as attendees.

Objective: The Neurology Advisory Group was created with the following objectives in mind:

- Increase satisfaction and joy in clinical practice
- Create a safe atmosphere to share concerns
- Help diminish burnout and create a sense of belonging
- Provide a format to bring forward operational concerns
- Address concerns and ongoing challenges with the recent implementation of the Mayo Electronic Health Record (EHR)

Planning: An hour meeting of the advisory group is held monthly. 30 minutes of each agenda is dedicated to a specific topic or theme, such as digital health concerns and opportunities, EHR improvements, and fostering diversity in the workplace. The other 30 minutes is deliberately kept for an open forum for questions and a roundtable discussion. The agenda is distributed ahead of time so that those who cannot be in attendance are able to share their thoughts, questions and feedback in absentia. Participants who are able to attend in person are encouraged to come ready to discuss the agenda topics plus bring forward concerns from the practice. Following each meeting a summary document is sent out that captures the discussion and identifies any key action items. These summaries are not confidential and can be discussed freely to help facilitate solutions.

Interventions Implemented: Based on the feedback collected from the advisory group meetings, actionable solutions ranged from quick fixes to larger projects. Examples of quick fixes included providing different kinds of refreshments than currently was available, additional personalized training for EHR support, and non-clinical training opportunities such as change management workshops and professionalism curriculum. Example of larger projects would include issues that would impact patient care and safety concerns, workplace enhancement, staff recruitment and retention, and physician calendar optimization.

Results: Participating physicians were surveyed to assess the value of the forum as it pertains to delivering on the advisory group objectives, opportunities offered by participating in the group, and expansion of the advisory group model to other areas of the practice. The survey had a 100% response rate (13 out of 13). Likert scale ranging from very valuable to neutral to not at all valuable was used.

Question 1: How valuable or not has the Neurology Advisory Board been for you in regard to the following statements:			Question 2: How has your attendance at these meetings impacted the following:		
Answer Options:	Valuable	Not Valuable	Answer Options:	Valuable	Not Valuable
Informal networking with colleagues	77%	0%	A venue to communicate openly and freely at work	92%	0%
Cross pollination of ideas across the divisions	77%	0%	Your day to day practice	39%	7%
Opportunity to discuss with department leadership decisions that will affect your work	77%	0%	Contributed to increased satisfaction and joy and sense of belonging	69%	0%
Personal sense of engagement	72%	7%	Forum to address concerns with EHR	69%	15%
Increased motivation for seeking out leadership opportunities	72%	7%			

Lessons Learned:

- Physicians valued the opportunity of the forum and sharing of the agenda ahead of time. The advisory group allowed the opportunity to talk with colleagues and gather feedback for meaningful discussion with leadership.
- This format was able to identify leadership talent and motivated two individuals to move into formal leadership roles.
- The advisory group gave a voice to individuals who may not have had one through a forum for open and direct conversations.
- Physicians appreciate that department leadership listens to their concerns and seeks to remedy issues in a thoughtful and timely manner.

Next Steps:

- Broader implementation of advisory group model across specialties to create a Neuroscience advisory group combining areas Neurosurgery and Neurology.
- Promote the advisory group format outside Neuroscience and encourage similar groups.
- Survey feedback has promoted creation of additional advisory groups to focus on education and research strategies.

Burnout, career satisfaction, and well-being among US neurology residents and fellows in 2016 Kerry H. Levin, Tait D. Shanafelt, Christopher M. Keran, Neil A. Busis, Laura A. Foster, Jennifer Rose V. Molano, Cormac A. O'Donovan, Jeffrey B. Ratliff, Heidi B. Schwarz, Jeff A. Sloan, Terrence L. Cascino Neurology Aug 2017, 89 (5) 492-501; DOI: 10.1212/WNL.0000000000004135

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Increasing Diagnostic Testing Access for Newborns with Suspected Hearing Loss

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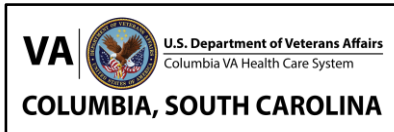
Background: The Ear Institute at the New York Eye and Ear Infirmary of Mount Sinai provides diagnostic testing for infants that have “failed” their newborn hearing screening. In partnership with the New York State Department of Health’s Early Hearing Detection Initiative, and in support of the Mount Sinai Health System which operates the 3rd and 6th largest birthing hospitals in the State of New York, the Pediatric Audiology team provides mandated diagnostic testing for infants who demonstrated absent responses on Otoacoustic Emission (OAE) testing following birth. Traditionally, Auditory Brainstem Response (ABR) testing has been the gold standard follow-up test, but has proven to require protracted testing cycle times resulting in scheduling bottlenecks, increased patient wait times, and a decreased year-over-year volume.

Objectives: The goal of this project was to improve patient access by decreasing ABR wait times. The challenge was to meet this goal without increasing existing capacity around staffing or space.

Planning/Research Methods: This initiative was part of a grant from the New York State Practice Transformation Network (NYSPTN) funded by CMS with the intent to prepare healthcare practices for Alternative Payment Models as an Accountable Care Organization. In an effort to improve patient access, ABR year-over-year average wait times and volume trends were analyzed from 2016-2018. During this period, average wait times increased from 36 to 41 days, and volume decreased from 302 to 194 visits annually. Process mapping was used to identify bottlenecks and opportunities for improvement in patient flow. In addition, new technology in diagnostic testing, Auditory Sustained Stimulus Response (ASSR) was evaluated and found to be reliable in identifying OAE false positives. This testing protocol required only half the time of traditional ABR testing.

Implementation Methods: A triage model was implemented in January 2019 using ASSR technology to further identify children with normal hearing. Infants that failed the initial OAE screening were scheduled for this test to determine if they, in fact, had intact hearing. Infants with absent or questionable responses would then be scheduled for the more comprehensive, yet time-consuming ABR test.

Results: Following implementation of this triage model, average wait times were significantly reduced from 41 to 33 days ($p < 0.0001$), trending towards 20 days by the end of 2019. Patient volume increased by 116% from 194 to 419 visits with a subsequent additional \$50,987 in revenue. In addition, this initiative led to the Ear Institute receiving the Exemplary Practice designation from the NYSPTN.



Improving Emergency Department Patient Flow Through Automated Visual Management Systems

Hugh Welch LSSBB; Michael Faircloth MD; Kim Joye RN; Lisa Nashton MHA, LSSBB; Bridget Schausten RN, MSN, CPHQ; Bernard Dekoning MD; Ruth Mustard RN, MSN; Sterling Bird MHA; David Omura DPT, MHA, MS

Background

Reducing the time patients remain in the emergency department (ED) improves access to treatment and increases quality of care. This reduction is dependent on achieving improvements in overall ED flow among staff, communication with patients, and the understanding of real-time performance and future needs. The Center for Disease Control and Prevention highlighted these challenges that all health care system EDs experience, as wait times in the United States have risen by over 25% since 2003. The Columbia VA Health Care System experienced these same challenges, however through a structured Continuous Process Improvement approach has recognized, assessed, developed and implemented sustainable Visual Management Systems which have reshaped how we do business. Bottlenecks and barriers to patient flow in the ED are now addressed thoughtfully and timely, which has led to enhanced performance and outcomes. Visual Management Systems are now accepted as essential for achieving smooth throughput, reducing wait times, decreasing treatment delays, and improving overall patient satisfaction. Recognizing that length of stay in the ED is a challenge nationwide, Columbia VA Health Care System has developed an automated system for visualizing both current and projected patient flow to provide high level process overviews with on-demand drill down capability.

Objectives

- Leverage existing software resources capable of conducting vectorized operations to extract, clean, and analyze large amounts of data on a daily basis.
- Generate valuable insights into complex processes for clinical and executive leadership while eliminating analytic and administrative burden.
- Create a “one-stop-shop” to house all ED data monitoring, reporting, and improvement tools.
- Employ machine learning algorithms to provide reliable predictions of patient arrivals and flow trends to enable optimization of staffing and resource management.

Planning

In order to develop the user requirements for accurately assessing current performance in a variety of national ED metrics including length of stay, patient flow, and service quality, an interdisciplinary team comprised of subject matter experts from several hospital services reviewed 4 years of data comprised of 169,330 visits to the Columbia VA Health Care System Emergency Department. An in-house development team with expertise in operational data science analyzed the dataset to uncover key metric drivers and patient arrival trends using a combination of Bootstrap Aggregation, Random Forests, and K-means Clustering. This was then used to create a highly reliable rule-based classification algorithm.

Implementation

The development team worked with key stakeholders to build the Emergency Department Patient Flow Tool, an automated visual management system built with existing resources using a Tableau software platform at no additional cost. The tool displays real-time data to show current flow bottlenecks, historic trends, and future predictions of key performance indicators. It allows users to easily interact with high level overviews, identify challenges, and drill down to root causes in one cohesive package. To eliminate the need for specialized technical staff, the developers embedded custom queries in the tool to automatically extract a series of datasets from our national data warehouse, developed a robust framework of dynamic code libraries with minimal technical debt, and used existing resources to streamline front-end development and support. This resulted in a tool comprised of self-evident operations requiring little to no user training or technical knowledge.

Results

The Emergency Department Patient Flow Tool has enabled staff from front-line supervisors to executive leadership to gain crucial insights into key areas of ED patient flow in order to conduct real-time, data informed management. Since its release, the Columbia VA Health Care System has seen significant improvements in the majority of ED metrics including a 9.8% decrease in Joint Commission measure ED-1: Median Time from ED Arrival to Departure for Admitted Patients and a 36.8% reduction in patients Leaving Without Being Seen/Treated (LWOBS). Additionally, the tool has been adopted by several VA health care systems nationwide, has received the 2018 South Carolina Hospital Association Lewis Blackman Award for Innovation & Research, and was the first-place winner of the 2018 VHA Southeast Network Idea House Competition. Bottlenecks in ED flow and overall access can now be addressed successfully in any organization with use of this approach, which will ultimately allow any facility to move closer towards the goals of being a High Reliability Organization.

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Background

Postpartum depression (PPD) is the most under-diagnosed obstetric complication in the U.S. (Earls, M. F., & Committee on Psychosocial Aspects of Child and Family Health, 2010) Nearly 20% of new mothers will experience an episode of major or minor depression within the first three months postpartum. (Marcus, S. M., Flynn, H. A., Blow, F. C., & Barry, K. L., 2003) Because the burden of depression and other psychological distress is so debilitating for mothers and their children, and because it is often overlooked, many advocacy groups and expert clinicians believe that pregnant and postpartum women should be routinely and universally screened.

Geisinger recognizes the need for universal pregnancy and postpartum screening and access to reliable education and information about mental health problems. Prior to implementing our program, the PHQ 2/9 was utilized to screen for depression and patients were provided, both written and verbal, education during appointments. This system fell short in identifying at-risk women and for meeting the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) requirements.

Objective of Program

The objective of the program is to increase the effectiveness and standardization of postpartum care through early detection and treatment of depression in pregnancy and postpartum depression using a close the loop system of care leveraging education, outreach, and advanced informatics technology that connects the woman's care journey across Women's Health and Pediatrics. Our innovative approach enables a sophisticated and seamless clinical program to meet our goals and is made possible through funding and collaboration with our insurance entity, Geisinger Health Plan (GHP).

Planning/Research Methods

Literature review, standing best practices, regulation, and policy informed the program proposal. Funding for the project's development and implementation was pursued through GHP. Various cross-functional workgroups were developed to ensure appropriate guidance and oversight of project components, while ensuring scope was upheld. Through design thinking and a creative approach to problem solving, patients, clinicians, and staff were engaged to ensure the program meets the needs of individuals who live the experience.

Implementation Methods

Depression screening: Implementation of the Edinburgh Postnatal Depression Screening (EPDS) relies on staff engagement, integrated clinical decision support and close the loop processes. Staff were engaged through awareness meetings and trainings and were provided documentation for future reference.

Integrated clinical decision support is employed within the electronic health record to ensure patients receive the appropriate care (i.e. further screening, real-time referrals, etc.) based upon their EPDS risk score. In addition, close the loop processes in the form of triggered messages, are sent to nurse triage pools for review to ensure patients are provided care which matches their need.

Implementation was scheduled at an initial pilot site, followed by wider regional roll-outs. This step-wise implementation process allowed for appropriate technical setup, awareness, training, and resolution of issues (i.e. workflow considerations, etc.) to occur. Because the technical complexities involved in the Pediatrics workflow, the program was first implemented at the Women's Health sites, followed by Pediatrics.

In Pediatrics, the identified patient is the child which introduces complexities given it is mothers who are screened. To address this, authentication measures ensure results are filed in the appropriate (mother's) electronic health record. The screening methods, integrated clinical decision support, and close the loop measures are identical to those applied in Women's Health.

Digital solution: Stakeholder feedback and patient engagement suggested the existing pregnancy sub-site (within the Geisinger.org website) needed a refresh. A design agency was engaged to provide a foundation for the design and overall strategy of the refresh, and Geisinger's marketing experts provided content and website integration. An existing marketing plan was updated to ensure dissemination of the website to women who are in their pregnancy journey.

Results

Depression screening: Since the first roll-out in early March 2019, our screening rates have increased; 143% more patients are being screened at prenatal visits and 97% more patients are being screened at postpartum visits. 21 Women's Health sites have screened 5,861 pregnant women, with 507 scores in the low-to-moderate risk range, 567 scores in the high-risk range, and 50 scores indicating suicidal ideation. Since the first rollout in late September, Pediatrics (1 site), has screened 146 mothers, with 6 scores in the low-to-moderate risk range, 5 in the high-risk range, and 0 at risk for suicidal ideation. Compliance rates are continually monitored by project team members and operations staff for each site.

Digital solution: Implementation of the refreshed website resulted in a 115% increase in site traffic and a 3,200% increase in total keyword ranking. In addition, 45 lead-gen forms were completed by site visitors, many resulting in scheduled appointments.

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Code Stroke LVO: Multidisciplinary Quality Improvement Project to Decrease Door to Treatment Times for Stroke Patients

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Background: Treating patients with an acute ischemic stroke (AIS) caused by a large vessel occlusion (LVO) is time sensitive. Approximately 2 million neurons die every minute during cerebral ischemia (Saver, 2006). Recent research demonstrates eligible AIS patients with a LVO have more favorable outcomes when emergency mechanical thrombectomy (MT) is successful and reperfusion is achieved within 120 minutes (min) of arrival. Multiple specialties and departments are involved in the acute work-up, diagnosis, and treatment of AIS patients at Mayo Clinic Hospital in Phoenix, Arizona. The workflow was multifaceted, not streamlined, and required multiple phone calls to notify key stakeholders and arrange the necessary resources/staff resulting in delayed emergency intervention. Statistical analysis elucidated that neurosurgery notification (NN) to case start time (CST) was the highest variation and one of the largest root causes to overall time variations. Average NN to CST was 60.4 min resulting in average door to puncture (DTP) times of 124.8 min and door to reperfusion (DTRp) average of 180.9 min, 60 min longer than the national goal set forth by the American Stroke Association (ASA). This delay translates to an average of more than 120 million neurons lost. In 2019, a multidisciplinary plan was instituted to streamline the workflow for AIS patients requiring MT, improve communication to all responding staff with the ultimate goal of decreasing DTP times to 90 min or less to achieve early reperfusion.

Objective: To create a one-step, advance notification system called “Code Stroke LVO” to notify on call staff responding to MT cases using a collaborative, multidisciplinary team approach. Code Stroke LVOs would be activated via an existing group paging system designed to streamline communication. Standardized multidisciplinary roles would be instituted to improve workflow inefficiencies and align with the organization’s strategic plan to transform its current practice. The established goals were to reduce NN to CST to ≤ 45 min resulting in DTP times of ≤ 90 min to achieve DTRp ≤ 120 min.

Planning and Research: A work group was assembled with broad representation from every stakeholder group including: Vascular Neurosurgery, Neurointerventional Radiology, Vascular Neurology, Anesthesiology, Emergency Department, House Supervisors (HS), Nursing Administration, Nursing, and Critical Care Department. A project timeline was organized and activities were developed in three categories: 1) planning, 2) education and training, and 3) implementation. Planning activities included research of current ASA clinical practice guidelines, surveying key stakeholders involved in the care of this patient population, multidisciplinary simulations to identify opportunities for improvement and HS group agreement to activate the system. Key stakeholders also provided input on who would receive the Code Stroke LVO page from their respective groups and what critical information would be included on the page. Staff education and training focused on each specialty’s respective workflow and their role during a Code Stroke LVO. Educational materials were created for each specialty and included the following key information: who activates the system, what triggers system activation, information that will be communicated, and actions to take when a Code Stroke LVO page is received. System training materials were created specifically for the HS group which detailed how to update, validate, and activate the system, and how to send out cancellation notifications.

Implementation Method: Implementation required scheduled testing of the system to validate its functionality. Test pages were sent on specified days and times to on call staff with instructions to notify a designated person that the page was received. During test paging, hospital and surgical operations continued as normal to best simulate a real activation. On-call staff who received the page were required to respond promptly which meant brief diversion from daily activities (inpatient rounding, outpatient clinic, surgery, etc). Anesthesiology leadership instituted two “anesthesia stroke pagers,” one for OR front desk and one for CRNA facilitator, to be used during normal business hours and ensure prompt anesthesia notification and coverage. Prompt electronic feedback would also be sent to staff involved in each case, department leaders, and department administrators to promote transparency, acknowledge achieved goals, and identify opportunities to improve the workflow. Feedback was also requested from on call staff involved in each case to determine staff perception of new workflow.

Results: Code Stroke LVO notification system went live September 3, 2019 with the first activation/case occurring on September 6, 2019. The first activation/case demonstrated a drastic reduction in NN to CST of 25 min (35.4 minute reduction) resulting in a DTP of 82 min (42.8 minute reduction) and DTRp of 105 min (75.9 minute reduction). There have been 14 activations since the system went live. The average NN to CST time is 26.7 min (33.3 minute reduction; $p < .0001$) resulting in an average DTP time of 83.4 min (41.4 minute reduction; ED cases only, $n=11$) and average DTRp of 135.2 min (45.7 min reduction). The group paging system was cost neutral because of existing licensing agreements.

These outcomes suggest instituting an early notification system, along with standardized multidisciplinary roles and workflows, can transform different specialty practices, improve system inefficiencies resulting in more timely treatment with the goal of early reperfusion for AIS patients requiring emergency MT.

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References: Saver, J.L. (2006). Time is brain—quantified. *Stroke*, 37, p. 263–266.

Implementation of Patient Safety Huddles in an Ambulatory Care Setting at an Integrated Safety-Set System

Authors: Maham Chaudhry, MHA; William (Bill) Walker, MS; Grace-Julia Okoroji, MA, MS

Background: In many inpatient units, daily huddles occur at the beginning of each day to promote the flow of information between stakeholders to ensure each day runs as smoothly as possible. In the ambulatory care setting, huddles may occur at each individual clinic; however, for large integrated health systems with many geographically disperse clinics, it can be difficult for those in leadership to understand key issues that each faces. For example, Harris Health System, one of the nation's largest safety-net health organizations, operates 33 ambulatory care locations throughout the third largest county in the United States.

Objective: Patient safety is a top priority at Harris Health System. The objective of the Ambulatory Care Services (ACS) Operational and Patient Safety Daily Huddle call is to bring awareness of any urgent threats to ambulatory operations that impact patient safety and quality of care, and create an open forum for these threats to be appropriately handled in a collaborative environment.

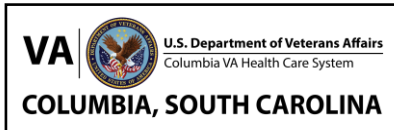
Planning/Research Methods: ACS leadership determined the time frame (30 mins) and agenda for the call. The agenda begins with announcements and/or critical concerns, as well as staffing variances that need immediate attention. Additionally, the Risk Department then reviews significant incidents that were reported from the previous day. Leadership then solicits any issues in pharmaceuticals and medical supplies, information systems and equipment, facilities, security and restraints, communication, patient and employee injuries, and any accreditation or regulatory concerns. Clinics are encouraged to speak up about any of these issues in their own clinics. Additionally, a quality focus of the day and the current overall patient satisfaction is reported. The call ends with an inspirational quote/charge to begin the day.

Implementation Methods: The calls began on June 17, 2019 and since then, occur at 8:30 AM each weekday morning. The calls are led by various ACS leaders (VP's, Administrators, Associate Administrators, and Directors). All Operations Directors, Managers, Nurse Managers, and Assistant Nurse Managers are requested to join the call. Schedules are not blocked for Medical Directors during this time; therefore, if they are available, they will join. Additionally, stakeholders from important ancillary and support departments, such as Pharmacy, Supply Chain Management, Facilities, Biomedical Engineering, and IT participate in the call to ensure that any of the issues reported are addressed in a timely manner. The first half of the call goes through the complete agenda. The second half of the call is designated as the "project management portion." This is the area of the call where the issues that were brought up are discussed in detail with clinic and operational leadership and follow-up assignments are delegated. Additionally, resolutions are made, actions are taken, and recommendations are given regarding any open issues.

Results: All issues that are brought up during the call are logged in the ACS Daily Huddle tracker on the Harris Health System SharePoint site by the project manager. This site is shared with all stakeholders. Issues are divided by the topics that are listed on the agenda and are assigned attributes for further classification. Daily reports are combined with those of the two hospitals and then submitted to all executive leadership. As of December 31st, 628 issues have been reported. Overall, 95.9% of these issues have been completed and marked as resolved with an average time to completion of 8 days. Generally, the most common issues reported each month are Incidents/Near Misses (attributed mostly to employees and patients) and Facilities (attributed mostly to air quality and water damage) related. Each month, the ACS Daily Huddle data is reported at the ACS Quality Review Council.

The ACS Daily Huddle calls have also led to increased collaboration and transparency amongst ACS team members, feeling of improved accountability and responsiveness of support departments, and identification and correction of non-standard practices.

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Reducing Antibiotic Administration Delay in Emergency Department Sepsis Patients

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Background

In the United States, it is estimated that sepsis is associated with more than 250,000 deaths annually (Rhee, et al., 2019). Each hour of delay in antibiotic administration for patients with septic shock increases their risk of death by 7.6% per hour (Kumal, et al. 2006), culminating in an in-hospital mortality rate ranging from 20% - 50% of afflicted patients and an annual medical expenditure exceeding \$24 billion (Ahiawodzi, et al., 2018). The 2018 Surviving Sepsis Campaign recommends administration of IV antibiotics within one hour of sepsis recognition. The Columbia VA Health Care System (HCS) recognized this opportunity for improvement and through our Continuous Process Improvement model, made improvements that significantly improved our antibiotic administration time, and further improved strong performance when assessing our Mortality data across the health care system. Through use of this multi-pronged approach to addressing sepsis, other health care systems will be able to reduce length of stay, reduce readmission rates, and decrease the incidence of mortality.

Objective

- Create a standardized sepsis screening tool to ensure inter-rater reliability for identification of potential sepsis patients.
- Provide education regarding current best practices to elevate clinical awareness of recent advancements in sepsis identification and treatment recommendations, while promoting constant re-evaluation to further improve performance in increasing timely antibiotic administration.
- Improve sepsis patient triage prioritization.
- Reduce median antibiotic administration times to within one hour of patient presentation to emergency department.

Planning/Research Methods

Record audits were conducted for all Columbia VA HCS patients with an inpatient diagnosis of sepsis from September 2018 through February 2019 (n = 160) to create a dataset comprised of the following variables: date & time of emergency department presentation, date & time of first antibiotic administration, suspected illness, met sepsis criteria, sepsis trigger alert, presence of blood cultures, fluid administration, lactic acid lab results, patient mortality, & emergency severity index. A group of subject matter experts then analyzed the resultant dataset for antibiotic administration time distributions and staff accuracy in early identification and prioritization of potentially septic patients.

Implementation Methods

An interdisciplinary team of Physicians, mid-level providers, nurses, pharmacists, & clinical application coordinators developed a two-part triage screen using modified qSOFA methodology to assess heart rate, temperature, blood pressure, respiratory rate, mental status, white blood cell count, blood glucose, & chills/rigor to achieve a balance of sensitivity and specificity. Patients meeting two or more criteria are then evaluated for potential sources of infection. This screening tool was hardwired into the electronic medical record to ensure screening is completed on 100% of patients presenting to the emergency department, as well as ensuring that all potential sepsis patients are immediately identified and prioritized appropriately. Extensive education was provided for all emergency department clinical personnel who serve as the first encounter point of contact for arriving patients. Additionally, annual sepsis education was added to the nursing Skills Fair and competency requirements to establish standards for best practice sustainment.

Results

- Initial process improvement project outcomes were selected for presentation at the Society for Health Systems 2020 Healthcare Systems Process Improvement Conference.
- Median antibiotic administration times were reduced by 55.7% from 150 minutes to 66.5 minutes.
- Percent of septic patients identified and treated with one hour of arrival at Emergency Department increased from 8.5% to 35%.
- Accurate identification of sepsis in triage increased from 44.1% to 80.0%.
- Appropriate triage prioritization increased from 50.9% to 90.0%
- Through our Continuous Process Improvement approach, constant re-evaluation of the processes in place is always an area of focus. Within the past 4 months a new enhanced approach has been tied into our sepsis protocol which now uses Monocyte Distribution Width (MDW). Currently, the Columbia VA HCS is only one of three facilities in the nation that are using this test.

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Optimizing Patient Communication Channels in Neuroscience Clinics

Authors: Ed Stefanowicz, MBA, Erick Lewis, MBA, Scott Friedenber, MD, Sara Cole, Kristal Passmore

Background

The Geisinger Neuroscience Institute's Neurology and Neurosurgery service lines formed Lean teams to examine patient communication across several hospital campuses. We discovered that many routes of communication to and from patients exist and opportunities were identified in each communication modality. These included inbound phone calls, e-mails using EPIC MyChart to and from the patient, and in-person communication during office visits (including office visit notes, wrap up, next steps, and the check-out process). Office visit wrap-up and disclosure during check-out lacked sufficient care recommendations. Deeper investigation identified outdated phone trees, poorly mapped email flow and a disorganized system for determining which staff was responsible for the patient's communication. This created delays in care completion or incomplete patient care, additional work for our staff, and produced low Press Ganey scores and incohesive staff performance.

Objective

To provide patients with timely and reliable answers to questions on their first request via phone, or patient e-mail, by pre-emptively answering their questions and providing a reliable, streamlined system for resolving their questions.

Planning / Research Methods

This project followed Geisinger's Lean methodology, (A3 utilization with process details in each section.) The root cause was ineffective communication during office visits, leaving patients unsure of next steps or after-visit requirements. Metrics included; Press Ganey scores, (*Overall* and *Ease of Getting Clinic on Phone*), phone call volume, volume of abandoned calls, and maximum call wait time. Future state was designed in a way that would provide structure to how our department handles patient communication during the entirety of their care. A new customizable after visit summary was deployed, with assistance from our EPIC team, which allowed providers to input patient specific instructions and displayed an improved / easier to read format. We also optimized our new phone system which included an improved phone tree and staff-support redesign to enhance call response. Lastly, the routing of patient e-communication was streamlined so that it all flows immediately to the subspecialty program nurse who directly handles and triages patient needs, (Previously the messages flowed to general nurses who then routed them to the correct clinical programs. This resulted in unnecessary delay for the patient.)

Results

The improvements in our communication process reduced our total call volume by 19%, increased our percentage of calls answered by 213%, reduced our abandoned calls by 90%, reduced our phone wait time by 77%, and increased our *Ease of getting clinic on phone* Press Ganey scores by 5% and 7% for neurology and neurosurgery respectively.

Conclusion

The redesign of patient communication for Neurology and Neurosurgery, specifically attending to the entirety of their patient experience utilizing the lean process, successfully improved our patient communication by reducing the need for patients to call, improving our ability to handle the volume of calls answered and improving the speed with which these inquiries were answered. This resulted in an improvement of our patient reported satisfaction. Extensive change management was required across several campuses and staff types to implement and sustain the change. Ongoing performance is monitored by our daily management system.

Digital Approach to Nurse Recruitment for Increased Efficiency

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Background: The US healthcare system is experiencing a significant nursing shortage over the past decades. It is expected that the shortage will exceed 510,000 RNs by 2030. Aging demographic, turnover rate, and insufficient enrollment in nurse education programs are some of the key factors that intensify the situation. Because of these challenges, several staff contracting facilities created additional competition in the market which leads to lack of consistency and increased labor cost for hospital systems. It is therefore imperative for hospitals to continue to explore ways to hire and retain top talent to be able to survive in the current competitive job market. Rural healthcare particularly suffers from this challenge and we had similar situation at a rural hospital in Georgia.

Objective: A process improvement initiative was conducted to optimize the hiring process and improve nursing recruitment fill rate and speed of hire. The goal of the initiative was to reduce the use of contract nurses in order to decrease costs and maintain quality of care.

Planning/Research Methods: Following the DMAIC process improvement approach, a multidisciplinary team was formed including stakeholders from Human Resources, Operations and Analytics and the existing hiring process was investigated. Various measures were defined for the process and reviewing historical data, the bottlenecks were identified. Also, the demand capacity analysis was conducted and the vacancy rate was proactively determined through predictive modeling considering the attrition rate and budgeted FTE. Lack of timely communication with applicants and delay in noticing new applications through Applicant Tracking System (ATS) due to availability of hiring managers were the main obstacles delaying the recruitment process.

Interventions Implemented:

- Transitioned ownership of nurse recruitment activity to operations and established nurse recruitment office
- Improved communication with hiring managers by use of technology; call or text hiring managers beside sending email via ATS to inform of new applicant.
- Conducted phone/skype interviews vs. traditional face to face interviews on site
- Reduced contract nurses by offering short term incentive contracts with permanent staff, hiring LPNs, and transitioning agency staff to permanent staff

Results:

- Days to fill reduced by 23.2% (from 116.8 to 89.7 days, $p < 0.05$)
- Days to hire decreased by 42.8% (from 22.02 to 12.6 days, $p < 0.05$)
- Days to offer decreased by 69.6% (from 18.1 to 5.5 days, $p < 0.05$)
- Number of contracts decreased from 168 in June to 56 in September

Lessons Learned:

Leveraging new analytics supported digital technology in hiring process, improving communication and collaboration among recruiters and nursing directors and managers, standardizing the process and developing well established platforms to monitor the process can significantly contribute to improve nurse recruitment process.

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Title: Principles of Strategic Workforce Planning: Lessons From the Land of 10,000 Lakes

Author: Trevor Coons, Tara Gosse and Julie McAdams

Background: Mayo Clinic has faced many challenges associated with hiring over 45,000 providers and allied health in a rural Midwest setting. Challenges are often associated with the rapidly evolving healthcare landscape and chronically inadequate supply of healthcare professionals. This illustrates the need for a fundamental shift to better align workforce planning and identify innovative solutions to traditional workforce challenges. The need for strategic workforce planning isn't isolated to rural settings; it is reported that the American Hospital Association (AHA) surveyed healthcare leaders to identify key workforce planning issues, top findings included: 1) rural communities are facing challenges in recruiting healthcare professionals, 2) there is an inadequate supply of health care professionals to fill roles, and 3) there is a need for an improved educational pipeline and strengthened partnerships between academic and medical institutions.¹

Objectives: The objective of this abstract is to highlight important emerging trends in workforce planning by sharing the compelling results of three Mayo Clinic case studies utilizing the framework by National Institutes of Health: 1) strategic direction, 2) supply analysis, 3) demand analysis, 4) gap analysis, 5) solution implementation, and 6) monitoring progress².

Case Studies: Cardiac Sonography (CS) employs over 100 cardiac sonographers within Rochester. Cardiac Sonography was struggling to meet its growth projections after experiencing an unprecedentedly high turnover rate in 2018-2019 that ultimately impacted patient access. A thorough gap analysis informed the creation of a comprehensive recruitment and retention strategy; launched to improve employee satisfaction and reduce turnover (tactics included a recruitment campaign, enhanced overtime, salary review, and staff surveys). After implementing the new strategies, within four months, 16 of 16 CS positions were filled with highly diverse candidates. This new hire group was comprised of a higher ratio of external hires, mid to late career staff bringing vast experience and demographically diverse hires. Six months post implementation, staff burn-out improved favorably by four percent. Patient access decreased from wait time of eight weeks to three weeks. By end of year, CS was on target to meet year-to-date projections with a three percent volume increase from prior year and the team reported a surplus of applicants for current openings which was credited to robust recruitment efforts.

Laboratory Medicine (LM) employs over 400 phlebotomists who perform approximately 3.5 million inpatient lab tests and 5 million outpatient lab tests a year. As an entry level profession, the team averages 20% turnover, retaining over 90% of staff internally into other lateral or promotional positions. In 2012, the team was experiencing a labor shortage and identified a need for a partnership with an academic institution. As a result, an innovative partnership with the Mayo Clinic School of Health Sciences was created to meet training demand for entry level phlebotomists. For many years, this new program could generate at most five cohorts of 12 students per year with 93% of students obtaining a job within 6 months. In 2019, the hospital phlebotomist team experienced unusually high turnover and the rate of phlebotomist training production was not sufficient to match staffing needs. This resulted in notable delays in non-emergent lab draws. LM was able to bring the academic and medical sides together to coordinate more effectively and created a scheme where new phlebotomist staff were trained at twice the rate. Doing so enabled them to return to full staffing and baseline turnaround times within a six month period of identifying the issue.

Community Hospital Medicine (CHM) experienced chronic staffing shortages and difficulty recruiting in rural Southeast Minnesota (SEMN) communities, relying heavily on supplemental and temporary staffing to fill hospitalist shifts. Mayo Clinic SEMN region staffs five hospitals with close to 10,000 admissions per year; the bulk of which are staffed with CHM's approximately 25 provider FTEs. While integrated hospital medicine practices had successfully been deployed at each site, there was limited utilization of NP/PA providers. After research externally and experience demonstrated great success in recruiting NP/PAs to rural communities, the decision was reached to increase NP/PA utilization by over three-fold. Staffing challenges for CHM were resolved by exploring the division of labor among team members and changing team composition based on allowing members to practice at the top of their defined scope. In less than six months, with its new model, CHM has been able to recruit seven new NP/PAs to rural communities in a specialty where recruitment timelines can extend more than a year. It is also projected that this model will represent a 15% reduction in provider staffing expenses.

Key Lessons:

- Workforce planning processes and staffing models need to be dynamic and iterative in nature.
- Relationships are pivotal to forge partnerships with internal or external academic centers to mitigate a labor/skills gap and proactively build a talent pipeline. Engaging all appropriate stakeholders increases the likelihood of success. Change can only happen at the speed of trust.
- Workforce planning tactics may differ based on the level of the healthcare professionals. Optimization and redesign efforts may be more effective for advanced staff, whereas educational pipelining and recruitment/retention tactics may be effective for technicians.
- Education and training will be critical to the successful development of the workforce of the future. Healthcare needs to develop agile lifelong learners who are ready to keep pace with changes in technology over their careers and prepared to work in ground-breaking care delivery models.
- During staffing shortages, identify root causes of dissatisfaction and focus on enhanced recruitment tactics and employee engagement initiatives.
- Be proactive and intentional about designing a staffing model to fill critical in-demand positions. The model should be designed to annually assess growth, turnover, retirement projections and proactively project talent demand and supply issues.

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¹ Healthcare Workforce Planning What You Need to Know", PeopleScout.com, published Dec. 12 2019, <https://www.peoplescout.com/insights/healthcare-workforce-planning/>
² National Institutes of Health, Workforce planning Model, <https://hr.nih.gov/workforce/workforce-planning>



Which Way Are We Rowing: The Power of Sharing Daily Metrics and Goals

Authors: Kahn, Michael J., M.B.A.; Owen, Mary K., M.A.; Tibor, Laura C., M.B.A.; Tommaso, Christopher P., M.S.

Background: The Mayo Clinic in Rochester has a Centralized Appointment Office (CAO) that handles 660,000 incoming calls, 780,000 outbound calls, 43,000 faxes, 50,000 digital appointment requests, and 101,500 referral orders annually. The CAO leadership team monitored key performance indicators (KPIs) and made decisions on a daily basis to optimize the performance of the team. However, there was a lack of awareness by front-line staff around the KPIs, a lack of understanding for how decisions were made by leadership, and the team was not consistently meeting KPI goals. Meeting KPIs ensures patients are responded to in a timely manner and reinforces our primary value: the needs of the patient come first. Helping front-line staff understand the importance of their work through our KPIs and providing daily goals was a missing component for staff engagement, awareness, and productivity.

Objective: Improve the performance of the CAO, as measured by the KPIs, by improving engagement of front-line staff and creating a culture of shared and mutual understanding around performance.

Planning/Research Methods: A multidisciplinary team was formed which included CAO leadership, access management analysts and front-line staff. A literature review was conducted to gather ideas on how to improve engagement of front-line staff. In reviewing the literature, there was a clear link in performance between teams that understood their priorities and goals and teams that met their priorities and goals. Based on this review and brainstorming sessions, the team came up with a list of potential interventions. The interventions were then prioritized based on short, medium and long-term goals. After the interventions were developed, a daily metrics email template was formulated and refined based upon front-line staff feedback. The daily metrics email was socialized at team meetings and changes were implemented based upon their feedback in making the KPIs easy for front-line staff to understand.

Interventions Implemented:

- Defined access metric goals with clearly defined status levels (red, orange, yellow, and green) and specific actions taken at each level such as offering of overtime, time off, and prioritization of tasks such as projects and training initiatives.
- Created a daily metrics email of KPIs and key messages to share with the entire team to increase their situational awareness and understanding of the CAO’s performance.
- Real-time monitoring of phone and agent-level metrics by supervision to ensure KPIs are met during fluctuations of demand throughout the day and by day of week.
- Started a morning daily huddle for the management team to make staffing adjustments based upon workload and current-state KPIs.

Results: Improved performance as measured by the following KPIs:

KPI	Goal/Target	Before	After
Avg. speed of answer (phone)	≤ 30 seconds	51 seconds	17 seconds
Abandonment rate (phone)	≤ 5%	6.10 %	2.95 %
Digital appointment requests	≤ 2 business days	5 business days	Within 1 business day
Faxed referrals	≤ 1 business day	5 business days	Within 1 business day

The team is harmoniously rowing together and consistently achieving or exceeding the KPI targets to best serve our patients. Front-line staff is engaged, take pride in their performance, and often are the first to offer additional help as a result of their KPI awareness.

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Bringing Specialty Care to Rural Communities with Telemedicine

Authors: Rachel Amundson, M.H.A., Eileen Anderson, M.A., Hollie Stegemann, Lindsey Lehman, M.P.H., M.H.A.

Background: There is a shortage of specialty providers nationwide. In the United States more than 90 percent of hospitals use locum tenens – a pricey alternative – to supplement their full-time staff. Rural communities experience challenges with provider recruitment and persistent turnover. Concurrently, there is a steady increase in rural patient populations with acute diseases. By implementing an innovative approach and leveraging telemedicine, it is possible to bring acute care to rural patients while avoiding unsustainable staffing models and costly patient transfers.

Objective: Assess telemedicine as an effective way to provide timely inpatient coverage, reduce patient transfers and avoid additional staffing costs. The pilot leveraged existing resources, workflows, and activation criteria to mimic the experience of in-person coverage. The project focused on maintaining patient care standards and care team satisfaction, while keeping the patient close to home.

Planning/Research Methods: An interdisciplinary team, including providers, nurses and operational support staff, was established to implement a weekend coverage model for a six week period. This effort included extensive collaboration between an existing tele-ICU program, Mayo Clinic Rochester (hub) and Mayo Clinic Health system – Mankato (spoke) team members. As part of the planning process, workflows, communication and training plans were developed. A post-implementation survey was deployed to assess the satisfaction of both patients and providers.

Implementation Methods: The startup costs for this project were minimal, as existing tele-ICU technology was utilized in the spoke site. To cover areas without existing technology, a mobile telemedicine cart was used. Each morning, the team would huddle and round to determine the appropriate plan of care for each patient. Initiation of telemedicine consults was determined based on need by the spoke provider. Bedside nurses played a pivotal role in providing education and explanation to patients before and during the telemedicine interactions.

Results:

During the six weekend timeframe, 100% (n=43) of specialty consult requests were completed by the hub site provider.

Key Indicators:

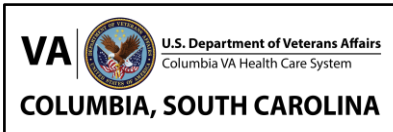
- 100% of patient surveys completed (n=8) reported the highest level of satisfaction
- 96% of referring (spoke) team members (n=8) reported satisfaction with the service and experience
- 65% of patients avoided transfer to a tertiary medical center
- Avoided locum hiring costs for six weekends

Supporting Data:

- 100% of spoke participants (n=8) did not encounter challenges with coordination of care
- 100% of hub participants (n=2) reported satisfaction with the ability to care for patients throughout the pilot
- Counterbalance measure: average time to complete a consult during the telemedicine pilot met or exceeded the response time for consults with in-person coverage

Lessons Learned/Next Steps: The pilot project provided specialty care coverage in a time of need, while serving as a proof of concept for leveraging telemedicine and existing resources. This model is currently being implemented for several other service lines based on the pilot's success (i.e. providing timely specialty care, avoiding patient transfers and additional staffing costs). As the model is expanded to additional areas, data will continue to be gathered. Satisfaction data from patients and their families is equally important to financial and quality data; proving that in addition to being a cost – effective option, telemedicine strengthens patient support networks and satisfaction.

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Leveraging Technology to Optimize Physical Safety and Security in Healthcare

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Background

Improving physical safety in a healthcare setting can be a formidable challenge in terms of costs, manpower, and infrastructure, while also maintaining a patient-friendly and inviting atmosphere. According to the 2019 Healthcare Crime Survey produced by the International Association for Healthcare Security and Safety Foundation, the top three categories of healthcare criminal activity per 100 beds are Disorderly Conduct, Assault, and Theft. Top criminal activity categories at the Columbia VA Health Care System (HCS) closely mirror these results. Although it is not feasible to eliminate all safety and security risks, leveraging technology, including advanced high-resolution network camera systems and data analysis of security incident location trends, can provide cost effective mitigation of security risks with minimal disruption to patient and visitor traffic.

Objective

The objective was to increase physical safety and security, reduce criminal incidents by 20%, improve coordinated communication, and strategically address areas of greatest need by leveraging new technology while also providing an inviting atmosphere to visitors and patients. Additionally, this initiative supports our commitment to maintaining a culture of safety and quality through an enhanced, proactive program that integrates technology to minimize risk.

Planning/Research Methods

The Columbia Veterans Affairs Health Care System formed a multi-disciplinary team comprised of VA Police, Engineering, IT, and contractor staff to determine if current technology solutions could provide an effective substitute to security measures commonly found in airports, other government buildings, or comparable healthcare settings, such as metal detectors at entryways.

- Compared current systems with newer technology now available
- Identified vulnerabilities with current state and developed areas of focus
- Analyzed measures taken at comparable healthcare settings and other government buildings and performed cost/benefit comparisons, including cost in terms of patient and visitor experience

Implementation Methods

- Developed multi-phase implementation process
- Approved acquisitions packages for equipment and hired additional staff
- Constructed central monitoring room to house displays, other related equipment, and personnel
- Utilizing the areas of focus based on vulnerability assessments, deployed 425 state of the art cameras as part of Phase 1 with plans for over 700 total after Phase 2 implementation
- Developed data analytics reporting products to determine effectiveness of phased trials and to efficiently utilize existing traditional resources, including targeted police patrol areas based on incident trend analysis
- Launched automated call system capable of reaching over 1000 patients and/or employees per hour
- Implemented new employee emergency contact management and notification system
- Phase 2 will add additional cameras and Phase 3 will implement License Plate Recognition (LPR) image recognition system integrated with the National Criminal Information Center (NCIC)

Results

- 47% reduction in criminal activity in targeted areas
- 94.1% of surveyed staff indicated that these measures have enhanced safety and security, resulting in an improved sense of a safer and more secure environment for staff, patients, and visitors
- Several major events, including firearm involvement, were averted using new systems
- Multiple instances of improved evidence gathering capability to aid in criminal prosecutions
- Greatly improved communication with patients and staff during emergencies, inclement weather, and clinic cancellations

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Project Safe Workplace: A Healthcare System’s Approach to Workplace Violence Prevention

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Objectives

Workplace violence is a safety issue faced every day by healthcare workers across the United States while caring for patients and their families. In 2017 the estimated rate of injuries due to workplace violence that resulted in days away from work for healthcare employees was 8.0 per 10,000 in the United States, compared to 1.9 per 10,000 workers in the private sector. Addressing behavioral issues in the non-behavioral setting is a challenge that can result in unsafe, disruptive, or violent conduct.

Saint Luke’s completed a qualitative study and a two-year retrospective review of incidents in 2016. Nurses were more affected by workplace violence than any other role. Staff were unaware if their facility had prevention resources and comments revealed staff tended to under-report workplace violence, citing: 1) it is part of the job; 2) nothing will change, and 3) the reporting process is cumbersome. At the time, tools and policies for workplace violence prevention were fragmented and did not address all areas of the Saint Luke’s Health System. Many employees did not know what to do when confronted with a workplace violence situation. The goal of this project was to create a standardized process for reporting workplace violence, intervention, and education.

Planning/Research Methods

Saint Luke’s Health System leadership answered the call by establishing a multidisciplinary task force guided by a steering committee, focused on the standardization of workplace violence prevention. A literature review of best practices was conducted, including resources from The Joint Commission and OSHA. Also, internal policies, procedures, and data were evaluated. Similar organizations were interviewed during the knowledge-gathering process.

Strategy and Implementation

In 2019, the task force implemented the following: (1) a system policy; (2) systemized infrastructure to oversee initiatives, training, incident review, and data tracking; (3) multidisciplinary Crisis Intervention Response Teams (CIRT); (4) education and resources to be made available to all employees; (5) clinical guidelines and order sets for caring for the confused, delirious, or agitated patient and alcohol withdrawal patients; (6) procedures for supporting impacted employees; and (7) simplified reporting processes with the burden removed from the affected employee.

Results

Saint Luke’s Health System has accomplished much in the way of workplace safety since beginning this journey in 2016. All system entities and departments have the same resources and tools, which is providing a safer work environment.

Reporting of workplace violence events increased by 56% across the system in 2019 compared to 2018. The Crisis Identification and De-Escalation course was completed by 473 Critical Incident Response Team members, which gave them the tools to keep staff, patients, and families safe during a workplace crisis. Online safety classes that included conflict resolution, aggression recognition, and intervention, the crisis cycle, and empathy were completed by 9,354 employees. An additional 11,123 employees completed online training on crisis intervention basics, bullying, lateral violence, and prevention and communication skills.

At the end of 2019 feedback was elicited from frontline staff. Some of the feedback included: 1) “It was nice not to be responsible for workplace violence incident reporting after I was just involved in an incident;” 2) “The debriefing and post huddles have been very helpful;” 3) “I feel supported by my organization when a workplace violence event occurs.”

In November 2019, our system CEO attended the World Hospital Congress in Muscat, Oman as an American Hospital Association delegate. She spoke about Saint Luke’s Health System’s Project Safe Workplace. The information was well-received by peers from around the world, with many asking for copies of the toolkit. Project Safe Workplace allows the staff to work within a safe atmosphere promoting positive outcomes for our patients and families.