



Workforce Optimization for Long-Term Acute Care Hospitals

Key Takeaways

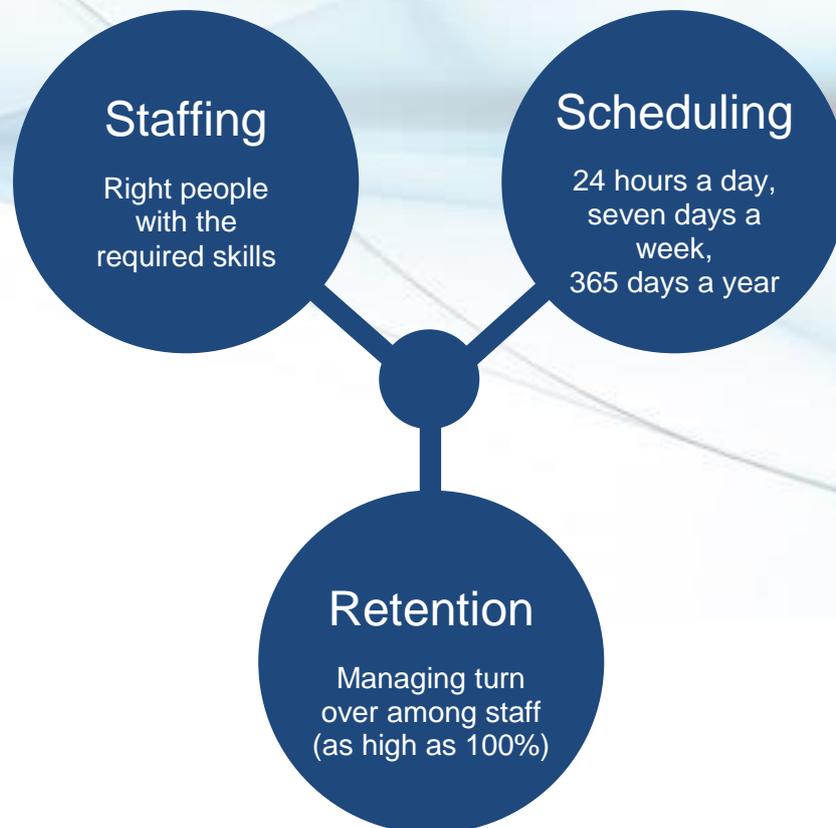
- Primary challenges facing LTACHs – **Staffing, Scheduling and Retention**
- Control costs while maintaining the highest quality levels, is the mandate for all LTACHs
- LTACHs can control and plan admissions, therefore need to build an intelligent scheduling process
- Workforce optimization helps LTACHs proactively control workforce costs, standardize staffing processes, optimize labor productivity, and schedule workforce
- LTACHs that fail to address challenges related to staffing, scheduling, and retention can suffer significant consequences

Introduction

Long-term acute care hospitals (LTACH) provide acute and post-acute care to clinically complex individuals who have multiple acute or chronic conditions and need care for relatively extended periods—more than 25 days, on average. Other types of hospitals, such as acute-care hospitals (ACH), do not have length of stay requirements for Medicare payment.

LTACHs are undergoing a financial crisis and fundamental transformation. They face unprecedented pressure to adapt to new business models while improving care quality and controlling costs. CEO's, CNOs, CIOs, CPOs and CTOs of LTACHs are looking at leveraging technology like never before in making hospitals more efficient, maximizing asset and human resources used by optimizing patient throughput and quality.

The challenges for LTACH are 3 pronged



Some quick facts about LTACHs:

- Most LTACH patients are transferred from an intensive or critical care unit of an ACH
- According to CMS (Centre for Medicare & Medicaid Services), there were 439 LTACHs as of November 2010
- Fifty-eight percent of LTACHs are for-profit.
 - Thirty-one percent of LTACHs are owned by two for-profit chains.
 - Select Medical Corporation owns 18 percent of LTACHs
 - Kindred Healthcare owns 13 percent of LTACHs
- LTACHs are not evenly distributed across the nation
 - Four states—ME, NH, VT, WY—do not have LTACHs.
 - One state—TX—has 76 LTACHs (18 percent of LTACHs)
 - Patients who can be treated by LTACHs may instead receive care in ACHs, other types of hospitals, or nursing homes.



Sources: GAO analysis of CMS data; Map Resources (map).

Figure: Geographic Distribution of LTACHs

LTACHs need Workforce Optimization to thrive in a rapidly evolving environment

For LTACHs, labor costs represent an average of 60% of hospital operating expenses, of which nursing comprises more than half. Hence, demands on LTACHs to manage labor cost, increase the quality of care and lower the cost of delivering services have increased exponentially.

On the other hand, LTACHs can control and plan their admissions and should ideally have zero staffing issues via a proactive scheduling process that incorporates admissions, acuity and the right resource. This is an advantage that LTACHs have and they need to exploit it instead of relying heavily on agency, overtime and other options that drive high turnover.

LTACHs that fail to address challenges related to staffing, scheduling and retention can suffer significantly. Consequences can be high workforce attrition, fines as a result of the loss of five-star quality rating, liability issues, costs due to on-job injuries and resident accidents caused by inappropriate or poorly trained staff. It can also mean higher operating costs if scheduling is not optimized, agency nurses or contract workers are used more or if overtime is used to supplement full-time staff.

According to IDC Health Insights - An aging population and increased prevalence of chronic conditions will drive consumer demand for more healthcare services and for nurses and other caregivers who deliver these services. As demand increases, a shortage of skilled, experienced nurses will continue to increase. This along with an aging workforce is driving the need among healthcare organizations to efficiently manage their workforce.

Control costs while maintaining the highest quality levels', is the mandate for all LTACHs today. As healthcare organizations seek to balance the need for reducing costs with the goal of improving care, keeping the workforce satisfied and engaged becomes extremely challenging. Information technology is beginning to play a pivotal role in helping healthcare organizations meet this mandate with hospitals, long-term care, and other providers deploying intelligent and easily deployable workforce management tools.

The value of information technology is its ability to capture and process large amounts of data and to display it in meaningful ways to optimize communications, support collaboration, drive informed decision making and maximize resource use. Comprehensive workforce management systems go beyond this to engage staff, support active participation, and promote fairness and transparency – all of which drive employee satisfaction and shared accountability for efficient and effective care delivery.

Gone are the days when it used to take a year, sometimes years, to implement a workforce management solution that allows for flexible scheduling, appropriate staffing ratios, and attention to skill sets and preferences of individual staff, creating a win-win for both nurses and LTACHs.

Today thanks to intelligent workforce optimization solutions like Einstein II, LTACHs are able to proactively control workforce costs, standardize staffing processes, optimize labor productivity, and schedule workforce staff based on HPPD, acuity, workload and future demand in a matter of weeks.

Some of the features that make Einstein II a must have for LTACHs:

- **PREDICTIVE ANALYTICS** – Forecast return on investment, calculate cost savings, value creation, and simulate workforce planning scenarios.
- **COST OPTIMIZATION** – At every stage of scheduling, the software automatically schedules or encourages the staffer/scheduler to choose the right resource at the optimum cost and can help adjust the daily staff mix based on the census, acuity and hours per patient day.
- **ADVANCED OVERTIME WARNING AND BUDGETING** – Einstein II flags overtime resources even before they are scheduled and provides replacement options, thus allowing Long Term Care hospitals to forecast, control and budget for their overtime and premium spend.
- **AUTOMATED REAL-TIME REPORTING** – Increase transparency across the LTACH through anytime, real-time reports, including hours per patient day.
- **FACILITATED SYSTEM-WIDE FLOATING** – Einstein II has a built-in staffing work flow to facilitate system-wide floating based on the “specialty” of the employee, thus filling potential gaps in staffing and removing nurse dissatisfiers
- **EASY INTERFACE WITH OTHER IT SYSTEMS** – Interface Einstein II with financial, time and attendance, payroll, HR and EMR systems to capture relevant data and ensure that all LTACH departments see the same required reports.
- **SOFTWARE AS A SERVICE** – Einstein II is hosted on a cloud and delivered through a SaaS model.
- **STATEMENT ON AUDITING STANDARDS (SAS)** – Einstein II is hosted on a SAS 70-certified data center.
- **COMPLIANCE REPORTING AND ADVANCED MESSAGING** – Einstein II's HR compliance reporting and advanced messaging ensures employee profiles are kept current with state and federal compliance, certifying all employees have required current credentials and licenses
- **ANYTIME, ANYWHERE LOGIN** – Staff, schedulers, and management can access from any device anywhere with Wi Fi or Cellular signal

Key Challenges for Healthcare Organizations and How Einstein II Can Help

CHALLENGE:

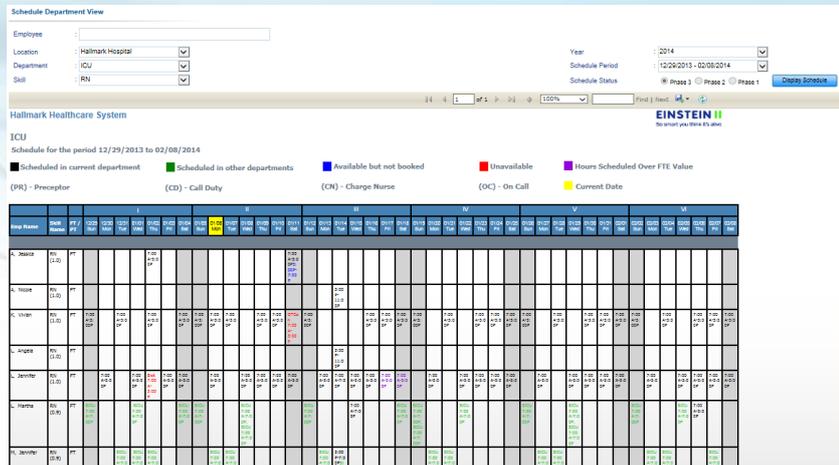
Labor intensive scheduling

CURRENT SITUATION:

Managers spend an average of 2-3 hours every day on core staff scheduling instead of focusing on patient care.

HOW EINSTEIN II CAN HELP:

Einstein II automatically generates a core staff schedule helping organizations reduce scheduling time by over 40%. Further, Einstein II captures and applies all the organization's scheduling rules using its proprietary rules engine, thus ensuring standardized best practices across the organization.



Einstein II users can rapidly identify where future issues will arise in the schedule and proactively address the issues.

EINSTEIN II Hallmark Healthcare System Demo Super User Logout

Home Template Schedule Availability Employee Unavailability AdminMgmt UserMgmt Reports

Add Employee To Schedule Screen

Order Number: 10787 Cluster: CCU (U)
 Location: Hallmark Hospital Slot Start Date & Time: 10/18/2013 7:00:00 AM
 Department: Surgical ICU Slot End Date & Time: 10/18/2013 7:00:00 PM
 Skill: RN Currently Unfilled Slots: 1
 Slots to be Filled: 1 Schedule Status: Regular
 Broadcast date and time: 11/01/2013 04:12 PM
 Staffing office number: 4692354069

Indicated Availability All Eligible Employees
 Note: *Eln 5 will be scheduled from 10/18/2013 7:00:00 AM to 10/18/2013 7:00:00 PM

Eligible Candidates List

Name	Cluster	Skill	Specialty	FT / PT Status	Preferred Contact No.	Email	Last Shift Scheduled	Next Shift Scheduled	Hours Scheduled for the week	Overtime Scheduled for the week	Pay Rate	Evaluation Score	General Notes	Contact Staff	Orientation Complete?
<input type="checkbox"/> Casey R	CC	RN	ICU	Flex	999-999-9999	cr@einstein2.com	10/15/2013 7:00AM - 3:00PM	10/22/2013 7:00AM - 3:00PM	00:00		32.00			<input type="checkbox"/>	Yes
<input type="checkbox"/> Christine C	CC	RN	ICU	FT	900-000-0000	cc@einstein2.com	10/17/2013 7:00AM - 7:00PM	10/20/2013 7:00AM - 7:00PM	40:00	8:00	33.00			<input type="checkbox"/>	Yes
<input type="checkbox"/> Erin S	CC	RN	ICU	FT	999-999-9999	er@einstein2.com	10/16/2013 7:00AM - 7:00PM	10/20/2013 7:00AM - 7:00PM	36:00		32.00			<input checked="" type="checkbox"/>	Yes
<input type="checkbox"/> Jennifer M	CC	RN	ICU	FT	900-000-0000	jm@einstein2.com	10/16/2013 7:00AM - 7:00PM	10/22/2013 7:00AM - 7:00PM	36:00		33.00			<input type="checkbox"/>	Yes
<input type="checkbox"/> Jenny L	CC	RN	ICU	FT	999-999-9999	jl@einstein2.com	10/17/2013 7:00AM - 7:00PM	10/22/2013 7:00AM - 7:00PM	24:00		32.00	8		<input checked="" type="checkbox"/>	Yes
<input type="checkbox"/> Josh F	CC	RN	ICU	FT	999-999-9999	abc@einstein2.com	10/15/2013 7:00AM - 7:00PM	10/18/2013 7:00AM - 7:00PM	36:00		34.00	9		<input checked="" type="checkbox"/>	Yes
<input type="checkbox"/> Jodi L	CC	RN	ICU	FT	900-000-0000	abc@einstein2.com	10/04/2013 7:00PM - 3:00PM	11/18/2013 7:00AM - 3:00PM			29.00	10		<input type="checkbox"/>	Yes
<input type="checkbox"/> Kalin M	CC	RN	ICU	FT	999-999-9999	km@einstein2.com	10/05/2013 7:00PM - 3:00PM	10/18/2013 7:00AM - 7:00PM	00:00		32.00			<input type="checkbox"/>	Yes
<input type="checkbox"/> Karen S	CC	RN	ICU	PT	900-000-0000	ks@einstein2.com	10/16/2013 7:00AM - 7:00PM	10/18/2013 7:00AM - 7:00PM	36:00		29.00			<input type="checkbox"/>	Yes
<input type="checkbox"/> Krishna V	CC	RN	ICU	FT	999-999-9999	ky@einstein2.com	10/16/2013 7:00AM - 7:00PM	10/18/2013 7:00AM - 7:00PM	24:00		24.00			<input type="checkbox"/>	Yes
<input type="checkbox"/> Lisa D	CC	RN	ICU	FT	900-000-0000	ld@einstein2.com	10/16/2013 7:00PM - 7:00AM	10/18/2013 7:00PM - 7:00AM	36:00		32.00	8		<input type="checkbox"/>	Yes
<input type="checkbox"/> Lisa L	CC	RN	ICU	FT	999-999-9999	ll@einstein2.com	10/17/2013 7:00PM - 7:00AM	10/20/2013 7:00PM - 7:00AM	36:00		31.00	8		<input type="checkbox"/>	Yes
<input type="checkbox"/> Sydney	CC	RN	ICU	FT	999-999-9999	sm@einstein2.com	10/17/2013 7:00AM - 7:00PM	10/18/2013 7:00AM - 7:00PM	40:00	8:00	35.00			<input type="checkbox"/>	Yes
<input type="checkbox"/> Yvonne M	CC	RN	ICU	Flex	999-999-9999	ym@einstein2.com	11/17/2013 7:00AM - 3:00PM				30.00			<input type="checkbox"/>	Yes

Broad Cast Contact Staff

CHALLENGE:

Identifying the right resource with the right skill set, at the right cost

CURRENT SITUATION:

In case of last-minute needs, schedulers rely on a short list of employees who are known to accept the shift whenever they are called, increasing OT spend.

HOW EINSTEIN II CAN HELP:

Einstein II can recommend all employees who can be matched to a need, along with the required data (OT hours, pay rate, etc.) for informed decision making. Managers can communicate needs to all "eligible" employees and ensure that the most cost-optimized resource with the right skill set is scheduled to the open need.

Einstein II provides the scheduling manager and the organization with proactive alerts identifying when using a resource will result in overtime expenses.

Eligible Candidates List

Eligibility computed based on the skill, specialty, credentials, availability, unavailability, and existing schedule of employee.

Last shift, next shift, and total hours/OT information enables managers to make informed decisions.

Name	Cluster	Skill	Specialty	FT / PT Status	Preferred Contact No.	Email	Last Shift Scheduled	Next Shift Scheduled	Hours Scheduled for the week	Overtime Scheduled for the week	Pay Rate	Contact Staff	Orientation Complete?
<input type="checkbox"/> Adrian Sean	Med Surg	RN	Med Surg Tele	Flex1	900-000-0000	123@123.com	06/04/2013 3:00PM - 11:00PM	06/06/2013 3:00PM - 11:00PM	40:00		34.00	<input type="checkbox"/>	Yes
<input type="checkbox"/> Alicia Griffin	ICU	RN	Critical Care	Flex1	999-999-9999	123@123.com	06/04/2013 7:00AM - 7:00PM	06/06/2013 7:00AM - 7:00PM	24:00		32.00	<input type="checkbox"/>	Yes
<input type="checkbox"/> Amber A	Med Surge	RN	Med Surg, Med Surg Tele	Flex2	900-000-0000	123@email.com	06/04/2013 7:00AM - 3:00PM	06/06/2013 7:00AM - 5:00PM	50:00	10:00	33.00	<input type="checkbox"/>	Yes
<input type="checkbox"/> Emily Stockman	Med Surg	RN	Med Surg	Flex2	999-999-9999	123@123.com	06/04/2013 7:00AM - 3:00PM	06/06/2013 7:00AM - 3:00PM	40:00		36.00	<input type="checkbox"/>	Yes
<input type="checkbox"/> Justin Warren	Step Down	RN	Telemetry	Flex1	999-999-9999	123@123.com	06/04/2013 7:00AM - 3:00PM	06/05/2013 3:00PM - 11:00PM	40:00		32.00	<input type="checkbox"/>	Yes
<input type="checkbox"/> Kenneth Clark	ICU	RN	Critical Care	Flex3	999-999-9999	123@123.com	06/04/2013 8:00AM - 4:00PM	06/06/2013 7:00AM - 3:00PM	40:00		34.00	<input type="checkbox"/>	Yes
<input type="checkbox"/> Maria Sheldon	Step Down	RN	Med Surg Tele, Telemetry	Flex3	900-000-0000	123@123.com	06/04/2013 7:00PM - 7:00AM	06/06/2013 7:00PM - 7:00AM			36.00	<input type="checkbox"/>	Yes
<input type="checkbox"/> Melissa Hackman	ICU	RN	Cardiac, Critical Care	Flex3	999-999-9999	123@123.com	06/02/2013 7:00PM - 7:00AM	06/05/2013 7:00PM - 7:00AM			35.00	<input type="checkbox"/>	Yes
<input type="checkbox"/> Nadia Long	Step Down	RN	Telemetry	Flex1	100-000-0000	123@123.com	06/04/2013 7:00AM - 5:00PM	06/07/2013 7:00AM - 5:00PM	40:00		32.00	<input type="checkbox"/>	Yes

Broad Cast Contact Staff

Pay rate information available at the time of scheduling to encourage selection of lower-cost resources.

Option to send bulk e-mail to confirm employee availability instead of working through a telephone list.

Einstein II's proprietary technology assists users in identifying and communicating with resources that can provide shift coverage in the most fiscally responsible manner possible.

CHALLENGE:

Lack of transparency across locations

CURRENT SITUATION:

Real-time open needs across the organization are not readily available, thus forcing one location to incur overtime while another sends employees home, that might be able to drive to other location

HOW EINSTEIN II CAN HELP:

Transparent horizontal and vertical views of all locations/departments in Einstein II enable organizations to share resources between the same skill set and specialties.

Welcome to Surgical ICU, ICU Departments.

RN Staffing Ratio : 1/14/2014

07:00 AM 03:00 PM 11:00 PM

Location	Department	Skill	Census	Budgeted	Required as per Census	Scheduled	Variance (Required - Scheduled)	Required as per Acuity	Acuity Variance	HPPD
Hallmark Hospital	ICU	RN	10	4	5	5	0	3	-2	8.40
Hallmark Hospital	Surgical ICU	RN	10	7	5	5	0	5	0	8.80

Employee available in Next 24 hours

Employee	Skill	Start Date	End Date
Bill P Reau	RN	1/8/2014 11:00:00 PM	1/7/2014 7:00:00 AM

Open needs in next 48 hours

Location	Department	Skill	Slot Start Time	Slot End Time	Count
Hallmark Hospital	Surgical ICU	PCT	1/8/2014 3:00:00 PM	1/8/2014 11:00:00 PM	2
Hallmark Hospital	ICU	PCT	1/8/2014 3:00:00 PM	1/8/2014 11:00:00 PM	2
Hallmark Hospital	ICU	PCT	1/8/2014 11:00:00 PM	1/7/2014 7:00:00 AM	2
Hallmark Hospital	ICU	PCT	1/7/2014 7:00:00 AM	1/7/2014 3:00:00 PM	2
Hallmark Hospital	ICU	RN	1/8/2014 3:00:00 PM	1/8/2014 11:00:00 PM	2
Hallmark Hospital	ICU	RN	1/8/2014 11:00:00 PM	1/7/2014 7:00:00 AM	2
Hallmark Hospital	ICU	RN	1/7/2014 7:00:00 AM	1/7/2014 3:00:00 PM	2

Using Einstein II's advanced analytics, executives and managers receive real-time, consistent hospital/organization-wide resource demand and supply to help manage the workforce.

CHALLENGE:

Increasing regulatory requirements

CURRENT SITUATION:

Increased licensing requirements and restrictions on per-diem hours worked can pose significant compliance risks for LTACHs.

HOW EINSTEIN II CAN HELP:

Einstein II can notify managers and employees of all regulatory requirements. The system can proactively restrict employees without the required credentials from being scheduled. The system can also restrict scheduling per-diem employees beyond the cut-off hours to avoid paying benefits.

Credential Expiry Report

Location: Department: Skill: Employee Specialty: FT/PT Status: Credential Type: No. of days expiring in:

1 of 1 100% Find | Next

Hallmark Healthcare System **EINSTEIN II** So smart you think it's alive

Credential Expiry Report

Employee Name	Employee Specialty	Skill	FT/PT Status	Credential Type	Credential	Expiry Date	Applied For Renewal
Craig White	ICU	RN	Flex	License	RNLicense	01/01/2014	No
Dan Conner	Med Surg	RN	Flex	License	RNLicense	01/01/2014	No
Emmitt Smith	Med Surg	RN	Flex	License	RNLicense	01/01/2014	No
Freeman U	Med Surg, Med Surg Tele	RN	Flex	License	RNLicense	11/01/2013	No
Gilbert B	ICU	RN	FT	License	RNLicense	12/31/2013	No
Jordan W1	ICU	RN	FT	License	RNLicense	02/22/2014	No
Karl A	ICU	RN	Agency	License	RNLicense	08/21/2013	No
Melissa G	ICU	RN	Flex	License	RNLicense	10/15/2013	No
Rama Y	ICU	RN	FT	License	RNLicense	12/26/2013	No
Satish Y	ICU, Patient Care	RN	FT	License	RNLicense	12/31/2013	No
Sony John	Med Surg	RN	PT	License	RNLicense	01/01/2014	No
Walsh C	ICU	RN	FT	License	RNLicense	11/01/2013	No

Print Date: 01/08/2014

Einstein II's proprietary rules engine will prevent schedulers from unknowingly placing resources at the bed-side who lack proper certification. The system will also proactively communicate with the employees to identify opportunities for the employee to re-certify.



All users will access the same data thereby providing consistency and transparency in data reporting and decision making.

Nurse, and for that matter, workforce scheduling is vastly complex. LTACHs attempting to schedule the right resource with the right skills at the right place and time in the most fiscally responsible manner through manual processes often find themselves with untenable levels of overtime and agency usage. By integrating Hallmark's Einstein II scheduling technology into the framework of a healthcare organization's scheduling process, the organization can begin moving forward with a more proactive and strategic approach to resource scheduling.

CHALLENGE:

Lack of data and models to predict future needs

CURRENT SITUATION:

Currently LTAC hospitals are forced to staff reactively and do not have adequate data to predict future volumes, plan for changes and have the correct size of an available workforce ready.

HOW EINSTEIN II CAN HELP:

Based on historic trends, Einstein II facilitates scenario planning for various situations, like:

- Correct Staff Mix of FT, PT, Casual staff
- Predictable volume changes

CHALLENGE:

Disparate data from multiple workforce management systems

CURRENT SITUATION:

Disparate systems result in labour intensive double entry and incongruent data, thus affecting decision making.

HOW EINSTEIN II CAN HELP:

Einstein II can be interfaced real-time with multiple workforce and patient care systems, like:

- Time & Attendance (for OT control).
- Tele-tracking (to help staff based on upcoming admissions, discharges, and transfers).
- Census system (to monitor required staffing levels as per census and HPPD).
- Payroll/HR system (for updating employee profiles).
- EMR to create real Acuity data and define staff workload Real-time interface helps ensure proactive

About Hallmark Healthcare Solutions

Hallmark is a global healthcare solutions and information technology firm comprised of nearly 400 employees; with offices located in New Jersey, New York, Michigan, Texas, Dubai and India. As of 2013 we have conducted more than 3620 engagements for more than 1140 clients nationwide. Over the years, we have helped organizations optimize and save millions in labour expenses, improve their efficiency, and achieve fiscal responsibility through our best-in-class software and strategic workforce solutions.

Visit: www.hallmarkhealthcareit.com

For more information, please feel free to contact:

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