225-BED COMMUNITY HOSPITAL

IN COUNCIL BLUFFS, IOWA REDUCES PRESSURE ULCERS FROM 9% TO 0% IN 90 DAYS

By Beth L. Edwards RN BA Clinical Quality Specialist

Hospital:
Jennie Edmundson Hospital

Location:
Council Bluffs, Iowa

Size:
225 licensed beds

Challenge:
Initiate a systematic approach to reducing hospital-acquired pressure ulcers to zero, utilizing a program of sound wound care principles including staff education and improved skincare products.

Results:
At the conclusion of a 90-day program trial, restricted to the telemetry unit of the hospital, incidence of pressure ulcers was reduced from 2 to 0. This pressure ulcer prevention program has now been activated throughout the hospital. The current rate of incidence remains at zero. Cost savings to the hospital, year to date, are estimated to be $259,080 in nursing time, pharmaceuticals and supplies (based on a projected incidence rate of 6 pressure ulcer cases avoided through this program and using calculations provided by the Centers for Medicare and Medicaid Services).

Our Hospital
Jennie Edmundson Memorial Hospital is an acute care community hospital with 225 licensed beds that provides health care services to Council Bluffs, Iowa and the surrounding community. It is an affiliate of the Nebraska Methodist Health System, and has been serving southwest Iowa since 1887. Today the hospital employs a staff of over 800 and is recognized for its state-of-the-art Advanced Wound Care Center as well as being the only hospital in Iowa or Nebraska to receive the prestigious Commission on Cancer Outstanding Achievement Award for 2010.

Our Advanced Wound Care Center opened in February of 2009 and is the only one of its kind in this part of the state. Many of the patients who visit our Center suffer from chronic non-healing wounds due to injury, burns, bedsores or diabetic ulcers. The Center offers wound assessment and care by specially trained staff. It has long been our belief, that skin integrity and the prevention of pressure ulcers is an area of hospital health care where our nurses can really make a difference. We are continually trying to improve on that care. So, in conjunction with the new CMS guidelines, we decided to take a closer look at this important opportunity to provide better outcomes for our patients.

Our Challenge
In January of 2009 we completed incidence and prevalence of pressure ulcers on patients hospitalized on our medical/surgery units, telemetry and ICU. On January 27, 2009, fifty-three hospitalized patients had a skin assessment completed. Nine patients had a pressure ulcer present. On January 31, 2009, twenty-three of the fifty-three patients remained hospitalized and skin assessments were completed. Two patients had new pressure ulcers. This 9% incidence rate was much higher than previous incidence and prevalence assessments. A performance improvement team consisting of myself, Jeri Smith, RN WOCN, Cathy Harvey, RN, Mary Grote, RN, Amy Waldstein, RN,

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Becky Krauel-Henkel, RN, and Mary Krueger, RN, was formed. Work was started with a goal of addressing and decreasing the incidence of hospital acquired pressure ulcers at Jennie Edmundson.

In order to achieve that goal, we realized we were facing three separate challenges. The first challenge was to provide education to our nursing staff. We wanted a program that would enable us to educate all of the nursing staff including RNs, LPNs, and CNAs. The second challenge was to analyze the kind of skin care products we were using. The third challenge was to continue assessment of incidence & prevalence to show improvement and prevention of pressure ulcers in patients hospitalized at our hospital.

In addition to the clinical challenges we faced, we also had some very real financial considerations. It is no secret that the treatment of hospital-acquired pressure ulcers can be very expensive. The CMS (Centers for Medicare & Medicaid Services) estimates the cost of treating a pressure ulcer case at $43,180. More than 50% of those costs are in nursing time, approximately 39% of the costs are pharmaceuticals and 11% are in products. Based on those figures, we were looking at total costs of $86,360 just to treat the two pressure ulcer cases we had

at the time. If we could eliminate pressure ulcers in our facility we could realize significant savings over the long term.

The Solution

In early January of 2009 our committee met with three different vendor groups and asked each of them to present their educational programs that would assist us in our efforts to eliminate hospital-acquired pressure ulcers. We were looking for learning materials to educate and test our nursing staff on pressure ulcer staging, skin assessment and nursing care. One of those vendors, Medline Industries, Inc., headquartered in Mundelein, IL, introduced us to their Pressure Ulcer Prevention Program (PUPP). Our local Medline reps, Brad Bruner and Allison Ball, "walked" us through the components of their program They had a clinical nurse specialist attend our Pressure Ulcer Committee meeting to outline their program. We soon realized this program had everything we were looking for. It included intensive staff education, a way to evaluate the effectiveness of that training, a specifically designed line of pressure ulcer prevention skincare products and a plan for hands-on implementation utilizing the assistance of Medline personnel and aimed at reducing pressure ulcer incidence levels in our hospital to 0%.

We concluded that the Medline PUPP program was based on sound wound care principles backed by excellent teaching materials and utilized skincare products with a proven record of success in treating and preventing pressure ulcers. We agreed to a 90-day trial of the Medline PUPP program, starting with an evaluation of their line of pressure ulcer prevention skin care products,

> "Medline introduced us to their Pressure Ulcer Prevention Program (PUPP) which included intensive staff education and a specifically designed line of pressure ulcer prevention skincare products aimed at reducing our incidence levels to 0%."

including: Remedy skin repair lotion, Remedy NutraShield barrier cream, and Remedy foaming cleanser. At the same time, and for the same 90-day trial period, we agreed to evaluate their premier line of UltraSorb underpads. The educational part of the program would be completed by all nursing staff including registered nurses, licensed practical nurses and certified nursing assistants.

The 90-day trial using three Medline skin care products and the UltraSorb underpads would be conducted on one unit. We chose our 28 bed telemetry unit for the trial.

Implementation

We introduced these products into the system and started using them in our targeted test area. Almost immediately we had a number of patients say "I really like this product!" Even our staff commented on how much they liked the smell and the feel of the Medline products.

At the same time we were introducing these new products into the system, we kicked off the educational components of the Medline program. We started by administering a "pretest," provided by Medline, to all of the nursing staff. This pretest was designed to give us an indication of where our staff was starting from in terms of pressure ulcer prevention knowledge. The average scores for this pretest, by nursing group were: RNs and LPNs 79%, and CNAs 64%. Upon completion of the pretest, the nursing staff was provided with either a nursing workbook or a nursing assistance workbook. We would administer a "post test" at the conclusion of the 90-day trial period. We would be able to compare the pre and post test results as well as the results from the 90-day trial on one unit utilizing the Medline skin care products, compared to the other units in the hospital. We saw a dramatic improvement in nursing staff scores after the educational training.

> "The end goal of this training was to help modify behavior and motivate our nurses and nurse assistants toward improved patient care. But before any of that training could happen, we had to first establish exactly where we were starting from."

According to a recent CMS roundtable, among the main roadblocks to creating an effective pressure ulcer prevention program are: lack of resources, inconsistent staff education and nonexistent patient and family education. We were determined to start with consistent staff education.

Medline's program addressed these issues by providing clinical and educational resources and assessment tools to our nurses from the beginning. The educational tools they provided were targeted to two primary groups: first, our nursing assistants (CNAs), because they are critical to early detection and prevention of pressure ulcers. They turn the patients, deal with incontinence when it occurs, and otherwise administer creams and lotions for skincare. The second critical element was our RNs and LPNs. The educational component for this group was designed to ensure that these nurses understood their role in assessing and documenting skin condition, nutrition, and overall health improvement of the patient.

All nursing personnel included in the 90-day trial satisfactorily completed all phases of the pressure ulcer prevention training. The training materials provided included: a CMS presentation, pressure ulcer prevention workbooks, an instructor's guide, forms and tools and, of course, pre and post tests. The workbook Medline created for the CNAs included basic information covering skin care, patient turning, incontinence care and basic nutrition. The workbook created for the RNs and LPNs covered pressure ulcer assessment, skin care, nutrition and documentation. The overall acceptance of the training and of the program was better than we anticipated. One of our LPNs summed it up when she said "The workbooks make it very easy for us to do the right thing!" Everyone who participated in the training received a certificate of completion and a lapel pin signifying they had gone through the training. Our staff's post test scores (taken after training) were: RNs and LPNs averaged 97% (up 18% over the pretest) and CNAs averaged 93% (up 29% over the pretest). These numbers are significant because they indicate the level of acquired knowledge and hands-on experience

our staff had achieved and they give us confidence that going forward the program will experience sustainability for long-term success in our fight to eliminate pressure ulcers in our hospital.

Medline supplied the training materials and the management team at Jennie Edmundson provided the encouragement to complete the training, but to a very large extent, the staff took it upon themselves to learn the material through reading, memorizing and small study groups.

The Results

At the conclusion of the 90-day trial period, in April of 2009, the PUPP program had lived up to all our expectations. As of May 15, 2009 we had assessed 57 patients and had zero new pressure ulcers. Six months later, on November 6, 2009 we assessed 63 patients hospital wide and again we had no new pressure ulcers. As of the writing of this case study we are still experiencing a 0% incidence rate of new hospital-acquired pressure ulcers. However the real plus is that even the skeptics among our nursing staff have become converts. No change is easy when it comes to nursing care, and our new Pressure Ulcer Prevention Program was not only about change, but also about documenting the results of those changes. And that required some discipline. But as a result of the positive direction this program has taken, I am pleased to say everyone has gotten on board.

> "Our results were so good we've now gone hospital wide with the Medline PUPP program. We have adopted the Remedy products and UltraSorb underpads throughout the whole facility."

At this point, our Administrator and our financial management people are in complete support of the program. This, as a result of showing them how by reducing the number of potential pressure ulcers from six (6) to (0) zero over a one year time span we had in fact saved the hospital $247,800 (the number of pressure ulcers reduced multiplied by the average cost to treat one, $41,300, as calculated by CMS).

Future Initiatives

The success Jennie Edmundson has enjoyed as a result of engaging in a systematic approach to the prevention and treatment of pressure ulcers has encouraged us to look at other programs that can improve our patient outcomes through staff and resident education as well as product improvements. One area we are especially interested in is the reduction of catheter-associated urinary tract infections (CAUTIs). Some of these catheter-associated infections may be the result of catheters being placed unnecessarily. Other potential causes for these infections include leaving the urinary catheters in place too long and contamination that can occur during insertion. We are looking at another Medline program, ERASE CAUTI, that we believe may offer the potential to help us reduce the risk of CAUTI in our hospital. The Medline program includes three distinct parts: 1) a new innovative catheter tray design that promotes better processes 2) an educational component that provides strategies to prevent CAUTI in the first place and 3) an awareness campaign, " The Race to ERASE CAUTI," that we believe would get our nurses on board.

About the Author – Beth L. Edwards, RN BS is the Clinical Quality Specialist at the Jennie Edmundson Hospital in Council Bluffs, Iowa. In this position Beth has responsibility for performance improvement, Joint Commission readiness, and variance event report monitoring. She brings over 25 years of nursing experience to the job, including 5 years in Patient Safety & Quality Improvement and 10 years in clinical research. In addition to nursing, Beth enjoys spending time with her daughter and family, and doing knitting and stitchery.