DRIVING RESULTS

Patient flow data drives Joint Commission compliance at NYU Winthrop Hospital.

OPTIMIZING CARE

Organizational alignment around patient flow strategies improves patient care and staff satisfaction at Palmetto Health System.

REDESIGNING EFFICIENCY

Sarasota Memorial Health Care System increases OR efficiency with Lean processes and targeted technology.

IMPROVING ACCESS TO CARE

Consolidation and centralization of access centers making big waves at UCHealth.



TeleCon17 gave healthcare professionals from across the country—and across the pond—an opportunity to learn, grow and engage in meaningful discussions with other patient flow experts. We are pleased to recognize the following hospitals and health systems who presented insightful sessions on where they are in their journey—which helps others as they progress on theirs. We find that even the smallest of changes, insights, improvements and outcomes in patient flow have a ripple effect of positively impacting so much. Whether the impact be within a department or system-wide, every effort has tremendous potential for saving money, saving time and saving lives. Some of these stories appear in this issue and others will be featured in upcoming editions of Patient Flow Quarterly.

ADVOCATE GOOD SAMARITAN HOS<u>PITAL</u>

BAPTIST MEMORIAL HEALTH CARE

BAYCARE HEALTH SYSTEM

MCLEOD HEALTH

NYU WINTHROP HOSPITAL

OU MEDICAL CENTER

PALMETTO HEALTH SYSTEM

PROVIDENCE REGIONAL MEDICAL CENTER

SARASOTA MEMORIAL HEALTH Care System

SHARP HEALTHCARE

SHANT HEALIHUANE

ST. JOHN'S HEALTH SYSTEM

STAMFORD HEALTH

UAB HOSPITAL

UCHEALTH

UNIVERSITY HOSPITALS

UPMC HEALTH SYSTEM



RIPPLES INTO WAVES



Disrupting Healthcare from Within

How do we take goods and services in an industry approaching a perfectly inelastic demand, in an ever-increasing cost environment, while facing an extraordinary workforce shortfall, and make it available to everyone?

We all know healthcare is complicated, and we've largely addressed the situation by simply throwing more money at it. But more money for stagnant results is hardly a winning recipe. Case in point: while U.S. hospital admissions have remained flat the last five years, total operating expenses continue to rise. In fact, those expenses have risen by as much as 7.5% per year for public and non-profit hospitals¹.

And we can further expect a shortage of 1.2 million nurses in the next 20 years. More mergers and acquisitions. Not to mention more tectonic shifts to the traditional care delivery model (i.e. Amazon, Aetna and CVS). As the industry pushes to simplify care delivery through acquisitions and partnerships across the care continuum, we have unknowingly created more, not less, complexity.

The more nodes we create within health systems (acquisitions, partnerships, integrations across the value chain, etc.), the greater the need is for seamless communications and care transitions. And more importantly, the need for caregivers' voices to be heard amidst the

whirlwind of activity created by this ever-growing complexity—thus empowering care delivery experts to be experts, not consumed by that very complexity.

As I look back to October's Client Conference, [TeleCon17], I know that need is recognized—and is being acted on—by health systems across the country. Rather than becoming victims of disruption, many are embracing the idea of disruption driving outcomes for their health systems and ultimately for the patients and communities they serve.

Last year I dubbed this post-conference issue the "Client Issue," and that is still very much the case this year...but it's more than that this time around. This one is for the disrupters and instigators who are changing their health systems from the inside; for those that started with a single, intentional and well-timed action, and who now find themselves leading their organizations through meaningful transformations.



KRIS KANETA Managing Editor PFQ@teletracking.com

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WINTER 2018

A QUARTERLY PUBLICATION FROM (TeleTracking

One drop creates a ripple. And that ripple expands, grows and creates an impact. That's how we view our journey with our clients—one change, at one health system can create an avalanche of influence that means more patients receive the care they need.

FEATURE

Take a Look at What's Possible :: PAGE 4

Experience is the best teacher and that's why we featured an interactive Innovation Lab and Command Center at TeleCon17.

INDUSTRY LEADERSHIP

Driving Results, Improving Care:: PAGE 10

NYU Winthrop is using TeleTracking data to demonstrate compliance with The Joint Commission's patient flow standards.

BEST PRACTICES

Process Over Chaos:: PAGE 15

Effective planning and process means patients and their families receive life-saving care under the most challenging circumstances.

CHALLENGE, ACTION, RESULT—SARASOTA MEMORIAL **HEALTHCARE SYSTEM :: PAGE 8**

OPTIMIZING PATIENT CARE THROUGH BEST PRACTICES AT PALMETTO HEALTH :: PAGE 18

CHALLENGE, ACTION, RESULT—UCHEALTH :: PAGE 20

HOW 'BOUT TRANSITION WITH THAT? :: PAGE 22

EMPLOYEE SPOTLIGHT :: PAGE 24

WHAT'S

HAPPENING

- O11. Skip Rollins, CIO of Freeman Health System, appeared on the Health System CIO podcast and talked about the pros and cons of partnerships, and why he believes continuous learning is a critical component of a health IT leader's role.
- Kris Kaneta, TeleTracking's Senior Vice President of Marketing, authored a piece for Becker's Health IT & CIO Review on the "Burden of billions: Bringing focus back to caregiving."

A quick look at what's driving our industry and our work together going forward.

- TeleTracking was honored with the *Pittsburgh Business Times* 2017 Corporate Citizenship Award for its best-in-class corporate giving program and the diversity of charities supported.
- Diane Watson, TeleTracking's Chief Operating Officer, was featured in *Smart Business*, writing about "It Doesn't Have to be Dramatic, Where Innovation and Impact Meet."





Join TeleTracking at one of these upcoming events and learn about our KLAS category-leading patient flow solutions while sharing ideas with other professionals.

2018 PATIENT FLOW MANAGEMENT CONGRESS

January 25-26, 2018 New York-New York Hotel & Casino Las Vegas, NV

Groundbreaking techniques for optimizing patient flow management through effective discharge planning, enhanced patient care/satisfaction, increased profitability, and efficient hospital-wide collaboration

HIMSS18 CONFERENCE & EXHIBITION

March 5-9, 2018 Venetian-Palazzo-Sands Expo Center Las Vegas, NV

Visit TeleTracking booth #7301. HIMSS18 brings together world-class education, cutting-edge products and solutions, and unique networking opportunities to solve the biggest health IT challenges – all in one place.

TRANSFORMING PATIENT ACCESS: A HEALTHCARE EXECUTIVE FORUM

[includes a site visit to Sharp HealthCare]
April 26-27, 2018

The Hyatt La Jolla Aventine San Diego, CA

Learn how health system executives are achieving impressive gains in patient access, community relations and system growth.

For more information go.teletracking.com/sandiego.

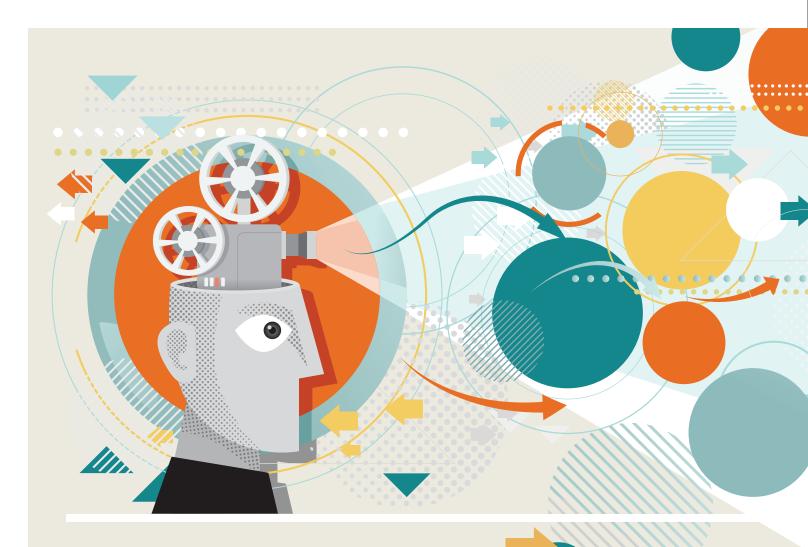
TELETRACKING ANNUAL CLIENT CONFERENCE [TELECON18]

October 14-17, 2018

Hyatt Regency Hill Country Resort and Spa

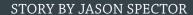
Join us and hundreds of your peers from around the globe to network, share best practices and success stories, and learn about the latest product developments. There is no fee to attend.

For more information conference.teletracking.com.



TAKE A LOOK AT WHAT'S POSSIBLE

Experience provides the greatest learning opportunities. Every day, caregivers on the front lines learn how to save more time, and how to save more lives. Our clients experience successes and challenges at the speed of light in today's healthcare environment. What they learn, what we learn with them, and how we all put this information to work is simply priceless. This insight is what helps us ensure progress for tomorrow, so we hope you enjoy these real client stories from the front lines of patient flow. From innovation, to best practices, to field case studies, and outcomes, here is a look into experiential learning that we hope is helpful to your work as well.



TELECON17 INNOVATION LAB

Feedback Driving the Future

At TeleTracking, we have always valued the essential role we play in our clients' success and the important role they play in ours. This spirit of collaboration is woven into everything we do throughout the year, but it truly comes to life at our client conferences. At TeleCon17 we wanted to channel customer creativity—and capture priorities—so we created the Innovation Lab.

Our theme was a simple one, and one that firmly expresses our beliefs—"The Future of TeleTracking is You." Our goal was to provide a window into what the future could be, and learn from you, so that new developments meet your needs in the best possible way.

Taking center stage at the Innovation Lab was the Tower of Innovation. This eight-foot structure told the story of a future healthcare journey from multiple points of view—patients and their families, clinicians, operational staff and executives. The story was powerful, not just because of the emerging technologies enabling it, but because of the seamless nature of the experience for every person involved in the journey. It demonstrated how wearables, chat-bots, machine learning, real-time locating and virtual assistants have a valuable role to play—even if they're not front-and-center.

The next set of engaging, hands-on activities required participants to create their own persona "medical file." Each person completed worksheets (on classic wooden glass-top drafting tables) that captured needs, frustrations and long-term goals for their particular role. The combined result was their "medical file," which provided us with a good, foundational understanding of who each person was and what they needed in order to be successful—not simply the application button they

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want to push, or the notification they want to receive, but who they are as individuals and healthcare professionals.

Moving back into the digital world, our Research and Feedback kiosks contained an abundance of short surveys on a wide variety of topics. Visitors could spend as much or as little time answering questions as they wished. Some of the survey topics included product needs, emerging technologies, usability assessments and mobile usage.

As an added TeleCon17 bonus, each visitor to the lab had an opportunity to be a future cover model for *Patient Flow Quarterly*. Prompted by the question, "What do you want to be celebrating in five years?" Both TeleTracking clients and staff members posed for the camera and submitted front-cover worthy quotes and received a high-gloss print to frame at their hospital.

SO, WHAT DID WE LEARN?

- The patient is always the priority, and receiving timely care is imperative
- Centralization, automation, intelligence and visibility across the system is key
- Data needs to be predictive and actionable, and communication and integrations need to be seamless
- Mobility and omni-channel experiences are not the future, they are today
- Our partnership with you

As we continue to innovate our products and evolve our platform, you, our clients and end-users, will continue to be critical to our success. Your insights from this exercise—and other upcoming research activities—will help us identify the problems we should be solving and achieve the outcomes that successfully solve them. You are the future of TeleTracking.

From left to right: Jason Spector, Joy Avery, Joanne Pekich, Scott Newton

TAKING COMMAND

Best Practices at Work to Eliminate the Wait

A new addition to TeleCon17 was the Command Center Experience. More than 300 participants went through this model Command Center that showed how people, process, and technology come together—helping eliminate "the wait" for the hundreds of patients that move through a health system every day.

Based on nationwide best practices, the TeleCon Command Center featured six operational functions that need to work in harmony to manage patient flow, and overall system performance. These functions included patient access, EMS dispatch, patient placement, EVS and transport, OR procedures, and a director's station.

Also featured were the all-important visibility tools—along with the data and analytics teams need in order to understand, in real time, what's happening across the system; analyze and report on what happened in the past; and predict and plan for what's coming next.

Finally, around the Command Center core, we highlighted the key areas where central operations integrate with both the health system and the community. This included admissions, nursing units, family waiting areas, referring care teams, postacute facilities, and key roles such as executives, patient flow managers, physicians, and charge and bedside nurses.

To bring the experience to life in a truly engaging way, there were four patient scenarios for attendees to choose from where they then followed the process through the Command Center and related areas, step by step.

THE FIRST TWO SCENARIOS FOCUSED ON THE BASICS—STREAMLINING AND AUTOMATING A PATIENTS' PROGRESSION THROUGH THE CARE CONTINUUM:

EVERYDAY DEMAND

A scheduled procedure, with a planned inpatient admission and a managed discharge to a post-acute setting. Highlights included the value of visibility, since patient discharges to a post-acute care setting typically represent a major bottleneck. Therefore, central management of that process can help decompress acute care facilities.

DISCHARGE AUTOMATION

A pediatric referral for a 23-hour observation stay, with an automatic discharge using passive enabling technology. Realtime locating experts were on hand to answer questions around passive enabling technology for automating the discharge process which helps free up capacity for incoming patients, while cutting down on infrastructure and maintenance needs.

THE SECOND TWO SCENARIOS ADDRESSED BROADER FLOW ISSUES—HOW TO PLAN AND MANAGE SUDDEN PATIENT DEMAND. AND HOW TO OPTIMIZE A NETWORK'S ABILITY TO DELIVER CARE:

KEEPING IT ALL CONNECTED

A STEMI (ST-Elevation Myocardial Infarction or serious heart attack) transfer request for a patient needing a higher level of care. This scenario focused on operational best practices for emergent patient transfers, including quickly reallocating resources, freeing capacity, automating communication to key stakeholders, and using data to immediately see and coursecorrect should something go wrong.

TIME OF GREAT NEED

A surge scenario—in this case, a multi-casualty bus crash coinciding with a busy flu season. For this scenario, attendees went straight to the director's station, where clinical operations leaders led a discussion on seeing and tracking from the highest level, driving urgent actions, accountability, and managing the aftermath in a disaster.



COMMAND CENTER ESSENTIALS

Clients who haven't yet centralized their operations often ask us what functions should be included in a Command Center. While every system has unique needs, as a baseline, an interdisciplinary Command Center team typically includes:

ACCESS: Rapidly evaluates and documents patient referral and transfer requests, coordinates physician hand-offs and EMS dispatch, and communicates with referring and accepting care teams so that patients can transition to new care settings, have a positive experience, and receive timely access to the care they need.

EMS DISPATCH: Works hand-in-hand with access team members to ensure timely patient transport to the designated facility.

PATIENT PLACEMENT: Ensures that patients are placed in the right bed, facilitates timely discharges, sets resource priorities to free up needed capacity, and manages patient throughput so the system can meet the needs of current and projected patient demand.

EVS AND TRANSPORT: Work closely with patient placement to ensure optimum throughput, ensure timely bed cleans and patient transport, and track/improve performance.

OR PROCEDURES: Manages patient throughput in procedural areas to minimize delays, coordinates schedules in advance and re-prioritizes in real-time when needed to optimize OR resources and ensure patients receive timely care.

COMMAND CENTER DIRECTOR: Manages overall system operations, using data and analytics to:

- Predict and prevent bottlenecks and constraints
- Rapidly see and solve problems, and drive accountability so that small problems don't become large ones
- Ensure compliance and timely reporting to key stakeholders
- Provide visibility to the C-Suite to support strategic business planning



JASON SPECTOR
Director of User Experience,
TeleTracking

Jason is an accomplished user experience and creative leader with almost two decades of professional experience in a variety of industries, including healthcare, finance, entertainment, and education.

As the Director of User Experience, Jason leads the continuous evolution of TeleTracking's cloud-based platform into more usable, useful and engaging solutions that drive positive outcomes for patients, their families, and the clinical/operational professionals they rely on.

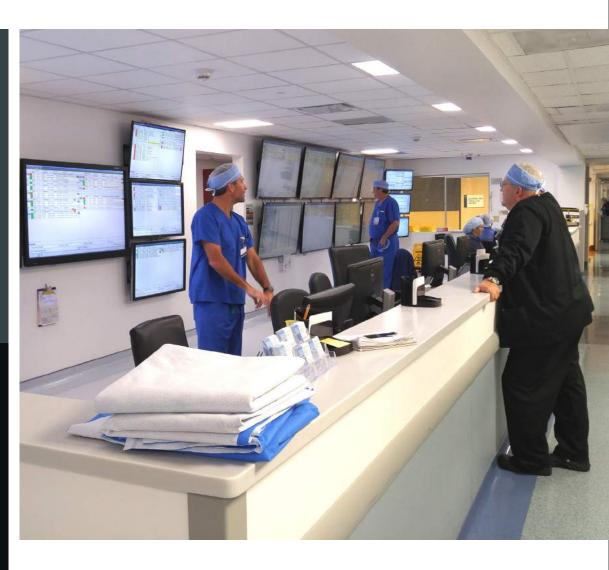


JOANNE PEKICH
Platform Marketing Manager,
TeleTracking

As TeleTracking's Platform Marketing Manager, Joanne's central focus is communicating the power of the "whole"—how people, operational best practices, and technology work together to help our clients transform patients' experience across the care continuum, give time back to caregivers, and ensure no one waits for the care they need.



SETTING THE BAR FOR SUCCESS IN ACTION



SARASOTA MEMORIAL HEALTH CARE SYSTEM

One of the largest public health systems in Florida, Sarasota Memorial Health is a Level II Trauma Center with 829 beds and 900 physicians; more than 24,300 surgeries are performed each year by the 430 surgical staff members.



Perioperative, diagnostic and outpatient clinic services are the economic engine of a hospital. However, the costs of running operating rooms and procedural care areas is also very high. Given the impact that these departments can have on profitability, it is vitally important to optimize their efficiency.

This fact was no different for SMH when they were faced with the decision to invest in a

capital initiative to build more OR suites, or find a way to improve the efficiency of the existing 34 suites. It was determined that while delays were common, operating room utilization was 48% (benchmark 90%) with an average turnover time of 33 minutes (benchmark 23 minutes).

TO IMPROVE, THE FOLLOWING NEEDED TO BE ADDRESSED:

• Redesign of OR processes

- Availability of equipment and instrumentation for surgeons to start on time
- Improved communication between pre-op and OR suites to know the real-time status of patients
- Optimized use of patient transporters
- Elimination of manual processes and staff education of new, automated processes



ACTION

In 2016, SMH implemented TeleTracking's Clinical Workflow™ Suite to provide visibility and real-time information on the status of patients, staff and procedures. The technology implementation was also supported with operational, process and staffing changes.

USING LEAN TECHNIQUES, THE FOLLOWING OR PROCESSES WERE REDESIGNED:

- Factoring in the time necessary for sterile processing
- Working closely with the Transport Manager to determine the cause for delays, removing them, and getting patients to the pre-op area in a timely manner
- Creating a surgery pre-check process to avoid unexpected delays—including having a liaison from the OR go through the checklist with the unit nurse the day before to find out what may still need to be done for the patient before surgery
- Educating surgeons on the updated pre-op to wheels in process—a way to help ensure that all staff members are in the OR at the designated time
- Eliminating manual processes that lead to delays and making Clinical Workflow
 Suite the source for real-time comprehensive flow information.
- Using the data generated by the system to further refine under-performing processes

STAFFING CHANGES, ALONG WITH ADDITIONAL TRAINING INVOLVED:

- Putting a team of OR educators in place who played a critical role in creating highperforming OR teams
- Developing specialty teams that have the confidence and trust of the surgeons
- Developing a surgical technician internship program so that new employees are fully immersed in the correct processes
- Enhancing the leadership team by giving them the skills to get the highest levels of performance from their employees



The integrated approach of people, process and technology gave surgical staff access to real time patient information, transparency across the surgical continuum—and consequently more engaged and informed staff and surgeons. Communication improved with staff alerts for issues that need immediate action and resulted in a lower number of phone calls. Robust reporting capabilities now make it possible to track daily, weekly and monthly performance metrics, along with the ability to track staff compliance with the streamlined processes and a surgical scorecard.

From an outpatient perspective, surgical staff now have visibility in the pre-op area to see every patient who is either in registration, or the surgery check-in area. This lets them know who's coming to the pre-op area so that a nurse is assigned. And, once in the OR, a dashboard lets them know if the anesthesiologist and surgeon have been to pre-op, if all other pre-op tasks have been completed and if the patient is ready. True transparency is the result.

THE ASSOCIATED METRICS INCLUDE:

 An increase of first case on-time surgery starts from 39% to 61%

- A decrease in turnover time from 33 minutes to 29 minutes
- An increase in utilization from 48% to 51%

With increased visibility and enhanced communication, SMH improved OR utilization along with staff and surgeon satisfaction. And with the extensive data and reporting available with the application, they to continue to make improvements. In fact, in 2018, the team is taking what they've learned in the OR and expanding it to other areas of the hospital, including the cath lab and endoscopy. However, at the center of it all is the patient and making sure they receive engaged, compassionate care.

NYU WINTHROP HOSPITAL

DRIVING PRESULTS IMPROVING CARE

Patient Flow Data and Joint Commission Compliance



NYU Winthrop Hospital, a 591-bed university-affiliated medical center and New York State designated Regional Trauma Center, has a commitment to medical education and research, in addition to offering a full complement of inpatient and outpatient services.

"We are proud of the growing and diverse community we serve and the personal approach to patient care that is the cornerstone of our organization," says Ann Hanford, Director of Patient Flow. "That's why when we saw the opportunity to utilize TeleTracking data to demonstrate compliance with The Joint Commission's [TJC] standards on patient flow, we moved forward with developing a comprehensive plan to meet those standards."

TJC Patient Flow Standard (LD.04.03. 11) and the nine Elements of Performance (EPs)

- EP1: Hospital has processes that support the flow of patients throughout the hospital
- EP2: Hospital plans for the care of admitted patients who are in temporary bed locations (PACU or ED)
- EP3: Hospital plans for the care of patients place in overflow locations
- EP4: Criteria guide decisions to initiate ambulance diversions
- EP5: Hospital measures and sets goals for the components of the patient flow processes
- EP6: Hospital measures and sets goals for mitigating and managing the boarding of patients who come through the emergency department
- EP7: Individuals who manage patient flow processes review measurement results to determine whether goals were achieved
- EP8: Leaders take action to improve patient flow processes when goals are not achieved
- EP9: When the hospital determines that it has a population at risk for boarding due to behavioral health emergencies, hospital leaders communicate with behavioral health care providers and/or authorities serving the community to foster coordination of care for this population



- Visible overcrowding / high occupancy
- Admitted patients in portals of entry without hed assignments
- High bed request to assign times
- Late discharges
- Delays in transfer of patients to assigned beds
- Decrease quararoudine
- Provide timely care to patients through minimization of delays
- Maintain patient safety

- Demonstrate compliance with each EP
- Identify patient flow opportunities for improvement
- Develop action plans
- Outcomes achieved can be demonstrated and data is available to validate improvements

In 2015, NYU Winthrop set out to improve organizational efficiency. The corporate goal was simple—to improve patient throughput—Ann and team quickly identified a number of tactics to make this goal a reality. For example: engaging the entire organization, and developing action plans, setting thresholds, targets and stretch goals while regularly measuring goals versus actual performance. Employment of tactics would help demonstrate the improvements between 2015 and 2017, many of which revolved around optimizing the use of TeleTracking.

Data was also critical to NYU Winthrop's success with The Joint Commission requirements. It gave them a concrete way of determining the changes that needed to be made to demonstrate that they were meeting the elements of performance.

"The first action I initiated was to run TeleTracking reports to see what our baselines were in key areas," says Hanford. "EVS, Patient Transport, and Patient Placement were critical. When I saw what our baseline performance was, I was able to identify performance improvement opportunities, establish goals and set up action plans that I knew would have an impact on patient throughput," she continues.

The first priority identified was to improve the efficiency of the bed cleaning process

THE GOAL: decrease bed turnaround time by improving the response time of EVS personnel.

THE TACTICS: educate and motivate staff regarding goals vs. actual performance; deploy iPhones to improve communication; eliminate zones during high-volume bed cleaning time of day; create dashboards to display EVS status breakdown, daily average response and turn times, and confirmed discharges by unit.

THE OUTCOMES: impressive 50% improvement in response times after the action plan was implemented. "We're very, very happy to see those outcomes and strive to continuously get better and better," adds Hanford. "Bed turnaround time is an extremely important part of the patient flow puzzle."

A second priority identified was to improve bed placement times for newly admitted patients

THE GOAL: decrease the bed request (decision to admit) to bed occupy time.

THE TACTICS: use of TeleTracking's PreAdmitTracking application to support action plans such as: centralizing the bed placement process; no longer allowing services/units to assign beds; hardwiring the Ready-to-Move functionality; establishing patient assign to bed occupy goals; and adding portal views on every patient care unit and in each portal of entry.

THE OUTCOMES: "We transported patients in a timely manner once the bed was assigned, which decreased our request to occupy by at least 50%," says Hanford. "This also impacted patient satisfaction as we're starting to see some of our HCAHPS scores improve."

The third performance improvement priority identified was to enhance the situational awareness of patient discharge status on each unit

THE GOAL: increase the number of pending patient discharges (pending to confirmed), and better predict the projected discharge date and time.

THE TACTICS: implementation of PatientTracking Portal views on all units and in all portals of entry. In addition, all patient care units must identify pending patient discharges 24 hours in advance; pended patients must be notified of projected discharge date and time a minimum of one day in advance; additional tests / procedures needed for discharge identified in TeleTracking; a discharge order interface that would trigger a confirmed discharge. "A unique use that we implemented included taking advantage of the comments field in PreAdmit Tracking to enter any additional tests/procedures that the patient needs to complete prior to being medically cleared for discharge earlier in the day," says Hanford. "The schedules are distributed to the ancillary areas responsible for completing these tests / procedures to prioritize the pended patients to ensure timely completion and result reporting."

WITH THE OVERALL CHANGE IN ORGANIZATIONAL CULTURE IN MAKING PATIENT FLOW A TOP PRIORITY, WE BELIEVE THE CHANGES WE'VE MADE ARE SUSTAINABLE, AND WE'RE LOOKING FORWARD TO THE NEXT STEPS.

THE OUTCOMES: Winthrop increased their pending discharge compliance rate from a baseline of 25% to as high as 67%. They also doubled the percent of discharges by 12 noon and the median discharge time has decreased by 90 minutes.

A fourth performance priority identified was to improve the efficiency of patient transport

THE GOAL: decrease the total patient transport trip time

THE TACTICS: reconfigure all transport zones within the physical layout resulting in a greater number of lateral versus vertical transports; set department goals for response times based upon metrics; educated staff regarding performance expectations/goals; deployed iPhone devices to improve communications; deployed dashboards for visibility; motivated managers and staff and held them accountable for results; closely supervised all patient transport activities and intervened immediately as necessary.

THE OUTCOMES: decrease in the average time from transport request to dispatch from 17.45 to 11.27 minutes; transport request to complete dropped from 45 minutes to 32 minutes; test to room transport trip times dropped from 30 to 18 minutes; all the while transport volume increased from 8,340 to 10,508.

"In addition to improving efficiency, these changes have had a very positive effect on patient experience," adds Hanford. "I've been a patient and I know how frustrating it is to have to wait. By getting patients where they need to be quicker, they're happier and more satisfied."

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Overall, the patient flow improvements at NYU Winthrop have had a positive impact on clinical, operational and financial metrics. Clinical: Patient safety increased while bed request to occupy time decreased. Operational: Efficiency improved by patient transport trip time decrease achieved. Length of stay also decreased with through discharged patients departing earlier in the day and the subsequent increase in the percent of patients discharged by noon. Financial: Costs are down from the improvements achieved. And this is just the beginning. NYU Winthrop continues to monitor data, reviewing it monthly, to develop and implement and identify variances to develop and implement corrective action plans.

"We were honored to not only receive The Joint Commission accreditation, but to also have zero recommendations for improvement regarding patient flow. In addition, with the overall change in organizational culture in making patient flow a top priority, we believe the changes we've made are sustainable, and we're looking forward to the next steps. This includes maturing the use of our dashboards, and eventually implementing a logistics/transfer center. If we can make things more streamlined for even one patient, all of the effort will be well worth it," concludes Hanford.



ANN E. HANFORD, MA, BSN, RN // Director of Patient Flow at NYU Winthrop Hospital

Her passion for automation and data led her to successfully implementing a stand-alone electronic ICU nursing documentation system in the early days of the healthcare "computer age." Ann challenged and grew her organization's IT department capabilities early on with the successful implementation of their first internet/web based healthcare application: an electronic admission request system on behalf

of patients whose discharge plan included inpatient postacute care. Ann was most recently instrumental in advancing electronic automation of patient care at her organization when she implemented her own custom inpatient scheduling system for all ancillary tests & procedures. Ann holds a Master's Degree in Nursing Informatics from New York University along with a Bachelor of Science degree in Nursing.





It's during these events...

...that the procedures these healthcare professionals practice day in and day out, are suddenly scaled—moving beyond process and evolving into the organizational backbone of a health system. And when those processes include an established patient flow strategy, scaling those processes to account for a large influx of patients (or mass exodus) or a different use of space becomes easier—bringing rapid, lifesaving care to patients, families and communities in a systematic manner.

While every disaster—and every health system—is certainly unique, there are some common themes that emerge for planning, and managing through such pressures. Learning along the way and making educated improvements for the next disaster is a critical step as well.

Here are some common themes that can make any disaster more manageable:

- Plans and planning committees should always be in place including representatives from every department. Determining capabilities, potential problem areas and other concerns should be a part of this process. And planning for equipment and supply needs should also be addressed.
- Whenever possible, important tasks, procedures, supplies, equipment, etc. should be in a checklist format, and each department should have a checklist for specific tasks.
- · Hospitals often become a place of safe harbor, typically with a huge influx of people (and pets)—some whom may not even be patients. Be prepared for extra bodies and added chaos. Plan accordingly for how to manage additional volume.
- It's critical that consistent processes—as well as back-up processes— are in place to assure that there are minimal interruptions in care and communication.
- Diligence about the order of patient placement tasks is important. Use any spare moments of downtime to reconcile patient information that may have been collected on paper with what is coming in through the ADT system.
- Standardize disaster beds in different groups [i.e. group] A is in room 202, group B is in room 205] and build these zones in TeleTracking ahead of time. Also, mark such patients

with a disaster attribute upon entry to track their location placement of those patients can be based on injury or ailment.

- Effective reporting and analytics are essential, since hospitals need to work seamlessly with government organizations and regional incident command teams as part of an overall community disaster response.
- Practicing disaster drills is an important step in order to be ready for the real thing. For health systems that are Joint Commission accredited, two practice drills per year are required and most other licensure organizations require at least one.
- Once a health system goes through a significant disaster, the natural next step is to have a debrief on lessons learned for future improvements. Every event is different, and plans are constantly evolving. Incorporating and sharing lessons learned in a timely manner—both within the system and with others—is important.

While there are common themes, the inherent. chaotic nature of a disaster means that there are also significant challenges that have to be managed through, which include:

- Obtaining patient information so that the receiving hospital can track the origin and status of patients being transferred and admitted. Often, patients move more than once. First to an area of refuge, then to a care setting, and perhaps again to a regional placement in cases of widespread disaster impact, such as a hurricane or flood. Combined, this means that identifying their point of origin can be difficult—as well as knowing their medical history so appropriate care can be administered — when there are multiple stops along the evacuation route.
- Working with other health systems to determine how many patients can be handled safely. The task of distributing patients across receiving facilities requires constant communication and coordination. And that's why it makes sense to establish mutual aid agreements with other health care facilities and integrate those agreements within the hospital disaster plans. There should also be agreements for personnel, supplies, equipment, transportation and any other necessary items.

- Using attributes and indicators (within TeleTracking) to track patients as they move to / from facilities.
- Based on conditions, entire command centers have had to pack up and relocate. That's why identifying a back-up location and/ or virtual operation for the command center is essential prior to an event.
- Effective tracking of special needs patients—those who require additional equipment, meds, and/or family members to accompany them. Evacuation plans should be coordinated in advance with the patient's support network. For those patients who cannot rely on their own means of evacuation, local emergency preparedness agencies must be used for transportation.
- When a facility has beds but not staff. This should be considered as part of pre-disaster planning. Out of state responders and/or reallocation of staff are possibilities to address this issue.

For health systems with Command Centers, real-time communication and visibility is essential to ensuring the continued smooth placement of patients:

- An Emergency Department dashboard should be visible to all.
- TeleTracking dashboards in the ED and on nursing units have proven beneficial to those managing the placement and whereabouts of patients.
- Once it is determined that disaster protocols should be activated—and especially if there is the potential for a power outage or regulatory requests—hard copies of the information below should be printed. This makes it possible to effectively manage incoming patients and reconcile information coming in through the ADT system:
 - * Bedboard of all units showing available beds
 - * Pending and Confirmed patient discharge list to determine if there are patients whose discharge(s) can be expedited
 - * Projected Census (by enterprise, facility, service line and unit)
 - * Blocked Bed Report (including blocked reasons) as there may be an opportunity to un-block those rooms
 - * Patient log of pending transfers coming from other facilities
- Having a clinician from the Transfer Center as an active, key member of the Command Center Response Team to provide real-time updates regarding patient flow activities during a disaster event is vital.

Disasters present one of the biggest challenges to health systems and healthcare professionals. And being ready relies on a combination of detailed pre-planning, regular drills, strong processes that can be scaled and well-trained, committed staff members. These situations also provide learning opportunities, driven by a desire to troubleshoot and improve things the next time. And that's where collaboration between TeleTracking experts and other customers comes into play.

TELL US HOW YOU'VE HANDLED THESE TYPES OF SITUATIONS AT YOUR HEALTH SYSTEM—PLEASE SHARE YOUR STORY BY EMAILING US AT INFO@TELETRACKING.COM. LEARNING FROM AND HELPING EACH OTHER ON THE JOURNEY TO OPTIMAL PATIENT FLOW—BOTH DURING DISASTERS, AS WELL AS DURING NORMAL TIMES—BENEFITS PATIENTS, STAFF AND COMMUNITIES.





Palmetto Health is a nonprofit healthcare system in South Carolina that includes five inpatient facilities with a total of 1,138 beds and 15,000 team members. Every employee is dedicated to fulfilling the Palmetto Health vision—to be remembered by each patient as providing the care and compassion we want for our families and

ourselves. However, without a comprehensive approach to support effective patient flow getting patients to the right bed, the first time—it was becoming difficult to realize this vision.

"We knew we had to do something to better utilize our existing resources to improve patient flow—which would then positively impact both patient care and

employee job satisfaction," said Hope Stack, Director, Patient Flow Operations. "We weren't utilizing TeleTracking to its fullest capacity; patient placement was decentralized, so patients weren't going to the right bed the first time; emergency department [ED] and post-anesthesia care units [PACU] were holding patients; and our length of stay was trending upward. In addition, our largest site, Palmetto Health Richland, was usually at 95% capacity."

Under the guidance of TeleTracking's Advisory Services team, operational changes were implemented, including the creation of a dedicated patient flow improvement team that involved executive leadership, a daily bed meeting, and the alignment of patient placement with patient flow. "We combined those changes with process redesign and the optimization of our patient flow solutions, and almost immediately witnessed throughput improvements and a reduction in delays," said Harmony Robinson, CHES, System Manager, Patient Centered Care. "These changes also helped support our implementation of Accountable Care Units—which leadership believed could further improve length of stay, quality and service."

Accountable Care Units [ACU] started at Emory Healthcare in Atlanta in an effort to provide high quality, patient-centered care by using structured interdisciplinary rounding—which means all team members involved in a patient's care round together and collaborate in real time. What this means from a patient flow perspective is that in addition to placing patients geographically [for example, all heart failure patients in one unit], the care teams that previously might have been dispersed across different areas are geographically placed together too.

"This approach engages everyone from the patient and their family to the physician, pharmacist, case manager, and physical/occupational therapy. Visibility and communication is improved because everyone is in the same room at the same time, going over the plan of care for the day," says Stack. "From a patient flow perspective, if a patient needs to be placed on a specific unit because

a specific physician group needs to do their rounds, how do we get them there? And that's where our process redesign, supported by TeleTracking, came together." They created a process to input provider groups, then make the bed request specific for the accountable care units they served."

In addition, system views for unit nurses were created, making it possible for them to see both the provider group and the patients targeted to that unit. "For example, they can see if a patient is coming in that's not affiliated to the provider group, and work to figure out why that may be happening," said Robinson. "We've also created a way for patient placement to easily communicate the priority of the patients they want to come into the ACUs."

Service, Resilience and Safety are tenets of an ACU—and to address those components, the interdisciplinary rounds are supported with system views that make it possible to easily review the details of the quality safety checklist. Also, when shifts change, staff briefly huddle to review the status, along with the quality safety checklist for all the patients on the unit, and adjust accordingly.

These huddles also include a review of pending patient discharges. The nurse, the charge nurse, the physician group, pharmacy and case management look at the pending discharges for the day, and if there's a patient that needs to be added before rounds start, the patient is added and TeleTracking reflects that information. The system provides visibility to know what beds will be available for new patients.

"The patients and the families love this process. If you've ever been a patient, or you have a family member that's been a patient, it's frustrating when you don't know when the provider is coming or what the care—or discharge—plan is for the day," concludes Stack. "This is really a patient and family satisfier. And it has also been incredibly impactful for what we do every day as caregivers, making it possible to deliver the best possible care."

PALMETTO HEALTH RICHLAND ACU OUTCOMES FY'16 - FY'17:

- REDUCTION IN MEAN LENGTH OF STAY OF 0.26 DAYS
- INCREASE IN CASE MIX INDEX (VALUE ASSIGNED TO A DIAGNOSIS-RELATED GROUP OF PATIENTS) FROM 1.63 TO 1.76
- REDUCTION IN OBSERVED TO EXPECTED (0:E) RATIO FOR LOS FROM 1.46 TO 1.32
- 1% REDUCTION IN 30 DAY READMISSIONS
- HEART FAILURE ACU
 [MOULTRIE LOCATION]

Team Member Retention went from 54% to 80%

Staff engagement went from 39.4% to 51.3%

Falls dropped from 24 to 18

Hospital acquired pressure ulcers dropped from 10 to 6



HOPE STACKRN, MSN, Director,
Patient Flow Operations

Hope has a Bachelor of Science in Nursing from the University of South Carolina and a Master in Nursing Administration from Kaplan University. She has been with Palmetto Health since 1998 and has over 17 years of nursing experience, including over 12 years of nurse management experience.



HARMONY ROBINSON CHES, System Manager, Patient Centered Care

Harmony has a Bachelor of Science in Nursing from the Medical University of South Carolina and a Bachelor of Science in Health Science from Clemson University. She has worked with Palmetto Health for 10 years and has three years of experience with Nursing Research and Program Development implementing Patient Centered Accountable Care Units™.



GREATER ACCESS ALL THE BEST CARE

UCHealth is an eight-hospital, rapidly expanding academic medical system with 1,700 beds located in Denver, CO.

A long-standing TeleTracking customer and partner, UCHealth opened its access center in early 2014, and then expanded in 2015 when the doors to DocLine opened as a way to improve access for referring providers.

All facilities are now serviced by UCHealth's DocLine, which is staffed with registered nurses available 24/7 to assist and facilitate all phases of transfer and consultation, including physician-to-physician contact, registration, bed assignment, and the facilitation of patient transport to ensure that caregivers are prepared for the patient's arrival. DocLine handled more than 41,000 cases over the past 12 months, including transfers, transports, consultations, telehealth contacts and direct admissions, which is 40% more than the number recorded in 2014.



CHALLENGE

Quickly and smoothly transferring patients from one facility to another is complicated enough. Add to that common cultural challenges and technical obstacles. However, UCHealth was determined to implement an easy, consistent process for the system by:

- Working with staff and physician groups to break down barriers to transferring patients
- Integrating and co-locating with air and ground patient transport
- · Collecting, analyzing, and disseminating data for better operational decision-making
- Upgrading the telephone system
- · Consolidating access centers with disparate processes

In addition, UCHealth wanted to know where its business was coming from and whether its outreach efforts were working. And most importantly, they wanted to simplify the process of accepting patients so that referring physicians could no longer say, "I don't call because it's too difficult to transfer a patient to your facility."

"Unfortunately, we didn't have a lot of baseline data regarding our referral patterns because the data was either manipulated or not available," says Larissa Thorniley, Nurse Manager for UCHealth's DocLine Operations . However, with vigilant monitoring and the implementation of call-recording software, patient declinations are now typically only due to the hospital not having a specific service line available, i.e. hand replantation. "Because all declinations are monitored in real time, we can and do intervene if we need to," added Thorniley.



ACTION

An important first step was creating an executive steering committee that included chief medical officers and physician leaders from across the system. "Obtaining buy-in from these leaders early on was key, and the success that we've had thus far is because of their support," says Rob Lerret, Senior Director of UCHealth DocLine. The following actions were also critical.

- · Met with all physician leaders to obtain sign-off on workflows impacting patients and referral patterns prior to implementation.
- Implemented a "one-call, say yes" process and an acceptance algorithm for nurses to follow to determine next steps. There are a number of factors



LARISSA THORNILEY
BSN, RN, Nurse Manager for UCHealth's DocLine Operations
Communication Center (DOCC)

Larissa has 16 years of nursing experience including leadership and hospital operations. Most recently Thorniley was instrumental in the design and implementation of the DOCC.



ROB LEERETBS, BSN, Senior Director for UCHealth DocLine

Rob is the Senior Director for UCHealth DocLine, which includes patient logistics, the DOCC and the newly formed UCHealth Lifeline critical care transport program. Leeret has over 23 years of experience in nursing leadership, hospital operations and emergency nursing. He has extensive experience in hospital operations and performance improvement and has earned a national reputation as an expert in emergency, trauma and transfer systems development.

regarding diagnoses, the requested hospital, on-call services, etc., that determine who to call, where to send the patient and the downstream effect.

- Staff changes included the addition of communication center specialists that arrange patient transport; DocLine specialists to help with EMR (electronic medical record) and demographic information; a Quality RN that reviews cases and validates data: and a Utilization Management RN that assists with patient class, non-urgent transfer requests and patient disposition issues such as repatriation. Effective 2018, Patient Placement RNs will be added to place patients at the flagship site, and Environmental Services and Patient Transport staff will help from a throughput perspective.
- Built an integrated 2,000-squarefoot center triple in size of the original

access center staffed with 21 registered nurses 24x7x365. The work stations are ergonomically designed with soundbaffling tiles, sit-to-stand desks, and eight different lighting and temperature control zones that were important improvements for staff. All monitors display real-time capacity metrics at each hospital, bed status, admissions, weather and traffic, live views of ambulance bays, and status of EDs in metro area.

• The ability to arrange patient transport has not only provided transparency (delays are communicated in real-time to expecting MDs and downstream teams), but specialty transport teams now arrive at the bedside 25 percent faster by bringing the communications specialist into the transfer conversation with the sending and receiving MDs.



RESULT

DocLine now handles approximately 900 calls per day, and in the first five months of 2016, the number of inpatient and outpatient transfers from non-UCHealth facilities increased 16 percent. Patients are arriving via air and ground transport to the bedside 25 percent faster, and the number of patients admitted to inpatient or observational units grew 21 percent. UCHealth now has comprehensive reports to include accepted versus declined transfers, physician response times and accepting/consulting service lines.

Referral patterns, CMI (case mix index) and payer sources by referring facility are captured monthly and reviewed month over month and year over year. DocLine has partnered with the physician relations team to use this data to drive outreach efforts and perform service recovery and education where needed.

Critically ill patients benefit from the services provided by DocLine because they can quickly be transported to the right level of care, where the right resources and caregivers are prepared for their arrival. "The service has helped community providers get better access to UCHealth physicians for consultations and transfers, and has bolstered the level of care our patients receive," says Thorniley.



Technology implementations involve some level of organizational change because they impact how employees approach and perform tasks, or what is known as transactional behavior. Patient flow technology implementations are no different. In fact, these implementations go beyond tactical changes—they invoke a shift in mindset, with a new approach to situational awareness and critical thinking to improve patient outcomes. This type of shift sustains transactional behavior and leads to the true psychological transition that drives new technology adoption. This means, thinking about transactional work differently and the impact this work has on patients, staff and patient flow leaders in the organization.

Enter the value of transition management.

We know that change isn't easy—and that behavioral change requires a period of transition. We often focus on change management, but there is the possibility to forget about the transition

that must occur first. We create project charters and plans with change and communications management deliverables—and, these plans help us stay on track to a go-live. Long before the go-live switch is flipped, leaders must plan for and take actions to help themselves, their staff and their organization successfully navigate the period of psychological transition.

The human brain takes time to catchup after a change management plan is completed and the switch is flipped. Work is a very personal endeavor that ties to self-worth; people need time to grieve (or get angry); let go of old perceptions and work behaviors; work through insecurities and uncertainties; and understand what the changes mean for them so that they can learn and accept new beginnings. They need support to reorient with both their own work and the organization in order to experience renewed energy for the journey forward.

Transition requires action at all levels in the organization. Business consultant William Bridges¹ recommends a technique to jump-start and nurture transitions: Creating the 4-Ps: Purpose, Picture, Plan and Part.

The 4-Ps start at the senior leadership level and scale to the departmental and unit levels. It is critical that the 4-Ps be formalized and communicated regularly to all employees. Education needs to begin with transition training and include more than transactional (tool)

training. Transition training helps users move through the resistance phase, prepares them for training and engages their minds. To evaluate if the 4-Ps are taking hold, conversations and behaviors such as these should be visible:

SENIOR LEADERSHIP

- Transparency in communications about patient flow challenges and outcomes
- Rounding with department managers
- Engaging physician support

DEPARTMENT LEADERSHIP

- Huddling with staff to discuss changes
- Establishing a departmental transition team
- Maintaining accountability for staff education

STAFF

- Talking positively about changes to improve the patient experience
- Volunteering to participate in the transition process
- Exhibiting excitement and engagement with others in the learning process

Without a clear purpose, picture, and plan, implementing best practices and achieving patient flow outcomes are at risk. All patient flow stakeholders need to progress through the stages of transition themselves and then support and encourage the progression of others. And the outcome? A new sense of purpose that makes the change work, while sustaining ongoing performance and process optimization.



LORI LINDBERGH, PHD, RN, MBA, PMP Manager, Learning Solution Design and Delivery, TeleTracking

Lori joined TeleTracking's Center of Excellence to reimagine and redesign the client education/transition strategy. She brings broad experience in nursing, leadership, assessment and measurement and organizational psychology. Her goal is to create a consistent, scalable and reliable client educational experience that supports client achievement of patient flow and capacity management outcomes.

We love what we do. Here's a sneak peek at the people behind the passion.



MICHAEL COEN // Vice President, Engineering

Michael Coen is TeleTracking's Vice President of Engineering and the leader driving technology development on the journey to the Cloud. Coen is familiar with this path, having had extensive experience leading people and project teams, as well as implementing, overseeing and administering all aspects of technology projects at organizations like Leidos. Amazon and SAIC.

The development of TeleTracking's IQ Platform over the past two years has created the perfect foundation to migrate customers to the Cloud. "We're making good progress—Community Access Portal, On-Call Scheduling and Transfer Center are built within the platform. We've also integrated our on-premise solutions—Capacity Management Suite, Clinical Workflow Suite and the existing Transfer Center—so that they can act in a hybrid way with the Cloud. We know everyone is at a different stage of their patient flow journey and we want to accommodate all of our clients." added Coen.

And since clients are at different stages in their journey, the shift to the Cloud involves different levels of change for health systems. The benefits of the shift however are significant. This shift enables organizations to really focus their technology resources on

building a better environment to support their users within their hospital or health system.

"The great thing about the Cloud is that it scales as an organization grows," explains Coen. "In addition, it offers a centralized environment that makes it possible to more easily maintain system security. Furthermore, it simplifies and reduces overall costs from a customer's perspective because the costs are shared across the entire customer base."

He explains that as clients either migrate to the Cloud, or come on board for the first time, it's a fairly straightforward process with specialized teams working closely to come up with a plan to provide the necessary capabilities. In fact, it's this client-focused culture that led Coen to TeleTracking in the first place.

"I came to TeleTracking because I was looking for a new challenge that would leverage my skills and experience in delivering software at scale, in the Cloud. When I spoke with the leadership team, I really connected with them and the direction planned for the company. In addition, I like how TeleTracking cares for its employees. It feels different than every other company I have been a part of," concludes Coen.

CELEBRATING PATIENT FLOW EXCELLENCE

TeleTracking and The DAISY Foundation join forces to recognize nurses for extraordinary and compassionate work in patient flow.

For every patient who goes to the hospital, is placed in a bed and gets the care he needs, there is a nurse working behind the scenes to make sure the process is seamless. That's why TeleTracking is honored to collaborate with The DAISY Foundation on the "DAISY Award for Extraordinary Nurses in Patient Flow." The award recognizes nurses, and teams of care providers who are led by a nurse, for their work in transitioning patients through the care delivery system. It also recognizes their commitment to delivering compassionate, high-quality care that is focused on the unique needs of individual patients during this dynamic process.

"The DAISY Award makes it possible for patients and families who have experienced extraordinary and compassionate nursing care, to express their profound gratitude. For nurses, this type of meaningful recognition contributes to a positive work environment, leading to increased job satisfaction and a renewed commitment to their organization," says Cindy Sweeney, Executive Director, The DAISY Foundation. "With this award we have the opportunity to highlight the critical role these nurses play in the continuity of quality care. We also recognize the importance of this emerging role that requires clinical expertise, an understanding of unique patient needs and the ability to manage organizational capacity and provide the right care, at the right time, in the right place."

"When we think about the future of health care, it becomes increasingly important to consider the logistics of care across all settings. As patients are older, often with multiple illnesses, it is critical that they're receiving the right level of care from the right providers. And it is essential that the movement of patients occurs effectively and efficiently through each point of the healthcare system," adds Nanne Finis, Vice President, Advisory Services, TeleTracking. "This efficiency in flow allows organizations to care for more members of their community population and mitigates safety and quality events that result from extended, unnecessary inpatient stays. We consider the nurses and teams of care providers that orchestrate this seamless movement, all while caring for patients, as the true heroes."

A panel of healthcare experts from across the country evaluates nominees on the following core attributes:

- COMPASSION
- DRIVE FOR RESULTS
- LEADERSHIP
- CHANGE FACILITATION
- RESOURCE MANAGEMENT
- CLINICAL KNOWLEDGE

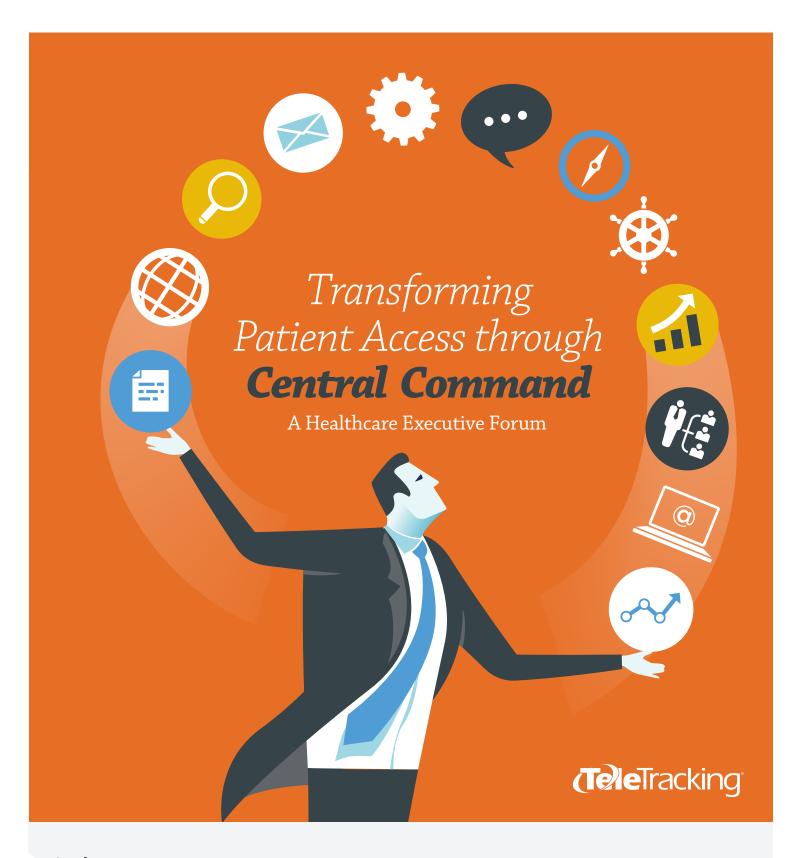
Nominations open November 1, 2017 and must be submitted by March 30, 2018.

To nominate a nurse visit: http://go.teletracking.com/DAISY2018.

About the DAISY Foundation

The DAISY Foundation was created in 1999 by the family of J. Patrick Barnes, who died at the age of 33 from complications of an auto-immune disease [hence the name, an acronym for Diseases Attacking the Immune System]. Patrick received extraordinary care from his nurses, and his family felt compelled to express their profound gratitude for the compassion and skill nurses bring to patients and families every day. The DAISY Award for Extraordinary Nurses celebrates nurses in more than 2,300 healthcare facilities around the world. For more information about The DAISY Award and the Foundation's other recognition of nurses, faculty and students, visit www.DAISY foundation.org.





April 26 and 27, 2018

The Hyatt La Jolla Aventine

San Diego, CA

FOR MORE INFORMATION AND TO REGISTER, VISIT:

go.teletracking.com/sandiego