CASE MANAGEMENT ADVISOR™

COVERING CASE MANAGEMENT ACROSS THE ENTIRE CARE CONTINUUM

INSIDE

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Maternity Case Managers Can Help Patients and Reduce Costs

U.S. maternal mortality rate on rise

American women who are pregnant or have just given birth are dying at a rate higher than most high-resource nations, and the morbidity rate is three to four times greater for black women. Their death rate is equivalent to pregnant women in less affluent nations, including Mexico or Uzbekistan. *(For more information, please visit: https://wapo.st/32AJBbf.)*

Ten-year data from the Centers for Medicare & Medicaid Services (CMS) show that pregnancy-related deaths are highest for black women, followed by Native American/Alaska native women. Hispanic women experience the lowest maternal mortality rate. *(More information can be found at: http://bit.ly/38jx6Sw.)*

Maternity case managers can help prevent pregnant women from experiencing health crises and help keep their infants out of the neonatal ICU (NICU). Case management helps promote better education about the risks of preterm births. *(See story on preventing maternal and infant mortality and morbidity, page 40.)*

> "MATERNITY CASE MANAGERS ARE RN CASE MANAGERS WHO FOCUS ON EDUCATION AND SUPPORT FOR PREGNANT WOMEN DURING PREGNANCY AND THE POSTPARTUM PERIOD."

"Maternity case managers are RN case managers who focus on education and support for pregnant women during pregnancy and the post-partum period," says **Sandy Coleman**, MSN, RN, CCM, manager of integrated care management with Partners

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in Pregnancy at Optima Health in Virginia Beach, VA. "The goal is a healthy pregnancy, healthy baby, and healthy mom at the end. We help reduce mortality and morbidity among moms and babies."

The U.S. also has the highest infant mortality rate among high-resource nations. Healthcare organizations must focus on what can be done to reverse this trend. There is a big push for more resources and case management of pregnant women, Coleman says.

"We've had our maternity case management program since 2003, but this type of program has become more popular in the news," she explains. "More people are aware of it, and as the initiatives grow, we've become more successful at it."

From a health payer's perspective, maternity case management can save costs by preventing preterm births and long NICU stays, says **Susan Hines**, RN, BSN, RN-BC, manager of clinical care services at Optima Health. "The long-term effects of a NICU baby include intellectual disabilities, hearing loss, blindness, cerebral palsy — lifelong effects for these babies," she explains. "It's advantageous to have case managers work with moms to make sure they're getting prenatal care and have access to nutritious food and other things necessary to make sure they carry their babies to term."

Help Patients Understand Risks

Case management nurses working in the prenatal care setting can help women understand their potential risks for preterm labor and birth, and to advise them on the steps they need to take to minimize that risk, Hines says. These steps include proper nutrition, exercise, and stress reduction.

There will always be health crises that result in preterm babies and maternal health complications, but interventions can greatly help, Hines notes. "We want to intervene where we can and make a difference where we can, so moms are healthy and can deliver healthy babies," she says.

All pregnant women in the health plan are eligible for the case management program, Coleman says. They can refer themselves or their provider can refer them. Once they they are enrolled, they receive support and outreach.

"Our goal is to get 100% enrolled. We reach out to as many as we can and try to focus on those higher-risk pregnancies," Coleman explains. "Women with chronic

EXECUTIVE SUMMARY

The maternal mortality rate in the United States has risen in the past 20 years, even as rates in other affluent nations are decreasing. The United States also has one of the highest infant mortality rates among high-resource countries.

- Maternity case managers can help patients achieve the goals of a healthy pregnancy, healthy baby, and healthy mom.
- Red flags for high-risk pregnancies include gestational diabetes, addiction problems, and other health and behavioral health issues.
- Case managers screen patients for depression and provide them with support, including a baby shower with educational materials and small gifts.

conditions or socioeconomic factors are linked with appropriate resources to meet their social and medical needs, nutritional needs, and to make sure there's a support system in place."

Case managers reach out to women who have had a premature birth or are at high risk of a preterm birth. Red flags for high risk could include diabetes, gestational diabetes, addiction problems, and other health and behavioral health issues, Hines says.

"We recommend to those moms to be part of our prenatal program," Hines says. "We have one-on-one conversations monthly, or however frequently that is appropriate, with those moms."

Case management is extremely important for pregnant patients, as well as for any person with a health condition that requires more resources, Hines says. "The difficult part is engaging these members and getting them to commit to speaking with a nurse on some kind of consistent basis and to learn from our nurses," she explains.

When case managers are unable to reach a person by phone, they will send a letter, asking the member to call if they are interested in the prenatal program, Hines says. "We're also looking at using emails and text messages to reach high-risk members," she adds.

Once case managers receive a referral, they call the member to explain the program's goals and to complete a comprehensive assessment. "We develop a care plan and schedule follow-up," Coleman adds. "We coordinate any services she might need, and refer her to any community resources."

Case managers ensure patients have transportation to their doctor's visits, and that there are no nutritional gaps. "We give them education based on where they are in the pregnancy," Coleman says. "We answer questions about birth control and proper birth spacing, and we talk about breastfeeding, making sure they understand their options for feeding their babies."

They also educate women on preterm labor, high blood pressure symptoms, signs and symptoms of problems, and how to report their concerns to providers and feel empowered to speak up, she says.

CASE MANAGEMENT IS EXTREMELY IMPORTANT FOR PREGNANT PATIENTS, AS WELL AS FOR ANY PERSON WITH A HEALTH CONDITION THAT REQUIRES MORE RESOURCES.

Case managers give patients online resources and send them customized mailings. "We assess them and stratify them in high-, medium-, and low-risk categories," Coleman says. "We follow them at intervals based on that risk — every two to three weeks, depending on their risk level."

Enrollees and providers can call case management through an 800 number between their scheduled calls, and whenever they need information or help.

"We follow them throughout the pregnancy, postpartum trimester, and for six to eight weeks after pregnancy, which we call the fourth trimester because it's equally as important as the other three," Coleman says. "So many things can happen in the postpartum period."

Each patient has one case manager who works with her throughout the pregnancy and postpartum period. Sometimes, the same case manager will be available to work with her for her second or third pregnancy, Coleman says.

The case manager's reward is hearing that the mother and baby are doing well after case management ends, she says. "Sometimes, we get pictures of the baby, and they are really thankful for our services," Coleman says. "We get that reward at the end when things go well."

When patients have chronic conditions like diabetes, high blood pressure, or sickle cell anemia, they are referred to a community-based team to make sure they receive long-term resources, she adds.

Case managers also screen every patient for depression several times throughout the pregnancy. They refer members to counseling services and lactation support, including breastfeeding classes and hospital-grade breast pumps, as needed. Also, there is a network of resources to support pregnant members. These include education, food pantries, diaper banks, churches, and nonmedical organizations.

"We have a program where we offer baby showers to members, giving them a little education while they have fun," Coleman says. "They can bring a family member or support person with them to the baby shower." These range from small to large showers with 10 to 15 pregnant attendees. The organization's outreach department provides them with snacks and small gifts.

If a pregnant woman experiences housing challenges, case managers can help her access local housing

resources, including finding her financial assistance through the community.

When infants are born preterm and spend time in the NICU, maternity case managers will help the mother with whatever she needs, making sure the women are taking care of themselves, Coleman says.

"It's the same care coordination and case management we do when the baby is born full term, but we look at different routes to get them through the NICU period," she explains. "We try to stay with them until the baby is discharged."

Each case management connection is individualized. "There is not a cookie-cutter answer," Coleman says.

Case managers help members access all the full benefits from Medicaid or other payers. "We make sure they're maximizing those benefits," Coleman explains. "If they have trouble filling a prescription, we work with them to get that filled. If they need help paying for things, we reach out to community partners."

Case managers also reach out to physicians and others to educate them about the program and to coordinate education for patients about prenatal care, Hines says. "We make sure we're all on the same page and telling members the same thing," she adds.

The maternity case management program works well, helping a population that needs additional support, Coleman says. "People don't realize that a normal, complication-free pregnancy and delivery are not the norm," she says. "More often than not, there's at least one complicatio, roadblock, or barrier, and that's what we're here to walk women through."

Pregnant women so often feel lost, confused, or think they have done something wrong when their pregnancy is not picture-perfect, Coleman notes. "We do everything we can to make sure the women and their babies are healthy," she says. ■

Maternal and Infant Health Need Science-Based Case Management Plan

New approaches to prevent preterm births and maternal morbidity and mortality are needed. Healthcare providers can initiate and improve maternal case management programs by following evidence-based strategies, says **Susan Hines**, RN, BSN, RN-BC, manager of clinical care services with Optima Health in Virginia Beach, VA.

New case management approaches are needed because much of the current treatments to prevent preterm births are ineffective, Hines says.

Case managers can use these best practices:

• Assess risk for preterm birth. Women at higher risk of preterm birth include women with twins and multiple gestations, and African American women. There are a variety of additional risk factors, according to the pregnancy care management standardized plan of North Carolina Public Health. *(The plan can be found at: http://bit.ly/3apYcJ5.)*

Additional risks, as outlined in the plan, include:

- Fetal complications;
- Chronic conditions, such as diabetes;
- Substance use/abuse;
- History of preterm birth;
- History of low birth weight baby;
- Unsafe living environment, including physical abuse, homelessness;
- Smoking;
- Late entry into prenatal care (after 14 weeks);
- Hospital utilization during pregnancy;
- Provider request for care management.

• Interact with patients frequently. Research shows that there are fewer low birth weight infants among women who received a higher

EXECUTIVE SUMMARY

Evidence-based recommendations to prevent preterm births include assessing patients' risk levels and considering a variety of potential complications and health problems.

- Pregnant women are at greater risk of a preterm delivery if they have a chronic illness, such as diabetes, substance abuse, a history of preterm babies, live in an unsafe environment, and if they smoke.
- Case managers should engage with patients, including them and their families in decision-making and goal-setting.
- Goals might include improving nutrition, engaging in exercise, reducing stress, and obtaining social support.

level of prenatal case management. *(More information can be found at: http://bit.ly/2PFLI8s.)*

• **Engage patients.** Case managers can coordinate and communicate between the prenatal care team and patients. They also can educate patients about options, community resources, and psychosocial concerns.

Case managers can empower patients' problem-solving and encourage the use of healthcare services to improve care quality. Health promotion includes encouraging women to engage in healthy behaviors, Hines says.

• **Assign goals.** Maternity case managers can develop a care plan that includes input from patients, families, prenatal care providers, and other service providers. The plan can assign goals that the patient agrees to work on with the care manager. It also should include periodic status and goal reviews with the patient at least every 90 days.

Health promotion includes encouraging women to engage in healthy behaviors, Hines says. Goals could involve having pregnant women agree to better nutrition, exercise, stress reduction, and social support, she adds. ■

Program Targeting Skilled Nursing Facilities Reduces Readmission Rates by 25%

Mount Sinai Health System in New York City found that one in four patients in an accountable care organization (ACO) transitioned to a skilled nursing facility (SNF) returned to the hospital within 30 days. To fix this problem, the organization focused on case management solutions that also work in hospital settings.

"We asked, 'What are the best practices we do in our hospital when we discharge patients?' We can use those best practices for skilled nursing facilities," says **Esther Moas**, MS, RN, senior director of care continuum at Mount Sinai. "We already have a lot of work we're doing to prevent 30-day readmissions from the hospital. This work was to prevent high readmission rates after discharge from the skilled nursing facility, too."

For instance, SNF patients need medication reconciliation and appropriate pharmacological updates before patients receive their prescriptions.

Case managers can ensure patients schedule a follow-up appointment with a primary care provider within 14 days of the SNF discharge, Moas says. "We also set up a process where our care management team gets a copy of the SNF discharge paperwork and sends it over to the primary care provider," she explains. "We update physicians on any changes, whether it's the acute care or SNF setting."

They write a summary of why patients went to the SNF, what the goals were, and whether the patient is achieving those goals.

With those changes, the organization achieved a 20% reduction in SNF 30-day readmissions, Moas says. "The results have continued," she adds. "The most recent data are showing even better numbers."

The SNFs, as well as hospitals, have an incentive from Medicare to reduce their readmissions. This helped with buy-in, Moas notes. "The penalty went into effect after we started the model," Moas says.

"We have quarterly meetings [with stakeholders], where we present data and have collaborative leadership," Moas continues. "We have shoutouts where facilities that are doing exceptionally well get a shoutout from the group, and we give them a certificate to display to patients."

The idea is to keep all partners aligned in improving readmission rates. "We do a lot of work to keep it exciting for everyone," Moas says.

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A study from Mount Sinai Health System in New York City revealed that 25% of patients who were transitioned to a skilled nursing facility (SNF) returned to the hospital within 30 days. The organization employed case management solutions to achieve a 20% reduction in the 30-day readmissions from SNFs.

- Case managers assist SNF patients with medication reconciliation and pharmacological updates.
- They also ensure patients schedule a follow-up appointment with a primary care provider within 14 days of the SNF discharge.
- The care management team obtains a copy of the SNF discharge paperwork and sends it to the primary care provider.

There always will be some facilities that are indifferent, but most want to work with case management to improve care coordination processes, she adds. "We're up to 30-plus facilities committed to working with us," she says. "We're a huge system. Overall, facilities are really interested in how they can partner and build closer collaborations with us."

The case management success derives from following basic principles of discharge planning and ensuring patients are linked to appropriate community resources, Moas says.

"We applied those inpatient best practices and moved them forward, sharing what we do on discharge planning," she says. "We also asked, 'Where are some of the areas on the hospital side where we wish we could do more upon discharge?'"

For instance, some patients are in the hospital for too brief a stay for case managers to solve their most pressing social determinants of health problems.

"We cannot resolve their homelessness and food insecurity issues in a way that would have a long-term effect on them, so we do referrals to community-based organizations," Moas says. "Then, we paused and said, 'Patients that go to SNFs are captured there for over a week, and sometimes for three weeks or up to 30 days,'" Moas explains. "We started to work with the SNF social worker on the housing and transportation needs that we identified when they were inpatients."

For example, case managers could work with a patient's family to remove bedbugs from the patient's home while the patient is at the SNF, she says.

"We realized we could do a lot more and a better job while the patient is at the skilled nursing facility, receiving rehab," Moas says. "We follow up on patients after they transition back to the community."

Case managers can help patients and families outfit their homes with shower bars, ramps, and motorized chair stairs. "We can refer the family to multiple vendors, and have the vendors come into the home," Moas says. "All those things take time, and impact a patient's long-term success at home."

Case managers also consider patients' financial needs and long-term planning. "We say, 'If you could afford private care for the next few weeks, what will happen after that if you want the care to be ongoing?'" Moas says. "We work with patients when they need resources to complete the application for Medicaid."

Often when patients are discharged from skilled nursing facilities, their community issues are not addressed, and the patient is not prepared to go home, Moas explains. "You sent them to a SNF because the home environment is not safe for them due to new right-sided weakness," she says. "But the SNF did not set up the patient's home environment to be safe for when the patient is discharged."

This is where case managers can help to get the home environment safer. "Following through with patients has made the best difference," Moas says. ■

Study Highlights Effects of Case Management on Reducing Readmissions

A recent study revealed that case management programs helped improve hospital quality and led to reductions in hospital readmission rates.[1]

Readmission rates are a problem throughout New York, says **Michele L. Summers**, PhD, RN-BC, FNP-C, clinical assistant professor at Decker College of Nursing and Health Sciences, Binghamton University in Binghamton, NY.

Summers studied the programs that affect readmission rates by reviewing New York state hospital readmissions through data collected from state and federal sources. Then, she contacted hospitals to find out what types of case management and other programs they were using.

"I looked at and then eliminated data from hospitals in more metropolitan areas, including nine areas of New York City, because I wanted a better comparison of hospitals in micropolitan or rural areas," Summers says.

Almost all of the hospitals studied employed interdisciplinary case management. The study revealed that hospitals that collaborated with home health agencies, used telehealth, or made house calls experienced lower readmission rates related to pneumonia.[1]

Case management services and referrals to home health agencies were among the main factors that affected readmission rates, Summers says.

"We asked whether they provided follow-up with recently discharged patients with a phone call from the

hospital," she says. "We wanted to know whether the hospital used some type of program where the nurse practitioner or physician would do a house call for some of their patients."

Summers also investigated the details of the interdisciplinary case management or discharge planning team to see what level of nursing was involved. Some teams consisted of social workers, and others had a mix of nurses and social workers, she adds.

The main result was that hospitals with advanced practice nurses on their case management teams seemed to experience better outcomes, Summers says. The outcomes included readmission rates and Medicare penalties. Case management practices that led to good results included telehealth outreach, house calls, and hospital readmission reduction programs.

"If they had more than one of these programs, it was better," Summers says. "Also, hospitals that collaborated with certified home health agencies showed a lower overall readmission rate when compared with hospitals that didn't collaborate."

House calls were particularly successful in some areas with reducing penalties for organizations, she notes. "The house call should be expanded more as a model, where there may be designated people who could follow up and go to people's homes," Summers says. "Some hospital organizations are investing in a program like that."

These investments should be forward-thinking, putting money up front to save money in readmissions and Medicare penalties, Summers explains. "These programs give a good return on investment," she says.

But when hospitals fund their own preventive programs, such as house calls, it can be the first program cut when the hospital is under financial restraints, Summers says.

"I think we're moving in the right direction with reform, but more needs to be done," she adds. ■

REFERENCE

1. Summers ML, Atav S. Reducing hospital readmissions in Upstate New York: Teasing out the effective programs. *Prof Case Manag* 2020 Jan/Feb;25:26-36.

Can Telemedicine Deliver High-Quality Geriatric Care to Rural EDs?

Currently, there are more than 100 U.S. EDs that have achieved some level of credit through the American College of Emergency Physicians' (ACEP) Geriatric Emergency Department Accreditation (GEDA) program. That means these EDs have taken specific steps to better meet the needs of older patients who present to the ED according to Geriatric Emergency Department Guidelines, a set of consensus-driven guidelines established in 2013.

However, recognizing that smaller, rural hospitals often do not have the training or resources to meet GEDA standards, researchers are determining if telemedicine technology can be leveraged to make this accreditation available to these facilities.

Further, is it possible for many older patients to receive needed care in their own communities rather than face transfer to larger, tertiary care hospitals that may be far away?

Lebanon, NH-based Dartmouth-Hitchcock Health and West Health, a group of nonprofits that has long been focused on programs and interventions to help seniors receive high-quality, cost-effective healthcare in their own communities, have teamed up to find out.

Scott Rodi, MD, interim section chief and regional director of emergency medicine at Dartmouth-Hitchcock Medical Center (DHMC), says the first step is for the DHMC ED to become a level 1 geriatric ED under the GEDA program, the highest of three levels of accreditation offered. However, he also notes that the Dartmouth-Hitchcock Health System already has a mature telemedicine network in place that will be used to support the delivery of high-quality geriatric care at the participating rural hospitals.

"In each of years 2 and 3 of the project, we plan to bring on two rural [hospitals] so that by the end of the project we will have at least four rural hospitals that are part of our system," observes Rodi, who is serving as the principal investigator and local champion for the effort. "The point of the project is to actually study [this approach]. If it turns out to be a useful and feasible model, we would hope to expand it to more sites."

Kevin Biese, MD, FACEP, MAT, associate professor in the division of geriatric medicine and co-director of the division of geriatric emergency medicine at the University of North Carolina, is heavily involved in helping set up the program at DHMC. He also will work with the

participating rural hospitals once they are selected.

Biese has taken a leading role in establishing the GEDA program, and works part-time for West Health. "I am sharing with [DHMC] specifically the best practices from the best geriatric EDs in the country. There are now 107 geriatric EDs in more than 25 states. I have been able to visit all the level 1 sites," he reports. "I am sharing those best practices and helping DHMC learn from the experiences of others as to how you take excellent emergency care of older adults. I am innovating with [DHMC] on how we can make those same services available via telehealth to their partnering rural and critical access hospitals."

Biese notes that providing the kind of medical care and social supports that older adults often need when they go to the ED requires a lot of expertise. This not only applies to doctors and nurses, but also social workers, case managers, pharmacists, and physical therapists.

"Frequently, complicated patients with complicated medical problems are transferred to big medical centers like DHMC, and then they are far from home," he says.

Spending time away from family can be hard on patients and loved ones. This project leverages the telehealth network already in place in the Dartmouth-Hitchcock Health System to essentially "beam out" that multidisciplinary care team to the EDs at these smaller, rural hospitals. Thus, many of these patients may access the care they need closer to home, Biese shares.

In the first year of the project, most of the ED staff at DHMC will receive some geriatric training. However, Rodi explains there also will be new resources brought on specifically for care management and social work that can be dedicated to the geriatric population.

He also anticipates adding geriatricians who can provide physician-to-physician support or advice. "When we get to the point of adding hospitals, if they are looking for help connecting to their community or help screening a patient, or they want the advice of a geriatrician, those mostly new resources will be in place to provide that support, typically through telemedicine," he says.

"OUR THINKING IS THAT WITHOUT A PROJECT LIKE THIS, IT WOULD BE VERY DIFFICULT FOR A SMALL, CRITICAL ACCESS HOSPITAL TO ACHIEVE LEVEL 2 STATUS."

Rodi adds there will be both a geriatric medical director and an emergency medicine director for the project. These leaders will make some on-site visits to participating hospitals.

"We will be on site to help each site identify which screening tools they want to implement ... and which policies they want to put in place," Rodi observes. "A geriatrician will be on call 24/7, but the geriatric medical director and emergency medicine medical director will also be available to help in a scheduled way."

One goal of the three-year project is to enable the four participating rural hospitals to achieve level 2 GEDA certification. "Our thinking is that without a project like this, it would be very difficult for a small, critical access hospital to achieve level 2 status," Rodi explains.

Beyond helping these facilities achieve accreditation, investigators will be tracking a range of metrics to gauge the overall effect of the program. These metrics may include length of stay, hospital charges, rates of various screenings, urinary catheter use, perception of avoided transfers, and concordance with advance directives.

Other metrics could include hospital-acquired delirium; patient and family satisfaction; rates of polypharmacy; use of physical or chemical restraints; rates of falls; and consultations with physical therapists, geriatricians, and palliative care. "We are developing a scorecard ... but the overarching goal of that will be to decide whether clinically this program has an impact that is valuable to the community," Rodi shares.

He adds that analysts also will be assessing whether there is any financial impact for participating hospitals, and whether offering these services is cost-effective for DHMC.

There will be no fees assessed during the three-year research phase, but there will be some requirements, Rodi notes. "The principal things we will be asking for is that they have a local champion who is interested [in this area], will work with us to develop their screening tools, and help us gather data locally," he explains. "Most of these sites will not have an electronic medical record that we can access. We will need help from that person on site who will be the champion."

Ultimately, researchers hope to determine whether this program can deliver a return on investment (ROI) for small, rural hospitals. "It is conceivable that if there is an ROI, we might [eventually] discuss fees for sites that have access to the resources

that are being paid for centrally," Rodi explains.

Biese envisions a program that will endure well beyond the three-year timetable of this research project. "We are not just doing a grant-funded program that should go away when the grant goes away," he stresses. "We know if critical access hospitals are able to keep patients and treat them appropriately there, then that will make those hospitals more sustainable. Keeping rural hospitals in America open is critically important."

Further, Biese observes if DHMC can dedicate its high-intensity beds to patients who need services that can only be provided in tertiary medical center like theirs, that is more financially sustainable for the health system.

"As we are tracking the clinical impact of this, we will also be keeping an eye on a blueprint that will allow other parts of the country to deploy these types of services in a sustainable way," Biese notes. "The closer to home you can get care, the better."

(Editor's Note: For more information about the GEDA certification program and process, please visit: http://bit.ly/2JWhqvG. For more specific information about the Geriatric Emergency Department Guidelines that were created in 2013, please visit: http://bit.ly/2PPWold.) ■

Digital Chatbot Helps Guide Patients Through Hospital Care

Banner Health is using "chatbots" in some of its EDs to help guide patients through the care process and improve satisfaction. Patients can interact with the chatbot in a conversational style on their cellphones to ask questions and stay informed about schedules, lab statuses, and other aspects of their experience.

The chatbot can communicate in English and Spanish. *(Editor's Note: Banner Health uses text-based chatbot technology provided by LifeLink in Oakland, CA. Similar chatbot technology is available from other companies, including LivePerson in New York City and Ada in Toronto.)*

The health system tested the technology in a pilot project at one ED and expanded the program after receiving a good reaction from patients, says **Jeffrey Johnson**, vice president of innovation and digital business with Banner Health, based in Phoenix.

At a Banner Health ED, patients are offered the opportunity to receive updates on their cellphones at check-in, Johnson says. Those who accept receive a one-click activation text message that establishes a secure HIPAA-compliant connection to the chatbot, which then automatically provides updates and information to patients through conversational messaging that appears similar to texting.

"The initial testing with our customers yielded a very positive response, so we were optimistic about rolling it out more in our system. We were excited to see that we immediately were getting the same gains we had achieved in the pilot project in terms of engagement and customer satisfaction," Johnson says.

"We've now rolled it out to all 28 of our hospitals," Johnson adds. "It's become a normal course of business for our emergency rooms and how we engage patients when they come in."

Integrated With Medical Record

The chatbot usually interacts about eight times with each patient during their ED visit, Johnson reports. The chatbot is integrated with Banner's electronic medical record (EMR), which provides the chatbot with real-time updates that are personalized to the patient.

The conversations include the opportunity for the patient to provide feedback, which is used to monitor patient satisfaction and identify opportunities for improvement, Johnson says.

Banner has seen improvements in its Net Promoter Scores (NPS) since adopting the chatbot technology, and Johnson says hospital leaders are optimistic they will see improvements in HCAHPS, ED-CAHPS, and other benchmarks.

"We do a survey after every interaction with patients and measure the satisfaction with that. It's all trending very positive, and we anticipate that our scores will align well with what we're seeing in the surveys post-engagement," Johnson predicts.

"We will start doing some comparative analysis among hospitals and better understand whether we're having higher impact on some of the busier urban hospitals," he adds.

Johnson says the most promising part of the project is the chatbot gives Banner Health something to build on for improving customer satisfaction. Providing a chatbot option for

emergency patients is only part of what Banner Health leaders plan for improving the patient experience, he says.

"We're looking to extend [patient engagement] by looking at how patients first start searching for an ED online, and our option to start the registration process online before you arrive," Johnson explains.

"We have that option available at about half of our hospitals, and we're getting very good feedback from patients on that," Johnson continues. "People like to tell us they're coming in. The next step might be to use the chatbot technology before they even arrive, providing them with a map to get to the hospital, information on wait times, a picture of the entrance to the ED, where to park, how to get to registration."

Extending to Post-Discharge

Banner Health also wants to extend the idea to the post-discharge period, with the chat technology helping patients obtain prescriptions, lab results, follow-up appointments, and other information after leaving the hospital.

"We want to connect the entire journey with this digital assistant that is there with you at the right times, telling you the next steps in your care journey," Johnson says.

One challenge for Banner Health was the integration of the chatbot technology with the health system's Cerner EMR. Banner Health had never integrated a customer-centric technology with the EMR. However, the integration was key to making the chatbot useful and providing patient-specific information rather than just general updates and advice, Johnson says.

"Part of the value of the chatbot is giving you personalized information by connecting right to orders and statuses that are relevant specifically for you. That makes the conversation relevant to your personal experience and far more helpful than generalized information," Johnson explains.

> "AS CONFUSING AS HEALTHCARE CAN BE, WE SEE THAT PATIENTS APPRECIATE THIS SECOND LEVEL OF SUPPORT AND GUIDANCE."

"It has far more impact on the patient experience to tell them their next step and how to get to that department, rather than a general announcement to everyone in the waiting room about the wait time or how the process works," he continues. "People respond to information that is about them personally and makes their experience easier."

The other challenge involved how to socialize the technology with ED staff, Johnson says. The chatbot represents a new way of interacting with patients. Although the effects are positive, any change in such established routines can be difficult for staff.

"There was change management training that had to go on with the front desk and with clinicians so that they were aware of what the customer was experiencing with the chatbot," Johnson says. "It wasn't overwhelming, but it has to be anticipated as part of introducing a technology like this that changes how people interact with one another."

Ask Patients for Design Input

Johnson says the chatbots are not intended to replace any personal interaction with staff. The technology actually improves the value of interaction with staff by helping keep patients informed and lowering anxiety about the ED visit, he says.

Hospitals should work with patients to help design a chatbot program, Johnson suggests. Banner Health solicited patient input on the design of their ED chatbot.

"Verify that the technology is going to do what you want it to do and have the positive impact you're seeking. Model out the prototypes, and ask the customer if this input is helpful or not, whether it improves the patient experience," Johnson says. "Don't assume it will just because you think so. Any new technology like this has the potential to be really valuable to the customer, or it can potentially be annoying if it's not giving them what they need."

Banner Health also is in the early stages of implementing a chatbot that helps with annual health risk assessments for Medicare. The early experience with that pilot has been positive, Johnson notes.

"I really think digital assistants and conversational bots can have a huge impact on the customer experience. We look at them as expanding and reinforcing the face-to-face interaction with our staff," he says. "As confusing as healthcare can be, we see that patients appreciate this second level of support and guidance. We're just tapping the potential of these conversational bots in healthcare." ■

Revisiting the 5 Domains of High Reliability

For the past several years, there has been a keen focus in healthcare on high reliability, the idea of operating in such a way as to prevent or avoid serious harm or mistakes. But how does the concept translate into actions that clinicians and administrators can use to make progress?

Erika Sundrud, a vice president at Premier Inc., a healthcare consulting firm headquartered in Charlotte, NC, addressed this question during the Institute for Healthcare Improvement's national forum in December 2019.

"We hear boards saying 'no harm, that is our vision' ... but [healthcare organizations] struggle at times to operationalize it," she noted. "What does it look like for the nurse manager every day in a no-harm environment? What do his or her job duties look like every day as they move forward?"

'This Is a Journey'

To learn the answer, it can help to review what the five domains of high reliability are and what they really mean, Sundrud observed.

"If these [five domains] are proven to create a safe environment ... we have to go back and [ask] what does this mean for us, how do we operationalize all five of these things every day, and then continue to have a mindful presence of [high reliability] every day," she said.

• **Stay preoccupied with failure.** Every adverse event that happens and every near-miss that one catches sends the message that there are further improvements to be made, according to Sundrud.

"I have never met an organization in my 18-year career that does not have any [adverse] events or near misses," she shared. "For all of us, this is a journey. We need to seek to understand these near-misses [and adverse events], to know them better and move forward."

• **Resist the temptation to simplify.** When a mistake or near-miss occurs, it is not uncommon for people to immediately reach the conclusion that the problem was miscommunication, the fact that someone lacked the proper skill set, or some other fairly straightforward conclusion.

There is a tendency to oversimplify failure so that a quick fix can be implemented, Sundrud explained. However, in many cases, there are numerous contributing factors to a mistake or adverse event.

For instance, Sundrud recounted the experience of one health system that wanted to understand why patients were experiencing excessive lengths of stay. "Patients were getting hung up in the ICU, and then they were getting hung up in the step-down unit," she recalled. "We were wondering what was happening here, what was wrong."

In that instance, the chief medical officer, the hospitalists, and even the intensivists concluded the problem was due to the fact that the organization had just hired new nurses. "Is that a good explanation? It could be, but is it the only explanation? Absolutely not," Sundrud stressed. "Sometimes, the most simple answer coming forward for some of the events going on in your system is right there in front of you, but [the root cause] can be much more complex than given credit for," she cautioned.

• **Be sensitive to operations.** It is important for leaders and staff to understand what is happening on the frontlines. This includes the specific work, processes, and the system that affects patient care every day, Sundrud said.

"You would think that this would be the easiest thing that we can do because we all know what is happening in every process and every system in our organization that is impacting patient care," she explained. "Yet, often we are finding that a simple piece alone has variation in it. Understanding that [variation] is important."

• **Commit to resilience.** Even if there are one or two failures, if an organization can continue avoiding big failures, then employees have achieved something important. Still, leaders must keep pushing, Sundrud noted. "Our job is to uncover things early and often, and to continue to work on them," she said.

This means periodically fine-turning or redesigning processes so they work more effectively. "Often, we are finding that [this work] slips through the cracks," Sundrud shared. "That resilience is often very difficult."

• **Defer to expertise.** "In healthcare, we defer to physicians all the time, which we should, but this is when leaders are deferring to people that know [a specific] process," Sundrud explained. "They are trusting the insights of people who understand their process and their situation, and then move forward from there." ■

RESOURCE

- Premier Inc. Creating a Culture of Optimal Care Delivery. Charlotte, NC; 2018. Available at: http://bit.ly/2RF8WvI.

CASE MANAGEMENT ADVISOR™

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CE QUESTIONS

1. **The maternal mortality rate in the United States is highest for which demographic of women?**

   a. White
   b. Hispanic
   c. Black
   d. Eskimo

2. **Case managers working with patients transitioned to skilled nursing facilities (SNFs) were able to help reduce the 30-day readmission from the SNFs by:**

   a. 10%.
   b. 20%.
   c. 30%.
   d. 40%.

3. **Maternity case managers can assess pregnant women for higher risk of preterm birth by considering which factors?**

   a. Unsafe living environment
   b. Renter
   c. Disability
   d. Mental health

4. **According to a study of hospital readmissions in upstate New York, hospitals that collaborate with home health agencies, used telehealth, or made house calls had lower readmission rates related to:**

   a. COPD.
   b. heart disease.
   c. pneumonia.
   d. diabetes.

CE OBJECTIVES

After completing this activity, participants will be able to:

1. Identify clinical, legal, legislative, regulatory, financial, and social issues relevant to case management.
2. Explain how the clinical, legal, legislative, regulatory, financial, and social issues relevant to case management affect case managers and clients.
3. Describe practical ways to solve problems that case managers encounter in their daily case management activities.