New Knowledge, Innovations, and Improvements

“We empower our clinical teams to stay at the forefront of innovation and invest in their ability to impact positive change. Our Perinatal Palliative Care Program is just one example of how our teams are innovating to transform care delivery. Our efforts result in exceptional care, where we constantly strive to increase the emotional and physical well-being of both our patients and clinicians.”

Terri Lamanna, BSN, RN
Staff Nurse IV, Walnut Creek Medical Center

Kirsten Marasigan, BSN, RNC-OB
Assistant Nurse Manager, Walnut Creek Medical Center

In May 2017, the Northern California Region launched the Supporting Vaginal Birth (SVB), NCAL PC-02 Collaborative, with 10 of our medical centers participating. PC-02 is a measure set defined as first-time mothers with an early to late-term, single baby in a vertex (head down) position delivered by cesarean birth. The purpose of the collaborative is to standardize best practices for cesarean procedures, reduce variation among Kaiser Permanente Northern California hospitals, and address a nationwide increase in cesarean sections performed without clear evidence of neonatal or maternal benefit.

SVB NCAL PC-02 Collaborative
In 2017, more than half of all hospitals in California had higher cesarean rates than the national recommendation set by The Joint Commission. In response to those trends, Kaiser Permanente Northern California developed the PC-02 Collaborative with all 15 medical centers that have Maternal Child Health services participating. Thanks to the SVB NCAL PC-02 Collaborative, the number of Kaiser Permanente Northern California medical centers surpassing the national target dropped from 15 (all of our centers) in 2016 to just 7.

SVB: Train the Trainer
The collaborative call to action included focused efforts to bring nurses back to the bedside to better support women in labor. Supporting Vaginal Birth: Train the Trainer (SVB TTT) sessions were developed in collaboration with certified nurse midwives and perinatal registered nurses. These sessions brought physicians, certified nurse midwives, nurse educators, and staff nurses together for a day of knowledge exchange and training at the Garfield Innovation Center. Participants learned new, evidence-based ways to support safe, vaginal births and later shared those skills with Labor and Delivery teams at their own medical centers. Sessions were well attended, drawing more than 150 participants and earning overwhelmingly positive reviews.
Strategic Focus and Methodology
Kaiser Permanente Northern California nursing, physician, and midwifery leaders used standard performance improvement methodology, engagement, and multidisciplinary collaboration to identify key drivers of preventable cesarean sections and implement solutions to better support vaginal births. The initiative focused on 4 strategies: sharing of data, chart review, development and spread of protocols and checklists, and labor support skill-building.

Positive Results
Since we know the first cesarean section creates significant medical consequences for future pregnancies, we have shifted our culture to supporting vaginal births. As of October 2018, the NCAL Supporting Vaginal Birth PC-02 Collaborative has affected an overall reduction of the PC-02 rate by 4.3 percent. This equates to the prevention of approximately 670 cesarean births per year throughout Kaiser Permanente Northern California.

Rising to Meet a Challenge
Kaiser Permanente Santa Clara Home Health and Hospice is a parent agency with oversight of San Jose, Redwood City, and Santa Clara home health and hospice patients. The center’s intake department is responsible for processing referrals for all 3 sites in preparation for start of care (SOC) appointments.

For some time, Santa Clara Home Health and Hospice had struggled to keep up with growing demand for home health and hospice care needs within its service area. The persistent challenge met its match when project manager Danielle Franklin teamed up with service director Sue Sanfacon in early November 2017.

Drawing from her expertise in organizational development, Franklin worked with Sanfacon to launch an all-hands-on-deck investigation into the agency’s workflow challenges. Every step of the process would be examined – from the moment referrals were received to first patient contact.

Investigation and Inquiry
Santa Clara Home Health and Hospice’s intake to start of care is a complex, multi-step process, involving many team members, multiple roles, and 3 different sites. Franklin and Sanfacon knew a successful outcome would come from open and honest collaboration, and input from every team member involved in the process.

Following an interactive kick-off meeting, they initiated 2 weeks of one-on-one interviews. The pair met with intake nurses, intake clerks, home health nurses, specialists, and site directors. Collectively, these ground-level professionals have an accurate view of the agency’s daily workings. As those closest to the work, they also hold the key to a successful transformation.

One-on-one interviews were followed by 2 weeks of observation. Workflow and work roles were carefully reviewed. The project team noted any workarounds that might have developed and collaborated with team members on what might make certain tasks easier or more efficient.

It Takes a Crew to Right a Ship
After 4 weeks of interviews, observation, and collaboration, the team proposed some dramatic workflow changes. First, the agency’s single referral intake funnel was split into 3 tracks. This change accelerated site assignment and start of care.

In the new intake process, referrals were assigned immediately to their appropriate geographic site: San Jose, Redwood City, or Santa Clara. Dedicated intake clerks and intake RNs were assigned to each site, working side by side to process referrals and start of care. Metrics to identify areas for development as well as successes also were put into place.

Reception of the proposal were extremely positive. Everyone’s voice had been included and they felt invested in the outcome. As the new processes took effect, the plan’s positive impact quickly became apparent.
Within one year, Santa Clara Home Health’s workflow improvement project’s success is indisputable. Prior to kick-off, start-of-care appointments within 48 hours were at 64 percent. In just ten months, the rate of start-of-care within 48 hours climbed to 91 percent—a remarkable 27 percent improvement.

Franklin and Sanfacon credit their entire team’s participation, ingenuity, and creative problem solving skills. Franklin adds, “The secret sauce to this project (and frankly any project) is...the complete trust of the team, leaders, and sponsors. We worked together to find the very best outcome, focusing on possibilities, not barriers.”

The Proof is in the Data

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**SURGICAL SITE INFECTION REDUCTION**

**Bundle Improves Care Outcomes in Perioperative Cases**

By Tammy Peacock, DNP, RN, NEA-BC, CENP, CPPS, LSSBB, surgical outcomes improvement manager

Jenny Mendenhall, BSN, RN, CHSE, clinical education and nursing practice consultant, Perioperative Services

Claire Spanbock, MSN, RN, CNOR, regional director Perioperative Services

According to a 2017 study, the incidence of surgical site infection (SSI) is approximately 160,000–300,000 cases annually in the United States. The financial burden of these infections is substantial and one of the costliest of all hospital-acquired infections. Estimated costs vary from $3.5 to $10 billion annually in the U.S. Moreover, SSI instances increase emergency department visits and hospital readmissions, and extend hospital stays by 9.7 days per infection. An estimated 60 percent of these cases can be prevented with the use of evidence-based measures.

**Introduction of the SSI Bundle**

The Kaiser Permanente Northern California Surgical Site Infection (SSI) bundle was rolled out in October 2018. It was developed by an interdisciplinary team made up of clinicians and staff which included nurses and physicians from across the region. Components of the SSI bundle include:

- **CO₂ monitoring** to assess CO₂ levels prior to surgery
- **Hair clipping** outside the operating room, and only when needed
- **Pre-op chlorhexidine (CHG) wipes** applied by the pre-op nurse during a skin assessment
- **A warming device, or normothermia, applied to all patients in pre-op, in intra-op, and to hypothermic patients in the post-anesthesia care unit**
- **Antibiotics** administered as prophylaxis (and re-administered when needed) at the appropriate dose and timing
- **Surgical hand scrub** applied in a standard, consistent manner

“When you explain that the measures we take are designed to reduce the risk of infection, patients feel good about that.”

— Sherri Souza, RN, staff nurse IV, Fremont Medical Center
Meet George

George is not real — but his story is drawn from actual patient experiences. His experience, featuring 2 different surgical scenarios, illustrates the dramatic difference Kaiser Permanente’s SSI bundle can make.

George is 68 and lives on his own. His wife died 2 years ago after a long illness. He smokes, is overweight, and needs his right hip replaced after years of arthritis. George is scheduled for a total hip arthroplasty tomorrow, however, he is concerned for his cat Purdy. George’s neighbor Steve has promised to check in on the cat while George is in the hospital, but George remains focused on Purdy’s well-being.

Scenario 1: Pre-SSI Bundle Implementation

George was told not to eat or drink anything the morning of surgery, so he begins that day by smoking an extra cigarette. George did not shower last night or this morning, because no one has told him it is important to shower before surgery. Steve takes George to the hospital, and they smoke on the way. It is blustery and cold this January morning, and George feels chilled. At the hospital the nurses are cheerful but busy, and George does not ask for an extra blanket. When the nurse comes to take George to the operating room, he is cold, hungry, unkempt, and worried about Purdy. George’s surgeon does not routinely prescribe weight-based antibiotics, and orders an insufficient dose.

Scenario 2: Post-SSI Bundle Implementation

The morning of surgery George has stopped smoking because he has been advised that giving up smoking, even for a short amount of time, will help his post-op recovery. He is concerned about his cat, Purdy, and wants to get home as soon after surgery as possible. He is told he should expect to go home the same day of surgery. George has showered the night before, and before dressing he cleans his hip with the CHG wipes provided to him by his medical team. George’s neighbor Steve takes him to the hospital, and knows that George has quit smoking, so they do not smoke. It is a cold morning, and George feels chilled. The nurses get George ready for surgery. He is weighed, body hair on his hip is clipped and cleaned again with CHG wipes, and he blows into a CO2 monitor. The nurse congratulates George on quitting smoking. He is covered with a warm, inflatable blanket, which the nurse explains will help prevent an infection post-surgery. The anesthesia provider explains that George will receive weight-based antibiotics before the surgery. He explains that this, too, will help with infection prevention. When the nurse comes to take George to the operating room, he is not worried about Purdy. He knows he should be home with her later that night.

The SSI Bundle Is Making an Impact

The SSI Bundle was tested at 2 pilot sites in June 2017 and significantly improved SSI rates at those facilities. As a result, the bundle was shared with all 21 hospitals in December 2017 and has resulted in a 22 percent decrease in SSIs in 2018. We continue to look at innovative and evidence-based practices that will help to continue to improve the care of our patients and members who receive surgical care in the Northern California Region.
Improving Immunization Rates

By Dawn Belardinelli, MD, chief of pediatrics, South San Francisco Pediatrics
Lee Ann M Wise, MS, RN, CNL, director of pediatrics and allergy, San Rafael Pediatrics
Errikka Richard, LVN, licensed vocational nurse, South San Francisco Pediatrics

As a national leader for childhood immunization delivery, The Permanente Medical Group knows immunizations are the cornerstone of prevention for all children. When working to increase immunization rates in a service area with historically high refusal, it’s important to look for opportunities throughout the entire delivery process, and never make assumptions. Following is one story of how a team of front-line nurses and physicians applied proven best practices to great success.

Look Past Perceived Obstacles

In 2015, Lee Ann Wise accepted the role of director of Kaiser Permanente San Rafael’s Pediatric Department. She brought with her more than 20 years of pediatric nursing experience in an inpatient setting. At the time of Wise’s arrival, San Rafael had challenges meeting the HEDIS (Healthcare Effectiveness and Data and Information Set) measure for childhood immunizations. HEDIS is a national immunization benchmark, triple-weighted in TPMG performance measures.

Immunization rates were thought to be low because of Marin County’s historically significant rate of immunization refusal. Wise encouraged her team to look past external obstacles and collaborate to find internal solutions for improvement. As it turned out, San Rafael’s challenges had less to do with the area’s refusal rates than previously thought.

Collaborating with Leaders in Immunization Rates

Wise looked to pediatric departments throughout Northern California for inspiration. Knowing that Kaiser Permanente South San Francisco is a leader in childhood immunization, she reached out to Dawn Belardinelli, MD, chief of Pediatrics. Dr. Belardinelli also serves as Regional Immunization Performance Improvement Lead. Along with her team, including Errikka Richard, LVN, Dr. Belardinelli invited Wise and her department chief, Otto Von Franque, MD, to visit South San Francisco for a day of observation.

From the moment they arrived, Wise and Dr. Von Franque noticed that South San Francisco’s team had internal systems in place contributing to their success. The department had effectively removed all internal obstacles to immunization: the injection schedule was open to families a full year in advance, there was a consistent process for “fail to keep” immunization appointments, and families were never turned away. Members were vaccinated in the moment, every time.

Improving What We Can Control

Back in San Rafael, obstacles were quickly removed. Wise and Dr. Von Franque followed South San Francisco’s lead and partnered with their LVN team to implement the best practices they had seen in action. “The most enlightening part of this journey,” Wise revealed, “was recognizing the opportunities for process improvement that were already available to us. Rather than referring families to upcoming flu clinics, we made vaccines available on the weekends and offered shots immediately upon request.

Success in Best Practices

Immunization rates immediately climbed as the entire San Rafael pediatric team worked together to mirror South San Francisco’s model. Not only did San Rafael’s rates dramatically improve, they have consistently surpassed the goal, achieving a sustained change in habits that will help prevent children from contracting a vaccine-preventable illness. Wise credits her team of front-line nurses. “Our success is 100 percent nurse-driven,” she adds. “They are completely invested in this important work and have embraced the changes, because they were equal partners on this journey.”

The partnership forged between San Rafael and South San Francisco continues today. The 2 departments are collaborating to improve pediatric immunization rates across the entire region. Dr. Belardinelli adds, “We’re working together to realize Kaiser Permanente’s vision that no Kaiser Permanente Northern California child is harmed by a preventable infection.”

PEDIATRIC IMMUNIZATIONS

2018 Child Combo 10* Vaccination Rates

*National metric measuring % of children who by their 2nd birthday have received 10 recommended vaccination dosages.