

Leveraging Analytics and Workflows to Improve Hospice Care

Jordan Health Services was searching for a better way to identify patients who would benefit from hospice care and then facilitate those patients' smooth transition from home health. All in an effort to improve care quality at the end of life.

Jordan found their solution in Medalogix Bridge--a predictive analytics based technology and workflow solution.

Increase total hospice days by 300%

Increase patient record review efficiency by 3X

Industry Challenge

The topic of quality improvement in the US healthcare system has never been more popular. When you google the phrase "quality of care," you'll find about 1,830,000,000 results. The topic is such a point of interest, because it's a challenge. While the US outspends all other industrialized nations, our quality remains far from elite. In fact, the World Health Organization ranks the US healthcare system 37th in efficiency and 1st in expenditures.[1][2]

Given health expenses typically increase as people get older, end of life care is one area where efficiencies and appropriate care venues can be better examined to provide better care at a lower cost.

Research shows that families who believe their loved one was admitted to hospice "too late" are much less satisfied with the overall care experience.[3] Unfortunately, delayed transference happens more often than not. Even though patients meet the medicare standards of eligibility for hospice, they are not referred to hospice services until the last few days of their lives. For instance:

- Approximately three in five (62%) patients are hospitalized in the last month of life. [4]
- A larger proportion of patients died or were discharged within seven days of hospice admission in 2014 (35.5%) than 2013 (34.5%). [5]
- One in four (25%) Medicare patients die in a hospital instead of passing on in their homes. [6]

Client Profile

About Jordan Health Services

Jordan Health Services provides in home care to patients in Texas, Oklahoma, Louisiana and Texarkana, Arkansas, including personal care services, home management, pediatric services, skilled care and hospice. Currently based in Dallas, Texas Jordan Health Services was founded in 1975 by Joe and Jean Jordan in Mount Vernon, Texas with a mission to... "Preserve our clients' independence and dignity by providing comprehensive care in the home delivered by professional and compassionate caregivers". Today, Jordan serves over 25,000 patients in partnership with Cima Hospice, HealthCare Innovations Private Services and PrimeCare Home Health.

Industry Challenge (Continued)

While home health providers are positioned to educate patients about the benefits of hospice, they are faced with the challenge of identifying appropriate patients for this end-of-life benefit. Additionally, some providers struggle to establish effective transfer procedures that connect both lines of care, as well as adopt technologies to underpin the transfer process. When a home health organization misses the opportunity to admit patients to hospice, those patients could experience multiple hospitalizations or lose their choice to live their final days as they wish--decreasing care quality aligned to end of life goals.

A 2016 study published in a special Death and Dying JAMA issue shows three things were considered to be associated with “excellent” end-of-life care[7]:

1. Early admission to hospice
2. Avoidance of intensive care unit (ICU) admissions in the month before death
3. Death that occurred outside the hospital

Client Challenge

As a provider of both home health and hospice services, Jordan is tasked with delivering appropriate care aligned to each patient’s goals.

Prior to Medalogix and Jordan’s intentional recharging and realignment of its people, process, technology and culture, Jordan’s home health to hospice bridging process was time consuming, not easily managed within one technology or platform and without data-based insights. The system consisted of:

- **Identifying patient:** A hospice synergy liaison--Jordan’s centrally located team member responsible for identifying and managing all home health patients who could benefit from a hospice conversation--would manually review patient records to gauge appropriateness of hospice care. This required 60 to 90 minutes in review per patient record. She would then add the appropriate patients to a spreadsheet.
- **Discussing in case conference:** After hospice-eligible patients were preliminarily identified, the hospice synergy liaison would present her findings to a clinician team through a case conference meeting. These meetings required opening and closing each identified candidate’s digital health records one by one in no particular order. After the relevant information was presented, relevant nurses would then jointly conclude if formal eligibility should be assessed.
- **Confirming eligibility for hospice care:** Once a patient was identified as a hospice candidate, the hospice synergy liaison would flag the patient on her spreadsheet, complete a clinical evidence form to confirm eligibility and then work with branch liaisons to schedule informational hospice visits with appropriate patients.
- **Presenting hospice as a possible care path:** If the patient chose hospice care, the branch admin would work to ensure referrals were carried out.

While the process was advanced in its own right and showed a history of success, growth in home health census revealed the need for a more comprehensive, efficient and scalable solution for identifying and transitioning hospice-appropriate patients. Identifying appropriate patients required a lot of time that could be better spent caring for patients, coordinating communication between the hospice synergy liaison and branches was cumbersome and the process of bridging appropriate patients to hospice was not streamlined or easy to monitor.

Medalogix Solution

In September 2014, Jordan implemented [Medalogix's end-of-life analytics-based solution, Bridge](#), in three of its 11 branches. After noticing significant success with the technology, Jordan implemented the technology across all branches in February 2015. The solution leverages predictive analytics to identify home health patients who could most benefit from hospice care. These patients are highlighted in a risk ranking according to their relative appropriateness for hospice. From there, Bridge helps organize and operationalize the necessary steps from patient identification to having a conversation with the patient about his or her end-of-life care options.

Additionally, Jordan refocused some of its people and processes while recharging its culture to achieve patient-focused care. These changes in people, process, culture and technology have helped achieve Jordan's end-of-life quality care initiatives and business goals. Medalogix Bridge technology helped specifically through three primary features:

1. Data derived insights: Medalogix's custom predictive models identify and rank patients who are at risk for death within 90 days. This stratification equips Jordan synergy liaisons with a prioritized patient cohort for clinical review. Additionally, Bridge integrates supporting EMR documentation which allows a clinician to easily review why a patient is identified as a hospice candidate. Data derived insights coupled with supporting documentation compresses the identification process from hours to minutes per patient review.

2. Customized workflow: Medalogix Bridge's workflow components enable the synergy liaison to easily coordinate with branch liaisons and admins to track and monitor patients' progress toward appropriate end-of-life care conversations and decisions. The workflow steps included in Medalogix Bridge were customized by Jordan to best fit their organization and their processes. Five steps, from "Candidate Identified" to "Patient Transferred to Hospice" were implemented. Time parameters for each step were created in order to identify bottlenecks in the process and provide the appropriate support to each team. An "Exception" is triggered for a patient when they have remained in a step for longer than specified by the clinical leadership team. Additionally, patient "Monitoring" steps were created in order to review patients with unique needs.

3. Centralized documentation: Within the Medalogix platform, users are able to collaborate regarding the status of the patient in each step without duplicating work--all of the information is integrated from the EMR so there is no redundant data entry. Additionally, instead of relying on their individual methods for identification, participants in Jordan's case conferences rally around a common platform which now facilitates the home health to hospice transfer process. The documentation available in the application also facilitates collaboration with third parties, such as physicians, which streamlines the transfer process

About Medalogix

Medalogix is a Nashville-based healthcare technology company that provides analytics and clinical workflows to home health providers so they can improve care and reduce costs. Founded in 2012 by former home health agency owner Dan Hogan, Medalogix has been recognized by Harvard University, HIMSS and Fierce Healthcare IT as an innovative solution that's improving America's Healthcare system.

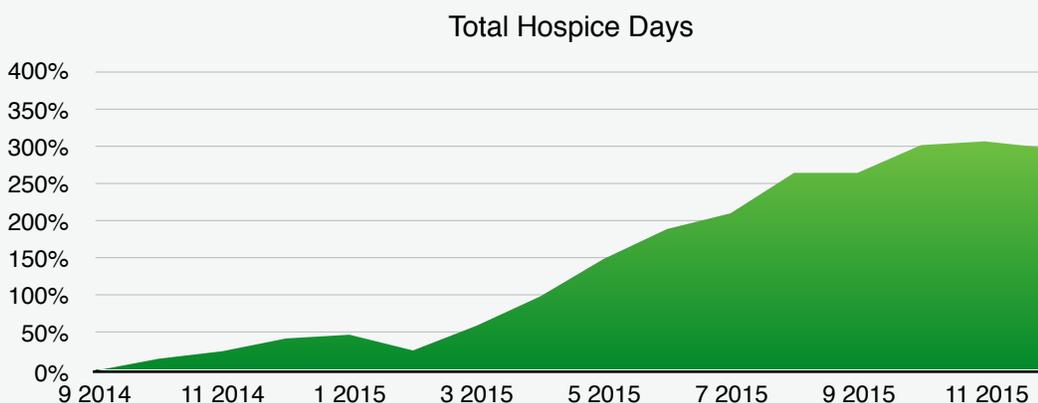
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MEDALOGIX

Results

Jordan realized numerous efficiencies in their hospice bridging process after deploying Medalogix Bridge, including:

- **Increased review efficiency and accuracy:** While it would be impossible for Jordan team members to review 100 percent of the patient census every day for hospice appropriateness, Medalogix can. Medalogix’s probability-based patient stratification then points Jordan’s synergy liaison directly toward the patients who have the highest probability of passing away in the next 90 days. Because reviewing patients for hospice eligibility requires thoughtful clinical review, this creates efficiency for the Jordan clinicians by prioritizing patients accordingly.
- **Increased confidence in appropriate patient venue.** In addition to the daily predictive analysis, Medalogix streamlines the review process by consolidating relevant patient information from the EMR to help guide the clinical review process. From there, a Medalogix hospice clinical consultant spends time with Bridge users to educate them about adding comments into the “qualifying criteria” area that will support subjective hospice eligibility criteria. These comments are most helpful when written in a manner that supports Medicare Local Coverage Determination (LCD) diagnosis. Finetuning and documenting this process allows the clinical team to review “qualifying criteria” documentation to the patient record within Medalogix, including hospice diagnosis and synopsis of imaging or lab results, in the same manner that a Medicare review would determine appropriateness. This ensures the reviewer can support hospice appropriateness.
- **Increased care coordination and accountability.** One hospice appropriateness is preliminarily determined and documented, the Bridge user can then create a PDF in Medalogix and share the relevant information regarding the patient’s eligibility directly with the patient’s physician. This information-sharing facilitates objective conversations regarding the patient’s current condition and the appropriate venue of care.
- **Increased hospice days.** Since Medalogix helps more easily and accurately detect appropriate hospice patients and then streamline and organize paperwork and communication from identification to transference, patients who choose hospice care get to experience their end-of-life care benefit longer. This of course allows them more time to make the most out of their final days. After one year of use, Jordan increased total hospice days by nearly 300 percent.



References

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- [3][5] Teno JM, Shu JE, Casarett D, Spence C, Rhodes R, Connor S. Timing of Referral to Hospice and Quality Care. *J of Pain and Symptom Management*. 2007; 34: 120-125
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- [5] National Hospice and Palliative Care Organization (NHPCO) Facts and Figures 2015
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