Electronic Health Record (EHR) Clinical Decision Support, Interoperability and Health Information Exchange

PROVIDER CASE STUDIES

2015

LeadingAge™ center for aging services technologies CAST

ELECTRONIC HEALTH RECORD (EHR) CLINICAL DECISION SUPPORT, INTEROPERABILITY AND HEALTH INFORMATION EXCHANGE: PROVIDER CASE STUDIES
2015

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LeadingAge Center for Aging Services Technologies:

The LeadingAge Center for Aging Services Technologies (CAST) is focused on accelerating the development, evaluation and adoption of emerging technologies that will transform the aging experience. As an international coalition of more than 400 technology companies, aging-services organizations, businesses, research universities and government representatives, CAST works under the auspices of LeadingAge, an association of 6,000 not-for-profit organizations dedicated to expanding the world of possibilities for aging.

For more information, please visit LeadingAge.org/CAST

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1 Introduction

The LeadingAge Center for Aging Services Technologies (CAST) is pleased to provide the following four case studies on electronic health records' (EHR) impacts and benefits of clinical decision support systems (CDSS), interoperability and health information exchange with other care providers and analytic tools. We hope they will demonstrate for providers the benefits of implementing an EHR.

The case studies are designed to help long-term and post-acute care (LTPAC) providers understand the benefits that EHR systems can offer to their care settings. They demonstrate how the use of advanced EHR functionalities available for LTPAC providers, like CDSS, health information exchange capabilities and analytic tools, can result in improved quality of care and better utilization of health care.

This set of case studies is a companion to the CAST whitepaper entitled EHR for Long-Term and Post-Acute Care: A Primer on Planning and Vendor Selection, which is an update of the whitepaper that CAST released in 2012 and updated in 2013 and 2014. The whitepaper includes an EHR Selection Matrix that compares 26 EHR products available for different LTPAC settings with respect to functionalities, including expanded sections on CDSS, interoperability standards, interoperability, certification, analytic tools and health information exchange, among others. EHR vendors who chose to participate in the self-review were offered an opportunity to nominate a provider to write a case study on its use of the vendor's EHR product.

1.1 Case Study Guidelines

CAST provided guidance as well as a template for the case studies to help case study contributors. The template included the following required sections:

- Case Study Category (case studies may cover more than one category)

  Impacts and Benefits of:

  - Clinical Decision Support Systems (CDSS) including those aimed at Reducing Inappropriate Hospital Admission and Acute Care Transfers (i.e. INTERACT, On-Time Quality Improvement, etc.)
  - Interoperability and Health Information Exchange with Other Care Providers either Directly or through a Health Information Exchange (HIE)
  - Analytic Tools (e.g., Population Health Management, MDS, OASIS and Quality Reports)
- Organization Name
- Organization Type (Home Health/Home Care, Hospice, Adult Day Care, Attending LTPAC Physician, Assisted Living, Acute Rehab Facilities, Long-term Acute Care Hospitals, Long-term Care Rehab Facilities, Skilled Nursing Facilities, Intermediate Care Facilities, ID/MR/DD Facilities, CCRCs, PACE)
- Organization Description
- Project Description
- Implementation Approach
- Outcomes (quality of care, staff efficiencies, workflow improvements, readmission rates, financial, etc.)
- Challenges and Pitfalls to Avoid

- Lessons Learned/Advice to Share with Others:

CAST received four completed case studies from nominated providers. We believe that LeadingAge members and other LTPAC providers will benefit from these case studies and learn from other providers who have already selected, implemented, and used EHRs, including advanced functionalities, and are experiencing their benefits.

2 Lessons Learned and Advice Drawn from the Case Studies

Several lessons can be learned and advice drawn from the case studies. Below is a summary of lessons learned and advice from these as well as previous CAST EHR case studies (See the 2014, 2013 and 2012 EHR Case Studies Report for more information):

Planning and Implementation

- **Remember that EHR Implementation is a Large Undertaking and not an Overnight Project:** It is very important to build a solid relationship with your vendor as they will be very important for support during your rollout.
- **Thorough Planning and Evaluation Process can Save a lot of Time:** Put effort in the beginning to help layout timelines, deadlines, assign tasks to team members and create steps to ensure involvement and accountability from a collaborative team. A reference site visit to peer facilities of similar size, performance, and function provides an expanded perspective that may help decrease form count and process steps.
- **Leverage Industry Benchmarks:** Before implementing an EHR system, compare all the quality measures from the CMS Certification and Survey Provider Enhanced Reports (CASPER) and select one as a critical area of focus for all facilities in the organization. This allows staff across the enterprise to coordinate efforts, understand current processes, identify improvement opportunities and enhance documentation while also adjusting as needed during EHR implementation and after going-live. When the organization reaches maximum improvement with the selected quality measure, it should select the next area for quality improvement.
- **Select a Champion to Lead Team:** Have a champion on your team to lead the implementation; an internal team point person eases the anxiety that comes with change. Additionally, having team members involved from different departments and various levels within the organization provides a multidisciplinary perspective to ensure adaptability by diverse departments and roles in the organization. By involving staff, you are also helping to promote team buy-in as they are part of the process and not having this thrust upon them.
- **Create a Task Force to Implement each Major Initiatives:** Create a task force to implement and roll out each major initiative or functionality with your EHR project, such as Physician Access, eMAR or Physician Orders.
- **Re-examine Workflows and Redesign Processes:** An EHR implementation is an opportunity to re-examine workflows and redesigning processes to maximize the benefits of the EHR. It presents an opportunity to consolidate forms and change process so that information is entered once and used in different processes and shared with other team members as needed to increase efficiencies.
- **Communication between Clinical and Technology Teams is Essential for Successful EHR Implementation:** Develop strong working relationships and shared communication between clinical and technology team members. It is important to get the team's input to ensure success in the launch of the EHR or health information exchange project.
- **Test Wi-Fi Coverage:** When implementing a web-based mobile solution it is essential to test the Wi-Fi coverage to ensure an efficient experience. At minimum, testing should be completed prior to selection a vendor. In fact, CAST strongly recommends taking the EHR project as an opportunity to revisit and update the organizations Strategic Plan, conduct a Strategic IT Planning and update the IT infrastructure to support

not only the EHR, but also other technology applications that would facilitate the organization's strategic goals, before selecting and implementing an EHR. Please see CAST's Strategic Planning and Strategic IT Planning Portfolio.

- **A Mobile Device Should Not Create a Barrier for Patient Interactions/Care and Documentation:** Consider an alternative mobile devices like a handheld smartphone or tablet if patient interactions/care and/or the documentation process are effected by the size and weight of the mobile device, such as a more traditional laptop.

Training

- **Training is important and needs to be provided to all levels of staff:** Start with management. The process needs to be all encompassing, which means everyone needs to be involved to ensure optimal outcomes.
- **Utilize Manuals and Customized Training:** Remember to utilize your EHR vendor as they have manuals or customized training programs. Take advantage of these opportunities prior to going live with an EHR system to ensure a smooth launch and help staff prepare to jump in feeling comfortable using a new system.
- **Employ Blended Learning:** Incorporate a blended learning approach to accommodate not only different learning styles, but also varying staff schedules and availability. In addition, this hands-on style allows staff to physically explore the EHR system, learn the icons, ask questions and practice documentation entry and review.

Use of Advanced Features to Drive Quality

- **Use of EHR and its Advanced Functionalities is Key for High-Quality Health Care:** Technology is a key driver of high-quality health care. Accurate data, reporting and clinical decision support tools are no longer an option, but a requirement. Using EHR with these capabilities is absolutely essential to improving care quality, driving efficiencies, reducing hospital readmissions and strengthening partnerships and strategic positions with other care providers like hospitals, accountable care organizations (ACO) and physicians. Focus not only on today's outcomes, but make informed decisions about the outcomes you want to achieve in the future, based on today performance.
- **Take advantage of dashboards:** Create and leverage a dashboard to improve care delivery, operational efficiencies and financial performance across facilities. Train clinical and medical records staff to be more interactive with the live chart, using the dashboard to analyze and identify missing documentation or respond to real-time alerts as they occur rather than while reviewing a closed chart. At the same time, use the EHR's customizable alerts to create and monitor protocols for certain diagnoses.
- **Referral Source Management (RSM) Solution can Help Drive Quality Referrals:** A referral source management system can be a very helpful resource for maintaining existing business and capturing new quality referrals. Look for EHRs with built in RSM module or ones that seemlessly integrate/interface with your favorite RSM solution.
- **Use and Exchange of Electronic Health Information is the Trend of the Future:** The movement to have residents' medical information in an electronic form and available for other health care providers involved in their care is the trend of the future. The care of the resident is no longer an isolated occurrence by each provider, but a continuum of care. Having more pertinent medical information available to the caregiver leads to more effective care and better outcomes. It is important to realize that this model of data sharing

across providers is in its infancy. There are a number of interim solutions discussed in section 3.3.1.5 of the latest version of CAST's EHR for Long-Term and Post-Acute Care: A Primer on Planning and Vendor Selection whitepaper.

- **Establish Clear Common Goals for Health Information Exchange:** Make sure you have a clear common understanding of the specific goals of your health information exchange with your partner(s): what data is needed by each party, in what format/code, standard, when, why, etc.
- **Start Simple:** Use existing electronic tools, such as an encounter notification system (ENS) and Direct secure messaging to keeps staff apprised of when residents are admitted or discharged from the hospitals, and to send/receive important discharge documents, updated medications lists, etc. These have proven to be very effective solutions as a communications medium, a platform to educate staff on the importance of health information exchange, and a means to engage in initial exchanges of basic health information with other provider.
- **Health Information Exchange Improves Quality of Care and Patient Safety during Care Transitions:** Pertinent information provided to clinicians during resident transfer can improve quality of care. Automated clinical decision support tools can improve the quality and safety components of managing and coordinating care for older and disabled patients with complex medical conditions, who are being treated with multiple medications. Improving medication management for the patient population served by LTPAC providers can improve their transition across the continuum of care, and result in reduced readmission to acute care facilities.
- **Providers Should Address Some Challenges to Health Information Exchange:** Varying degrees of technology adoption, compliance standards, staffing turnover, information needs, interoperability capacity and standards, and lack of standardized roles and processes are all components that pose challenges to the fluid implementation of fully informed transitions of care between hospitals and LTPAC settings. However, as mentioned above, there are solutions that address some of these challenges and CAST encourages provider to explore these solutions.

The case studies presented here represent bright examples of using advanced features and functionalities in EHRs, like quality reporting, CDSS and health information exchange, to improve the quality of care, efficiencies and transitions of care. Each case study demonstrates how using EHR features has impacted each organization, and in turn the care they provide. Building upon the experience of these organizations can help other providers write their own success stories and case studies.

3 Aloha Nursing Rehab Centre and American HealthTech: Continuous Improvements, Continuous Innovations

3.1 Provider: Aloha Nursing Rehab Centre

Contributors: Charlie Harris, Executive Director; Donna Conner, Director, Clinical Information Systems

3.2 Vendor: American HealthTech

Case Study Categories

Clinical Decision Support Systems
Analytic Tools

Organization Type

SNF, ICF, Hospice, Respite, Adult Day Wellness

Organization Description

Aloha Nursing Rehab Centre (ANRC) is a tranquil oasis nestled beneath the majestic Ko'olau Mountains overlooking beautiful Kaneohe Bay. This relaxing, restful retreat has lush landscaping with outdoor water features and covered lanais.

Aloha Nursing Rehab Centre is a 140-bed nursing home, offering targeted services for skilled rehab patients, intermediate care, hospice (both respite and in house placement), and an Adult Day Wellness program. Residents enjoy daily exercise programs as well as social, educational, and cultural activities in a safe and structured environment. Committed to quality service proving Peace of Mind to residents and family alike, ANRC relies on state-of-the-art software to provide decision making support.

Project Description

"Our Vision is to be the best nursing facility in Hawaii," states Executive Director Charlie Harris, "and we knew we had an opportunity to empower staff with great tools to get the job done." Quality resident outcomes are center stage, but managing the many benchmarks and data points has become a major task.

For over two decades, American HealthTech (AHT) has been ANRC's solution partner with an integrated system for accounting, clinical, financial reporting, and interoperability with strategic partners. "Continuous improvement requires continuous innovations, and AHT contributes to great performance across our business units," offers Harris. To deliver on its mission, ANRC wraps services around each resident, and technology is the fabric that holds processes together. Every loose thread is addressed with continuous improvement and staff engagement.

Implementation Approach

Aloha Nursing & Rehab Centre (ANRC) has partnered with AHT for over two decades. During this time, ANRC has received comprehensive support and services throughout the years as they continue making improvements to get the most out of their investment. Optimizing the AHT tools was a natural progression for ANRC since they are continually seeking to utilize technology to improve quality of care. As a true technology partner, AHT guided staff during training, go-live support and services during and after implementation. Support continues to be provided online or onsite to ensure staff is knowledgeable with AHT technology and continue optimizing the usage. Additionally, ANRC has a dedicated Director of Clinical Information Systems who oversees training & implementation and continually monitors usage and optimization of the system.

Outcomes

Highlighted results

- Launched Quality Assurance and Performance Improvement (QAPI) well in advance of CMS regulations. Use AHT CMS Reports and Outcome Reporting to monitor quality goals on the fly – no reason to wait for monthly or quarterly CMS updates! We use Smart Charting and Care Planning to implement performance improvement plan (PIP) for specific resident improvements - real life charting and data collection to enact a plan-do-study-act (PDSA) rapid cycle improvement as often as necessary.
- Used AHT's HIPAA Compliant Electronic Health Record to successfully navigate 2014 Medicare Administrative Contractor (MAC) Audits without slowing down day to day operations.
- Adopted AHT Compliance Center Notifications to streamline interdepartmental communications while reducing potential HIPAA violations.
- Actively using embedded General Equivalency Mappings (GEM) and ICD Crosswalk for ICD-10 prep.
- Implemented live charting in AHT by physicians, nurse practitioners, Hospice Providers and even Psychologist.

Outcomes Report, CMS Reporting and QAPI

How do you succeed in reviewing data for 125 residents 24 hours a day? You use the tools available! Before, we had lots of data but no decisions; raw data doesn't mean anything unless you can use it. Now with Outcomes Reporting, we identify specific readmission patterns by hospital and produce graphic representations of readmission data by hospital, diagnosis, length of stay, quality indicator and more. It doesn't matter how good a job we do if we can't prove it with data. Outcomes Reporting is one of our frequent "go to" tools.

We rolled out a QAPI initiative that literally transformed our Quality Assurance program. We've mobilized all five elements of QAPI, and aligned with national goals for Advancing Excellence. We use Outcomes Reporting in AHT to conduct root cause analyses, measure results, and track progress for QAPI. With Outcomes Reporting we are a stronger, more proactive team in our quest for quality. Data-driven decisions are better than ever. AHT even allows us to export critical information for upload into AHCA's LTC Trend Tracker software.

Pain Management

We even take on items that are not high enough to trigger a state-monitored Quality Measure, but are vital to achieving our QAPI goals. Pain is a great example. We thought we had pain under control. But we were relying on diffused, dated MDS assessments which can be hard to interpret. When we pulled up our pain data in Outcomes Reporting, we saw higher than expected incidences of active pain. That was an eye opener. We immediately re-trained staff and have successfully managed to keep our Pain Quality Indicators well below national percentiles. We're looking at our "Falls" and "Behaviors Affecting Others" data now and hope to enjoy even more success in the future.

Recovery Audit Contractor (RACs) and Medicare Administrative Contractors (MACs)

How do you respond to over 100 requests for Additional Development Records in 5 months when you're still trying to care for residents on a day to day basis? You use the tools available in the AHT EHR. The Resident Health Records allows us to identify exactly what information each Additional Development Request (ADR) is requesting, export that information to a PDF for encrypting and burning onto a CD. When you look at requests that end up being up to 800 pages long, avoiding the copy and "snail mail" route is the only logical solution to save resources – labor, copying, and even postage!

eChart

At a glance, we rely on graphs to monitor trends in weight, pulse rates, BP, and more. The familiar chart-like tabs help make staff more comfortable accessing information. Physicians enjoy the vitals reports we produce on their residents, as well as a 360 degree view of their condition.

Challenges and Pitfalls to Avoid

If you're just starting out, it's important to have a plan – and an EHR provider you can trust to stay ahead of the curve. Ensure your team is ready for this big change and communicate the benefits, but you have to start now. Have a roadmap to get you from the beginning phase to the finish line, working with your EHR provider. Continue to make improvements with advanced EHR modules, like analytics, reporting, dashboards and decision support tools and features your provider offers to improve your understanding of, and ability to improve, your quality scores and outcomes; this would help you maximize return on your investment. You're in this together for the long haul.

Lessons Learned/Advic e to Share with Others

It's not just about reporting today's outcomes – we need to make an informed decision about tomorrow's outcomes based on today performance. We have to demonstrate ongoing continuous improvement – QAPI is all about the PDSA cycle. Outcomes Reporting, in conjunction with other operational clinical reports, give us real-time data for real-time decision-making. Outcomes Reporting allows the management team to get important overall results and dive deep into day to day details to ensure we are offering quality care and producing real results to move us forward.

Your flow of referral business has always depended on your relationship with your acute care partners, but now you need to know your readmission, Quality Improvement (QI), and Quality Management (QM) numbers because you can rest assured they have your numbers at their finger-tips. You must be ready to produce outcomes reports to market to your partners, continuously improve, and report your results to them. Understanding and marketing your outcomes is a critical part of today's SNF business.

4 The Impact and Benefits of EHR Analytical Tools

4.1 Provider: The Francis E. Parker Memorial Home, Inc.

Contributors: Gloria Zayanskosky, Chief Quality and Community Services Officer, Mike Yannotta, Senior Director of Nursing, Linda Patron, Director of Resident Services, Rick Mallia, Senior Director of Support Services The Francis E. Parker Memorial Home, Inc.

4.2 Vendor: AOD Software

Case Study Category

Analytic Tools

Organization Type

Long-term Care Provider with Continuum of Services, including Skilled Nursing Care and Assisted Living Residences, Adult Day Care and Health and Wellness Programs.

Organization Description

Founded in 1907, The Francis E. Parker Memorial Home's mission is to provide transformative and charitable long-term care services in home-like settings while advancing learning opportunities for nurses, other health care professionals and caregivers. Parker offers a continuum of residential and home and community-based long-term care services for over 400 seniors in Central New Jersey. Guided by the Eden Alternative® principles of person-directed care, Parker embraces and nurtures aging as a natural stage of life.

Project Description

Implement an EHR system to not only streamline operations but use the underlying data to create dynamic data analysis to drive quality improvement through AOD's software solution. This allows Francis E. Parker to improve safety and quality, provide better resident outcomes, reduce liability costs/exposure and detect emerging quality issues as they arise.

Implementation Approach

In 2009, Parker began implementing initiatives identified in its completed Strategic Technology Plan. One of these initiatives was to expand its EHR functionality from the nominal use of Interdisciplinary Care Plan (IDCP) Notes and MDS modules to a completely functional Electronic Health Record with little or no paper support. One of the primary drivers of this initiative was to collect, analyze and utilize centralized data to enable Parker to continually measure and improve its exceptional care and services.

In the past, Parker has encountered several obstacles in its pursuit of tracking data and producing analytics for continuous quality improvement and best practices benchmarking. First, the data was kept manually in decentralized paper-based medical records that were difficult to collect and combine. Second, Parker lacked resources to effectively analyze the limited (and at times invalid) data that was available. Third, Parker nursing homes are private-pay with few options to compare its quality to similar performers, and particularly challenged due to lack of public reporting for private-pay nursing homes.

Parker's EHR implementation has progressed steadily for the past five years with nearly all targeted modules completed to the point where manual resident charts are thin or eliminated. Modules completed include: Admissions, Census, Billing, Finance, IDCP Notes, 24 Hour Report, MDS, Care Plans, Medical Record History, Point of Care, Workflow and Dashboard, while modules near completion include Physicians' Orders and eMAR. All nursing, recreation, social services, food service and finance staff, as well as, physicians, interns and pharmacy consultants are required to enter and update information directly into the AOD system. Standard and customized forms are used to capture Incidents, Infections, Falls, Activities of Daily Living, Comprehensive Pain Assessment, Skin/Wound Conditions and Universal Transfers.

The active modules and forms establish a complete EHR that, when combined with admissions, census and demographic data, provide a wealth of information that can be used to measure and improve Parker's quality of service.

To improve the collection, reporting and analyzing of this information, in 2013 Parker established a Quality department to ensure that the data collected within AOD is accurate and useful for decision making, peer comparisons and quality improvement. For example, the Quality department has utilized the AOD data for Quality Assurance Process Improvement (QAPI) indicator monitoring and improvement. The newest initiative will be to track the percentage of residents with a Practitioner Order for Life-Sustaining Treatment (POLST). With this information the QAPI committee can set and pursue a goal, such as acquiring a POLST on 40% of residents by year end. Additionally, through the point of care documentation entered into AOD, Parker is able to monitor staffing levels to meet resident care plans.

To address the lack of comparative data with other private-pay homes, Parker has joined groups and organizations that are similar in mission and caliber. Parker assisted with creating a regional Peer Quality Collaboration group of high caliber nursing homes in New Jersey and Pennsylvania. With five years of centralized EHR data accumulated in Parker's system it has been a much easier task to update a dashboard of quality indicators used to perform the comparisons to other homes. The collaboration also has been a huge success in addressing member needs due to growing demand for evidence-based care, outcomes, ACO's, bundled payment, and Medicare/Medicaid Managed Care. Additionally it enables members to share knowledge and further improve care and services.

Similarly, Parker joined the National Center for Assisted Living (NCAL) Patient Safety Organization (PSO) to measure and improve quality in the assisted living residence. Using standardized reporting and benchmarking with other assisted living homes, Parker strives to minimize resident risk, contribute to national safety initiatives and reduce liability costs and exposure. Data collected from AOD to support these measurements include hospital readmissions, medication errors, falls/fall-risk assessments, pressure ulcers, pain management, infections, elopements and demographics.

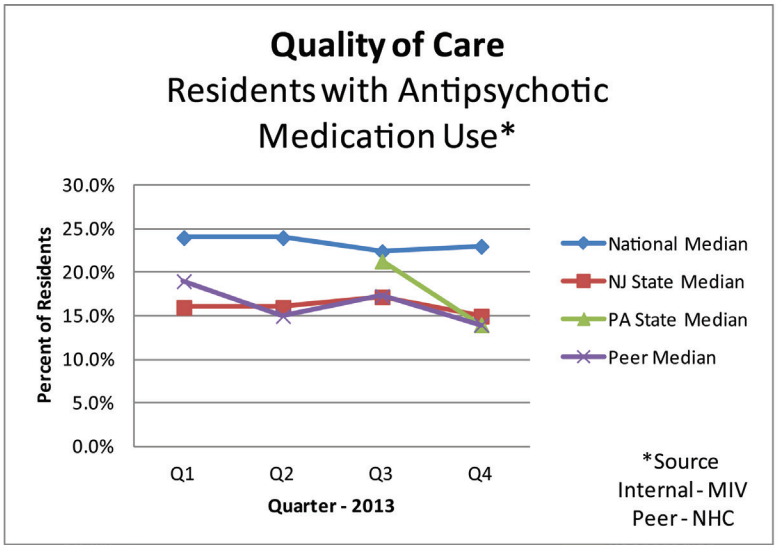
Outcomes

Parker's assisted living home has also achieved The Health Care Association of New Jersey's Advanced Standing designation. Qualification and continuation of this status is attained by complying with all regulations and submitting quality data (aggregated through AOD system) to fulfill benchmarks established by a Peer Review Panel. Key measures currently being submitted include Residents with Falls, Number of Residents receiving

Rehab, Number of Residents receiving Pain Management, Pressure Ulcers; number of residents screened, number of residents at risk, in-house acquired, Infection Control; Influenza, Pneumococcal, UTIs, Advance Care Planning (POLST), and number of residents receiving hospice.

After years of manually collecting data in a time consuming effort, Parker is able to accurately capture information and design quality metrics within their software solution to track trends and measure their performance against other top long term care providers. In addition, because of the time efficiencies in obtaining data through AOD, Parker has expanded the number of associated measures collected, lending to a fuller picture of resident outcomes. For example, if there is an increase in wheelchair dependency is there any changes in skin integrity? Previously attempting to identify a correlation manually was cumbersome, however, it is very easy with the assistance of technology. Parker has achieved this goal through implementation of a complete EHR system, establishing a Quality Department, and participation with peer groups and organizations.

An example of our Peer Collaboration comparison is below:



Challenges and Pitfalls to Avoid

- The endeavor has been a win-win for Parker. If anything it has driven the need for more detailed quality analysis and more quality analysis in other areas.

Lessons Learned / Advice to Share with Others

- Ensure excellent foundation of technology infrastructure in place to support 24/7 EHR system.
- EHR Implementation team should be led by clinical department. Parker's IT department led the project well through the first few phases but then began encountering obstacles and meeting resistance from clinical staff adverse to new processes.
- Parker used a champion/buddy system to ensure all staff were properly trained with current and new features and processes. Nurse and CNA champions were identified and met weekly as part of AOD implementation team. Between meetings they met with their assigned buddies to ensure they were kept up to date.
- The Parker AOD team also created tasks forces to undertake and rollout major initiatives such as Physician Access, Electronic Forms, Physician Orders and eMAR.

5 Cutting-Edge Technology Supporting Personal Touch in Hospice Care

5.1 Provider: Housecall Providers

Contributor: Rebecca Ashling, Hospice Program Director

5.2 Vendor: Brightree

Case Study Category

Clinical Decision Support Systems

Organization Type

Hospice

Organization Description

Housecall Providers has a staff of 35 hospice nurses, social workers, chaplains, aides and volunteers who provide specialized care to about 75 hospice patients a day throughout the city and suburbs of Portland, Oregon. They are part of the highly regarded non-profit home care practice with an experienced team of 91 physicians, nurse practitioners, physician assistants and other medical professionals serving more than 1400 in-home patients a year with everything from proactive primary healthcare to end-of-life counseling and care.

Project Description

The challenges or barriers that Housecall Providers were trying to solve for their hospice line of business include:

- The previous laptop-based EHR was expensive to purchase, maintain and license, limiting usage across the hospice staff.
- Bulky laptop and clunky, slow documentation system created an unfriendly wall between the caregiver and patient and, in many instances, forced the clinician to document the visit later during their own free time at home.
- The previous system lacked the real-time connectivity needed at the point-of-care, forcing inherent inaccuracies and offsite documentation.

Implementation Approach

Driven by the pursuit of optimal patient care, Housecall Providers and its Board of Directors were in search of a new level of clinician and patient friendly point-of-care documentation capabilities. Their new documentation solution had to work seamlessly in real-time throughout the day in the life of a Housecall Providers clinician. It

had to subtly blend in naturally with the patient visit and even enhance patient care. Lightning-fast navigation in a device that features a far smaller footprint and price tag and requires no Internet access were absolute musts.

"We set the bar extremely high when we set out to find the best EHR documentation solution for Housecall Providers, and Brightree was clearly the breakthrough we needed to help empower our hospice team and elevate our overall patient care," said Rebecca Ashling, Hospice Program Director. "Because Brightree® Hospice is an application-based point-of-care solution versus browser-based, we can run it on iPads® which are far less expensive than laptops. In fact, we've reduced our hardware costs by 70-percent with Brightree, which allows us to equip our entire hospice staff with Brightree on iPads."

Housecall Providers points to the intuitive design at the core of the Brightree Hospice solution as perhaps the biggest breakthrough of all. "Brightree Hospice makes it so easy and natural for our clinicians to move seamlessly and effectively through the documentation process," Ashling says, noting that Brightree has opened the door to enormous benefits. "Our clinicians have come to trust and rely on the nimbleness and flexibility of the Brightree app and their newfound ability to effectively and subtly integrate charting into patient visits in real time at the point-of-care. That changes everything for the better, for our patients, our clinicians and our bottom line."

Outcomes

By switching to Brightree Hospice and using the point-of-care app on the iPad they were able to achieve the following outcomes/benefits:

- Improved patient care and satisfaction by eliminating the technology barrier between the caregiver and patient.
- 50-60 percent improvement in visit documentation accuracy.
- Boosted on-call staff preparedness with real-time access to agency patient database from anywhere.
- Improved overall clinician satisfaction and workflow, resulting in better clinician morale.
- Dramatically reduced solution training time from weeks to hours.
- 70 percent cost savings on hardware devices.
- Eliminated software maintenance and licensing costs allowing 100 percent of staff to be equipped with Brightree's point-of-care solution on the iPad.

Challenges and Pitfalls to Avoid

The advancement in medical documentation wasn't without its drawbacks and barriers to success. For starters, the portable computers simply weren't portable enough. "Our previous documentation solution in many ways did more harm than good when it comes to patient care," Ashling says. "The laptops were bulky and the documentation systems that ran on them were clunky and slow to navigate. Our clinicians would open up their laptops with their big screens and keyboards and often times the interaction with their patients was negatively impacted," she recalls. "It was like a wall had been put up between the caregiver and patient, making it a real challenge to document at the point-of-care."

The laptop-based documentation system required a good Internet connection to operate as well. Wi-Fi is not always available when clinicians need it to document in-home patient visits or when they're on call or covering for another clinician and need emergency access to a patient's medical records. "Clinicians and patients can get very frustrated when the very technology that's designed to improve documentation and streamline operations routinely gets in the way of effective patient care," Ashling says.

Faced with detracting from their patient's overall wellbeing, many Housecall clinicians opted to document their patient visits after hours, late into the evenings at their own homes. Understandably, that often led to overworked and tired staff, lost personal time, documentation accuracy and morale concerns, and a team reluctant to use the laptop documentation system at all.

On top of all that, the laptops and the documentation system installation, maintenance and per-user licensing fees combined put a major strain on the non-profit healthcare provider's operations budget.

Lessons Learned/Advice to Share with Others

Improved patient care tops the list of benefits that Rebecca Ashling and her hospice team at Housecall Providers attribute directly to the Brightree Hospice solution. "We are now able to provide the best possible calming patient care and document the visit with an innovative solution and device that enables our clinicians to complete the vast majority of our documentation at the point of care. The more we can document in-home care observations in real-time, the more accurate those charts will be," Ashling reports. She estimates that the speed and reliability of Brightree on the iPad has led to a 50 to 60 percent improvement in documentation accuracy across her team.

"Not only did the walls come down with patients when we moved to Brightree, but our clinicians' resistance to what had been a laborious and slow documentation effort has been replaced with trust and confidence in the Brightree platform," Ashling says. Ashling cites the ability to quickly move from documentation to built-in iPad apps like Skype calling and iTunes music and videos as an important part of the agency's approach to personal touch hospice care.

And not only have technology and hardware costs been cut by 70-percent, the easy-to-use Brightree solution has nearly eliminated the need for training. "Our old system used to take clinicians as much as eight weeks to learn. That's valuable time taken away from patient care," says Ashling. "Most of our clinicians can train on Brightree for a few hours and they're ready to go. In fact, one of our care professionals had never used an iPad before and was documenting a patient visit less than a day later."

The intuitive nature of Brightree Hospice makes it easy to learn and easy to integrate into an in-home care setting. "It now takes far less time to successfully document a patient visit and those visits are far more engaging and revealing with Brightree at our fingertips," Ashling says, noting that the entire team is now equipped with the cost-effective Brightree solution on the iPad.

Even in emergency situations, when the patient's trusted clinician is not available, an on-call care giver can instantly tap into the Brightree system and fill in without missing a beat. They simply synch up with the agency's database and gain immediate authorized access to the affected patient's medical care documentation for a complete healthcare picture before arriving at the hospice patient's home.

"All of a sudden an on-call clinician is faced with caring for a patient they've never met and in a matter of minutes get all the documentation they need before they hit the patient's door," Ashling explains. "That's a huge advantage in what could be a life and death scenario. That's the level of responsive, compassionate care that sets us apart at Housecall Providers, thanks in large part to our alliance with Brightree," she says. "It's exciting to be able to provide cutting-edge patient care with a personal touch."

6 Christian Health Care Center: Taking the Next Step in Innovation

6.1 Provider: Christian Health Care Center (CHCC)

Contributors: Jennifer D'Angelo, vice president information services and information security officer, Kevin A. Stagg, executive vice president and CFO

6.2 Vendor: SigmaCare

Case Study Category

Analytic Tools

Organization Type

Independent living, assisted living, skilled nursing care, adult day services, short-term rehab, memory support, and behavior management.

Organization Description

Christian Health Care Center (CHCC) offers the most complete continuum of senior living, elder-care, short-term rehab, and a full range of mental-health services available on any campus in the New Jersey area, and serves as a vital source of services and information for clients, residents, patients, consumers, and their sponsors.

Project Description

This case study will discuss CHCC's implementation of and experience with SigmaCare's referral source management solution to drive clinical and financial operations and better assist the organization in more effectively managing and interacting with its referral base.

Implementation Approach

With increasing consolidation in the healthcare market, long-term care and senior living organizations need to find ways to remain competitive and position themselves for emerging payment models. Depending on the organization, this may include onboarding an Electronic Health Record (EHR), participating in a Health Information Exchange (HIE) or becoming part of an Accountable Care Organization (ACO), among many other things. While embracing technology is key, the underlying motivation should be to efficiently employ data to focus resources, enhance care quality and reduce costs. Moving forward, the most successful organizations will be those that realize the value of data and fully leverage it to enhance performance.

Christian Health Care Center (CHCC) is a prime example of a forward-thinking organization that consistently explores and implements upgrades on technology to optimize data. A non-profit, long-term and post-acute

care facility located in Northern New Jersey, CHCC offers senior life including independent living, assisted living, skilled nursing care, adult day services, short-term rehab, memory support, and behavior management. In addition, a full range of mental health services is offered on this 78-acre, multi-faceted campus including an inpatient adult and geriatric psychiatric hospital. For seven years, the organization has used SigmaCare's EHR in its long-term care space and has also employed the EHR in its assisted living facility for the past four years. The robust EHR technology allows CHCC to seamlessly capture consistent data on every resident, ensuring reliable and appropriate treatment, more informed care decisions, and better communication with providers both in and outside the organization.

In addition to being an early adopter of the EHR, CHCC also participates in an ACO and a statewide HIE, partnering with outside entities across the continuum to elevate patient/resident care. These efforts are helping the organization prepare for new payment models and deliver more collaborative care.

While CHCC is at the forefront of using data to drive clinical and financial operations, it is also looking to take processes to the next level by implementing SigmaCare's referral source management (RSM) solution. This software solution will assist the organization in more effectively managing and interacting with its referral base.

Automating Referral Source Management

In today's increasingly innovative healthcare environment, every organization should have a plan for managing referral sources – especially those like the post-acute and long-term care facilities who primarily depend on referrals to fill beds. As referrals account for a significant portion of operational success for these organizations, it is critical that they not leave this to chance. While some entities currently rely on paper-based manual processes, which involve calling potential sources, matching existing residents with referring organizations, and sending thank-you notes, this can be tedious and often imprecise. Moreover, it can take considerable staff time to keep track of all the communication, especially if the long-term care organization receives patients/residents from multiple facilities, such as hospitals, outpatient surgery centers, home care agencies, and so on.

By leveraging technology, organizations can streamline their referral source management process. The software lends the organization a bird's eye view of their referrals, allowing them to quickly assess where they are coming from by using claims data to monitor referrals to the organization and its competitors in the surrounding area. In addition, the tool offers trending and tracking reports that quantify where patients are going by type of service and diagnosis. Thus, with the simple click of a mouse, a case manager can see where patients in need of specific types of care are headed and whether or not there are opportunities to garner additional referrals as a result. Once the organization receives a referral, the system transfers patient data directly into the EHR, capturing details automatically and avoiding transcription errors and information loss.

In addition to monitoring, tracking and analyzing referrals, a provider can also create a record in the software for each source. Case managers can update the record to include notes, call histories and other documents. This ensures that every contact within a referral source record is documented in the same space, preventing information loss and allowing staff to see, at-a-glance, what is being done to cultivate and maintain the relationship.

Outcomes

When CHCC began considering the implementation of referral source management software, the organization had three main goals in mind: optimize its resident census, retain and ideally grow market share, and provide accountability to allow the organization to verify that referrals were coming in at the rate and from sources

it was expecting. CHCC believed that by meeting these goals, it could take its referral source management strategy to the next level of performance.

SigmaCare's Referral Source Management solution helps CHCC achieve its goals in the following ways:

- Creates a detailed picture. As noted above, the software produces easy-to-understand reports that quickly illustrate the organization's main referral sources. This allows CHCC to both confirm their existing assumptions about referral status, as well as identify new opportunities. The reports also highlight red flags where the number of referrals don't match the organization's expectations, prompting leadership to determine root causes for shortfalls. In addition, it points out referral sources the organization did not realize it had, helping them better target new prospects. For example, prior to integration of the referral source management solutions CHCC had identified and successfully pursued roughly two hundred sources from which to garner referrals. However, using the RSM software the organization was able to identify the potential for a nearly two hundred percent increase in referral sources. As it relates to individual referring providers, CHCC has achieved more than a twelve thousand percent increase in terms of visibility as it relates to potential referral source physician leads.
- Strategically plans case manager schedule. Before implementing this solution, CHCC's case managers often visited hospitals without truly knowing whether or not they were effectively expending their efforts. Using the RSM software, CHCC now plans routes that enable case managers to prioritize referral source visits, elevating efficiency and guaranteeing return on time invested. The technology also plans routes based on geographic proximity to optimize case manager time and reduce travel costs. With a strong focus on predictive intelligence, the RSM software utilizes a combination of behavioral monitoring of the marketing representatives and claims intelligence to increase return on investment by yielding referral sources best suited for the organization in question.
- Enables better connections with physicians. Hospital discharge planners have historically been the primary referral sources for patients and their families in need of post-acute care services. Shifting ownership for this referral recommendation to the physician would help doctors think more proactively about the best place for their patients' post-acute or long-term care needs. The referral source management software stands to aid this transition, prompting more pointed conversations with physicians. For example, case managers are able to say things like, "I see you are referring your patients to X facility. What can we be doing to receive that referral instead?" Many times physicians may not be aware of the provider to which they are sending their patients because the discharge planner and hospital could have a strong influence for patients and their families in their decision-making process. By enhancing relationships with physicians, CHCC not only stands to increase its business, but also and more importantly, ensure the patient receives the most appropriate and highest level of care, which in turn improves outcomes and reduces unnecessary hospital readmissions. To foster the physician relationship, the technology takes the guesswork out of relationship management, offering reminders to re-contact physicians or gratuitously follow-up with thank-you notes, for example. Although CHCC is in the early stages of using the RSM tool, the organization anticipates an increase in referrals to occur, as has been the case with fellow users of the software.
- Quantifies the benefits of ACO participation. As previously mentioned, CHCC is part of an ACO. While the organization assumes the arrangement results in increased referrals, to this point it has not had a reliable method for quantifying that hypothesis. By leveraging the referral source management software, CHCC can verify what referrals are coming in to confirm that the facility receives the business benefits of ACO participation. Resulting from our ACO participation, we've observed a steady rise in referral sources, which we anticipate will be further increased with the use of the RSM software's lead identification processes. In addition, it can use the software to demonstrate that the organization is a preferred provider, further elevating its reputation.

Challenges and Pitfalls to Avoid

From the perspective of similar organizations who have implemented the software, it is important to remember and regularly refer back to the organization's original goals set for the technologies it seeks to integrate. There are many opportunities when implementing a new software, and trying to incorporate too many features that stray from the main goals could slow the process. Thus, keep it simple during the implementation and once the organization has exceeded the original goals, then explore additional add-ons and enhancements.

Lessons Learned/Advice to Share with Others

In an industry that is ever changing, it is important to stay flexible. By resisting new development and changes, organizations could be missing out on considerable opportunity for growth. Changes can seem intimidating, especially during the initial onboarding phases, but by accepting these operational changes organizations can uncover previously hidden areas of opportunity and reward. To help facilitate early adoption, a comprehensive implementation plan with thorough, collaborative education and feedback can mitigate potential drawbacks that can happen along the way.

Embracing the Future

Referral source management is becoming increasingly important to business success in the long-term care arena— with few organizations implementing this kind of technology thus far. Experiences like CHCC's, however, illustrate that it is a powerful resource in terms of getting a handle on referral sources and improving the ability to retain existing business and capture new markets. Organizations that aim to navigate the imminent healthcare changes will need to adopt this type of tool to effectively build and maintain their relationships and market presence. In fact, the more adoptive an organization is of technology and using data to drive quality, efficiency and cost, the more successful it will be in establishing leadership in the market and realizing long-term financial viability and growth.

REGINA HEALTH CENTER

PointClickCare®

7 Regina Health Center Reduces Unnecessary Hospital Admissions Using eINTERACT Tool in PointClickCare

7.1 Provider: Regina Health Center

Contributor: Janet Cinadr, RN, MSN, Director of Nursing

7.2 Vendor: PointClickCare

Case Study Category

Clinical Decision Support Systems including those aimed at Reducing Inappropriate Hospital Admission and Acute Care Transfers

Organization Type

Skilled Nursing Facilities, Assisted Living, Respite Care Services and Short-Term Inpatient and Outpatient Rehabilitation

Organization Description

Regina Health Center (RHC) is a not-for-profit Medicare/Medicaid certified nursing facility with 101-licensed nursing beds, a special dementia care unit, 54 assisted living units, respite care services, and short-term inpatient and outpatient rehabilitation. Regina Health Center is regularly recognized for its superior quality of care. In 2014, U.S. News and World Report again named Regina Health Center among the best nursing homes in the country.

Located in Richfield, Ohio, Regina Health Center is part of Mt. Augustine, which is the motherhouse for the Sisters of Charity of St. Augustine. Over 50% of Regina's residents are retired and aging members of the Catholic clergy – every other resident you meet is a Sister, Brother or Father. Located on an expansive 230 acres of land that offers a peaceful environment with lovely grounds and outdoor gardens, Regina Health Center is located about 30 minutes from both Akron and Cleveland.

Project Description

At RHC, there is a constant focus on quality, and they are always looking for ways to improve the resident experience and provide ongoing education to their staff. In 2012, Regina Health Center's leadership recognized that their all-cause annual re-hospitalization rate was at a historical high of approximately 18%, and the threat of penalties was looming. Thus, they decided that it was an important strategic priority to focus on reducing unnecessary returns to hospitals and volunteered to participate in a study of Interventions to Reduce Acute Care Transfers (INTERACT) with a team from Florida Atlantic University's, which afforded them the opportunity to support their mission of improving quality outcomes and the resident's everyday experience.

INTERACT is a quality improvement program designed to improve the early identification, assessment, documentation, and communication about changes in the status of residents in care facilities. INTERACT uses a standardized, evidence-based set of tools to promote timely assessments, appropriate and timely communication to practitioners and the communication tools to make sure the right information is conveyed to practitioners to prevent transfer and, in the event a transfer becomes necessary, that the right information is delivered to hospitals. The intent of the INTERACT study was to measure the effect of implementing the standardized tools within a quality improvement framework in order to prevent unnecessary returns to hospital.

Implementation Approach

This national INTERACT research study involved two phases. During the first phase, as part of a control group, the home continued with the status quo, tracking returns to hospital but not changing their current practice or approach. In the second phase, completed in March 2015, INTERACT was implemented in its paper format for the project.

Using funds donated for the purpose of education and staff retention, RHC paid for all staff to complete the Medline University INTERACT courses. Staff were paid at the regular rate for attending the classes on their own time and received CEU credits upon completion. The nurses diligently attended the required courses. Some of the State-Tested Nursing Aides (STNAs), however, struggled with self-paced learning and so a few small group sessions were established. To ensure an optimal educational experience for all, special attention was paid to the design of the physical learning environment, which included a dedicated training room with a large projection screen and comfortable seating in classroom style. This training room set-up improved attendance and helped to ensure all staff received the same information.

Introduction of the INTERACT program using paper forms had a profound effect on readmissions – not only did rates drop, but staff and physician communications drastically improved – residents and families were included in decision making and advanced directives became a more important part of resident care. Truly understanding and implementing a resident's wishes became part of the process with any transfer. Collaboration among physicians, clinical staff and the resident their and family lead to more informed decisions, including families and residents choosing to stay at RHC to receive the necessary treatments and services. For example, if a resident understood that his/her lung infection could be treated with trained IV nurses at the Health Center, he/she was more likely to stay in place, avoiding a transfer and potential admission entirely.

And when a situation occurred where the resident did have to go to a hospital, consistent and comprehensive health information accompanied them, improving communications during the transition of care. The guidance provided through the INTERACT forms meant that it didn't matter what nurse completed the transfer documentation, the same information was compiled in the same way each time – facilitating a smoother transition for the resident, better informed ER staff and less aggravated nurses as the follow-up phone calls decreased with the improved tool set.

While participating in the INTERACT study, RHC decided to explore the use of an electronic healthcare record (EHR) system that could support such goals, improve MDS and documentation management, and build efficiencies into care and billing practices. In 2013, Regina Health Center selected PointClickCare as its EHR platform and during the second phase, they introduced electronic tracking of rehospitalizations with eINTERACT, the industry's first software design effort to embed the INTERACT quality improvement process and tools directly into an EHR framework.

Regular reporting was required throughout both the control and implementation phases of the project. Manual tracking of admissions, discharges and transfers to the hospital on paper forms was tedious and error-prone, requiring long hours to complete and verify. The implementation of the eINTERACT Hospital "portal" in PointClickCare, changed all that.

"PointClickCare has been invaluable in tracking 30-day admissions and readmissions. Graphs were easily accessible to click on and send electronically to the INTERACT research group," explains Janet Cinadr, RN, MSN, and DON of Regina Health Center.

Of course, data collection isn't the only purpose of the INTERACT process. It is, after all, a QAPI (Quality Assurance/Performance Improvement) program. There is the analysis of the data that must occur to positively affect change and achieve outcomes. Quality improvement tools embedded in PointClickCare's eINTERACT program made data analysis and tracking easy.

"Of course, for analysis purposes: times of day, MDs, days of week for readmissions, hospitals where the resident was sent -- all of this data was right there whenever we needed it," Janet stated. "PointClickCare also has information regarding the symptoms that precipitated readmissions, such as sepsis. And you can work with the team to see if signs and symptoms were there earlier, what chest x-rays or labs were or should have been done and whether the resident could have been treated prior to a temperature of 102 in the middle of night. In short, PointClickCare helps to analyze whether these were preventable or non-preventable readmissions."

Outcomes

RHC achieved positive outcomes as a result of implementing INTERACT/eINTERACT. Their annual readmission rate dropped – 18% decreased to 12% with the start of the project and in 2014, the annualized rate dropped to 9.8%. Those are big gains for a small home in rural Ohio.

Management also saw an improvement in collaboration and communication and with physicians as well as changes and positive feedback from them regarding transfers. Residents felt like they were involved in the process and decision-making, and not just the subject of it. INTERACT changed the way doctors viewed the nurses and improved trust amongst staff. Knowing that the nurses were using and following the care cards and care paths with information provided in a consistent format, along with remote access to the EHR, helped physicians review notes themselves and make the best decision for a given resident at that time.

Management strategies were also positively affected by the use of both INTERACT and EHR technology. Managers were able to collaborate using real-time information, from any location, empowering staff to make the right decisions at the right time.

Janet adds "I feel the readmission rate has decreased from the alerts and reading of the nurses' notes on a daily basis. If I see from home a temperature alert and a nurses' note regarding a specific resident on a weekend, I call and make sure labs have been ordered for Monday morning. Reviewing the weights and vital signs alerts, dashboard, and communication takes only 10-15 minutes in our 100 bed facility. This is a good use of my time."

Challenges and Pitfalls to Avoid

As with any new project, there were challenges the team at RHC encountered. Initially, the biggest obstacle was the time it took to implement the INTERACT program. The DON and education nurse spent many hours implementing the program for the team. The training provided by Medline University was 12 hours in total, but Regina was able to pay nurses for their time to complete the online training at home. Nurses also received free contact hours they could use to meet licensure requirements. All full-time nurses completed the program, while 80% of part-time nurses and as needed PRN nurses were able to participate. It proved to be a challenge to get the STNAs to complete the course work at home. Each module was four hours in length. This was difficult for STNAs, in part, because many lacked access to a home computer. Instead, the team formed small group classes, each an hour in length during work hours to get all full time aides trained. Because RHC was part of the INTERACT research project, the staff were able to complete the training at no cost.

Another challenge that ultimately proved to be an extreme benefit in disguise, was the ability to analyze monthly hospital admissions and changes in condition. The INTERACT tool helped guide the team to determine if hospital admission was necessary or avoidable. Additionally, they were able to use the information for teaching staff how to improve their assessments and communication with physicians.

Gathering interdisciplinary support was not as easy as RHC leaders had hoped. The social worker and admissions director completed their modules online. The DON scheduled one hour sessions for the activities staff and housekeeping/laundry staff to be trained. What was most difficult was rallying the physicians to participate in the training.

Lessons Learned/Advise to Share with Others

Regina Health Center made INTERACT and reducing unnecessary transfers a priority and now it is the way they do business every day. Management buy-in and leadership support is important, but the staff and rest of the care team need to be part of the process. Here are some of those lessons learned at RHC:

1. Training is important and needs to be provided to all levels of staff – starting with management. The process needs to be all encompassing, which means everyone needs to be involved to ensure optimal outcomes.
2. Doctors must be on-board. All Doctors have a huge impact on readmissions – the more they know, the better the outcomes. Make sure they can access the EHR remotely.
3. Advanced directives are important. Have them clearly identified but don't treat them like they are written in stone. They are worth considering with every transfer. Things change.
4. There needs to be more conversation at the bedside about the transfer – be sure to include the resident in decision-making regarding a possible hospital return. . It's important to meet with residents and their families regarding wishes for advanced directives soon after admission. People don't usually change their mind at hospitalization time. Having time to consider and share their choice with family is important. Sometimes explaining to the residents and their family that you have the resources to take care of them in their current home is enough to have them stay.
5. Use technology to support your goals. PointClickCare provides an avenue for management to see what is going on where, focus attention where it is needed and automate workflows, removing the hassle of manually managing the process.

Implementing any new strategy, policy, procedure or program can always be a chore but INTERACT makes it easy by providing all the necessary tools. PointClickCare augments this by building it into the workflow within the EHR. The two together bring INTERACT to life and enabled RHC to make it the way they do business to improve outcomes and keep readmissions at bay.

8 Improving Clinical Efficiencies and Medication Pass Processes through Implementation of an EHR

8.1 Provider: Adventist Care Centers

Contributor: Meta Johnson, Chief Information Officer

8.2 Vendor: HealthMEDX

Case Study Category

Clinical Decision Support Systems

Organization Type

Adventist Care Centers provide a variety of long-term and post-acute care services at 15 Skilled Nursing Facilities and two Assisted Living centers located in Florida, Kansas, Kentucky and Texas. It is part of Adventist Health System, which operates in 10 states, with more than 8,100 licensed beds across 44 acute care facilities.

Organization Description

Adventist Care Centers (ACC) is the long-term care division of Adventist Health System, a 42-year-old non-profit faith-based organization based in Orlando, Fla., which operates 44 hospitals in 10 states. Of Adventist's 74,000 total employees, 2,616 are part of the ACC team that administers care to nearly 6,000 annual patients in 15 skilled nursing (SNF) and assisted living (AL) settings.

In addition to the health system's widespread acute care facilities, Adventist Health System interfaces with an Adventist Home Health component that averages over 500,000 home visits annually and offers rehabilitation services in all of its 15 skilled nursing locations.

Project Description

When planning the implementation of the HealthMEDX Vision® platform for operations across their skilled nursing care division, Adventist focused on the following goals: improve documentation accuracy while concurrently increasing consistency, standardize and automate workflow processes, and create a standards-based information exchange.

Implementation Approach

ACC leaders elected to begin the system-wide roll-out with a comprehensive single-site launch, creating a replicable model for bringing their facilities online sequentially rather than concurrently phasing in limited functionality across all locations. From the beginning, ACC's big-picture goals included accelerated facility

adoption and comprehensive usage, making HealthMEDX's combination of extensive functionality and flexible roll-out a perfect fit. In taking the first step, the organization is now poised to move rapidly toward clinical automation, paperless processes and standardized information exchange across its 15 business units.

While implementation planning for ACC's first EMR go-live was centered on the company's 120-bed skilled nursing located in East Orlando, the team maintained focus on the broader goals of EMR adoption. Given the staggered implementation timeline across their facilities, extra attention was paid to creating a plan that could easily be replicated by the team of ACC's Super-user trainers.

Fortunately, their EMR vendor was on the same page. Traditional LTPAC implementations typically begin by launching a scaled-back version of the product at multiple facilities, before gradually adding functionalities. In the long-term care sector, where turnover is consistently high, that approach creates a long-term training challenge that can slow adoption and impede the realization of EMR benefits.

HealthMEDX's enterprise model was designed to help growing LTPAC organizations by supporting sequential or ongoing roll-outs as their business model shifts or facilities are added. In addition to reducing overall training time, for some organizations the approach has been shown to improve clinical efficiencies and outcomes while charting an accelerated path to ROI.

The HealthMEDX enterprise implementation model includes seven phases:

- Administration - strategy, timelines, team roles.
- Analysis – operational assessment, workflow planning, forms design.
- Design – system configuration, review, preliminary testing.
- Build - advanced testing, training preparation.
- Training – Super-User instruction, advanced training.
- Test – on-site pilot, end-user training, fine-tuning.
- Go live/Post Live – Launch, follow-up training, month-end support, optimization.

ACC's facility launch plan begins three months prior to Go-Live with onsite computer skills training, documentation conversion and order reconciliation in preparation for the migration to EMR. Intensive education begins three weeks prior to launch with 12 hours of CEU training in the Vision environment for nursing staff, with ancillary service departments receiving individual instruction to supplement the basic group training. Data backload is initiated two weeks before go-live, with dual data entry on both HealthMEDX and legacy systems from that point forward until go-live to ensure a seamless transition. Each nurse receives 1-on-1 instruction during their first shift live on the Vision platform, with on-site support maintained at the facility for the week following go-live.

To enhance consistency of information exchange between geographically dispersed Adventist facilities, the ACC team leveraged Vision's extensive reporting capabilities. HealthMEDX notes that some of ACC's unique MDS and therapy services applications of Vision have shown broader viability, and are being evaluated for inclusion in a future general release of the software developer's comprehensive platform.

Moving forward, ACC's launch strategy for its next facilities will include a 90-day run-up to go-live. Future implementations will also benefit from the initial training team's even distribution across end-user groups, as well as the establishment of a cross-departmental support structure for all users.

Outcomes

Though ACC hasn't accumulated a statistically significant pool of comparative clinical outcomes data due to their abbreviated roll-out, there have been numerous reported benefits since their November 2014 Go-live date.

ACC physicians using the HealthMEDX® iCare mobile app have reported increased efficiency around orders, while clinical teams are benefiting from the simplified review of documentation and enhanced automation. Users noted greater efficiency in their medication and treatment pass processes, with specific improvements around monthly medication changeover. To date, there have been no quantifiable impacts to incident averages or medication error rates.

It should also be noted that during the roll-out process there was no staff turnover in either the implementation team or the facility location – a common challenge in the LTPAC sector. Also, although the facility was subject to a survey visit in close proximity to their roll-out, ACC leaders observed no negative survey impact related to the changeover to electronic processes. They did note that – after only minimal instruction – the majority of the survey team was able to locate all needed documentation in the Vision environment without navigation assistance.

Challenges and Pitfalls to Avoid

ACC leaders caution against undervaluing a system's configurability during EMR review and selection. They recommend careful evaluation of organizational processes and review of existing templates within the EMR platform. Leveraging the capability to customize forms within the Vision EMR platform is helping ACC ensure that their unique operational needs are met, while compliance with all regulatory requirements is maintained.

Lessons Learned/Advice to Share with Others

ACC recommends a deep-dive planning approach, particularly as it relates to examining existing internal processes to identify weak areas that can hinder workflow automation and disrupt end-user adoption. Try to make sure that your build process reflects best practices for your unique organization. A reference site visit to peer facilities of similar size, performance, and function may help clarify the operational impact of active EMR at the service level. That expanded perspective will help guide your team during the back-end preparation necessary to ensure your platform and processes are aligned to decrease form count and process steps – two keys to maximizing the impact of any paperless system.