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COVERING CASE MANAGEMENT ACROSS THE ENTIRE CARE CONTINUUM

INSIDE

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Using Risk Analysis Model, Health System Cuts Readmissions

Savings close to $1 billion over four years

North Carolina's Medicaid population includes 1.5 million people, about 1 million of which are children.

Among the half-million adults on Medicaid in the state, many have multiple comorbidities, and the 77% that are eligible for complex care management have a behavioral health condition, as well.

If the goal is to reduce costs and improve the population's health through case/care management services, the tough question is: How do you prioritize limited resources?

"Through continuous analysis of our data, we are aware that approximately 88% of our identified complex care members have at least one social risk in addition to their medical condition," says **Avera T. White**, RN, MSN, CCM, clinical informatics specialist for Community Care of North Carolina (CCNC) in Raleigh.

> ACCOMPLISHING THIS GOAL REQUIRES ADDRESSING SOCIAL DETERMINANTS OF HEALTH AS WELL AS MEDICAL AND/OR BEHAVIORAL HEALTH CONDITIONS.

CCNC's primary goal is to provide quality care through holistic care coordination services and to promote linkage to a medical home. Accomplishing this requires addressing social determinants of health as well as medical and/or behavioral health conditions, White says.

The organization focuses on empowering patients to learn self-care skills and helps North Carolina contain costs, she adds.

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"Self-management is a goal for us and a big piece of what we're trying to do with our interventions," says **Barbara E. McNeill**, MSN, RN-BC, clinical education specialist for CCNC.

Their risk stratification tool and targeted care management have worked. Inpatient admissions dropped by 25%. The inpatient admission rate per 1,000 member months was 4.722 in December 2012; in December 2016, this rate was 3.928.

Also, the potentially preventable readmissions rate was 0.371 per 1,000 member months in December 2012, compared with a rate of 0.171 in December 2016.

Other outcomes include a $3 return on investment for every dollar put into the CCNC program and a total net savings of $312 per Medicaid member per year. It saved 9% of overall Medicaid costs and saved the state close to $1 billion over four years.

CCNC's efforts resulted in the organization receiving a Hearst Health Prize in 2016. It was recognition of outstanding achievement in managing or improving health.

The organization has tried various risk stratification models, keeping some metrics including identifying patients and conditions with the highest costs. But the model has evolved as costs alone did not show the whole picture, White notes.

In 2012, CCNC introduced a transitional care indicator focused on preventing potential admissions and 30-day readmissions. In 2015, the organization revised its indicators, including the following:

• **The Transitional Care Impactability Score** identifies patients who are most at risk for readmission following a hospital discharge, and could benefit most from receiving care management services. The goal is to prevent readmission.

"If we can engage the patients within three business days post-discharge and get them linked to a primary care physician and ensure discharge needs are meet, then we can decrease the risk of readmission," White says.

• **The Complex Care Management Impactability Score** targets patients with above-expected cost and utilization for conditions. Medical providers and community organizations also can make referrals for care management services.

"Disease management services are offered for various reasons, including behavioral, medical, and empowering the patient to self-manage," White says.

• **The Maternal Infant Impactability Score** was scheduled for introduction in June 2017. This

EXECUTIVE SUMMARY

A risk stratification tool identifies members of a Medicaid population that need targeted case management interventions. The eventual goal is self-management, as well as reducing costs.

- More than two out of three Medicaid patients have behavioral health or mental health illness.
- Inpatient admissions dropped by 25%.
- The program provides a $3 return on investment for every $1 spent.

one has a program that focuses on women at risk of having low-birth-weight babies. "It allows us to target women who would most benefit from services and get them engaged with an obstetrician provider as early as possible," says White.

These tools help care management staff identify members who could benefit most from CCNC's services and assist in targeting interventions.

"The impactability scores assist us in identifying who we can help that would have the greatest impact, and they identify the targeted interventions that would have the greatest return on investment," White says.

This isn't as easy as just giving services to patients with the highest medical costs in a particular year. For example, patients with chronic renal failure often have very high costs by the very nature of their treatment, which often includes dialysis, McNeill explains.

"Care management intervention for these patients may not have the impact on cost that it would for other patient populations," she adds.

The model and analytics identify patients who are high-cost outliers for their diagnoses. For example, a patient with diabetes might have medical costs significantly higher than other people with similar demographics and diagnoses.

"If we intervene with this type of patient, we'll have a great impact," White says. "We look at the cost over time and hospitalization patterns."

Once these patients are identified and they agree to receive complex care management services, their results are collected and analyzed.

"We look at what the historical impact is when we had the care management team intervene," White explains.

This risk stratification method keeps care management focused in the optimal direction — where the resources could result in the most improvement.

"We learn the best patients to target and where a home visit would be beneficial, versus those that need a lighter touch," White says.

They've found that people with the greatest social needs also have the greatest costs.

"We also try to provide care for the whole person, understanding how the mind and body are connected and the implications this has for our care management program," McNeill says.

"WE ALSO TRY TO PROVIDE CARE FOR THE WHOLE PERSON, UNDERSTANDING HOW THE MIND AND BODY ARE CONNECTED AND THE IMPLICATIONS THIS HAS FOR OUR CARE MANAGEMENT PROGRAM."

Eighty percent of the complex patients have multiple conditions, and they have an average of 14 different billing providers, White says.

One strategy in making these programs most efficient was to identify people who could benefit from each of these programs, coordinate the fragmented care, and track their progress after care management interventions.

This resulted in pinpoint precision for interventions that work with certain at-risk Medicaid patients.

The care management strategies include the following:

- Patients are matched with primary care providers or medical homes to manage and coordinate care.
- They receive medication management services, provided by nurses and pharmacists, to monitor medication adherence and prevent readmissions.
- Many of the hospitals in the state have someone embedded from CCNC's care management program, and/or CCNC receives automated feeds to inform staff of admissions and discharges.
- Multidisciplinary care management teams are used to provide holistic care coordination.
- Care managers can enroll Medicaid patients in the program, based on their clinical judgment.
- Enrolled patients are contacted via telephone and in person after hospital discharge.
- They're educated about the care management service, and enrollment is voluntary.
- Often, nurse care managers conduct a full assessment, but if a primary diagnosis is a mental illness, then a social worker also will contact the patient.
- All care management moves toward the goal of empowering patients to take ownership of their health and improve self-care management.

CCNC's care management program has been recognized nationally as a best practice model. Other programs and states have contacted CCNC to learn more about the model, White says.

"We believe in continuous quality improvement and, therefore, we're constantly re-evaluating and tweaking the program," White adds. ■

Opioid Addiction in Medicaid Population Calls for New Case Management Strategies

One solution: Limit patients to one pharmacy

Case management programs are accustomed to handling high-risk patients with social determinant of health issues, including Medicaid populations.

But, in recent years, the opioid epidemic has created new challenges for healthcare organizations seeking to improve population health.

"We're seeing an increase in overutilization of prescribed substances — the opioid epidemic," says **Cindy Colligan**, BSN, MBA, CCM, director of operations for clinical care services government programs at Optima Health in Virginia Beach, VA.

"We saw that trend rising, and we saw ER utilization going up," she adds.

The organization also has seen these interrelated trends of Medicaid patients not visiting their primary care providers and not following their medication treatment plans. Its case management program was telephonic, but helping patients who did not want to help themselves proved challenging.

As a result, the organization started a safety initiative in 2016 that addresses the opioid epidemic, says **Tonya M. Palmer**, RN, MSN, CCM, manager of government programs for the clinical care services division of Optima Health in Virginia Beach.

One strategy was to identify patients with opioid use problems by the most conservative measures. Those selected for the program were people who, within 90 days, filled 10 prescriptions for controlled substances, written by four or more prescribers and filled at four or more pharmacies, Colligan says.

Telephonic case managers would make the initial phone call and try to connect with the member. They would say, "We see you might have a problem with pain. Can we help you get into pain control? Do you need assistance with substance use?" Colligan says.

"We would say, 'You'll be limited to one pharmacy,' and we'd let them choose the pharmacy if they wanted," she adds. "Then we'd follow up with a certified letter, stating they are locked into one pharmacy. They could appeal it or complain."

Once locked in, all prescriptions would be filled and reviewed at the one pharmacy. If patients obtained prescriptions from multiple providers, this pattern would be reviewed.

If patients attempt to fill a prescription at a different pharmacy, they're told to call their Medicaid contact.

The one-pharmacy policy has two useful benefits. The first is that it makes it much easier to ensure plan members do not abuse the system by getting more prescriptions than they need. The second is that it usually results in their re-engaging in case management — if even just for one phone call.

Often, case managers would have difficulty reaching members or even finding them. But when the one-pharmacy policy began, there was a large response rate from members being denied their medications from additional pharmacies.

"We found the easiest way to find someone was to lock them from a pharmacy," Colligan says.

These calls typically involved anger, so case managers were trained in motivational interviewing and listening to de-escalate aggression.

"We had people listening to what patients were saying, reflecting on what the underlying problem is, and letting them know you're there to support and help them," she says.

For example, a case manager would let the person yell for a few minutes and get it out of their system.

EXECUTIVE SUMMARY

Healthcare organizations saw a disturbing trend of opioid addiction among some Medicaid plan members. The challenge was to address this problem and reduce its resulting increase in ED utilization.

- An interrelated trend was of Medicaid patients not seeing their primary care providers and overusing EDs.
- A solution was a one-pharmacy rule as part of a safety initiative.
- Patients with the highest ED visits in a six-month window were targeted for the program and provided telephonic case management, as well as visits by outreach teams.

"Then, the case manager would calmly say, 'I understand your concerns. Let me see how I can assist you today,'" Palmer says. "They'd be as positive as they can be and talk in a calm voice, letting them get it out, but not interrupting."

The opioid epidemic also has increased ED overutilization, pushing up expenses. The safety initiative and case management could help with this issues, as well.

"Since we're 100% telephonic, we'd use an outreach team to go to their homes and have a face-to-face visit," Colligan says. "They would use an educational piece we helped put together, where we'd educate them on the appropriate use of the emergency room and focus on getting them care from a primary care provider [PCP]."

The outreach team member would help patients schedule a PCP visit and arrange transportation, if that was an issue. "So, they'd have that in place before they left home," Colligan says.

The goal was to get patients into a pain management program or a substance abuse treatment program. It didn't work with every person who needed the intervention, but for those who were receptive to changing their lives, it worked well.

"We definitely had some success with some of the membership," Colligan says. "We saw great success with the members who wanted to change. There were fewer who wanted help than didn't."

The change in behavior in even a minority of people with opioid abuse issues made a significant difference. "We saw a decrease in emergency room visits, and we saw some improved behavior and success," Colligan says.

ED visits declined, in part because patients attempting to obtain pain medications could no longer get those prescriptions. So, they stopped going.

"The ERs stopped prescribing, so it was an overall success — but the individual successes were fewer," Colligan notes.

The patients who did change behavior made for uplifting examples.

"We had people who came back after going into pain management treatment, and they said it was a vast change in their quality of life, and we saw people who got back into substance abuse treatment."

> "WE HAD PEOPLE LISTENING TO WHAT PATIENTS WERE SAYING, REFLECTING ON WHAT THE UNDERLYING PROBLEM IS, AND LETTING THEM KNOW YOU'RE THERE TO SUPPORT AND HELP THEM."

One man, who previously had been in substance abuse treatment and then relapsed, was locked out of a pharmacy. "He said it was a wake-up call, and he got back into treatment," Colligan says. "He said it saved his life, and his wife said she thought it saved their marriage."

The following are additional ways the safety initiative program works:

• Case managers are in contact with at-risk patients more frequently. "We coordinate their care, follow up with them, check on their status, and ask whether they need help or transportation to clinics for treatment," Palmer says. "We coordinate all of that and encourage them."

Case managers also keep the opioid cases open as long as the patients are restricted to one pharmacy. They are reviewed annually, Colligan says.

• Use automated phone messaging. "Every household that had an ER visit during the month would receive an automated phone message, saying we saw that someone in their household had been in the ER in the last 30 days," Colligan says. "Then we'd give them instructions on when it was appropriate to go to the ER and when to see their primary care physician. We still do that."

• Alert patients to telephone case management. Patients who visited the ED several times in six months would receive a home visit and are advised of case management follow-up by phone.

"The case manager would call and make sure the person saw a primary care provider," Colligan says. "They'd work with them on whatever issue they had going on."

For instance, if patients repeatedly went to the ED because they could only get transportation on the weekends and were unable to get a ride to their doctor during the week, the case manager would help them fix this problem.

"Some people felt the ER was appropriate for routine care, and they didn't want to schedule a doctor's appointment," Colligan says.

The case manager would inform the patients of the Medicaid transportation benefit that could help them get to doctors' appointments.

"The case manager would help them get transportation to see the primary care provider and help them coordinate their care," Palmer says. ■

Building Post-acute Relationships in ACOs Is a Complicated Journey

Goal is improved efficiency and quality

Hospitals, post-acute care organizations, and payers need to develop solid relationships and work well together in order to make an accountable care organization (ACO) arrangement successful.

While post-acute networks, historically, were referral centers to get patients out of the hospital, these have changed dramatically, notes **Karen R. Vanaskie**, DNP, MSN, RN, senior network director of the care management program at Innovation Care Partners in Scottsdale, AZ.

"It's a complicated journey to building strong post-acute relationships," Vanaskie says. "We have to have collaboration and not just be a referral center. It's a partnership."

This means organizations must be transparent with their data and outcomes. They must be innovative, constantly learning new ways to do things. The legacy healthcare system is broken and inefficient, in need of repair and replacement, she says.

"We're really a clinically integrated network with 1,600 physicians — 400 in primary care," Vanaskie says.

Innovation Care Partners works with health systems and payers in shared savings contracts.

"We work with many payers — not just Medicare," she says. "Our goal is efficiency and management of patients with the highest quality. Collaboration with post-acute care is critical."

The following are some of the organization's strategies to build strong post-acute relationships:

• Survey physicians and other referral sources. "We surveyed physicians, asking who they refer patients to and who patients talk about," Vanaskie says.

The survey focused on four acute care areas: nursing homes, acute rehabilitation, home health, and hospice care. Thirty percent of physicians responded to the survey.

"We also surveyed case managers who referred patients to facilities," she says.

Those surveys looked at the availability of beds and case managers' insights, Vanaskie says.

• Learn which physicians have relationships with post-acute facilities. Some doctors provide coverage at post-acute facilities as medical directors or other roles. Since those facilities often were rated positively with case managers and payers had contracts with them, the organization decided to narrow its network to those facilities, Vanaskie says.

"We had a preferred provider list," she says. "We took everything into consideration and then narrowed our network."

• Focus on quality, data, and solutions. "We reviewed data on length of stay [LOS] and took a deep dive into readmissions," Vanaskie says. "What caused them and what could we do differently?"

One possible solution is to provide educational activities to post-acute care staff, including those in skilled nursing facilities (SNFs). Wound care training is one example.

"We can offer educational services to post-acute [facilities] as needed, Vanaskie says. "The more quality care we give in the post-acute setting, the fewer readmissions to the hospital."

• Collaborate closely with SNFs. "A close collaborative working relationship with SNFs allows us to be more innovative," she says. "We can try different pilot programs."

They launched one pilot program in November 2016, where the hospital provided congestive heart failure education to post-acute providers and SNFs, she says.

"They continue teaching when the patient gets to the SNF, and our preferred home health provider goes into the skilled facility and understands where they are with their therapy," Vanaskie adds. "Then they continue the teaching and reinforcement as the patient goes home from the nursing home with congestive heart failure monitoring."

Within a preferred provider

EXECUTIVE SUMMARY

For accountable care organization (ACO) arrangements to succeed, healthcare organizations need good working relationships and continual communication.

- Organizations should be transparent with data and outcomes.
- They need to embrace innovation, learning new ways to do things.
- In building relationships, it's wise to survey stakeholders to learn what they think and need.

network, it's possible to ensure a good handoff and transition of care throughout the care continuum, she says.

"In the nursing home, we have weekly meetings to review cases, including the home health agency and Innovation Care partners," Vanaskie says. "They make sure everybody is talking and there's good collaboration."

Handoffs focus on providing patient education, pre-visits to the patient's home, and therapy. The goal is to reduce the patient's stay in the nursing home.

• **Transitional care managers are communication conduits.** Independent case managers develop care plans, while the transitional care manager shares information about the plan, ensuring safety in care transition.

The transitional care manager's role is to communicate with community providers, keeping them updated on what is happening in the hospital with their patients, Vanaskie explains.

"So, the transitional care manager has a lot of information to give the inpatient case manager that she might never have known without our ability to communicate with the primary care provider," she says. "The transitional care manager is the communication conduit between the hospital and outpatient care."

Transitional care managers also visit with patients, meet their families, and stay in contact after patients are transferred to post-acute care. They also contact the primary care provider office and conduct home visits. They'll stay closely in touch with patients for 30 days, but are available for patients to contact after that, as well, she says. ■

Inside-the-box Strategy Helps With Medication Management

Pill boxes, smart cabinets, blood test results, text reminders, and old-fashioned pill-counting are among the ways healthcare providers and case managers have monitored patients' medication adherence.

Optima Health in Virginia Beach, VA, recently began using a new technology that includes a pill box so sensitive to weight that it can determine precisely which pill, and how many, were pulled.

"This past year we started using a medication management system that has a box that makes it easy to increase drug adherence," says **Tonya M. Palmer**, RN, MSN, CCM, manager of government programs for the clinical care services division of Optima Health.

Patients can manage complex medication regimens cued by lights and sounds as they open their medication box.

"Prescriptions are mailed to them in sealed bubble trays that go into the pill box," Palmer says. "They set the timer for when medications are due."

Weight sensors track whether patients take their medicine.

"The box knows if they have not removed their pill," says **Cindy Colligan**, BSN, MBA, CCM, director of operations for clinical care services government programs at Optima Health.

"Bluetooth technology sends data to a dashboard," Colligan adds. "It has an alarm and can send a text message or email message that there is a missed dose, and case managers can see it in the dashboard."

This makes it easy for case managers to monitor patients' medication adherence in real time.

If a patient misses a dose or forgets to charge their medication box, the case manager can call them to find out what's going on.

"One member was set up with the box but wasn't using it, so the case manager called and found out the person never received the box cord," Palmer says. "So we got the cord to the person."

Although the program is too new for results to be analyzed, anecdotal evidence is positive, Colligan notes.

"We have more than 100 members using the box, and, anecdotally, we can see success," she says. "One member, who started with it in December 2016, went from 60% adherence to 98% adherence by February 2017."

Initially, the patient wanted the smart box as a reminder when he was forgetful. "Over time, he relied on it less and less," Colligan says.

Patients using the box are those with chronic health conditions and more than five prescriptions related to their conditions.

"It eliminates errors," Colligan says. "Some members have a problem obtaining their medications; some have a problem remembering to take their medications. For members who want to be adherent, the pill box solves a continuum of problems." ■

ADT Nurses Can Help Ease Bed Constraints, Patient Volumes

Managing patient throughput can be one of the biggest challenges for nursing units, with patients often remaining in the ED because there are not enough beds available on the unit, or there are not enough nurses to care for all of the patients. But some facilities are finding a solution with the use of Admission, Discharge, Transfer (ADT) nurses.

ADT nurses can be effective when nursing units do not have sufficient ability to flex their staffing models as patient throughout volumes and needs change throughout the day, explains **Denise Perry**, MHA, RN, CENP, senior consultant with Novia Strategies in Poway, CA. Patient throughput can be affected significantly by the time it takes to conduct the admissions process on a nursing unit and the time it takes to discharge the patient and free up the bed for a new admission, she says.

This delay affects the rest of the hospital when discharge is delayed and patients are held in the ED or surgical unit while waiting for an inpatient bed, or patients may be waiting at a clinic or elsewhere in the community for a bed, she notes. Getting patients moving through nursing units can clear the logjam so that the benefit is felt throughout the hospital, Perry says.

Hospitals apply various interventions to improve throughput, but Perry says the use of ADT nurses has proven to be one of the most effective. The role of an ADT nurse typically encompasses a broad range of patients, including those who are transferred in from and out to another unit, which is a slightly different workflow process than hospital admission and discharge, she notes. Nursing units usually are affected more by one type of admission and discharge than the other, so ADT nurses focus on the one that has the greatest effect on patient throughput, she says.

"It's important to analyze your data to determine the peak times, the time of day, or day of the week that will most benefit from having an ADT nurse in that role, handling those patients independent of nurses on that unit who have another patient assignment," Perry says.

ADT nurses have become more popular recently as hospitals look for more effective solutions to patient throughput issues rather than just adding more nurses to a unit, she says.

The real problem is not always the actual performance by nurses of the admission and discharge processes, Perry notes. A number of factors, such as the timeliness of admitting physician orders to how long it takes environmental services to clean a room and get it ready for the next patient, can drive a logjam, she says.

ADT nurses can be part of a more targeted approach once you understand the issues contributing to patient throughput delays, Perry says.

"People are realizing that just throwing more nursing hours at a problem isn't always the best solution and doesn't make the problem go away," Perry says. "Hospital administrators are realizing that they need more clarity about exactly what is needed. ADTs can be part of the solution while also looking for strategies to address other components of the hospital throughput problem."

There are a few models to choose from when employing ADT nurses. One is a unit-based ADT nurse, which works well for a unit that has a high volume of patients needing this attention on most days, Perry says. That often is the case with post-surgical units and with short-stay units, where patients are more likely to stay for one to three days rather than a lengthy period, she says.

"I've worked with large units of 40-plus beds where they may experience 15 to 20 total admissions and discharges in one 24-hour period," Perry says. "That's a lot of bed turnover and activity going on in that unit. The ADT nurse can be particularly useful in helping to get those admitted patients settled, or the discharge patients organized and out the door."

Some organizations also find that ADT nurses can be particularly effective in the ED, Perry says. A hospital with a large proportion of admissions through the ED — that can be up to 60% of their admissions — will find it beneficial to place ADT nurses in the ED to conduct the admission process with the patient before even being transferred to a nursing unit, she says.

That can give the ADT nurse a head start on all the paperwork and documentation that can slow down admission and discharge, Perry explains. The patient typically will have a full set of admission orders from the physician, but there also must be a comprehensive nursing admission history that includes details on medications, home environment, fall risk, skin breakdown risk assessment, and other factors.

"It's time-consuming, taking 35 to 40 minutes for an average patient

and sometimes much longer in some more complex cases," Perry says. "When these documentation and history tasks take place in the ED before the patient gets to the nursing floor, there is no delay on the nursing floor between the time the unit accepts that patient and the time it is ready to accept the next one. It smooths that process because the patient is ready to admit immediately, rather than taking that 35 to 40 minutes every time a patient arrives at the nursing unit."

Another way using ADTs is effective is when the admissions and discharge workload is not weighted heavily in a particular unit or in the ED, but rather is spread through units and may include a large proportion of admissions from other facilities. In that case, a centralized ADT system in which roving ADT nurses are deployed from the float pool team is used, Perry explains.

"They're deployed to the units as needed, when that unit is being hit hard and needs to improve the efficiency of their admissions and discharge. They become sort of like first responder nurses on a pager, floating around the hospital to assist with ADT activities where they are actually occurring at that moment," she says. "This works well when there is no consistent peak volume in the ED, surgery, or outside transfers in, but there is a need throughout the facility overall. These ADT nurses can be just as effective, and their value justified to administration, just as much as when they're dedicated to a particular unit."

That approach is a turnaround from when ADT nurses first came to the attention of hospital administrators and every unit manager thought that an ADT nurse would solve all their throughput problems, Perry says. Many hospitals tried putting an ADT nurse on the units they assumed were the busiest and experienced the most delays, but that perception was not always correct and the ADT resources were underutilized.

Rely on the data to show you where ADTs will be most effective, Perry says.

That means the first step to employing ADTs is researching hospital data to identify where the admissions and discharge logjams occur — whether it is primarily in one unit or more generally spread throughout the facility.

"Which departments are holding patients more frequently than others? Is the emergency department pretty much able to get their patients into beds as needed, but the surgery recovery room can't?" Perry says. "Or is surgery recovery always able to get beds, but transfers from other facilities or the community experience long delays? Anecdotal evidence like complaints by staff might lead you in the right direction, but you're only going to get a reliable answer by studying the data."

Perry advises analyzing admission and discharge data by patient care unit, hour of the day, and day of the week. That should create trend lines that identify the highest areas of need, which will suggest the best ADT model for your situation.

The answer could be a combination of the models, Perry notes. It may be most effective, for instance, to have a dedicated ADT nurse in the ED and one or more floater ADTs for other patient units, she says. The use of ADTs should be tailored to your own institution's needs, but it must be based on analytics and not an informal impression of where the problem lies — and just on whatever unit leader is complaining the loudest, Perry says.

The role of the ADT nurse must be clear not only to the nurse, but to everyone else on the units where he or she will work, Perry says. When assigning an "extra" nurse to a unit, especially when the nurse can be summoned as needed from a float pool, it is easy for others on the unit to treat that person as an extra hand who can be tasked with whatever needs to be done at the moment, Perry explains.

"After you assign a nurse to a unit, that role may morph into more of a blanket resource nurse position in which the person does help with admissions and discharge, but also relieves nurses for breaks and lunch time, pass medications, assist with infusions," Perry says. "When that happens, either the ADTs are not accomplishing what you sent them there to do, or, in fact, that unit doesn't need a full-time ADT in the first place."

Watering down the ADT's role could greatly undermine the effectiveness of an ADT program, she says. The hospital should include an education component when introducing ADTs to the facility or a particular unit, heading off potential conflict and watering down of the ADTs' effectiveness by explaining their roles to everyone involved, Perry says.

The volume and effectiveness of ADTs also should be monitored carefully, she says. Maintain data on the number of ADT admissions and discharges per unit and compare that to the trends in ED holds or patients waiting for transfer.

"Outcomes data will tell you the effectiveness of the ADT program and whether you might need to shift ADTs from one unit to another, or possibly switch a centralized ADT program with a float pool," Perry says. "A variety of factors can affect

where the logjam occurs, and that is not necessarily going to remain the same over time. Monitoring the outcomes data may show you that, at some point, things have changed and your original determination of where and how to deploy ADTs needs to be reassessed."

The proper use of ADTs can produce cost savings for the hospital in addition to improving patient care, Perry says. Patient volume can influence staffing levels, and slow admission and discharge at any point in the process can lead administrators to apply more resources to that particular unit. But adding more employees to the unit is costly and is not always the most effective solution, Perry says.

"If you look at the microsystems and not just the hospital as a whole, you might see that if you tease out these ADT activities, then the patient volume and throughput is manageable for the existing staff without increasing the total number of staff assigned to that floor for every shift," she says. "There is an opportunity for cost control and labor hour control by identifying those workflow and patient activities that can be better assigned to a specialist rather than increasing the total hours on the floor as a whole."

The financial effect of improving patient throughput can be profound, Perry says.

"If I have a 20-bed emergency room and I have six patients who are holding in beds, then I really only have a 14-bed emergency room. That's going to affect your bottom line in that department," Perry says. "On the other end, if I have delays in discharging patients, then I'm going to have organizational costs from extended care that can be captured and used to demonstrate how the savings offset the costs of the ADT nurse hours." ■

SOURCE

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Employee Health Research Steps Up Protection of HCWs

Study will look at safety culture, exposures

A common truism is that "you can't have patient safety without worker safety" — which makes intuitive sense, but lacks definitive data.

A potential landmark study attempting to link the two has drawn the support of some major agencies and organizations, including the National Institute for Occupational Safety and Health (NIOSH) and the Association of Occupational Health Professionals in Healthcare (AOHP).

The study will be conducted at the unit level of some 100 hospitals. Researchers will assess such factors as compliance with standard infection control precautions to protect workers and patients, blood exposures and needlesticks to HCWs, hospital-associated infections, and an overall assessment of the safety culture.

"The gap this study is addressing is that there is a focus on the healthcare worker and occupational health safety, and then there is the other side — the folks that look at patient safety," says lead researcher **Amanda Hessels**, PhD, MPH, RN, CIC, CPHQ, associate research scientist in the Columbia University School of Nursing in New York City. "As a registered nurse myself, I [understand] that whether or not I adhere to standard precautions could impact not only my safety, but my patients' safety as well. These are really overlapping goals, and [this research] is a unique way to leverage both of these priorities."

In that regard, the researchers are reaching out not only to employee health professionals, but their colleagues in the Association for Professionals in Infection Control and Epidemiology (APIC). The AOHP recently encouraged its members to support the study, and some employee health professionals are coming on board as the research begins this year.

"I am hearing from occupational health professionals who are interested in this," Hessels says. "Again, they are overburdened, overworked, as you know; they deal with the outcomes of these exposures. They are also very interested in understanding factors that influence healthcare workers' behaviors — whether it is an active decision or an oversight. What are the factors that influence those behaviors?"

Standard infection control precautions with all patients have long been recommended, but there is a surprising lack of definitive data about what

role they actually play in protecting the patient and the healthcare worker. Thus, the study will assess whether high compliance with standard precautions actually translates to lower worker blood exposures and needlesticks, and fewer hospital-associated infections (HAIs).

"The aims of the study focus on three really important public health problems: high [exposure] rates to healthcare workers, high rates of HAIs, and low levels of standard precautions adherence," Hessels says. "Another study aim is designed to test whether a more positive patient safety environment is associated with a greater portion of standard precaution adherence."

The study, "Impact of Patient Safety Climate on Infection Prevention Practices and Healthcare Worker and Patient Outcomes," is being funded by NIOSH and the CDC. If successful, not only would establishing this link directly benefit patients and workers, but it has the potential to elevate the status and validate the value of the specialty of occupational health.

Participants will receive basic training on standard precautions at the onset to ensure everyone understands and is using the same basic principles.

"The training is to reiterate their existing knowledge base and refresh their understanding of the standard precautions recommendations, which are some 20 years old, so that we are all on the same page initially," she says. "In collecting these observational data, we will be training a national cadre of nurses, infection preventionists, and others to do something similar to what they do in their day-to-day work, which is observational surveillance. We're going to, for the first time, use tools that are standardized and have some reliability and validity so we can compare across sites."

There will be elements of the study designed to offset the Hawthorne effect, which essentially means people change their behavior when they know they are being observed.

"There is more in the emerging literature about the Hawthorne effect and surveillance methodology," Hessels says. "As you know, collection of observational data is considered the gold standard. I would be remiss if we didn't acknowledge that there is a terrific interplay in looking at data in concert — different types of data, observational data, electronically obtained data, etc. For these data, the Hawthorne effect is being minimized by the observer collecting data on routine healthcare in a manner in which they are situated in a space or a place where they are not interacting with either the HCWs or the patients; they are really part of the environment, really just collecting data on the standard the workflow. This is a snapshot of activities and behaviors."

As employee health professionals know, standard precautions recommended by the CDC apply to all patients. According to the CDC, standard precautions include hand hygiene, use of gloves, gown, mask, eye protection, or face shield, depending on the anticipated exposure.[1] In addition, safe injection practices and handling equipment in a manner to prevent transmission of infectious agents is recommended. Respiratory hygiene also was added to standard precautions after the emergence of SARS in 2003, directing patients to cover coughs and sneezes when they first present to a healthcare setting.

"I'm finding in the number of phone calls from people that are interested and reaching out to me from across the nation is that they want their team on board to undergo this training and to assist," Hessels says. "In other words, there is more than one person per site that is interested in participating. I think that is a unique and a very telling finding about how very important this [topic] is to folks on the front lines of preventing both healthcare worker exposures and hospital-associated infections."

The observational study will assess compliance with the standard precautions measures, including the following.

- Hand hygiene before touching a patient, after touching patient, and after contact with patient environment/surroundings.
- Don gloves when touching blood, body fluids, secretions, excretions, contaminated items, touching patient mucous membranes, and non-intact skin during invasive procedures.
- Remove gloves immediately following procedure/indication for glove usage.
- Don gown when performing procedures and patient-care activities when there will be contact of clothing/exposed skin with blood/body fluids, secretions, and excretions.
- Remove gown immediately following procedure/indication for gown usage.
- Don mask, eye protection (goggles), and face shield during procedures and patient care activities likely to generate droplets, aerosolization, or splashes or sprays of blood, body fluids, and secretions, especially during suctioning and endotracheal intubation.
- Immediately place used sharps in puncture-resistant container. ■

REFERENCES

1. CDC. Healthcare Infection Control Practices Advisory Committee (HICPAC). Guideline for Isolation Precautions 2007: http://bit.ly/2pgeBcg.

CASE MANAGEMENT ADVISOR™

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CE QUESTIONS

1. **A risk stratification and case management program targeting North Carolina's Medicaid population has shown cost savings of about $1 billion over four years. Which of the following is the program's care management strategy?**

   a. Patients are linked to a primary care physician within three days after discharge.
   b. Patients receive medication management to monitor medication adherence and prevent readmissions.
   c. Enrolled patients are contacted via telephone and in person after hospital discharge.
   d. All of the above

2. **Which of the following is a benefit of implementing a one-pharmacy policy in the case of patients with an apparent opioid addiction issue?**

   a. Case managers can be embedded in the pharmacy to help patients when they arrive for prescriptions.
   b. If patients purposely try to collect more opioid medication than prescribed by their main doctor, they can be arrested at the pharmacy.
   c. It's much easier to ensure patients do not abuse the system and it results in their calling their case management contacts.
   d. All of the above

3. **For an accountable care organization arrangement to succeed, what do healthcare organizations across the care continuum need to have in relation to each other?**

   a. Collaboration, communication, and partnership
   b. Shared physicians and staff
   c. Recognition that acute care facilities will take the lead
   d. None of the above

4. **A healthcare organization uses new technology to improve medication adherence among at-risk patients. The latest technology involves a smart pill box that alerts patients through sounds and lights. What else can it do?**

   a. It can speak in 22 languages.
   b. It can be activated only by the patient's fingerprint.
   c. It has a weight sensor that knows when pills are taken.
   d. All of the above