



Cheyenne Regional
Medical Center

We Inspire Great Health!

2018

NURSING SERVICES ANNUAL REPORT





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LETTER FROM THE CHIEF NURSING OFFICER

Welcome to Cheyenne Regional Medical Center's 2018 Nursing Annual Report. As Chief Nursing Officer/Vice President of Clinical Services, it is my honor to present a summary of our nurses' outstanding accomplishments over the past year. In this report, you will see evidence of our nurses' commitment to inspiring great health for our patients, their families and the community. This includes accomplishments in each of our quadruple pillars!

Best Workforce

Engaged nurses continue to drive practice changes in our organization. Amber Sullivan, an RN on the Telemetry Unit, worked with the Telemetry Unit Practice Council to build an acuity model to ensure balanced assignments. The tool will be rolled out to other units in 2019. In addition, the Emergency Department (ED) and Security leadership teams collaborated to streamline a process for intake of psychiatric patients in the ED, thus saving time for the nurses and increasing overall patient and staff safety. I am also excited to report professional development is alive and strong in nursing. In 2018, we had eight nurses complete their bachelor's degrees, six nurses complete their master's degrees, seven nurses become specialty certified and 50 nurses who took part in our health system's Employee Professional Development Program.

Best Care

In collaboration with our multidisciplinary partners, our nurses continue to make safety and quality of care a priority in our organization. Cheyenne Regional nurses embraced many new performance improvement initiatives throughout the year. Improvement projects included streamlining the utilization of Omnicell Anesthesia Workstations, implementing new medication infusion pumps, starting an "Emergency Department Door-to-Floor" throughput project, revising Nursing Care Plans, reducing in-room turnover times in the Operating Room (OR), standardizing OR storage and supply, restocking Code Cart improvements, conducting "Team Rounding" on the inpatient units, implementing an independent double-check process for high-risk medications and managing neonatal hypoglycemia.

Best Health

Cheyenne Regional Medical Center nurses also helped to inspire great health within the community. Nurses from our Trauma and Clinical Education departments taught multiple "Stop the Bleed" courses throughout Cheyenne and our surrounding communities. Another great example of community support occurred when a team of nurses supplied lunch bags and Easter items for low-income children at Afflerbach Elementary School to have over spring break. In support of our chronic care population, the nurses on the Transition Across the Community Team® (TACT®) conducted a pilot project to monitor outcomes of patients receiving TACT® care. Another very exciting recognition goes out to Natalie Cheevers, an RN on Ortho-Neuro, who received the "Community Caregiver of the Year" Award for her work with Alzheimer's patients.

Best Value

In an effort to decrease the need for mandatory overtime and agency nurses, Training Cost Centers were created. The Cost Centers allow leaders to hire and train new staff prior to departure of current staff so there is a more seamless transition and less burden on the team.

I would like to personally thank all of our nurses for their dedication to the nursing profession and Cheyenne Regional. Your commitment to high-quality care has made a positive impact on Cheyenne Regional and our community. I appreciate your hard work and efforts to provide the most trusted healthcare with an inspired personal touch!

Sincerely,



Tracy L. Garcia, MS, RN

Chief Nursing Officer/Vice President of Clinical Services



TRANSFORMATIONAL LEADERSHIP

New Acuity Tool Developed on Telemetry (6-2)

Amber Sullivan, RN, led an effort to create an acuity tool that could assist with patient assignments and that could also be used to advocate for additional staffing.

Amber started her career at Cheyenne Regional Medical Center (CRMC) as a nurse resident on the Telemetry unit. As a program requirement, Amber had to complete an evidence-based project. Amber reached out to Lindsay Bonazinga, Telemetry Unit Nurse Manager, to develop an acuity tool that could help balance nurses' patient assignments and staffing levels.

To start, Amber contacted Truven Health Analytics to see how other hospitals with similar patient populations were measuring their acuity levels. In Truven, Telemetry and Progressive Care Units (PCUs) are defined differently based on the hospital and the state where the hospital is located. That meant Amber couldn't use this data as a comparison.

Amber then asked the hospital's electronic health record (EHR) team if they could work with her to develop a tool, but the team wasn't able to help at that time.

Amber's next step was to conduct a literature search. That's where she discovered an acuity tool utilized by Indiana University Health Ball Memorial Hospital.

Sam Bass, Cheyenne Regional's Magnet Program and Patient Experience Director, helped Amber contact the author, Michelle Kidd, who provided the tool and definitions and also granted permission for Amber and Cheyenne Regional to use the tool as a prototype.

Amber then worked with the Telemetry Unit Practice Council (UPC) to develop a unit-specific acuity tool, including the following steps:

- Sam met with the UPC in February 2018 to review the tool and make recommendations.
- Council members utilized the tool with their patient assignments and recommended adjustments.
- The council reached out to Ms. Kidd when they had questions.
- UPC members reviewed each patient point of care to determine the appropriate point values to assign to each task.

Once the acuity tool was finalized, the Telemetry UPC asked their peers on the Medical Unit (7-2) if they would use the tool with their patient assignments. The purpose was to see how the acuity levels of the patients on 7-2 compared to those on 6-2.

After the data was collected, the Telemetry UPC worked with Sam to analyze and compare the data and determine if the data supported the need to use additional full-time equivalents (FTEs) to decrease nurse-patient ratios.

On May 14, 2018, the Telemetry Unit went live with the new acuity tool. When possible, nurse-patient daily assignments were adjusted based on acuity levels.

Despite setbacks and trials, the Telemetry UPC never wavered from this project. For example, when the EHR request wasn't fulfilled, the council used paper to move the project forward, with the intention of working with the EHR team once the tool was perfected. In addition, when the UPC encountered problems with the tool, members worked through those issues.

Currently the acuity tool is being used to ensure balanced patient assignments for the Telemetry nurses. The goal is to advocate for additional nursing staff when the tool indicates this is needed. Telemetry nurses are also working with the other inpatient nursing units that want to use an acuity tool to help with assignments and decision-making.

Chief Nursing Officer (CNO) Interacts Via Suits-To-Scrubs

Every month Tracy Garcia MS, RN, CNO/Vice President of Clinical Services, works with a frontline employee from one of her units/departments in a program called "Suits to Scrubs." This one-on-one interaction allows Tracy to understand the employee's workflow. It also allows her to see how the employee interacts with other departments and cares for patients. Another benefit is that the employee and others on the unit/department have a chance to talk with Tracy about successes and areas for improvement. Tracy uses these experiences to address concerns and then circles back to the employee with what's been done, to close the loop.

In 2018 Tracy did "Suits-to-Scrubs" on 8-2 Oncology, 7-2 Medical, 6-2 Telemetry, 4-2 Ortho/Neuro, 3-2 Surgical, the Mother/Baby Unit, the Lab, the Pharmacotherapy Clinic, the main Pharmacy, the Wound Care Clinic, Speech/Occupational/Physical Therapy and Pediatrics.

Chief Nursing Officer (CNO) Hosts Roundtable

Each quarter Tracy Garcia, CNO/Vice President of Clinical Services, schedules a two-hour forum that allows anyone employed at Cheyenne Regional to ask her questions or express concerns. This venue gives non-nursing employees and nurses who are not involved in the CNO Council a chance to talk directly with Tracy. Tracy will either directly address concerns or will find the answers from other departments/units.

TRANSFORMATIONAL LEADERSHIP

Chief Nursing Officer (CNO) Hosts Monthly Council

Once each month, Tracy Garcia, CNO/Vice President of Clinical Services, meets with nurses from units and departments that report up to her. Tracy uses this opportunity to discuss internal nursing issues and to hear the nurses' opinions. She then asks participants to share the discussion with their peers for further input. Participants can also bring up issues for Tracy to discuss with Cheyenne Regional nursing leaders or the Wyoming State Board of Nursing.

Over-Hire Cost Centers Developed

During the National Magnet Conference in October 2017, Tracy Garcia, CNO/Vice President of Clinical Services, attended a breakout session on the development of "Over-Hire Training Cost Centers." The cost centers allow leaders to hire nurses above their budgeted FTEs in anticipation of an opening. In 2018 Cheyenne Regional Medical Center created six such cost centers for use when fully staffed units/departments anticipate an opening and have a candidate that they wish to train and hire ahead of time. The six cost centers can be used in Surgical, Medical, Cardiac Care, Critical Care, Continuum of Care and Women and Children's Services. The cost centers have been used most effectively in the Emergency Department, Intensive Care Unit and the Maternal-Child Units because turnover rates in these areas are generally lower.

Lean Performance Improvement Streamlines Anesthesia Workstations

Tana Carpenter, RN, Director of Perioperative Services; Jeannie Hamann, RN, Operating Room Manager; Erin McKinney, RN, Clinical Director of Women and Children's Services; Sarah Whitman, RN, Clinical Manager of Women and Children's Services; and Melissa Zamora, RN, Director of the Cardiovascular Service Line, led a Lean performance improvement project to streamline the use of the Omnicell Anesthesia Workstations in the Operating, C-section and Electrophysiology rooms. The work was multifaceted and required close partnership with the Pharmacy staff, especially Ashleigh Palmer, Caitlin Bell and Tim Steffen, Pharmacy Director.

Improvements included the following:

- Reconfiguring both the C-section and Electrophysiology (EP) labs to make better use of the available space
- Reducing wasted staff motion
- Coordinating with the Pharmacy team to ensure the workstations are fully stocked
- Coordinating with the entire Anesthesiology team to create a shared understanding of Lean processing and just-in-time service delivery

Plum 360 (Hospira) Pumps Implemented

The new ICU Medical Plum 360 (formerly Hospira) IV pumps went live on March 20, 2018. Implementation was the result of feedback from frontline staff who were frustrated with the former pumps. After hearing staff concerns, Cheyenne Regional leaders requested that nurses be able to trial the Plum 360 and pumps from two other vendors. Staff feedback resulted in the selection of the Plum 360.



STRUCTURAL EMPOWERMENT

Emergency Department (ED) Implements Door-to-Floor Performance Improvement Initiative

The ED began working with the hospital's Performance Improvement (PI) Department to decrease the time it takes for patients in the ED to get to an inpatient room. The project was based on negative patient survey feedback.

The work began with the development of a charter in February 2018. The goal was to decrease the door-to-admission time from 305 minutes to 219 minutes by August 6, 2018.

Initial process changes reduced the time but not enough to meet the goal.

The next step was to bring together a multidisciplinary Rapid Process Improvement Work Team (RPIW). The group, which was formed in July 2018, was composed of nurses, physicians, leaders, therapists and Pharmacy staff. The effort was facilitated by the PI team.

The group strategized a new way to make patient bed assignments, including the following steps:

- The Charge Nurse determines who (receiving RN) and where (room #) the next three admissions to their unit will go.
- The Charge Nurse completes the "Bed RN Matrix" form and forwards it to the Transfer Center.
- The Charge Nurse updates the "Bed RN Matrix" form with every other admission (and forwards to the Transfer Center accordingly).
- The Transfer Center RN assigns beds in the order listed on the "Bed RN Matrix Form."

The new process began in August 2018. Thus far, wait times have decreased significantly. (See below.)

The group will continue to work toward the goal of 219 minutes via new initiatives, but only after the current initiative becomes sustainable.

Transfer Center Nurses Alter Workflow to Assist in Door-to-Floor Performance Improvement Project

In the Door-to-Floor Performance Improvement project (see previous section), Transfer Center nurses ensured that accurate and timely admissions-related information is shared among external physicians, the Emergency Department and admitting personnel. Transfer Center nurses involved with this project included Breanne Bitner, Laura Doyle, Luc Hause, Romany Keeler and Paula O'Hare. These nurses' willingness to evaluate and fine-tune their internal processes helped Cheyenne Regional Medical Center reduce the median length of stay for admitting patients by nearly an hour.

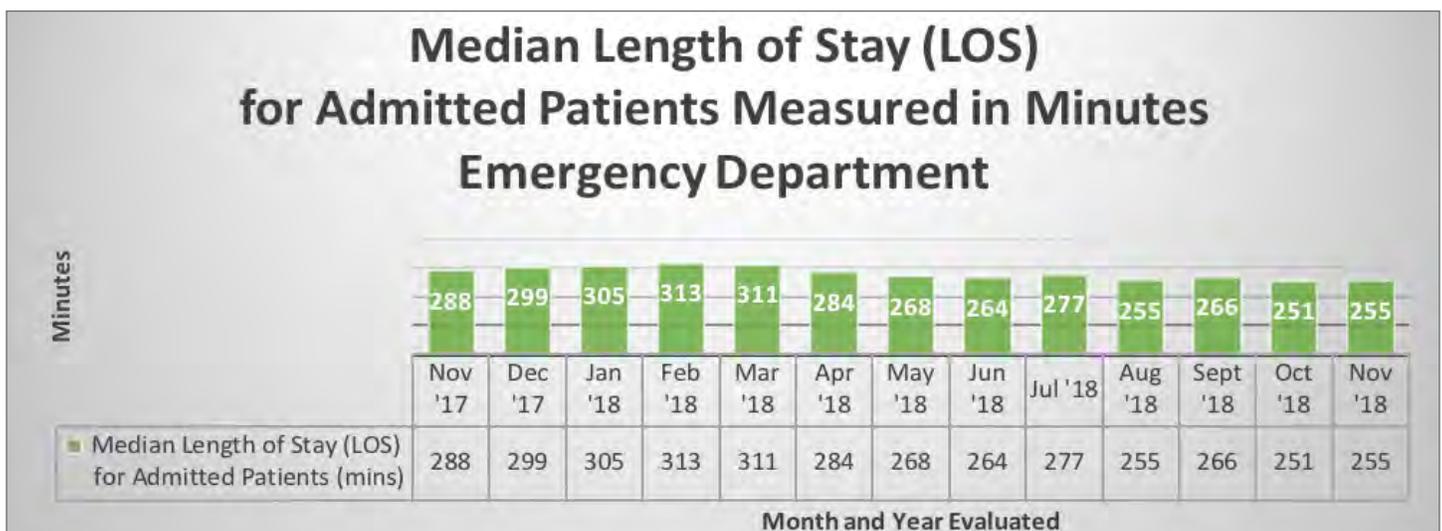
Nursing Care Plans Reviewed and Revised

In the first half of 2018, several inpatient nurses met to discuss the documentation of care plans in the Epic electronic health record. The meetings were facilitated by Carol Dowdy, an Epic Senior Analyst, and Linda Brown, the Cheyenne Regional Nursing Accreditation Specialist. The purpose was to develop a process that would allow frontline nurses to update care plans and their associated workflows.

Linda helped to ensure the group included five key elements required in care planning by the Joint Commission and the Centers for Medicare and Medicaid Services. The group also focused on using flow sheet rows to increase efficiency.

The Pain Care Plan was the first plan to be addressed. Problems for Pain, Infection, Safety, Psychosocial Needs and Discharge Planning were all created and/or updated.

The group then worked on defining the problems, goals and interventions for the General Adult Care Plan.



STRUCTURAL EMPOWERMENT

As a result, the Adult Care Plan now auto populates to all inpatient units with adults as a starting point for care and planning on admission. Nurses are able to edit and delete goals and interventions as needed.

Once the “build” was complete, Super Users were trained for each unit. They, in turn, trained their peers. In addition, new tip sheets were provided to nurses to use as a reference.

As a result of this effort, care planning for Cheyenne Regional Medical Center patients is more efficient, accurate and individualized.

Trauma Services Teaches ‘Stop the Bleed’ Program

The Stop the Bleed program was developed as a result of the 2012 tragedy in Sandy Hook and multiple tragedies that have occurred in the ensuing years. What has become known as the Hartford Consensus was convened to bring together leaders from law enforcement, the federal government and the medical community to improve survivability from manmade or natural mass casualty events. The resulting injuries generally present with severe bleeding, which, if left unattended, can result in death. Hartford Consensus participants concluded that by providing first responders (including law enforcement) and civilian bystanders the skills and basic tools to stop uncontrolled bleeding in an emergency situation, lives would be saved.

The first responder program has received very good response and is being used across the country.

The next step has been to enlist and train civilian bystanders in this program.

Cheyenne Regional Medical Center’s (CRMC) Trauma Program is supporting this nationwide effort to train civilians by teaching Stop the Bleed classes to Cheyenne Regional staff and to groups and individuals in the community and surrounding region. Janelle Hoem, BSN, RN, Clinical Nurse Educator for the Emergency Department, and Deborah Lacey, RN, CRMC’s Trauma Performance Improvement and Patient Safety (PIPS) Coordinator, have been the program’s main instructors and trainers.

One major outreach in the summer of 2018 was to provide an informational and training table at Cheyenne Frontier Days. Staff provided information on upcoming classes and also provided hands-on teaching on the use of tourniquets and wound compression.

In 2018, Cheyenne Regional Trauma Registrars Kori Bechtle, RN, and Vanessa Bayless, RN, also helped Deborah teach the course to rangers of the Brush Creek/Hayden Ranger District, Medicine Bow-Routt National Forests and Thunder Basin National Grasslands. Cheyenne Regional supported the registrars’ attendance even though this activity is not a job requirement.



EXEMPLARY PROFESSIONAL PRACTICE

Collaboration between Security and Emergency Department (ED) Staff Improves Process for Behavioral Health Patients

For the past several years, Cheyenne Regional Medical Center's ED managers have responded to a growing number of unusual occurrence reports regarding mental health patients treated in the ED. Many of the reports were related to:

- Lost items that were not inventoried correctly
- Patients sneaking in contraband, such as drugs, knives and electronics
- Inconsistencies with the “who, why and when” regarding patient searches
- Contraband being delivered to patients by visitors

Rachael Settles and Landin Smith, ED Nurse Managers, wanted to decrease the occurrence reports by developing a consistent process for the treatment of behavioral health patients and their visitors. The two worked with Joel Compton, CRMC Security Manager, to develop a process and guidelines. After the guidelines were written, the group asked for review and feedback from Behavioral Health leadership and the ED Charge RNs.

As a result of the new guidelines and policy, Security now has a consistent presence in the ED:

- The Security officer in attendance wands psychiatric patients to look for objects that could be used as weapons.
- The officer also performs the searches, ensures patients are placed in the proper scrubs and inventories and locks up the patient's personal belongings.

The ED-specific policy went into effect in June 2018. The guidelines are available for any nurse to review. Letters explaining the new policy are also given to behavioral health patients and their families coming to the ED for care.

Since the inception of the new policy, ED, Behavioral Health and Security staff all feel they are working better as a team and that psychiatric patients are getting consistent, safe care. This process has also increased ED nursing satisfaction because it's consistent and frees the nurses from having to train for and undertake Security-related work.

Lean Efforts Improve Operating Room

Operating Room (OR) nurses and staff led a significant number of Lean performance improvement projects in 2018. In September, they launched an effort to reduce turnover times between scheduled cases, beginning with a Lean Waste Walk to identify various burdens placed on OR staff. A number of OR nurses, including Amanda Karson, Crystal Tafoya, Danyell Mandel and Sue Hurd, were involved.

The OR team then launched a comprehensive 5S (Sort, Simplify, Sweep, Standardize and Self-discipline) effort to clean their storage areas and standardize their supply cabinets. These successes were shared in-house with other nursing staff, the Executive Team and the Board of Trustees and out-of-house with the Advanced Lean training students at Virginia Mason Institute.

Before 5S



After 5S



EXEMPLARY PROFESSIONAL PRACTICE

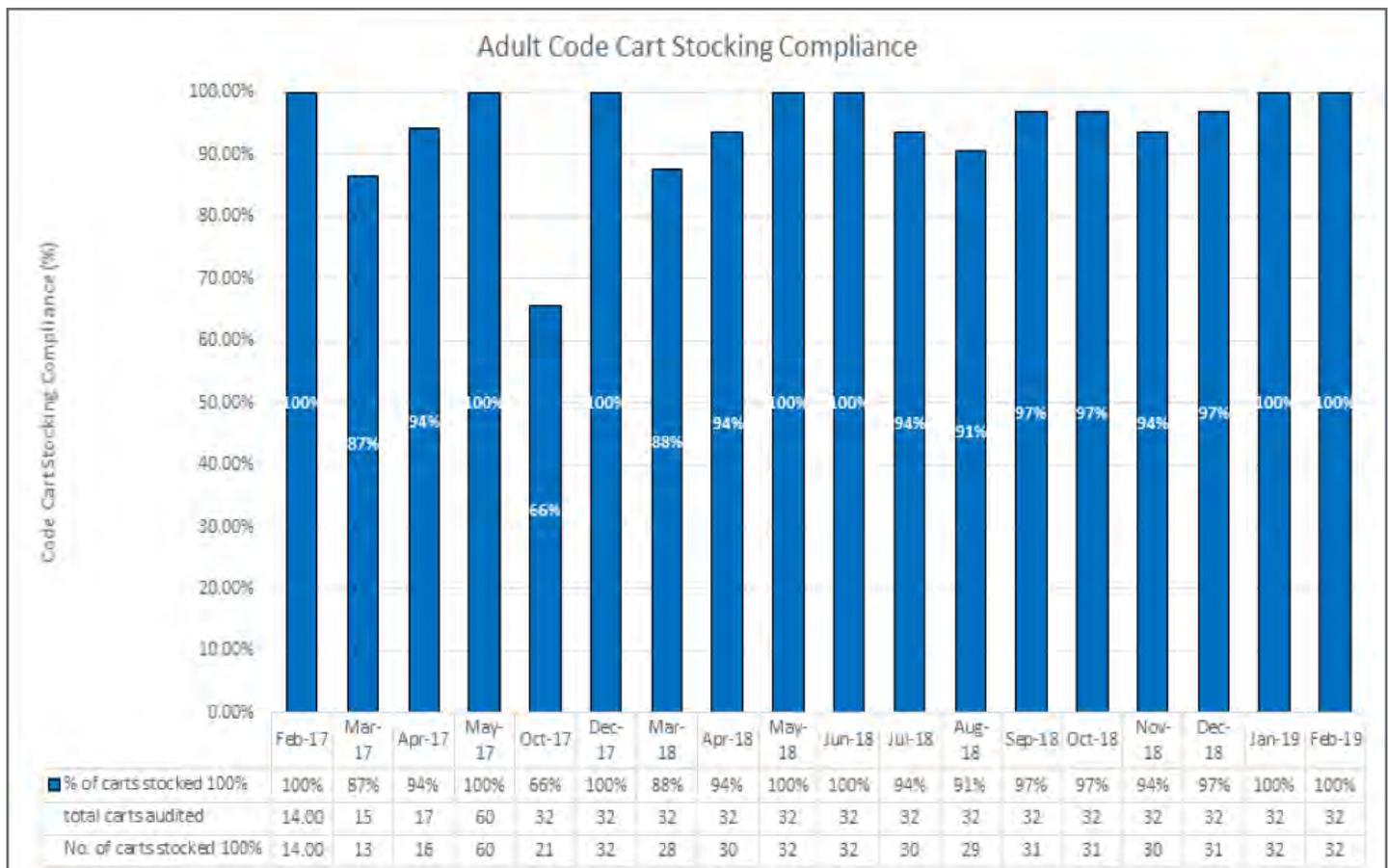
Code Cart Stocking Revisions Made during Performance Improvement Sustainment Phase

Process change sustainment is often cited in quality improvement literature as one of the most difficult phases of performance improvement. Even when process improvement tools and methods are applied, long-term change can be difficult to maintain due to lack of resources, leadership support, infrastructure and buy-in at all levels. Tools and methods that have been developed to ameliorate these barriers include standardized work, improvement huddles, visual controls and process-improvement monitoring boards.

A sustainment-phase quarterly audit in March 2018 revealed that stocking issues on the code carts had resurfaced. To address these issues, the Code Cart Project was expanded to include pediatric carts and missing supplies attributable to cart locations.

The Code Blue Committee, led by Minh Ho and the audit team (consisting of Brianna Best, Justine Nusz, Kelley Liddle, Jackie Norviel, Sheree Barnes, Amy Bouley, Shaun Willmarth and Rachael Settles), consulted impacted staff, managers and directors and then developed an action plan to improve compliance and accountability.

In October 2018, the Code Blue Committee and Central Supply worked together to develop mistake-proofing strategies to prevent stocking or inventory maintenance errors. Long-term sustainability is critical to patient safety, and we appreciate the efforts of Code Blue to engage in continuous process improvement for our patients.



EXEMPLARY PROFESSIONAL PRACTICE



2018 Nurses Week Celebrated

During Nurses Week, May 6-12, the movie *American Nurse* was shown to nursing staff on three different occasions. At each screening, one lucky nurse received a signed copy of *The American Nurse* book. The winners were Kathie Hopkins, Sue Cox and Carol Rieser. Cheyenne Regional nurses were also invited to learn what going to trial would be like by participating in *Anatomy of a Lawsuit*. Everyone who attended was eligible to earn 1.0 contact hour. In addition, all RNs were given a Nurses Week blanket to thank them for all they do for our patients and families. Nurses Week wouldn't happen without the hard work of the planning committee, which included Deborah Lacey, Rhonda Davis, Ann Fournier, Deb Nunley and Sam Bass. We want to thank them for their hard work and dedication for making Nurses Week special.

Ortho/Neuro Unit Exemplifies 'Family Taking Care of Family'

Each year the 4-2 Ortho/Neuro Unit takes on a community service project. In the spring of 2018, the unit provided Afflerbach Elementary School with 52 spring break food bags for students in need. The bags included entrees, snacks and sunscreen.

Dr. Hoo Feng Choo, Cheyenne Regional Medical Center's infectious disease specialist, also made a donation toward the effort, and the ICU team pitched in with 52 Easter bags and Dairy Queen gift cards.



EXEMPLARY PROFESSIONAL PRACTICE

Educational Advancements Highlighted

Many of the nurses at Cheyenne Regional Medical Center further their education through degree advancement or specialty certification. We would like to recognize and congratulate the following nurses (Figure A) for their educational achievements in 2018.

Figure A

Bachelor of Science in Nursing

- Allison Mollenkopf, 8-2 Oncology
- Sarah Wadas, 8-2 Oncology
- Michelle Anaya, Quality Department
- Whitney Carson, Resource Pool
- Becky LaVallie, OP Infusion
- Danielle Kennedy, OB/GYN
- Berette Johnson, Emergency Department
- Meagan Miller, 7-2 Medical

Master's Degree

- Amy Bouley, Quality Department
- Christine, Jester, TACT
- Sarah Whiteman, Women and Children's Services
- Dana Pate, Ambulatory Infusion
- Erin McKinney, Women and Children's Services
- Rachael Settles, Emergency Department

National Certification

- Kim Hoyt, Cheyenne Cardiology Associates Cardiac Certified
- Gretchen Tisthammer, 4-2 Ortho/Neuro Stroke Certified
- Jamie McBride, ICU, Intensive Care Certified
- Merri Martin, Ambulatory Infusion Center Oncology Certified
- Jada Sorensen, Wound Care Clinic Wound Care Certified
- Pat Brungardt, Wound Care Clinic Wound Care Certified
- Katie Smyth, Wound Care Clinic Wound Care Certified

Inpatient Behavioral Health Improves Access to Certification Education

In 2018, Bonnie Just, Director of Inpatient Behavioral Health Services (BHS), and Angie Kelley, Clinical Educator, worked together to ensure BHS certification courses (from the Nurse Pathway to Board Certification from the American Nurses Credentialing Center) were available internally on HealthStream. This allows nurses seeking BHS certifications to complete coursework at their own pace, rather than having to schedule classroom time to do so.

Employee Professional Development Program Rewards High-achieving Employees

Cheyenne Regional's Employee Professional Development Program, which was started in 2017, offers bonuses to employees who meet program requirements, which include additional education, Cheyenne Regional involvement beyond required job duties, involvement in the community and personal advancement. In 2018, 110 employees met program requirements. Of those, 50 were registered nurses. In total, \$107,750 was awarded by Cheyenne Regional to recognize the phenomenal work being done by members of the Cheyenne Regional family.



Professional DEVELOPMENT

EXEMPLARY PROFESSIONAL PRACTICE

Team Rounding Implemented on Several Inpatient Units

Patient experience surveys for Cheyenne Regional Medical Center often cite physician-nurse communication as a perceived problem, including inconsistent and contradictory messages being given to patients.

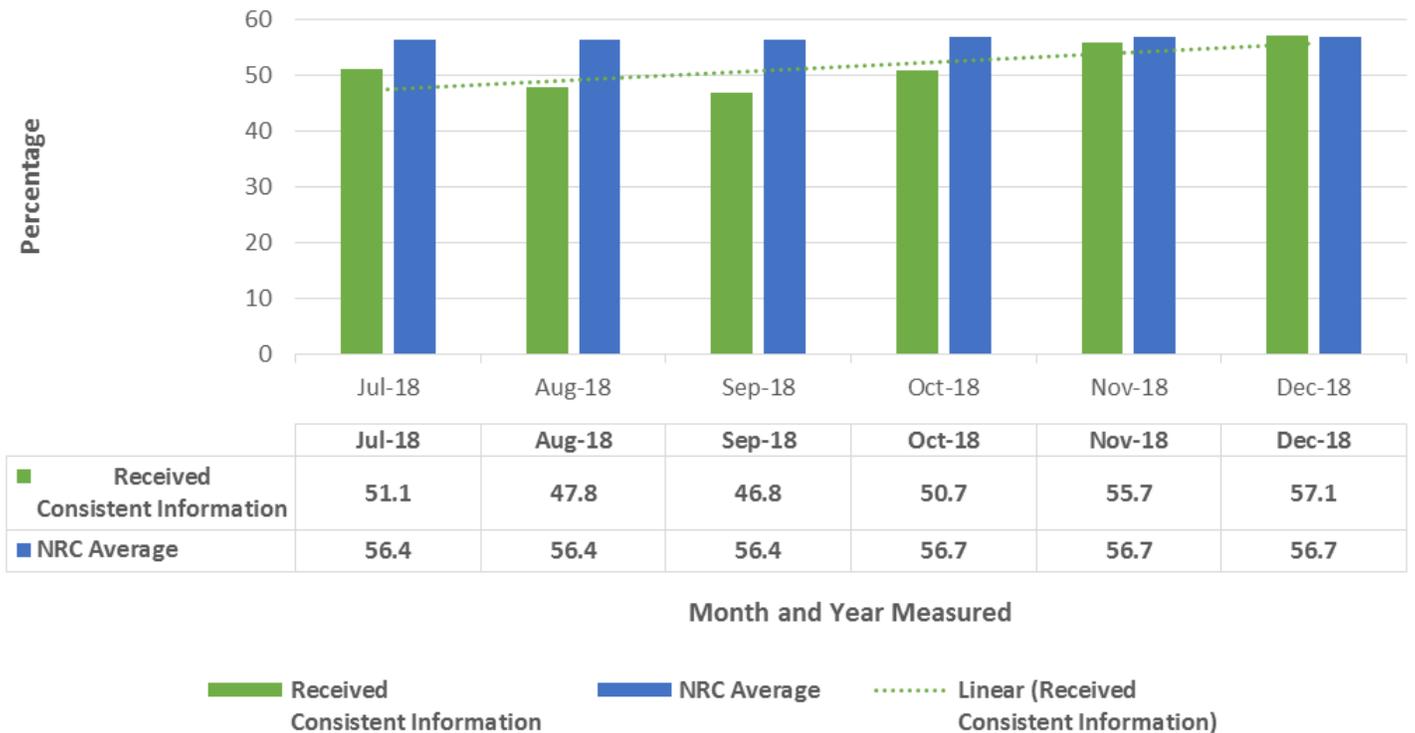
In response, Cheyenne Regional’s Performance Improvement Department invited a group of Cheyenne Regional physicians and nurses to visit Ivins Memorial Hospital in Laramie, WY, in June 2018. The purpose was to learn what Ivins had done to significantly increase their patient experience scores over a two-year period. During the visit, the group observed physicians and nurses rounding together, admission processes and the presence of leaders on the inpatient units.

Based on this visit, the group decided to trial team rounding at Cheyenne Regional with the goal of improving physician-nurse communication and the patient experience.

To begin, a Rapid Process Improvement Workshop was facilitated by Hans Ritschard, PI Department Director, and the other members of the PI team in September 2018. At the workshop, a multidisciplinary group composed of charge nurses, nurse managers and hospitalist physicians developed a process for having nurses and hospitalist physicians round together on five inpatient units.

Team rounding began on October 8, 2018. To measure its effectiveness, the multidisciplinary group monitored responses to the survey question about “consistent information” being given by doctors and nurses. When team rounding started, the “consistent information” rating was below the NRC national average. Since the improvement project began, the rating has steadily increased and surpassed the NRC average in December of 2018. (See related graph and data table below.)

Team Rounding RealTime Question Received Consistent Information 3-2, 4-2, 6-2, 7-2, 8-2



EXEMPLARY PROFESSIONAL PRACTICE



Norman S. Holt Nursing Excellence Award

In 1983 the Wyoming Hospital Association's (WHA) Board of Directors established the Norman S. Holt Award for Nursing Excellence to honor his tremendous understanding of and active involvement with the nursing profession. Each year the WHA presents this award to a Wyoming-based nurse during the association's annual convention. In 2018 Cheyenne Regional Medical Center ICU nurses nominated one of their peers, Jamie McBride, BSN, RN, CEN, CCRN, for this prestigious award. Cheyenne Regional Chief Nursing Officer Tracy Garcia recognized Jamie for being nominated during Cheyenne Regional's Manager/Director meeting in November 2018.

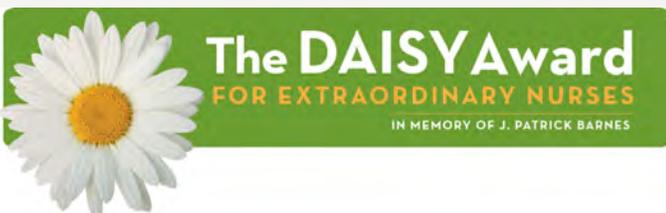


Community Caregiver of the Year

Each month, Schrader, Aragon and Jacoby Funeral Home selects a Community Caregiver of the Month, based on local nominations. At the end of the year, the funeral home chooses a Community Caregiver of the Year from among the monthly awardees. In 2018 Natalie Cheevers, an RN on 4-2 Ortho/Neuro, was selected as the Community Caregiver of the Year. Natalie was chosen because of her participation in facilitating a community-based Alzheimer's support group for patients and caregivers. In addition, she also taught caregivers basic ADL (activities of daily living) principles to be successful at home with their loved ones. Natalie continues to help with the local support group and to teach courses for the local chapter of the Alzheimer's Association.

DAISY Award Winners 2018

The DAISY (Diseases Attacking the Immune System) Award was founded in 1999 in memory of J. Patrick Barnes "to honor the super-human work nurses do for patients and families every day." Today, more than 2,000 healthcare facilities worldwide honor their staff nurses with the DAISY Award. Nominations can come from patients, family members, peers or physicians. Each quarter the Cheyenne Regional selection committee does a "blind" review of each nomination and then selects the three winners. In 2018 the following nurses were given DAISY awards for delivering exemplary care.



February 2018:

Yvonne Bohl, RN – Post Anesthesia Care Unit (PACU)
Ellen LaRicca, RN – Diabetes Education
Jamie Treat, RN – 6-2 Telemetry

May 2018:

Matt Landridge, RN – Emergency Department
Austin Criss, RN – 6-2 Telemetry
Jourdan Reynolds, RN – 4-2 Orthopedic/Neurology Unit

August 2018:

Jessica Crider, RN – 8-2 Oncology Unit
Jonna Fichtner, RN – 8-2 Oncology Unit
Belit Tolluoglu, RN – Emergency Department

November 2018:

Jourdan Reynolds, RN – 4-2 Orthopedic/Neurology Unit
Shauna Selfridge-Johnson, RN – Emergency Department
Shanon Knowlton, RN – Hospice

Professional Nursing Peer Review Influences Practice Change

Professional Nursing Peer Review (PNPR) is a multidisciplinary nursing group that reviews patient care events to determine if the standard of care was met. Members include Sam Bass, Lori Boussuge, Sheri Cox, Roxanne Gorman, Kathie Hopkins, Debbie Robertson, Alissa Robinson, Travis Rupert, Jen Simon and Shelby Smith.

In February 2018, the committee was asked to address an increasing number of medication errors. The errors involved dual sign-off and high-risk medications such as an insulin infusion, subcutaneous insulin, heparin infusion, Taxol and Morphine. Additional medication errors included a Diltiazem infusion and ephedrine in addition to wasting opioids such as Dilaudid.

The PNPR held an open session for nursing staff to review the errors and discuss the current process for dual sign-offs. The committee emphasized that the focus was to examine the process for administering high-risk medications and determine if the process could be improved. The review wasn't meant to be punitive, and there would be no blame assigned to those involved.

Issues included the following:

- Employees look in different places in Epic to find needed lab results such as aPTT and blood glucose.
- The label for the insulin pen is created by Omnicell. The nurse may place the label on the pen or on the bag that holds the pen, so the pen is not always labeled. The labels do not have a bar code for scanning, so the nurse must scan the bar code on the insulin pen.
- There are inconsistencies between those who perform a dual sign-off.
- There is no defined, standard process for performance of the dual sign-off.
- There is not a consistent double-check of the pump settings for high-risk medication infusions.
- Taxol may be given over one hour or over three hours, and nurses frequently need to clarify the order with the physician.
- There have been incidents when a weight-based infusion was based on the patient's stated weight instead of the actual weight, which resulted in the need for a corrected starting dose and rate.
- There has been confusion after a heparin infusion is started. The nurse may calculate a heparin rate from the baseline aPTT that was drawn, instead of using the ordered starting dose and rate.
- At Cheyenne Regional Medical Center, the LPN does not administer, titrate or co-sign for heparin or insulin infusions. Employees are not fully aware of the LPN's role and so some RNs will ask the LPN to perform these actions.

- The nurse may "expect" that the primary nurse has performed all actions of the dual-check and s/he will document the dual-sign based on this expectation instead of performing the dual-check steps.
- A less-experienced nurse may be hesitant to ask questions of an experienced nurse who is requesting the dual sign-off.

The following concerns and recommendations were also discussed:

- Some nurses may be more casual about medication administration with electronic charting because they expect the system to "find the error."
- Expectations and accountability of the dual sign-off should be reviewed with all nurses, emphasizing that both people are responsible and accountable for the actions and results.
- The group asked if there could be electronic health record (EHR) "hard stops" in the dual sign-off process to confirm that all rights of medication administration have been performed. An Epic EHR analyst told the group that this wasn't feasible.

The PNPR next discussed an evidence-based practice recommended by the Institute for Safe Medication Practices (ISMP). This process is known as an independent double-check and requires the following:

- The primary nurse reviews the rights of administration, which include lab results (when applicable), calculations and pump settings, and then determines results.
- The second nurse reviews the rights of administration and lab results (when applicable) and determines results.
- Both nurses then compare results to determine the correct actions.

The independent double-check process avoids the bias of one person "telling" another person the lab results or the calculations that they determined. The process has been shown to prevent errors.

PNPR members presented the ISMP process to their peers for discussion, including potential barriers to implementation.

In May 2018, Tim Steffen, PharmD, Pharmacy Director, agreed that the independent double-check directions and checklist could be part of the hospital's "High-Risk Medication" policy. In September 2018, the additions to the policy were reviewed and approved by the Pharmacy and Therapeutics Committee. In November 2018, the changes were approved by the Policy Review Committee, and in December 2018, PNPR worked with Clinical Education to ensure nursing staff would be educated about the practice change through a HealthStream learning module on the hospital's intranet.

Standardized Process Developed for Treating Hypoglycemia in Newborns

In early 2018, a group of nurses from Women and Children's Services (WCS) recognized their department did not have a standardized process or practice to treat hypoglycemia in newborns. During a literature search, the group came across American Academy of Pediatrics (AAP) recommendations that included the use of dextrose gel. In June 2018, the group approached Dr. J. Hassell, MD, Pediatric Hospitalist Chair, for support in researching and initiating the use of dextrose gel protocols for neonatal hypoglycemia management. With Dr. Hassell's consent, a nursing workgroup was formed to review the literature and develop the protocol. The workgroup consisted of the following staff nurses from WCS: Lori Boussuge, BSN, RN, IBCLC; Jerah Nix, RN, BSN; Kelsey Korber, BSN, RN; and Christy Wilson, BSN, RN.

Based on initial research, the group believed that implementing a protocol that utilized dextrose gel for neonatal hypoglycemia would:

- Decrease supplementation rates
- Improve the surveillance of high-risk infants who were not being screened based on the current protocol
- Provide one protocol for all types of infants being screened (in the current state there were multiple)
- Allow nursing interventions based on protocol rather than individual physician notification and ordering
- Promote standardization of care across the continuum

The workgroup followed up by conducting in-depth research and writing a dextrose gel/hypoglycemia protocol and decision-making algorithm. In August 2018, the group presented the protocol to the hospitalist group for feedback, editing and approval. The protocol was then reviewed and approved by Mandana Ghodrat, PharmD, Clinical Pharmacy Manager, for use by the Pharmacy. In October 2018, all physicians impacted by the change approved the new protocol.

During November and December of 2018, the group worked on the following implementation plan with a proposed go-live date of January 3, 2019:

- The group tested the protocol on a couple of patients to ensure it worked as intended.
- The group worked with their Clinical Educator, Justine Nusz BSN, RN, MBA, and the Clinical Education Department to put together an instructional PowerPoint presentation to be viewed by all WCS staff at the December Education Expo.
- The group collaborated with the department's Epic analyst to ensure that charting reflected the protocol, created laminated copies of the algorithm to post in areas where the nurses charted and ensured that dextrose gel was available in Omnicell cabinets.

WCS went live with the protocol on January 3, 2019.

Pilot Study Determines Quality of Care Transition for Patients Using a TACT[®] Nurse

In early 2018, TACT[®] (Transition Across the Community Team[®]) nurses conducted a pilot study to examine patient-level outcomes in response to provider training on the TACT[®] protocol. TACT[®] is a quality-care transition and high-risk care management program designed to reduce hospital readmissions, increase appropriate utilization of the Emergency Department (ED), lower costs, improve patient satisfaction and increase the patient's ability to self-manage their care. Cheyenne Regional Medical Center currently has seven TACT[®] RN Care Managers who go to patients' homes and remain the RN responsible for the patients' care long-term. The RN Care Manager isn't addressing an acute illness, which is the focus of home health programs, but is instead caring for high-risk patients that could potentially become ill because of chronic disease processes.

The study reached the following conclusions:

- TACT[®] shows promise for use with high-risk outpatients.
- TACT[®] shows promise for reducing ED visits and all-cause hospitalizations.
- Change in A1C was noted and in the proper direction for TACT[®] participants, but A1C remained stable for "usual care" participants.
- Change in A1C was clinically meaningful, although it was not significantly greater than the controls.
- Results should be interpreted with caution due to the following reasons:
 - The study was a pilot.
 - The sample size was small.
 - The design was quasi-experimental rather than a randomized controlled trial.
 - The groups were not similar on rate of ED visits at baseline.
 - The data were not collected on actual TACT[®] services provided to participants or frequency of service contact.

Study results were developed for a poster presentation given at the American Geriatric Society annual meeting by Pam Myrum, MS, RN, from the Care Management team, and Greg O'Barr, PhD, Administrator of Population Health.



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IMPACT OF TACT[®] PROTOCOLS ON PATIENT OUTCOMES

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1. Background

- As healthcare organizations are driven to improve patient outcomes, the traditional model of **CASE** management has evolved to emphasize **CARE** management.
- An RN-led initiative, Transition Across the Community Team[®] (TACT[®]), is a quality care transition and high-risk care management program designed to reduce hospital re-admissions, increase appropriate utilization of Emergency Department (ED), lower costs, improve patient satisfaction, and increase patients' ability to self-manage their care.
- Little is known about the benefits of the TACT[®] program on **PATIENT-LEVEL OUTCOMES**.
- The purpose of this pilot study was to preliminarily examine patient-level outcomes in response to training of providers on the TACT[®] protocol.

2. TACT[®] Protocol

- TACT[®] RNs serve Patient Centered Medical Homes (PCMHs) in the outpatient setting.
- TACT[®] RNs identify high-risk patients based on **RISK STRATIFICATION** criteria.
- Program protocols are designed to monitor, coach, educate, support, and measure the patients' ongoing status.
- Change management techniques - including **MOTIVATIONAL INTERVIEWING** and **TEACH-BACK** - are utilized to assist patients in making long-term lifestyle changes.
- Behavioral health referrals are provided based on PHQ-9.
- Patients monitored for 30-90 days with reassessments.

Table 1. TACT[®] Protocol Elements and Actions

Hospital visits, if hospitalized	Phone call within 24-48 hours of referral
Risk Stratification	Assessment of social determinants
Home visits (1-2)	Subsequent weekly phone calls
Medication and disease management	Coaching and development of self-management skills
• Education	
• Medication reconciliation	
Coaching regarding communication and follow-up visits with providers	Resource referral, including community partnerships
Creation of individualized care plan - goal setting	Development of personal health plan

3. Hypotheses

Primary

Patients who are enrolled in TACT[®] will demonstrate greater improvement in health outcomes than those not enrolled in TACT[®] as evidenced by:

- Rate of ED visits
- Rate of all-cause hospitalizations
- Hemoglobin A1C (A1C) reduction

4. Methods

Design - Quasi-experimental comparison of participants enrolled in TACT[®] and those not enrolled in TACT[®] (Usual Care)

Inclusion Criteria

- Served in Cheyenne Regional Medical Group primary care clinics which were offering the TACT[®] service
- Age 18 or older
- Diagnosed with diabetes mellitus
- A1C of 6.5 or greater
- Random selection among eligible clinic patients. (Selection stratified by TACT[®] and Usual Care)

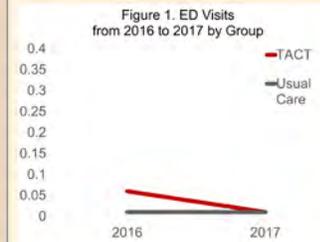
Participant Characteristics (n = 70)

- Mean age 73.0 ± 9.8
- Sex - male 54.1%
- Mean A1C at baseline 7.9 ± 1.2
- Mean ED visits baseline 1.1 ± 2.0
- Mean hospital admissions at baseline 5.4 ± 7.0
- Significantly greater ED visits and hospital admissions at baseline for TACT[®] relative to Usual Care. No other differences detected.

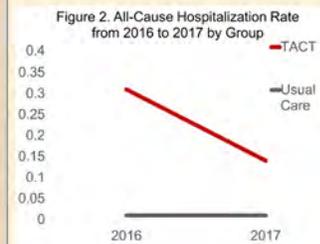
5. Data Analysis

- Rates were calculated for service use.
- Data were examined for normality and transformed as appropriate.
- Descriptive statistics were used to examine participant characteristics.
- Repeated measures Analysis of Variance was used to examine group differences in outcomes.
- Alpha was set to p<.05 and all results were two-tailed.

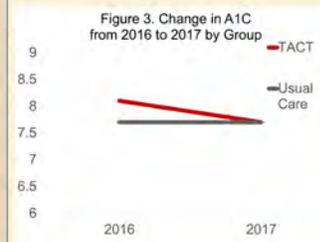
6. Results



Note. ED visits calculated as a rate
p < .001



Note. All-cause hospitalizations calculated as a rate
p < .001



Note. p = 0.17

7. Conclusions

- An RN-led initiative, TACT[®], shows promise for use with high-risk outpatients.
- The TACT[®] RN program shows promise for reducing ED visits and all-cause hospitalizations.
- Change in A1C was noted and in the proper direction for TACT[®] participants, but A1C remained stable for Usual Care participants.
- Change in A1C was clinically meaningful, although it was not significantly greater than controls.
- Results should be interpreted with caution.
 - Study was pilot in nature.
 - Sample size was small.
 - Design was quasi-experimental rather than a randomized controlled trial.
 - Groups were not similar on rate of ED visits at baseline.
 - Data were not collected on actual TACT[®] services provided to participants or frequency of service contact.

8. Future Directions

Due to clinically meaningful improvements in health outcomes associated with TACT[®]:

- TACT[®] training in primary care settings will continue.
- TACT[®] protocols will be combined with technological advances to examine impact on health outcomes.
- Analyses of current data will expand to include:
 - Other chronic conditions (e.g. hypertension, congestive heart failure, chronic obstructive pulmonary disease)
 - Indicators of service quality
 - Patient/provider satisfaction
 - Payer reimbursements
- TACT[®] protocol training will be expanded to provide training opportunities throughout region and nation.

9. Acknowledgements

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The investigators retained full independence in the conduct of this research.

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