



THE ROLE OF CLINICAL DECISION SUPPORT AND ANALYTICS IN IMPROVING LONG-TERM CARE OUTCOMES

Long-term and post-acute care (LTPAC) organizations face unique challenges for remaining compliant and delivering high quality healthcare, which can be mitigated with the use of clinical decision support (CDS) embedded in an electronic health record (EHR). This creates a CDS-driven EHR platform, which includes the workflow from physician orders and assessments then follows the resident. This enterprise-wide solution increases quality of care and resident satisfaction while reducing errors and rehospitalizations.

A CDS-driven EHR platform allows the care team to access comprehensive resident information from the local care community (labs, diagnostics, pharmacy, etc.) so they can better diagnose and treat the comorbidities frequently faced by the LTPAC population. This is especially important considering approximately one-quarter of adults in developed nations have at least two chronic conditions, and more than half of older adults have three or more chronic conditions such as heart disease, diabetes, rheumatologic conditions, chronic pulmonary disease and dementia.¹

In addition to improving clinical care, an EHR can reduce risk and increase interoperability with community care partners, all while generating strong return on

investment (ROI) and financial results. Though adoption has trailed that of hospitals and medical practices, the industry is quickly catching up and realizing benefits from LTPAC-specific EHR platforms.

Unique challenges facing LTPACs

Skilled nursing facilities, assisted living communities and Continuing Care Retirement Communities (CCRCs) all operate in a complex environment. While hospitals and other care providers generally interact with patients on an episodic basis to address a specific incident of care, LTPACs provide holistic, ongoing care for a wide range of acute and chronic conditions.

The majority of LTPAC residents present with comorbidities that include one or more chronic conditions. Chronic diseases are responsible for more than 70 percent of deaths in the United States and about 75 percent of healthcare spending.² Medication management is particularly critical for LTPAC residents, who tend to enter care with multiple prescriptions from a range of physicians.

Due to the fact that residents will be in the facility for an extended period of time, LTPACs must simultaneously focus on quality of life as well as quality of care. In addition

¹ Whitson HE, Boyd CM. Managing Multiple Comorbidities. 2013; <http://www.uptodate.com/contents/managing-multiple-comorbidities>.

² Ford ES, Croft JB, Posner SF, Goodman RA, Giles WH. Co-Occurrence of Leading Lifestyle-Related Chronic Conditions Among Adults in the United States, 2002-2009. [Erratum appears in Prev Chronic Dis 2013;10. http://www.cdc.gov/pcd/issues/2013/12_0316e.htm.] Prev Chronic Dis 2013;10:120316. DOI: <http://dx.doi.org/10.5888/pcd10.120316>.

to these challenges, LTPACs face more rigorous regulatory scrutiny than other care settings.

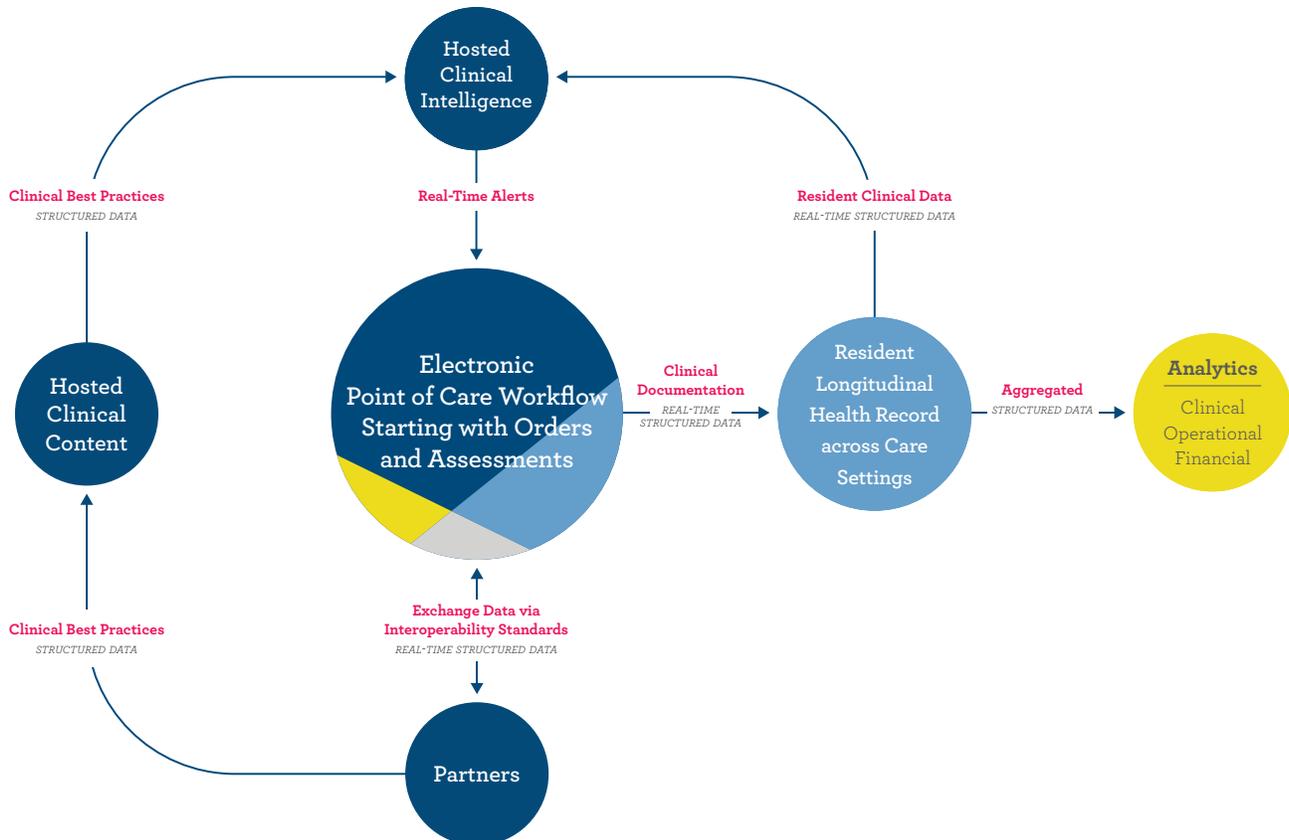
Integrating clinical decision support in the EHR

Clinical decision support consists of structured longitudinal resident data, clinical content, interoperability and clinical intelligence that is delivered in real-time to the appropriate caregiver. By leveraging clinical best practices, LTPACs using CDS can realize improvements in resident outcomes. For example, embedding CDS into the EHR workflow streamlines real-time monitoring and alerts that have a significant impact on resident health. When providers can more easily access and leverage these metrics, they are better equipped to make treatment decisions for their residents.

In the past, it was difficult to gather an individual resident’s medical information such as history, medications, demographics, laboratory information and vital signs. Each medical practice or hospital had its own dataset, with test and lab results usually siloed inside a paper chart. By improving interoperability between the various entities responsible for portions of a resident’s care, the LTPAC can create a community of care with a comprehensive medical record that drives CDS.

Analytics leverage aggregated structured clinical data that was captured by clinicians through documentation across the entire clinical workflow. A single LTPAC facility tends to have its own way of doing certain things. While certain variances may be inconsequential, the use of analytics to monitor trends — especially across multi-facility

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organizations — offers an opportunity to achieve significant improvements in care delivery and outcomes. For example, if an organization is looking to assess how well it is controlling diabetes for its residents, it may examine mean HbA1c levels (a lab test that shows the average level of blood sugar over the previous three months) across its facilities. If there are variations among facilities, the organization can identify the facility with the most consistent HbA1c rates, understand its policies and clinical best practices and then implement these best practices across all its locations.

The role of interoperability

It is not easy to achieve interoperability across multiple technology platforms and partners; however, it is necessary to successfully create a longitudinal resident record. To achieve best results, the EHR must be able to accept data from multiple sources and the EHR vendor must be committed to ensuring success.

Medication management, an ongoing challenge for LTPACs, is another area that benefits from CDS and interoperability. CDS, in the form of Drug Utilization Review (DUR) alerts, can identify drug interactions with standing medications or allergies, geriatric precautions or duplicate therapies all before the order is placed. The physician or nurse via a telephone order can then select from a list of therapeutic alternatives to avoid the DUR alert or simply acknowledge the alert. Interoperability, in the form of a bidirectional exchange of information with the pharmacy, allows the ordered medication to be submitted directly to the dispensing system so the pharmacist can review any DUR acknowledgements from the physician and avoid a possible telephone call back to the facility.

The maximum benefit is delivered not with an interface, but with a true integration promoting optimized workflow. For example, an integration with lab or diagnostic testing providers can deliver results directly to the clinician within the workflow. This workflow requires adherence to standards and the use of best practices, as well as a willingness to work closely with community partners. Each partner may have a particular set of standards and workflow. By developing an understanding of their requirements, LTPACs can successfully create a community of care fueled by the capabilities of their EHR.

Benefits of EHRs for LTPACs

LTPAC organizations adopt CDS-driven EHRs to improve care and operational efficiencies while reducing risk. In addition, the EHR can play a key role in ensuring regulatory compliance with complete and timely documentation.

EHRs transform the resident care paradigm by eliminating traditional case management that relies on retroactive reviews resulting from a dependence on paper charts. Rather than review a resident's chart on a weekly, monthly or quarterly basis, physicians and nurses can perform case management in real-time with records that are updated at the point of care.

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Access to a real-time dashboard that immediately identifies any missing information in charts is an essential tool in maintaining comprehensive, compliant electronic records. Seeing exactly what is documented—and what's not—allows providers to make better clinical decisions. Dashboard alerts and real-time information are valuable clinical management tools that allow for immediate remediation, whether that's improving care (for example, medications overdue) or supporting financial goals (MDS assessments required).

State Department of Health agencies that survey LTPACs using CDS-driven EHR platforms found these organizations achieved a 35 percent reduction in the number of clinical deficiencies. Not only does this reduction mitigate risk and help clinicians provide more proactive care, it also improves an organization's reputation, which can have a positive impact on referrals and census.

For anyone who has experienced the frustration of searching or waiting for charts, the ability for multiple people to access and enter information simultaneously is a clear benefit. Equally welcome is the pre-population of certain fields, which reduces manual entry, saves time and reduces erroneous entries.

Helpful features that allow the clinical staff to focus on their jobs rather than chart management increase staff satisfaction. Additionally, LTPAC organizations using CDS-driven EHRs realize significant gains in staff retention and satisfaction levels, as clinicians are able to focus on care and streamline documentation. By integrating features such as 24-hour reporting, which eliminates paper notes and improves shift-to-shift communication, and providing a single dashboard view with real-time management and clinical notifications, the EHR can help eliminate errors and improve care.

Clinical benefits of an EHR

A CDS-driven EHR helps LTPACs enhance the quality of care and meet regulatory requirements. With real-time information, clinicians can make more informed decisions based on best practices. Starting at a resident's admission, an EHR enables better documentation across the entire care team. Combine this with interoperability and integration capabilities between other care providers, and the EHR can support participation by everyone in a resident's care team.

Not only can an EHR bring together a community of care providers, it can also help to standardize care delivery policies, procedures and protocols within the LTPAC. These organizations generally have multiple units and staff on different shifts. The EHR provides a means of standardizing order sets, assessments and processes to speed up data entry, support compliance, reduce variability and, ultimately, help providers achieve the best outcomes everywhere, every time.

CDS-driven EHRs incorporate powerful analytics tools that promote best practices, allowing them to be

standardized across the enterprise. Other general, as well as organization-specific, best practices, such as care plans, monitoring protocols for medications, clinical assessments and documentation policies help to improve care and regulatory compliance.

Financial benefits of an EHR

An EHR should ensure better documentation of every facet of resident care. Not only does this address care and regulatory imperatives, it also helps capture information for fair and accurate reimbursement. Most EHRs have a financial component; when this is fully integrated with the clinical side, LTPACs can optimize reimbursement by improving documentation and accuracy.

EHRs also end up reducing nursing overtime hours. No longer do nurses have to remain after their shifts to complete paperwork to prepare for shift change or perform end-of-month recaps. Another benefit of being constantly compliant with documentation via a real-time dashboard is the ability to avoid survey deficiencies.

Medications are not only costly for LTPACs and healthcare consumers, they also represent one of the greatest risks with respect to survey deficiencies. A CDS-driven EHR delivers proactive formulary alerts based on the resident's specific drug plan so physicians can select a lower-cost alternative. What's more, EHRs also promote on-time medication administration documentation through real-time alerts on the dashboard and follow-up monitoring alerts which lead to better compliance and outcomes.

Another financial benefit has emerged as hospitals implement strategies to reduce readmissions and avoid penalties. Currently, only hospitals are incurring these penalties, but this will likely shift to include LTPACs in the future. Additionally, hospitals are more likely to make referrals to LTPAC organizations that can enhance resident care and reduce readmissions, thereby supporting the hospitals' initiatives to improve outcomes.

Conclusion

LTPACs are embracing the advantages offered by CDS-driven EHRs, which include better outcomes for residents as well as improvements to the facility's bottom line. LTPACs face significantly different challenges than other care settings, which are greatly mitigated by the integration of CDS into a comprehensive EHR.

CDS is an important component of an EHR, as it offers the ability to standardize clinical best practices and deliver decision support at the point of care to determine the optimum care treatment options. The EHR creates a real-time, action-driven community of care that reduces errors and unnecessary treatments while streamlining operational efficiencies and improving clinical outcomes.

By selecting an EHR specifically designed for LTPACs, organizations can benefit from a system that is tailored to their unique challenges and needs. An important consideration is effective medication management, as this can help LTPACs provide better care, reduce costs and maintain compliance.

Complete information at the clinicians' fingertips that draws upon a comprehensive resident record, and is supported by CDS and best practices, not only supports quality care, it ensures LTPACs meet industry regulations and document all the care delivered to optimize reimbursement. Those organizations that embrace a CDS-driven EHR platform will have a clear market advantage in the future.



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