

Advancements to Meet Medical Needs

Outline Of Need: Community Hospital in McCook, Nebraska, serves the 11,500 residents of Red Willow County as well as residents of Frontier, Furnace, Hayes, and Hitchcock counties in Nebraska; and Cheyenne, Decatur, and Rawlins counties in Kansas. The Critical Access Hospital provides acute inpatient and outpatient care, skilled nursing, emergency medicine, surgical, obstetrics and delivery, diagnostics, a pharmacy and rehabilitation services.

The original facility was constructed in 1974. Through the years the facility has undergone expansion and renovation projects to improve the delivery of health care services and to enhance the recruitment of health care professionals into the rural area. The existing acute wing facility consists of 25 patient rooms in a three pod design. The design provides challenges in nursing care, Americans with Disabilities Act (ADA) compliancy, and the ability to accommodate the rooms with updated technology and equipment. Also, in the labor and delivery area, patient rooms are located close to unsecured exits. The operating area lacks the space needed to accommodate the rising number of outpatient services as well as room needed for privacy required by the Health Insurance Portability and Accountability Act (HIPAA).

How Rural Development Helped: USDA Rural Development awarded a \$17 million loan through funding provided by the American Recovery and Reinvestment Act. Additionally, a \$15 million loan was received from Thayer County Bank of Hebron, Neb. representing a group of Independent Community Banks in Nebraska who teamed up to provide financing, with USDA Rural Development guaranteeing the loan. Independent Community Banks in Nebraska involved were: West Gate Bank-Lincoln, Bank of Lewellen, Pathway Bank-Cairo, McCook National Bank, Plattsmouth State Bank, State Bank of Bartley, Bruning State Bank, First Central Bank of McCook, Farmers State Bank of Wallace, Home State Bank-Louisville, American National Bank of Sidney, AmFirst-McCook, Farmers State Bank-Maywood, Bankers' Bank of the West-Lincoln and Thayer County Bank-Hebron. The hospital contributed the remaining \$2,730,000 needed.

The Results: The hospital project will be completed in two phases. Phase 1, now complete, included the construction of 25 new patient rooms, two labor and delivery rooms and support areas. Phase 2 will allow the construction of a new surgery wing that will house three surgery suites, two endoscopy rooms, a sterile supply processing and a storage area, a post anesthesia care unit (PACU) and secondary recovery and pre-op spaces.

A patient in Community Hospital's new patient wing will be introduced to the latest innovative technology to aid in providing efficient and safe patient care. A computer in

every patient room allows the nurse to enter admission assessments, care plans and charting, as well as order and view patient test results. An additional computer outside every two patient rooms allows providers to electronically chart at their nursing substation. Some of the many enhancements to the hospitals technology upgrades are:

- Bedside Bar Coded Medication Administration

Barcodes ensure the "Five Rights" of the patients: that the right patient gets the right medication in the right dose through the right route at the right time.

The wristbands with barcodes given at the admission point are vital in tracking the right patient throughout the treatment period in the hospital. Scanning the barcode label on the medications prescribed to a patient enables accurate treatment.

The device used in barcode-enabled medical administration is a handheld scanner connected to a wireless mobile computer. These devices automatically communicate with other information systems to record and update transactions. They also store medical information. As a result, it is possible to more accurately check and confirm that the right medication process is being followed.

- Computerized Physician Order Entry (CPOE)

Community Hospital also plans to introduce computerized physician order entry (CPOE) as part of the technology used in the new patient wing. CPOE is a process of electronic entry of physician instructions for the treatment of patients under the doctor's care. The orders are communicated over Community Hospital's computer network to hospital departments such as the pharmacy or the laboratory responsible for fulfilling the order.

CPOE decreases delay in order completion, reduces errors related to handwriting, allows order entry at the hospital or from a clinic, provides error-checking for duplicate or incorrect doses or tests, and simplifies inventory and posting of charges.

- Mobile Anesthesia RX Cart

An automated mobile medication cart stocked with supplies and medications used by anesthesia staff has been added to the labor, delivery and recovery (LDR) suites. The cart allows the certified registered nurse anesthetists (CRNAs), to dispense supplies and medications in the LDR to perform epidurals on patients in labor.

- Automated Supply Cabinets

Community Hospital has introduced three new automated supply cabinets. The computerized cabinets allow the nurse to select the patient name from the system and the product needed by pushing the button related to that product. Once the button is pushed, the item is charged to the patient and the par level of the product is decreased to alert Materials Management when restocking is needed.

- Enhanced Computer Access - Decentralized nurse stations allow for computer access both inside and outside of patient rooms, providing access and entry into the electronic health records while being close to the patient. Modernization of the hospital to provide both wired and wireless access in all locations is critical to moving forward with electronic medical records and other technology improvement efforts.
- Interactive Television System - Educational videos can be directly streamed to the patient so both the patient and the family can learn about caring for their ailments, prevention of additional issues (such as surgical site infections) and treatment information. This system also allows the patient to give real time feedback to help the Hospital provide better care, and eventually will offer additional features such as a meal menu system for dietary meal selection and room service.
- Infant and Pediatric Security System – An electronic aid will prevent kidnappings and abductions through the use of tracking monitors, auto lockdowns, and alarms.
- Nurse Call System –The new system is highly technology based, using five servers to communicate when patients need assistance or are in distress.
- Integration System – This will allow a surgeon, while in surgery, to visually access patient records, including live feed from cameras, radiology scans taken before and during the surgery or other items in the patient’s electronic records.
- Vocera - A voice activated badge system uses employee badges to enhance communication among caregivers, eliminating much of the overhead paging that is disruptive to patients and caregivers. This system also reduces time spent locating or attempting to contact a provider or staff member.