Culture of Safety

Source of Evidence EP 32 EO

That nursing sensitive indicator data aggregated at the organizational or unit level outperforms the mean of the national database used. Provide analysis and evaluation of data related to patient falls, nosocomial pressure ulcer prevalence and/or incidence and two of the following: blood stream infections; urinary tract infections; ventilator-associated pneumonia; restraint use; pediatric IV infiltrations; other specialty-specific nationally benchmarked indicators (use only for units for which the above does not apply).

Appraiser Feedback:

Did not demonstrate outperformance of the benchmarked national database for falls and hospital acquired pressure ulcers.

Please refer to Organizational Overview Question 23 for results of falls and hospital acquired pressure ulcers for each area in folders by entity.

Falls Information – new to present

Purpose/Background:

The original VUMC Falls Prevention Committee was formed in response to the initial 2002 National Patient Safety Goals. This interdisciplinary committee included nursing leaders, direct care nurses, physical therapists, pharmacists, physicians, quality consultants, an ergonomics nurse, and the Director of Patient Safety. The initial purpose was to develop and implement a falls prevention program with a process of regular assessments for fall risk on admission and during hospitalization for adult inpatients.

Through an extensive literature review of falls prevention programs, several best practices and risk assessment tools were identified. One of these tools was created at Vanderbilt and it was selected and through a pilot was determined to be valid for predicting risk—patients who were identified as high risk were, for the most part, the patients who were falling. The tool was implemented on two units as part of this initial pilot.

The Falls Prevention Program was implemented in 2006 using this risk assessment tool on admission, every shift, and with changes in the patient's status. Along with the risk assessment, interventions were identified to prevent patients from falling and/or minimize injury to those who fell.

In April of 2008 the Falls Committee was reorganized to:

- decrease inpatient falls with injury

- increase reporting of fall events
- analyze the risk factors that lead to patient falls

Falls are the most frequently reported adverse events in the adult inpatient setting. But underreporting of fall events is possible, so injury reporting is likely a more consistent quality measure over time and organizations should consider judging the effects of interventions based on injury rates, not fall rates. (1, 2) We believe that if we can come close to capturing all or near all our falls or near falls events, then the more data we have to analyze to determine problem areas or changes that need to be made to our program. Different patient populations fall for different reasons and the issues must be addressed at the specific targeted point of care level.

New Work

The work of this original Fall Prevention Committee continues and has now been further structured into two (2) groups: a Falls Prevention Steering Committee and a larger, more interdisciplinary Falls Prevention Committee. As of July 2011, the Steering group has been developed into a Medical Center-wide Falls Prevention Committee, including representatives from all VUMC entities (i.e. VUH, Childrens, Psychiatric hospital, and the Clinics). Each Vanderbilt entity now has individual Fall Prevention Committees with the emphasis on their specific patient populations. The centralized Steering group will serve to:

- assist with strategy for falls prevention throughout the Medical Center
- share ideas, evidence-based information and best practices
- disseminate key learnings
- spread improvements
- monitor progress and outcomes across the Medical Center

Methods/Approach

The approach was to take the good work that had been done and evaluate for next steps since the fall rates seem to be at a plateau stage. The committee reviewed the existing program including the patient assessment tool, falls data and evidence based research to evaluate the falls prevention program for the inpatient units. The committee decided to use the PDSA model to determine the effectiveness of the patient assessment tool and identify necessary program adjustments. The definition of falls and fall injuries would be the same as used by NDNQI. The benchmarks would be the NDNQI Falls Per 1000/Patient Days, and the NDNQI Falls with Injury Per 1000/Patient Days.

The committee focused on several areas to determine if we needed changes:

- assessment of patients for fall risk
- development of interventions to prevent falls

- documentation of the assessment and interventions in an electronic documentation system
- educating staff about the program

The following key decisions were made with some of them being the same as our original program and with several improvements:

- All adult inpatients will be assessed on admission and reassessed on every shift and upon change in level of care. These assessments will be documented in the nursing electronic record, HED.
- The falls risk assessment was reduced from 3 levels of risk to 2 levels of risk. All patients entering the hospital are at risk for falls due to a change of environment and medications; however, many patients are even more prone to falling due to increased risk factors.
- Every department who has contact with the patient will need education regarding the new program including dietary, environmental services, diagnostic imaging, etc. (This education was completed by March of 2009 with presentations to each of these services.)
- Many of the interventions will be captured using the Nursing Model Tactics which had been previously implemented. These include hourly rounding with purpose and bedside report at change of shift. (These tactics were reviewed and addressed to all staff again, as we focused on the areas of fall prevention, pressure ulcer prevention, and pain management.)
- The American Hospital Association recommendation about standardization of color use was followed by deciding to use yellow as the "universal" color to communicate a patient is at high risk of falling. The committee decided to use yellow armbands, socks and a LAMP sign of the patient's door to alert everyone that the patient was a high risk for falling. The LAMP sign had previously been in place and stands for "Look at Me Please." (Signage has since been updated, see below.)
- Falls will be documented using the VUH incident reporting system, VERITAS.
- A standardized post falls program will need to be developed. (Post-fall management program developed and implemented 2nd half of 2009 and integrated into the nurses electronic documentation system.)
- Managers will receive monthly reports regarding fall rates and fall injury rates from the SciHealth reporting system.

During May, June and July the Falls Committee reviewed data and began to note units with high rates of falls. In August the Committee decided to facilitate the work by developing an Implementation Team of experts who would meet weekly to do design work and report to the Falls Committee on a monthly basis. This team consisted of representatives from nursing leadership, direct care nursing staff, nursing education, pharmacy, physical therapy, physicians, risk management, and IT.

In November the Falls Committee approved the new Falls Prevention Program including the Falls Risk Assessment and Interventions. This program was then presented to the Clinical Practice Committee, Nursing Quality Council and Nursing Executive Committee for approval. The electronic documentation was finalized.

In March a major educational effort was conducted across multidisciplinary departments to introduce and implement the new program. This roll-out included many departments including ancillary services, staff, educators, patients, and families.

In April the Implementation Team changed focus and became a SWAT Team to monitor the effectiveness of the program and report on a monthly basis to the Falls Committee. Members of this team designed a "road show" which reviewed the program and initial results to every Unit Board Meeting across the adult hospital.

We continued to work with the PDSA cycle over the next several months, reviewing outcomes, analyzing each fall from a circumstance and process perspective, evaluating implementation of the actual fall prevention interventions at the bedside, rounding on patients/families and staff, etc.

In early 2010 a daily nursing indicator report was developed and highlighted for each unit:

- the number of patients in the last 24 hours that were at high risk of falling
- the actual number of patients who fell
- the number of patients at high risk for pressure ulcers or had a pressure ulcer
- the number of risk assessments that had been completed
- how well the intervention bundles were documented

During this time one of our Patient Care Centers began a daily 'meeting time out' and the unit leadership team was on the unit from 10am to 11am each day and dedicated that hour to quality issues. Reviewing patients with a fall event or documented pressure ulcers, looking at patients who were at high risk for these events and monitoring the preventions interventions in place has been very helpful to improve outcomes on some of these units. On others it has allowed a venue to review these events and determine root cause and opportunities for future improvements.

In July 2010 an electronic documentation tool was implemented as a standardized way to document a fall event in the clinical record. This method of documentation/communication:

- serves as a checklist of post-fall interventions that should be completed for each fall event
- assist nurses in the assessment and possible future prevention of falls

- supports a standardized method of communicating fall events during an entire inpatient admission so that this aspect of safety is appropriately communicated across shift to shift handovers and unit to unit transfers
- carries over to the Overview of Patient Care (OPC) that is an electronic reporting tool that assimilates patient information from the different computer programs into one 'report sheet' document. Having this information populate on to the OPC assists in communicating to the various team members and disciplines involved in the care for the patient during an entire admission
- resulted in a minor improvement being made to the electronic documentation system at the suggestion of the nurses, to ease or improve the input for the end-user

While the overall VUH fall rate per 1,000 pt days decreased from 3.85 to 3.62 at the end of this fiscal year, work continued to improve our fall prevention outcomes and to make our patients safer. Our Fall Prevention interventions outline that bed alarms are to be used for confused patients, however, due to multiple bed types and various levels of alarms being integrated with the call system, we found inconsistency in the use of bed alarms.

From August to September 2010 three units participated in a bed/chair alarm pilot – evaluating two different devices. After analyzing feedback from the staff, a recommendation was made about which product should be considered for purchase. After much analysis, a limited purchase of these alarms was made for our units with the highest opportunity for fall prevention improvement.

Concurrently, a renewed search for evidence-based practice and research was conducted. After an extensive review as outlined below, the group re-evaluated the local program. We determined that our program contained the most important and common elements of other top performing programs, however, we needed to focus on executing the interventions more consistently.

The review included:

- the Falls Prevention Programs of 15 NDNQI hospitals
- recommendations and guidelines from
    - United Healthcare Consortium
    - Institute for Healthcare Improvement
    - Veterans Hospitals
    - Agency for Healthcare Research and Quality
    - The Joint Commission
    - Minnesota Adverse Events Public Report
    - Studer Group
    - Journal of Nursing Quality Care
    - Journal of Rehabilitation Research & Development

- Health Leaders Media

Research in Nursing and Health

Mid-year 2010, we also piloted a 'low-bed' to protect patients from injury who are at high risk of falling and at high risk of pressure ulcers but are not eligible/recommended for specialty beds due to confusion/altered mental status. This first trial produced positive results and a more extensive pilot is currently underway to assess effectiveness, safety, and financial implications.

Beginning of shift safety huddles began to be implemented in the Fall of 2010, with charge nurses and unit staff members purposefully huddling at the beginning of the shift to point out those patients at highest risk for falls, pressure ulcers, or other concerns.

The VUH quality consultant working with the Falls Prevention Committee met individually with specific units regarding unit specific fall prevention activities, unit outcomes, program challenges, data collection and validation and use, and post fall event reviews. Several of these units have established their own Fall Prevention group at the unit level, taking the overall program and strategizing how to best apply it to their patient population and how to meet the challenges of their specific units. Each of the designated patient care centers (PCC) of VUH (i.e. Surgery/Trauma, Medicine, etc) has formed fall prevention emphasis groups.
A query was sent out to academic medical centers which yielded several post-fall event review tools. These were provided as samples of how to conduct these reviews for areas that had not done this before.

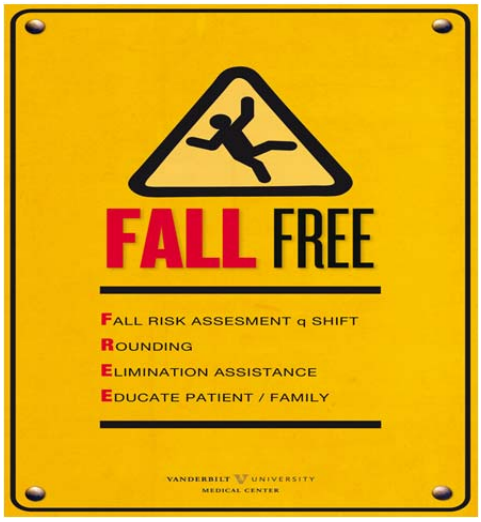
The 2008 Falls Prevention Policy and Program were reviewed and revised in February 2011 with the basic tenets of the program remaining intact but with renewed emphasis on the prevention activities.

Also in February of 2011 the Fall Prevention committee leaders presented to the VUH Quality Executive Committee and made recommendations and requests for further support to achieve improved outcomes for our patients. Presentations were also made to the VUMC Nurse Quality Council and the Nursing Leadership Board between February and July 2011.

Taking advantage of proximity, the Fall Prevention leadership met with Lorraine Mion, PhD. RN for consultation on falls prevention in the acute care setting. She is the Independence Foundation Professor of Nursing here at Vanderbilt and has extensive experience and expertise in geriatrics, fall prevention, and preventing or reducing adverse outcomes among older adult inpatients.

A new sign has been developed to better highlight the High Fall Risk for appropriate patients that communicates the specific risk for the patients better and also outlines the top four interventions to keep the patient free from falls.

Graphic EP 32 EO – 1: Falls Sign



A research grant was obtained to develop a falls prevention instructional video and is being piloted on two of the units with the highest number of falls. If a patient is assessed to be at high risk for falls, the video is assigned for viewing by the patient/ family on the inter-hospital television/ video communication system.

New training for sitters that includes specific information about fall preventions, communications, and appropriate interactions is being piloted on our geriatric floor.
A new approach for dissemination of the new Fall FREE campaign is to identify Falls Champions for each unit. An education and training module has been developed and has been assigned to the Falls Champions, used for on-boarding of new staff, and reviewed as needed.

Participants

Initial Falls Committee

Table EP 32 EO – 1: Participants

Name	Title
Tracy Coyne, RN, MSN – Co-Chair	Quality Consultant - Cancer Center
June Bowman, RN, MSN - Co-Chair	Administrative Director of Nursing Operations VUH
Deborah Ariosto, RN, MSN - SWAT Team	Nursing Informatics
Lynne Brooks, MA - SWAT Team	Informatics
Betty Barrow, RN, BSN - Falls Committee and SWAT Team	Risk Management
Paige Conaster RN, MHA - SWAT Team	Center for Continuous Improvement – Accreditation and Standards

Richard Corcoran RN, MSN - Falls Committee and SWAT Team	Manager 9 North Surgical
Tim Cox, RN - SWAT Team	Consultant – Nursing Systems Support
Pat Duchac, RN, ADN -Falls Committee and SWAT Team	Direct Care Staff Nurse - 5 South (Neuro)
Kelly Ernst, RN, MSN - SWAT Team	Nursing Education and Development
Pat Fleming - Falls Committee and SWAT Team	Physical Therapy
Julie Foss RN, MSN - Falls Committee and SWAT Team	Nurse Manager of adult Medical Intensive Care Unit
Julie Matthews, BA - Falls Committee	Center for Continuous Improvement
Debbie Harrell, Pharm D - Falls Committee	Pharmacy
Terri Hartman, RN, MSN- SWAT Team	Accreditation and Standards
Aaron Hirsch, RN, MSN - Falls Committee and SWAT Team	Assistant Manager 9 South Surgical
Christine Kennedy, RN, MSN - Falls Committee and SWAT Team	Administrative Director Medicine Patient Care Center VUH
Brent Lemonds, RN, MS, EMT-P - Falls Committee and SWAT Team	Administrative Director of Emergency Services VUH
Abby Luffman, RN, BSN - Falls Committee and SWAT Team	Direct Care Staff Nurse Trauma Unit
Sonya Moore, RN, MSN - Falls Committee and SWAT Team	Quality Consultant Center for Continuous Improvement
Nicole Muoio, RN, MSN - Falls Committee and SWAT Team	Educator, 6 North Neuro
Debby Robin, MD - SWAT Team	Gerontologist
Laurence Solberg, MD Falls Committee	Gerontologist
Ashley Stanieswki, RN, MSN - Falls Committee and SWAT Team	Charge Nurse, Surgical Intensive Care Unit VUH
Jack Starmer, MD - SWAT Team	Informatics
Murecka Wallace, RN, ADN -Falls Committee and SWAT Team	Charge Nurse 3 Round Wing – Surgical

As the work continued, the following members were added to the committee:

Lori Davis BSN, RN - Falls Prevention Committee	Case Manager I
Susan Cortez RN BSN MBA - Falls Prevention Committee	Quality Consultant Center for Continuous Improvement

Mariam Ferrel, BSN, RN - Falls Prevention Committee	Charge Nurse 8 North Medicine VUH
Timothy Costelow, RN - Falls Prevention Committee	Charge Nurse 8 South Medicine VUH
Sandra McGill RN MSN MBA - Falls Prevention Committee	Educator, 7 Round Wing Medicine-Geriatrics
Kristy Bishop RN3 - Falls Prevention Committee	Clinical Ergonomist- Smooth Moves
Arlene Boudreaux RN, MSN, - Falls Prevention Committee	Educator, Neuro ICU VUH
Brittany Cunningham RN MSN, - Falls Prevention Committee	Quality Consultant Vanderbilt Heart & Vascular Institute
Sarah Dawson RN, BSN, - Falls Prevention Committee	Assistant Manger 8 South - Medicine
Carly Feldott Pharm D, - Falls Prevention Committee	Director Medicine Safety Program – Pharmacy
Kelly Floyd, MA, Occupational Therapy - Falls Prevention Committee	Manager, Rehab Services
Sarah Foster RN BSN, - Falls Prevention Committee	Quality Consultant Accreditation & Standards
Anisha Fuller RN BSN, - Falls Prevention Committee	Nurse Manager 4 East – OB/GYN
Janice Gabbard RN MSN, Falls Prevention Committee	Nurse Manager – 6 floor Cardiac VUH
Debbie Harrell MS Pharm D - Falls Prevention Committee	Geriatric Pharmacy Specialist
David Meyer, MSN, RN - Falls Prevention Committee	Nurse Manager – Surgical Intensive Care Unit VUH
Deede Wang MS MBA PMP - Falls Prevention Committee	Data Analyst Center for Continuous Improvement
Elizabeth Williams, RN 2 Falls Prevention Committee	Direct Care Nurse 7 Round Wing Medicine/Geriatrics
Maribeth Natoli, RN 2, CCRN Falls Prevention Committee	Direct Care Nurse Burn Unit VUH
Autumne Mayfield RN MSN,- Falls Prevention Committee	Manager Nursing Quaity, Childrens
Therese Adams RN BSN MPH-I CPHQ - Falls Prevention Committee	Quality Consultant – Clinics
Samantha Saalwaechter, BSN, RN2 Falls Prevention Committee	Direct Care Staff Nurse – Clinical Research Center

Outcomes/Impact

Outcomes:

We continue to place emphasis on reporting of occurrences at Vanderbilt through our electronic system VERITAS II. When we implemented the new electronic system, our extensive education of the staff included the emphasis on reporting to support process improvement and not punitive measures. Our falls are reported from the VERITAS system.

Table EP 32 EO – 2: VERITAS Reporting increase from 2007 – Current

Year	Percent of change in overall reporting from previous year	Falls reports as a percentage of all reports	Percent of change in falls reports
2007		10%	
2008	55% increase	7%	17% increase
2009	47% increase	6%	13% increase
2010	4% decrease	6%	7% increase
Jan thru June 2011	On track to be about 5% increase	5%	9% decrease

(Of note: total occurrence reporting in 2009 was 128% more than in 2007)

Please refer to Organizational Overview Question 23 for results of falls for each unit in folders by entity.

VUH Data

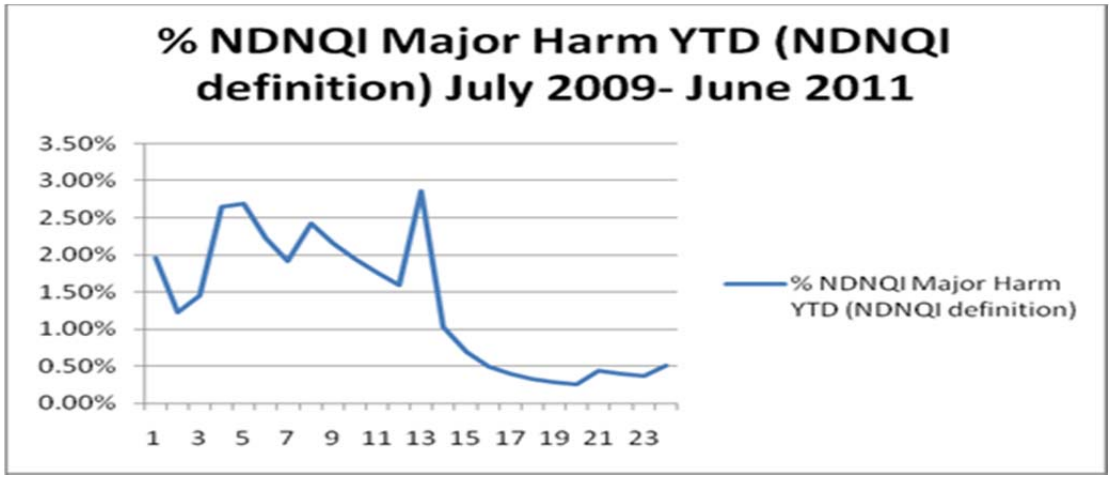
Falls with Injuries

Fifty-nine percent (59%) of our adult inpatient units have met or performed better than the national benchmark for all falls with injury. Our aggregate VUH Injury Fall rate is 0.54 / 1000 patient days for fiscal year 2009-2010. For fiscal year 2010-2011, this rate was decreased to 0.44/ 1000 patient days, representing a 19% improvement over the previous year.

Ninety four percent (94%) of our adult inpatient units have met or performed better than the national benchmark for percent of Falls with Moderate or Greater Severity of injury. Our aggregate VUH percentage for Major injury was 1.59% for fiscal year 2009-2010. For fiscal year 2010-2011, the percentage was 0.51%, representing a 67% improvement over the previous year. The following graphic depicts outcomes for falls with major harm from July 2009- June 2011.

(See Graph below)

Graph EP 32 EO – 1: % NDNQI Falls with Major Harm July 2009 – June 2011

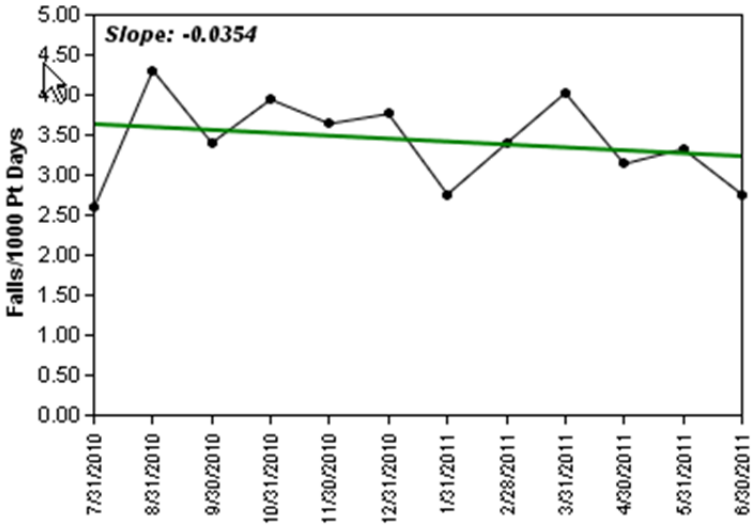


While increased awareness, straightforward interventions, a simplified risk assessment and continued monitoring of outcomes have been a part of reducing our falls with harm, we continue to work on improving our overall fall rate.

Our VUH total fall rate/ 1000 patient days decreased 15 % during the 2009-2010 fiscal year, down to 3.65 from the 4.31 rate from the previous year.

For fiscal year 2010-2011, our VUH total fall rate/ 1000 patient days decreased 6.3% to 3.42 down from 3.65.

Graph EP 32 EO – 2: FY 2010-2011 VUH Fall Rate



While we continue to work on decreasing the overall number of falls, the NDNQI data does bear out that our nursing units are performing at or above benchmark for the 'Nursing

Process for Fall Prevention'. NDNQI reports that the aggregate results for each of our unit-types is at or better than the median for like units for the following categories: "Percent w/ Prior Fall Risk Assessment", "Percent w/ Risk Assessment Performed within last 24 hours", "Percent identified At- Risk", "Percent at Risk and had Fall Protocol in place" and "Percent Restraints in Use at Time of the Fall".

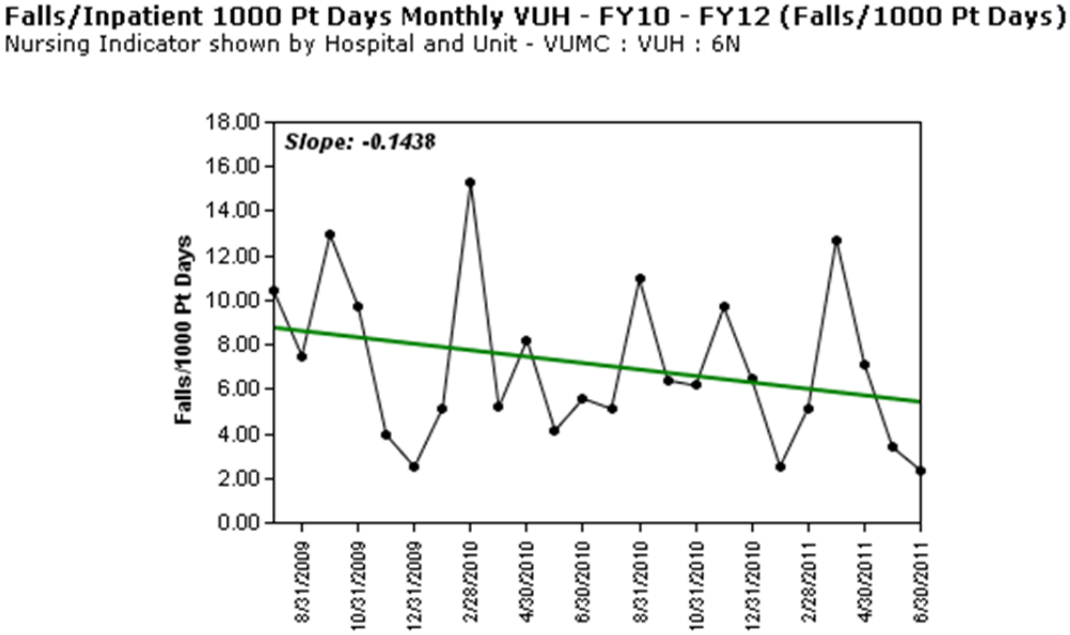
During the 2009-2010 fiscal year we fully implemented our new falls prevention program throughout all of Vanderbilt University Medical Center and continued to evaluate the results with the PDSA cycle. We also began a detailed analysis of every inpatient fall with the Falls SWAT team reviewing each of these events to identify trends and opportunities, such as:

- Approximately 40-50% of all inpatient falls are toileting related
- Approximately 20% of all inpatient falls were 'repeat falls'
- 'altered mental status' patients were a higher percentage of patients who fell and repeat falls

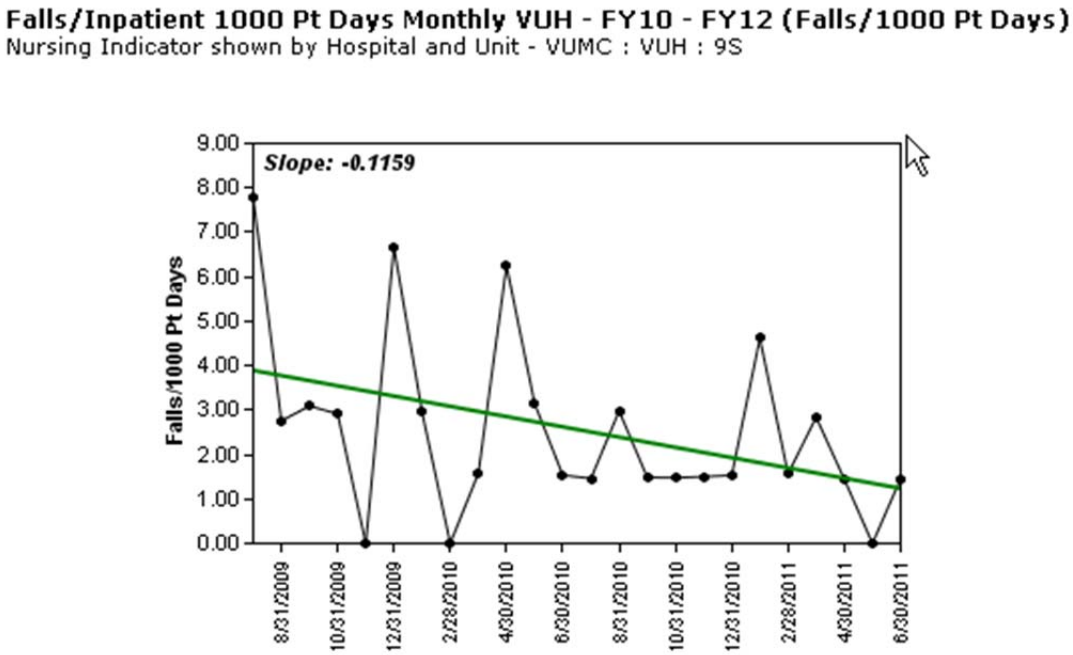
Literature review documented that many like-facilities share the same challenge with toileting related falls and appropriate prevention interventions. We have revisited nursing model tactics and educated on appropriate purposeful hourly rounding. Individual units are taking the trended fall information and creating unit based action plans to address specifics for their patient population. For example, our OB/GYN units are engaging in a falls prevention study related to patients with epidurals; the neuro/epilepsy unit has created a culture of zero tolerance and began charge nurse rounding at the bedside with all high fall risk patients receiving prevention education every shift and reviewing any fall event that occurs (see graph immediately below labeled 6N); at least one of our surgical units has begun 'safety huddles' at the beginning of each shift to improve staff communications on fall prevention (see graph 2nd below labeled 9S).

(See Graph below)

Graph EP 32 EO – 3: Falls Inpatient VUH 6N FY 2010-2012



Graph EP 32 EO – 4: Falls Inpatient VUH 9S FY 2010-2012

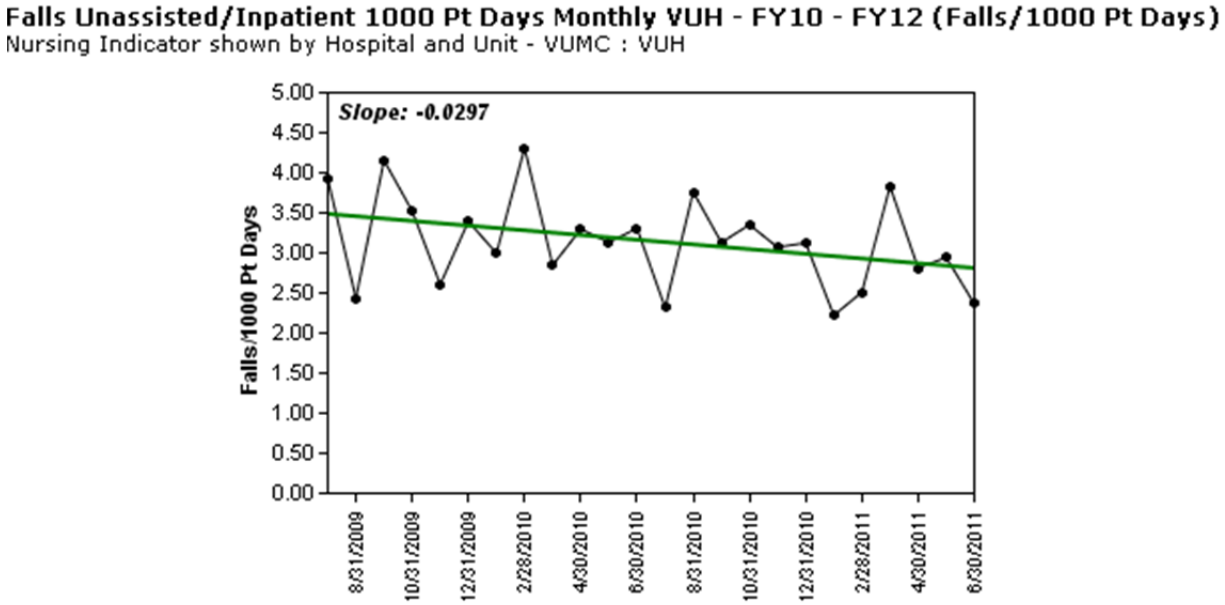


Housewide, we have reinforced an 'open door' policy for patients at high risk for falls and have continued to assist nurses with the balance between patient safety and patient privacy. These unit level successes are then shared organizationally through various outlets

including our Nurse Quality Council, the Falls Steering committee, and entity Nursing Leadership Board meetings.

Unassisted falls have decreased during this past year with a decrease in injuries noted. We attribute this to an increase in nursing model tactics and engaging in the action plans created from results of falls analysis.

Graph EP 32 EO – 4: Falls Unassisted Inpatient VUH FY 2010-2012



Currently we are initiating a second pilot for bed and chair alarms at the request of the unit staff. The initial pilot did not show strong results but as the staff continues to research the best interventions for their patients who are unable or unwilling to comply with safety instructions and need additional assistance to prevent falls, they would like to look at this intervention again. Also, we are requesting approval for a low-bed trial to use as one injury prevention intervention. One unit has researched extensively and found the low-bed to have had positive results in prevention of injury especially in the elderly patient in other institutions and would like to trial that here. (Limited purchase of bed alarms was made after two rounds of trial and low beds are being evaluated in a second, more extended trial currently.)

Another key learning is to place the emphasis on patient/family education and staff communication versus focusing solely on the tangible item of non-skid sock, door sign, or armband. For example, rather than just rounding to see if patient has all 3 items in place, actually educating the patient and/or family and communicating with other team members is the more important aspect of fall prevention.

Our efforts to reduce repeat falls include enhanced documentation to maintain awareness of a fall event throughout an entire admission as we had discovered that after one

or two handovers the fall event was often 'lost' in the communications and after transfers. We created a fall event reporting template for the clinical documentation to allow standardized documentation of a fall in the medical record that also created an icon that remains visible to all during the admission to improve communications among all disciplines.

As this Fall Prevention program was in development, it was noted that 'repeat falls' were approximately 20% of our falls each month, meaning approximately 20% of our fall events each month were happening with patients who had a previous fall during this admission. Through the efforts outlined here, streamlining communication, and strengthening our prevention interventions this number has reduced to 5.8% over the last 6 months from January to June 2011. This represents a 71% decrease in our 'Repeat fall' category of falls.

As we continue with daily efforts to decrease our overall fall rate, we have improved our falls with injury rate after implementation of the new falls prevention program and we continue to analyze every fall. Monthly outcomes reporting has evolved from an organizational level report to include more details and unit specific results, which has garnered more unit level engagement. It was very exciting to be in the audience in August 2011 when our geriatric and neuro units gave lengthy presentations about their fall prevention efforts, the engagement of their staff, and plans for continued improvements. Acknowledging their outcomes are not where we want them to be yet and continuing to 'chase zero', more and more units are very engaged in this work and seeking out ways to improve the outcomes for each patient. It was also exciting to facilitate an ANA- Nursing Quality Network webinar on Falls Prevention and have the room filled with leaders and staff from across the organization- VUH, VMG, and Children's, leaving standing room only. Administrative directors attended and brought managers and staff and people who are not part of the Fall Prevention Committees were present and engaged.

As we continue the efforts outlined above and continue to engage the PDSA cycle to improve our falls prevention activities we foresee continued improvement. Our overall plan of action includes current review of recent evidence based practices, strengthening our rounding for safety on high risk patients, unit based review of prevention practices, and event review, and strengthening and collaborating with interdisciplinary teams to decrease risk factors. Specifically we will continue to implement our Fall FREE campaign, educate to best practices, continue and strengthen 'safety rounds' with leaders rounding on patients with an eye to fall prevention and education, pressure ulcer prevention, line safety, etc. As a take-away from the ANA-NQN webinar we plan to begin analyzing each fall in light of 'fall type' to allow us to better strategize specific interventions. Discussions about individualizing more in-depth fall risk assessments and interventions and how to make bedside care more personal for each patient are underway. We have been seeking collaborations with our long term care partners to learn more about what their fall prevention programs look like in case there are pieces we can adapt for the acute care setting that may be missing now. Consultations with nationally recognized experts on Fall Prevention are currently being planned and scheduled.

References:

1. Halfon P, Eggli Y, Van Melle G, et al. Risk of falls for hospitalized patients: A predictive model based on routinely available data. J Clin Epidemiol. Dec 2001;54(12): 1258-66.
2. Leape LL, Brennan TA, Laird N, et al. The nature of adverse events in hospitalized patients. Results of the Harvard medical practice study ii. N Engl J Med. 1991;324(6):377-84.

[EP 32 EO Exhibit A-1-CL 30-02 09 Falls Prevention Policy, EP 32 EO Exhibit A-2-Fall Prev Sitter Educ 07-29-11, EP 32 EO Exhibit A-3-07-06-11 NQC Minutes, EP 32 EO Exhibit A-4-08-03-11 NQC Minutes, EP 32 EO Exhibit A-5-07-06-11 Falls Champion Presentation Example, EP 32 EO Exhibit A-6-07-06-11 Nsg Quality Falls Summer 2011, EP 32 EO Exhibit A-7-08-03-11 Falls Update 7RW, EP 32 EO Exhibit A-8-08-03-11 Falls Update 6 North, EP 32 EO Exhibit A-9-VUH Falls Champion Education]

Children's Falls

Purpose/Background

The Children's hospital falls committee was convened in the fall, 2005 to:

- develop and implement a Pediatric Falls Safety Program
- adopt assessment tools
- streamline documentation of falls assessment and intervention
- develop a process to evaluate falls
- identify opportunities for improvement
- develop a charter

Globally, the committee was to ensure the safety of the pediatric patient population by preventing injury related to falls, as well as respond to the Joint Commission patient safety goals.

Through the Children's hospital falls committee work, the color of high risk for falls has been standardized with our adult counterparts to be consistent with the national recommended standard of yellow. The color yellow is used for our high risk armbands and yellow non-skid socks. Also, through the committee, we have made our documentation of falls assessment and intervention one place in our nursing documentation within the medical record.

Methods/Approach

We monitor incident reports of falls on a weekly basis through our quality and patient safety department. Within the group we are able to discuss trends and collaborate on strategic plans to further decrease our falls rate. Falls data and hospital trends are shared at the unit level during unit board and staff meetings. Our adult hospital reports falls to National Database of Nursing Quality Indicators (NDNQI). To be consistent across our enterprise, Children's has begun to track our falls with harm by the definitions of NDNQI. We monitor any moderate and major harm and create action plans with the nursing unit if these occur.

We perform chart reviews on every patient fall to identify opportunities for improvement. One such trend was that 70-80% of our falls occur when a family member is present in the room. Based on this data, we have reinforced the importance of family education about the prevention of falls while in the hospital. Monthly audits were also added to ensure that family education is being done every shift.

Other recent recommendations from the falls committee include:

- Implement bedside commodes for high risk falls patients in acute care areas

- Complete gap analysis of equipment availability
- Add "falls risk" to bedside rounding tool in daily interdisciplinary rounds
- Implement falls event documentation in HED
- Improve communication between rehabilitation services and nursing
- Implement post falls huddle on two pilot units
- Implement Newborn safety document

We still have opportunity for improvement related to falls and thus have recently began networking with other CHCA hospitals to reevaluate our current falls risk assessment tool.

Participants

Falls Committee

Table EP 32 EO – 3: Participants

Name	Title
Debbie Gardner, BSN, RN – Chair	Manager, Infant/Toddler/School-age Medicine/Pediatric EMU
Kathy Moss, RN, MSN, MBA – Co-Chair	Director Nursing & Clinical Support Services
Autumne Mayfield, MSN, RN, ENPC	Manager Nursing Quality
Ellen Argo, PT	Assistant Manager – Pediatric Rehab Services
Katherine Bennett	Child Life Specialist II
Angel Carter, BSN, RN	Assistant Manager – 6C Cardiology and Pediatric Critical Care
Tia Coleman, BSN, RN	Assistant Manager – Pediatric Surgery and Adolescent Med
Linda Crisafulli, RN	Assistant Manager – NICU
Angela Derksen, BSN, RN, CCRN	Assistant Manager – Holding Room/ PACU/ Radiology Recovery/ 3A
Melanie Foster, BSN, RN	Infant/Toddler/School-age Medicine/Pediatric EMU
Debra Hardy, MSN, RN	Nurse Educator – 6C Cardiology

Mary Hudson, RN	Assistant Manager Hemostasis-Hemophilia Practice
John David Hughes, BSN, RN	Assistant Manager – PCCU
Dana Loveless, BSN, RN 2	8A Pediatric Surgery and Adolescent Med
Natalie Lyndon, BSN, RN 3	Pediatric Cardiac ICU
Janice Malone, BSN, RN, CPN	Nurse Educator – Pediatric Surgery and Adolescent Med
Carol McCoy, BSN, RN	6A/6B Pediatric Hematology/Oncology
Manda Mitchell, BSN, RN	PCCU
Celena Mullen, BSN, RN 2-CC	PACU
Amy Potts, PharmD	Clinical Manager of Pharmacy Services
Christie Schenk, RN	Clinical Risk Coordinator, Risk and Insurance Management
Melissa Sweeney, BSN, RN, ENPC	Assistant Manager– PEDS Emergency
Ashley Tinch, BSN, RN, CCRN, CPN	PCCU
Mark Waggoner, RN	Assistant Manager – NICU
William Wolter, RN	
Amber Yampolsky	PT Assistant Manager – Pediatric Rehab Services

Outcomes/Impact

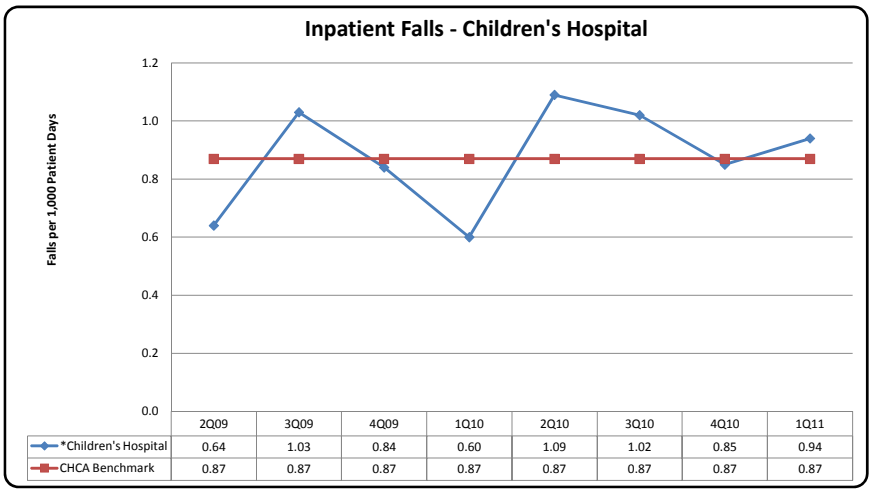
Children's Hospital outperforms the selected benchmark (CHCA) for four (4) of the total eight (8) quarters. Overall, we maintain a low number of falls per 1,000 patient days – at less than 1. With the changes in the program, we expect to see Children's continue a high performance around falls rates.

(See Graph below)

Graph EP 32 EO – 5: Children's Fall Report 2009-2011

Monroe Carell Jr. Children's Hospital at Vanderbilt
Where discovery brings hope

Children's Falls Report
2Q09 – 1Q11



	2Q09	3Q09	4Q09	1Q10	2Q10	3Q10	4Q10	1Q11
*Children's Hospital	0.64	1.03	0.84	0.60	1.09	1.02	0.85	0.94
CHCA Benchmark	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87

Notes: Benchmarks through National Database of Nursing Quality Indicators Academic mean comparison group.

Confidential and privileged as set forth in T.C.A. S63-6-219 and not to be disclosed to unauthorized persons.

[EP 32 EO Exhibit B-1-07-06-11 Children's Falls – PU, EP 32 EO Exhibit B-2-07-06-11 Post Fall Debriefing Form 01-18-11, EP 32 EO Exhibit B-3-08-03-11 Children's Falls]

Vanderbilt Psychiatric Hospital

Purpose/Background

Falls data has been selected by VPH as a key indicator of quality. This indicator is important from both a patient safety and quality of care standpoint. We participate in the VUMC organization-wide Falls Prevention Committee and also have our entity specific committee. VPH shares similar patient characteristics with the other hospitals for patient fall risks, however, we have those that are unique to psychiatry patients. Our work centers around those unique characteristics that put our patients at risk for falls. We continue to build on work that has been ongoing since 2002 at VPH.
Methods/Approach

A thorough onboarding of new staff is considered paramount to the orientation process, and a building block to creating a culture of safety. Our staff go through the VUMC programs: "It's Who We Are", "You Make a Difference", and Clinical orientation.

VPH then continues orientation targeted to the clinical employee that is additional training. A focus of this content is patient safety. Safety practices, monitoring protocols, patient assessment, verbal de-escalation and behavioral management training are nurse led educational initiatives that are required.

A Falls Risk Protocol was developed and instituted with institutional support resulting in an electronic assessment. Nursing Systems Support used a work group with representation and input from direct care staff to develop this tool.

The admitting nurse completes the risk assessment, and then a nurse on each shift does an assessment. The risk assessment is also re-done with any change in the patient's condition or level of care, and following an actual fall or near fall.

Interventions are initiated based on the Fall Risk Assessment for standard or high. All patients receive standard risk interventions which include:

- Beds in low position with wheels locked
- Orientation of patient to room and unit
- Patient/family education related to patient safety

High risk interventions are inclusive of the standards risk interventions, along with the application of yellow non-skid footwear and identifiable yellow armband.

Patients are put on high risk based on the following criteria:

- Fall within the last 3 months

- Meeting 2 of the following:
  - 70 years or older
  - Impaired mobility
  - Dizziness/vertigo
  - Orthostatic hypotension
  - Impaired elimination
  - Impaired vision
  - Anticoagulation therapy
  - Increased PT/PTT/INR
  - Increased sedation
- Receiving 5 medications identified as "high risk", plus meeting one of the criteria above. These classes of medications are inclusive of opiates, hypnotics/sedatives, anti-hypertensives, diuretics, anticonvulsants, antidepressants, and antipsychotics

All staff members identify unsafe environmental conditions and take appropriate actions. Implementation of all aspects of the protocol is aimed at maintaining a treatment environment with a high focus on patient safety and free from falls.

Participants

Table EP 32 EO – 4: Participants

Name	Area
Barbara Yudiskas, BSN, RN	Adult 1 Program
Laurel Roberts, BSN, RN	Nursing Systems' Support Services, Specialist II
Leslie Ragio, RN	Adult 2 Program
Lori Harris, BSN, RN	Manager, Patient Care
Johnny Woodward, BSN, RN	Manager, Quality

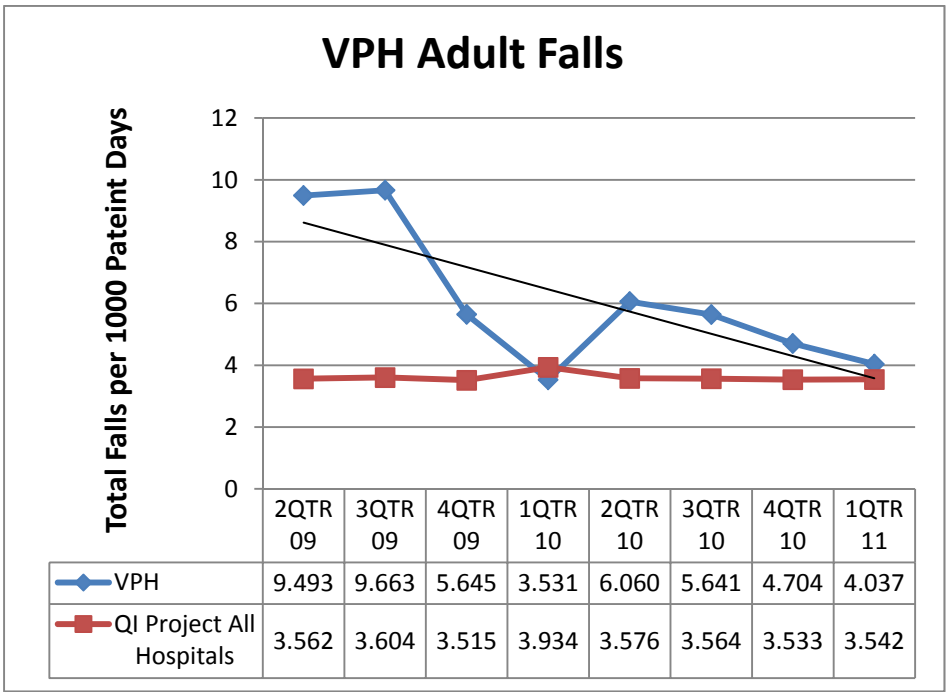
Outcomes/Impact

Our falls are benchmarked against the trending of data using the Maryland QI Project. The Maryland QI Project is the only group that measures falls in psychiatric hospitals. One weakness of this work is that there is no benchmark for academic medical centers. Another concern is that the Maryland QI Project does not measure falls for children's psychiatry units. The quality committee at VPH is examining other benchmarking opportunities in order to develop a better comparison group.

Despite the fact that falls continue to be above the benchmark for the adult psychiatry services, there is a downward trend. VPH has a rate of zero for falls with moderate or serious injury. The one exception, was third quarter of 2009, a patient sustained a fracture of the

humerus. The patient was managed medically, with recommendation for outpatient orthopedic follow-up, after psychiatric stabilization.

Graph EP 32 EO – 6: VPH Adult Falls



Falls	2QTR09	3QTR09	4QTR09	1QTR10	2QTR10	3QTR10	4QTR10	1QTR11
VPH	9.493	9.663	5.645	3.531	6.060	5.641	4.704	4.037
QI Project All Hospitals	3.562	3.604	3.515	3.934	3.576	3.564	3.533	3.542

Pressure Ulcer Prevention

Information – new to present

Purpose/Background

After initial formalized efforts and program development in 2004, Vanderbilt University Medical Center continues with diligent efforts to improve our pressure ulcer prevention and treatment program and improve patient outcomes. The program objectives are to:

- reduce the incidence and prevalence of pressure ulcers
- reduce the severity of pressure ulcers that develop
- prevent progression of pressure ulcers that are present on admission

Our goal is to perform at least as well as, or better than peer organizations as reported by the National Database of Nursing Quality Indicators (NDNQI). During this last year the guiding purpose has been to strengthen the program and continue implementation and education throughout Vanderbilt University Medical Center.

Methods/Approach

The current Pressure Ulcer Prevention Implementation team has been working on implementing the action plan developed by a larger interdisciplinary Pressure Ulcer Prevention Committee to improve pressure ulcer prevention across the institution. More recently, a higher level interdisciplinary VUMC Executive Pressure Ulcer Prevention and Treatment Steering Committee has been formed.

Improvement Activities completed within the last year include:

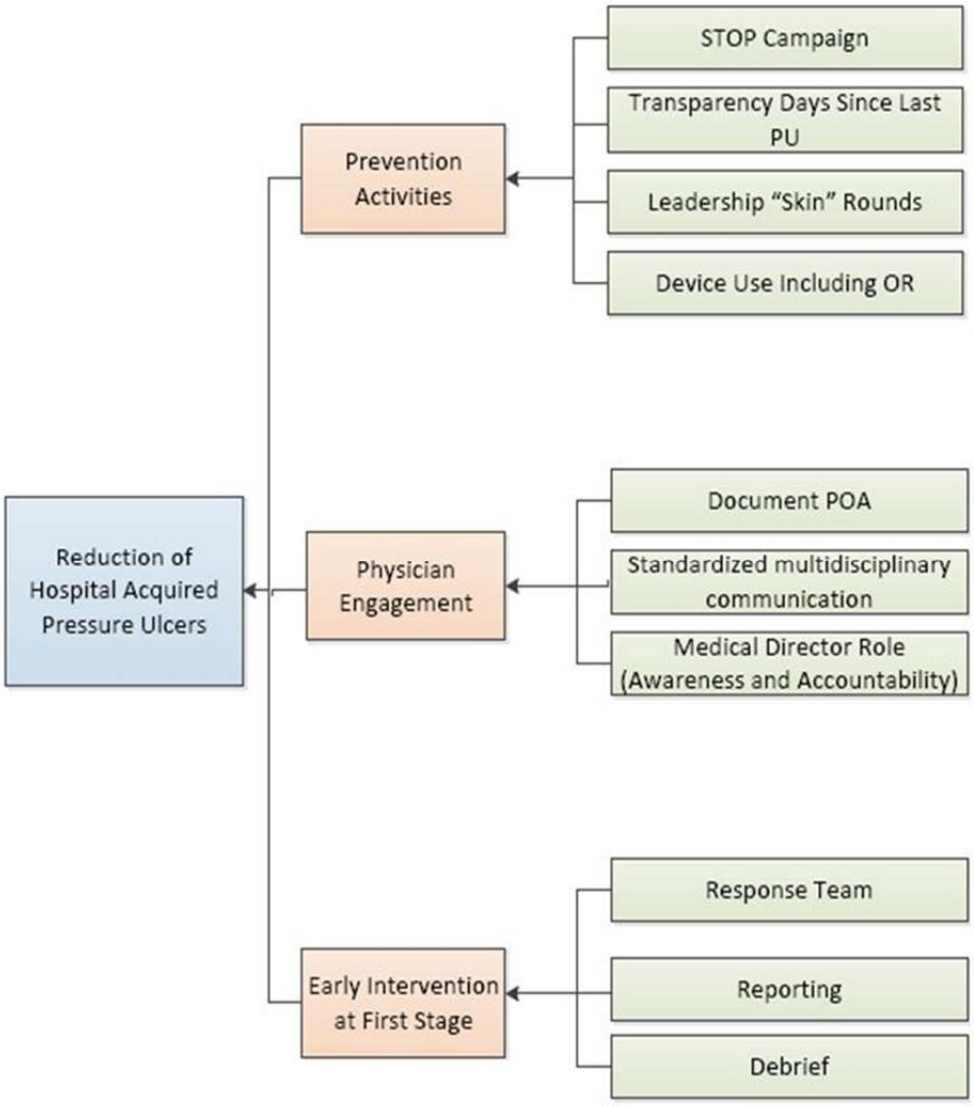
- Quarterly NDNQI prevalence surveys continue to be supported on every inpatient unit, with some units choosing to perform prevalence surveys with more frequency to monitor their own performance and improve upon their results
- Expanded definition of ‘at-risk’ for skin breakdown population to include all patients with a Braden Risk score of 18 or less – to bring our program into alignment with best practices of the National and International Pressure Ulcer Advisory Panel position.
- WIZ Braden Advisor updated- Risk assessment now includes ‘hard-stops’ to encourage use of prevention products and therapy beds per prevention guidelines for patients ‘at risk’ of breakdown
- Specialty Bed Selection Tree, Pressure Ulcer Stages, Treatment, and Product information improved in the Wiz Braden Advisor for patients at risk of breakdown per the Braden risk assessment
- Pressure Ulcer Prevention products streamlined, standardized, and updated throughout the program and housewide.

- Prevention products available in each unit's supply areas and communication with unit leaders regarding supplies
- Revised education for all nursing staff provided with increased emphasis on assessment and prevention- also included nutrition services and ancillary care areas; 3 modules placed in our on-line Learning Management System for ease of access and uniform distribution and tracking
- Developed specific education for care partners, with emphasis on their role in pressure ulcer prevention and communication with nurses regarding any issues with skin integrity they may see
- Core Nursing Orientation and Nurse Residency education information revised to include emphasis on prevention activities and current Pressure Ulcer Prevention program
- House wide distribution of Nursing Care Indicator report to reflect unit specific compliance with risk assessments every shift, compliance with prevention bundle for patients at risk and how many patients have a documented pressure ulcer over the last 24 hours.
    - In 2011 a new distribution list created for VUH NLB group so that all managers, assistant managers, educators, and administrative directors receive this daily report.
    - This daily report provides a snapshot of the previous 24 hours and shows compliance with Braden scoring (completion of) for all patients as well as compliance with turn/reposition and selection of appropriate surfaces for any patient identified as "at risk".
    - Number of patients on unit with existing pressure ulcer for that 24 hour period (this is our first time to have 'near real-time' data about existing pressure ulcers pulled directly from the medical record)
- Development of signage to visually indicate patients who are at-risk of skin breakdown, including the four best practices for prevention tactics
- Improved wound documentation in the nursing documentation system to ease entry for nurses
- Physician/ Staff education provided in real-time scenarios regarding pressure ulcer assessment and documentation when documentation discrepancies were noted over a three month period in 2010
- Formation of Executive Pressure Ulcer Prevention and Treatment Committee in June 2011
- Work to improve physician engagement has been initiated
- Continued work with medical coding partners and concurrent coders to promote increased accuracy of medical record documentation, coding and reporting.
- Development in progress of renewed education for physician partners to review the pressure ulcer prevention program, multi-disciplinary support, and appropriate assessment and documentation needs
- Retrospective chart reviews of all patients who had a pressure ulcer reported through our incident reporting system and were coded as having a hospital acquired pressure ulcer

- Development in progress of standardized tool for review of newly documented pressure ulcers on each unit to review origin, prevention care, risk factors, current plan of care to prevent progression, and opportunities for improvement (drafts have been in use on various units since 2010)
- Development in progress of improved technological integration of nursing documentation for improved communication and multi-disciplinary involvement
- Continued work with biostatistician for regression modeling for improved risk modeling for pressure ulcer development in 2011
- Continued work with informatics to develop a notification of a newly documented pressure ulcer to promote early involvement of physicians, concurrent coders, and unit leaders
- Development in progress of concept of 'Safety Rounds' or 'Quality Hour' for unit leaders to be able to identify and target patients who are at highest risk of breakdown and rounding with those nurses to assure prevention guidelines are in place appropriately and consults are ordered if patients require additional prevention interventions
- The new model outlined by the Executive PUP and Treatment Steering Committee will address three key elements:
    - Prevention (nursing-sensitive and covered by the work of the PUP committee),
    - Physician engagement to document POA and increase medical director involvement to ensure better communication and accountability,
    - Early intervention process which is yet to be determined and finalized

(See Graphic below)

Graphic EP 32 EO – 2: PUP Model



Key Tactics as outlined by Executive PUP and Treatment Steering Committee:

- Select measurement methodology for determining prevalence of PU
- Educate providers/staff regarding new Braden threshold *(*18-Alignment with better practice)*
- Develop risk assessment model for perioperative patients
- Develop definitions for preventable vs. non-preventable ulcers and identify means to document

- Develop and implement multi-disciplinary communication model for presence of PU and high risk Braden score
- Develop prevention protocol and process for patients at high risk for PU
- Develop standardized treatment protocol for PU
- Pilot in high risk unit and evaluate
- Disseminate and spread

Participants

Members of the Pressure Ulcer Prevention Implementation Task-Force

Table EP 32 EO – 5: Participants

Name	Title/Area
Devin Carr RN MS	Administrative Director Surgery/ Trauma Patient Care Center
Sheree Lee RN BSN CWOCN	Manager of WOCN
Carolyn Watts RN MSN CWON	Clinical Nurse Specialist
Jack Starmer MD	Chief Quality Informatics Officer Assistant Professor, Biomedical Informatics Dept
James Madden MD	Assistant Professor, Plastic Surgery
Valerie Kibler RN NP	Systems Support Specialist
Christina Biesemeier RD	Director, Clinical Nutrition
Deborah Robin MD	Medical Director, Care Access, Associate Professor of Medicine
Sonya Moore RN MSN	Quality Consultant, Center for Clinical Improvement
Aaron Hirsch RN BSN	Assistant Manager, 9S
Sandra McGill RN MSN MBA	Educator, 7RW
Richard Benoit RN PhD(c) CCRN	Educator, SICU
Susan Cortez RN MSN	Quality consultant, Center for Clinical Improvement

Members of the Executive Pressure Ulcer Prevention and Treatment Committee:

Table EP 32 EO – 6: Participants

Name	Title/Area
Dr. Neesha Choma	Assistant Professor of Medicine, Director, Quality and Patient Safety
Pam Jones RN MSN NEA-BC	Chief Nursing Officer, Associate Hospital Director, VUH
Dr. Addison May	Professor of Surgery and Anesthesiology
Dr. James Madden	Assistant Professor, Wound Team physician, Plastic Surgery
Devin Carr RN MSN	Administrative Director, Surgery/Trauma Patient Care Center
Debra Chamberlain RN MSN	Administrative Director, VHVI Inpatient Services
Christine Kennedy MSN, RN NE-BC	Administrative Director, Inpatient Medicine, VUH
Buffy Lupear Krauser CRNA	Assistant Chief CRNA
Susie Leming-Lee RN DNP CPHQ	Director of Perioperative Quality Management
Sheree Lee RN BSN CWOCN	Manager, Wound Ostomy Continence Services
Autumne Mayfield RN MSN	Manager, Nursing Quality, Vanderbilt Children's Hospital
Diane Moat RN JD	Assistant Director, Clinical Risk Management
Sonya Moore RN MSN	Quality Consultant, Center for Clinical Improvement
Kathy Moss RN MSN MBA	Director, Nursing and Clinical Support Services
Shea Polancich RN PhD	Director of Patient Safety VUMC
Dr. Nahel Saied	Associate Professor of Clinical Anesthesiology
Jenny Slayton RN MSN	Administrative Director, Performance Management and Improvement, VCH
Marcia Spear RN MSN	Nurse Practitioner, Plastic Surgery

David Wyatt RN MPH CNOR	Administrative Director, Operative Services

Outcomes/Impact

VUH Data

Through the end of the first quarter of calendar year 2011, 41% of our units performed as well as or better than our NDNQI benchmark for hospital acquired pressure ulcers, unit acquired pressure ulcers, and percent of hospital acquired pressure ulcers that are stage 2 and above. However, 65% of our units performed as well as or better than our NDNQI benchmark for percent of patients with a unit acquired stage 2 or above pressure ulcer.

Forty seven percent (47%) of our units are exhibiting a positive trend of improvement since July 2010 for patients who have admissions that include a hospital acquired pressure ulcer in the medical coding.

Our perioperative patient care center has formed their own pressure ulcer prevention taskforce that is taking a deep dive into strengthening prevention activities in this area. They have begun by gathering data, trying to determine the prevalence of patients who pass through their area that go on to develop pressure ulcers. Within this group of patients, this team would then like to determine if there is a particular service, procedure, or diagnosis that seems to be more prone to the development of pressure ulcers or if certain lengths of time are related or particular clinical factors. This group reports up through the Executive Pressure Ulcer Prevention and Treatment committee.

The Implementation team has continued with the work of putting into operation previously identified program improvements, housewide education, and pursuing technological assistance to improve the workflow for nursing.

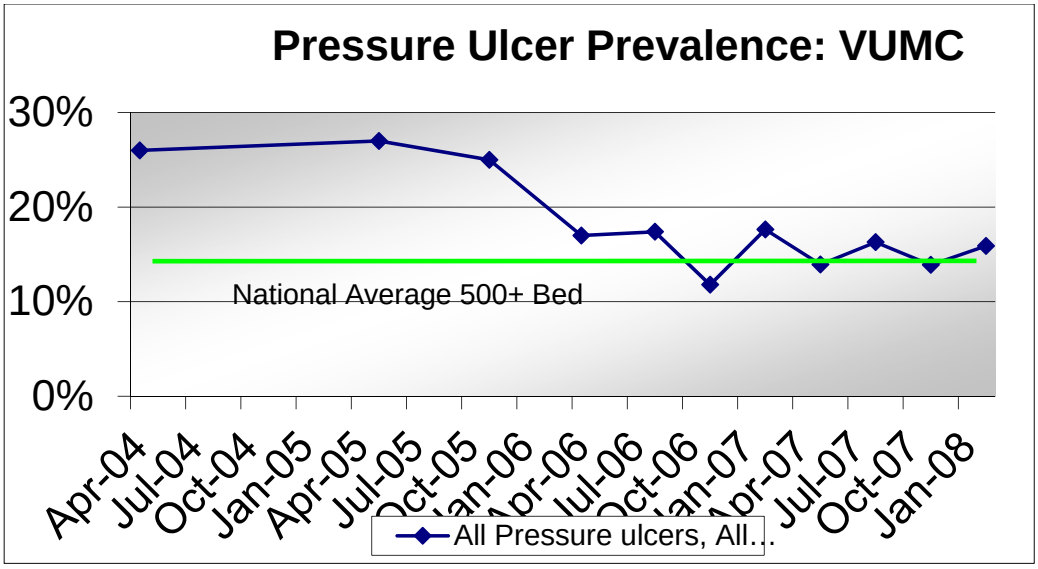
The more recently formed Executive Committee is taking a broader interdisciplinary approach, with increased physician involvement and is developing methods to more fully engage providers. Strengthening expectations regarding pressure ulcer prevention as part of provider rounding rather than solely being a nursing function is a key element in these plans. One initial foray into this concept is with our orthopedic physicians. The unit these patients are primarily admitted to has begun notification of the admitting team for any patient who is found to have a newly assessed issue with skin integrity. The nurse will page the physician and the physician is then responsible for including the new skin issue in their progress note and the nurse implements the pressure ulcer treatment guideline orders and consults the wound experts as appropriate. This exchange of information in a standardized, consistent process has been very enlightening for those providers involved. Historically these activities have been

primarily addressed by nursing services and this new partnering of the entire team promises a more comprehensive approach from which the patient will benefit.

In addition to all of the work sponsored by the medical center leaders to improve pressure ulcer outcomes for our patients, our Chief Quality Officer has begun initial conversations with the nationally renowned expert in sociotechnical probabilistic risk modeling in the field of pressure ulcers. A one day review of our current systems, program, guidelines, and compliance has been conducted and a proposal is forthcoming to discuss possible methods of utilization of this modeling with our program.

The graph below shows the improvement from the initial pressure ulcer prevention committee work and then a leveling off of outcomes in 2006 and 2007.

Graph EP 32 EO – 7: Pressure Ulcer Prevalence VUMC

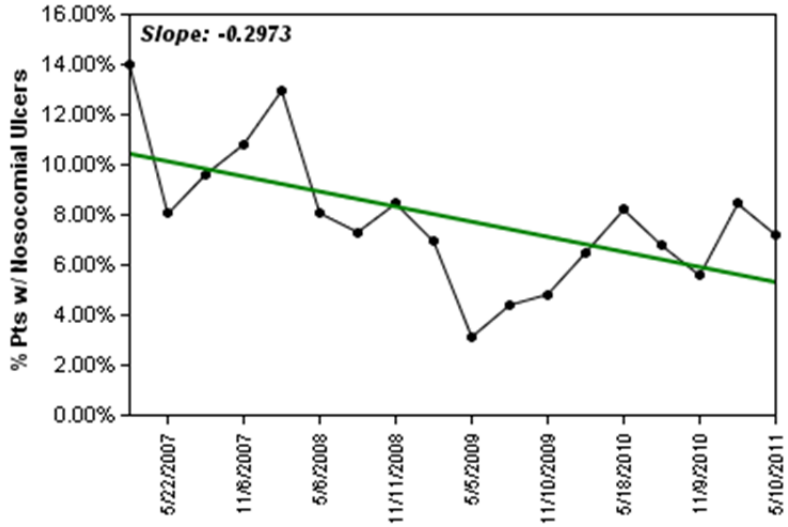


The graph below represents a positive downward trend in the percent of patients with hospital acquired pressure ulcers as assessed during our quarterly prevalence surveys, between May of 2007 and May of 2011.

(See Graph below)

Graph EP 32 EO – 8: Pressure Ulcer Survey VUH

Pressure Ulcer Survey - Data Based on Patients in Survey (% Pts w/ Nosocomial Ulcers)
Nursing Indicator shown by Hospital and Unit - VUMC : VUH



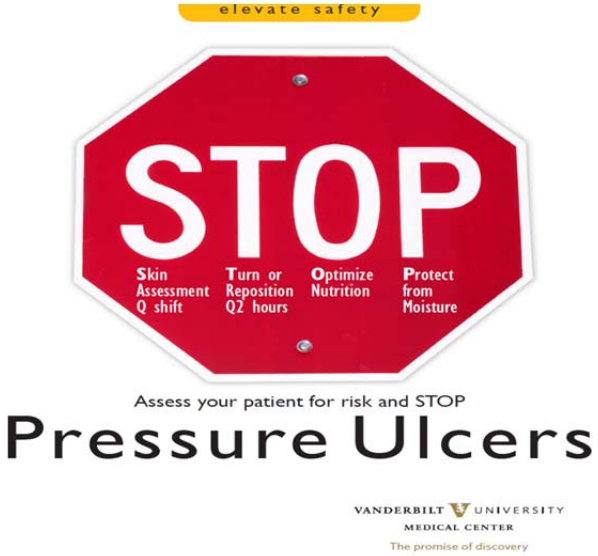
Daily leadership "huddles" and quality walk-rounds are essential to understanding the specific challenges and needs of each unit. The daily report provides leaders with a list of patients who are at risk as well as those who have actual pressure ulcers. The SICU has been using this report as well as the pilot version of our audit tool and they have seen a decrease in their rates over the past few weeks just through daily attention to this one aspect of care.

Perhaps even more important from a nursing perspective, the following observations can be made when comparing our pressure ulcer prevention performance with national benchmarks:

1. In the 'Percent of Surveyed Patients with Unit Acquired Pressure Ulcers Stage II and Above measurement: 65% of our units performed at or better than the mean performance for like-units using the national comparative data from NDNQI.
2. For the 1st quarter of 2011, there were 50% of these units that did better than the NDNQI mean for the percent of surveyed patients who had a skin assessment documented upon admission; 89% did better than the national mean for the percent with a risk assessment performed upon admission, and 89% of our units did better than the national mean with having the risk assessment completed within the past 24 hours.
3. Also for the 1st quarter of 2011, 88% of our units performed at or better than the benchmark for performing skin assessments for patients at risk; 75% performed better than benchmark for risk assessment, 69% for nutritional support and 69% for moisture management interventions for these patients.
4. Regarding the pressure ulcers that were identified, 93% of our units performed better than the benchmarks for stage 3 wounds, 87% for stage 4 wounds, 67% for deep tissue injury wounds, 80% for unstageable, and 100% for indeterminable wounds.

The work of pressure ulcer prevention continues from many different facets- the most important of which is the care of the patient at the bedside and the increase in integration between all members of the healthcare team to prevent pressure ulcers. Assuring that we have a program that includes best practices and evidence based interventions coupled with providing baseline education and reinforcement for all members of the healthcare team is vital to improving our current results. Realizing that there is not a single magic intervention that works alone, but rather several layered approaches that work in conjunction with each other, our prevention teams are leading the way with a step-wise, thoughtful implementation. The STOP Pressure Ulcers Campaign is designed to heighten awareness, educate, and implement the various pieces into the workflow of each healthcare team member and unit leader by establishing baseline knowledge and understanding and tools with which to better manage prevention activities while monitoring for outcomes.

Graphic EP 32 EO – 3: Pressure Ulcer Sign



[EP 32 EO Exhibit C-1-Pressure Ulcer CEEC Presentation, EP 32 EO Exhibit C-2-PU electronic audit tool, EP 32 EO Exhibit C-3-Pressure Ulcer Prev Team Charter]

Children's Hospital

Purpose/Background

Although often thought of as an issue in adult care, pressure ulcers can occur at any age. Evidence shows high rates of pediatric pressure ulcers, especially in Intensive Care Units (ICUs).

Studies of pediatric hospitals typically find prevalence rates of 3 to 7 percent among inpatients, with rates as high as 27 percent in ICUs.1 Child Health Corporation of America's (CHCA) Whole System Measures recently revealed that pressure ulcers are the most common reported "never event" in participating hospitals. Other studies have found that most pressure ulcers occur within 2 days of admission. There can be very serious consequences with pressure ulcers. They can lead to infections of muscle, blood, and bone, resulting in longer hospital stays, increased costs, permanent injury, and even death.2

Monroe Carell Jr. Children's Hospital at Vanderbilt recently developed an interdisciplinary Skin Integrity Committee to sustain the work previously discussed from the 2009 CHCA Pressure ulcer prevention collaborative.

Methods/Approach

Following the end of a collaborative in July, 2010, it was important to identify strategies to sustain the success we reached. Pressure ulcer prevention work continued through efforts of the CHCA Pressure Ulcer Prevention Education Task Force as well as the Children's Skin Integrity Committee. In March 2011, the education task force developed pediatric specific education modules: "Introduction to Pressure Ulcers in the Pediatric Population" and "Pressure Ulcer Staging and Management". The modules will be completed by nursing staff in the Fall 2011 as part of continued efforts to heighten awareness of the potential for pressure ulcer and focus on pressure ulcer prevention.

The Skin Integrity Committee was revitalized in March 2011 and continued our pressure ulcer prevention efforts established during the collaborative. The committee members:

- Review Pressure Ulcer Prevalence Rates (monthly for PCCU and quarterly housewide)
- Review Coded Pressure Ulcer Monthly Rates (Hospital quality pillar goal)
- Review existing protocols and provide guidance along with WOCN for skin care management, order sets, protocols, PUP initiatives, MD communications and updates
- Provide guidance on education for patients, families, and staff for prevention, recognition, and treatment of skin breakdown
- Apply quality improvement methodology to measure and improve patient outcomes

Other key action items developed and implemented through the Skin Integrity Committee include:

- Dissemination of wound treatment protocol to nursing staff on all units
- Dissemination of device-related pressure relief poster to all units
- Implementation of pressure relief dressing under all positive pressure masks
- Spread best practices among critical care related to rotation of positive pressure devices
- Enhance communication between WOCN and physician team regarding pressure ulcer diagnosis

- Establish WOCN rounding on all high risk patients in Pediatric Critical Care Unit
- Establish process to document pressure ulcers in electronic medical record with photographs

In April 2010, additional efforts were focused on reducing pressure ulcers in our Pediatric Critical Care Unit (PCCU). Key strategies included:

- Daily rounding on high risk patient by the Wound, Ostomy, Continence Nurse (WOCN)
- Partnership between WOCN and bedside nurse to ensure that each patient has the correct PUP pressure reduction devices in place (i.e. Z flo, gel pads, Mepilex dressings, etc.)
- Education of staff and patient families regarding repositioning and pressure redistribution
- Evaluation of unit par levels for PUP redistribution devices and supplies with supply chain staff and creation of a check and balance system between nursing and care partners
- Creation of rounding tool in the ICUs for care partners to proactively provide turning and reposition assistance
- Continued quarterly pressure ulcer prevalence studies and continued monthly prevalence studies in highest risk patients (PCCU)
- Revised Skin Care policy and clarified the expectations for every two hour repositioning
- Trained PUP Superusers/Skin Champions in the PCCU with plan to spread training house-wide

The Pressure Ulcer Prevention (PUP) Superusers (Skin Champions) were trained to serve as resources on the unit. The training focused on prevention and covered both skin integrity and risk assessments as well as how to select appropriate pressure ulcer prevention products and techniques.

Participants

Skin Integrity Committee Members

Table EP 32 EO – 7: Participants

Name	Title/Area

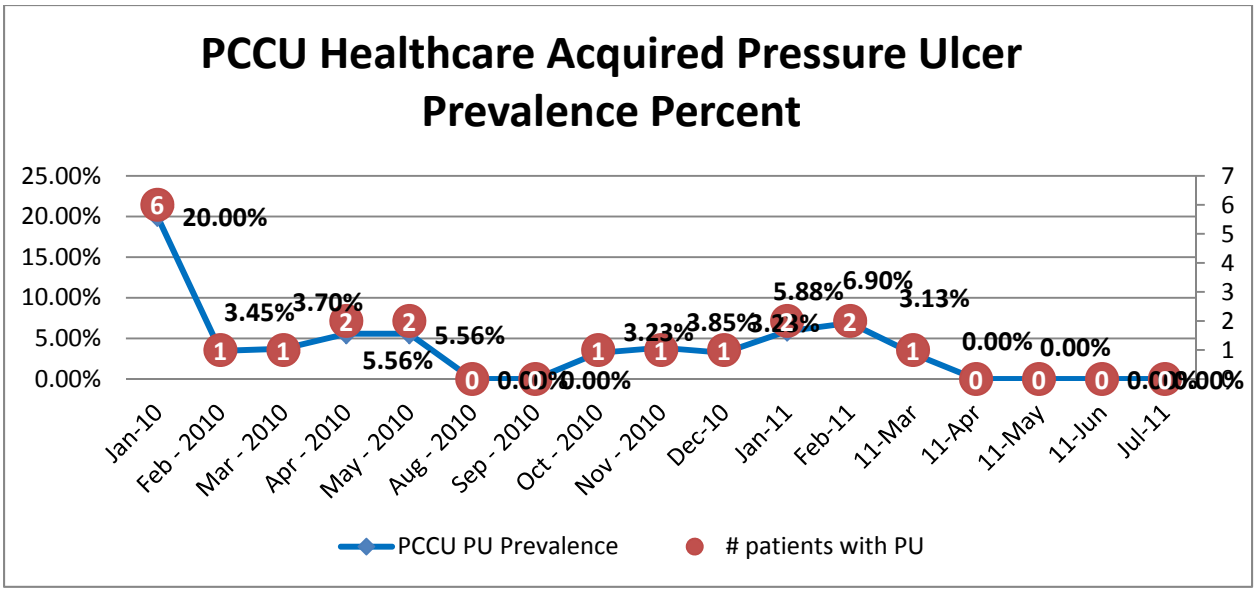
Shannon Lynch, RN - chair	WOCN
Marissa Lemley Brown, MSN, RN	Educator – Perioperative Services
Minden Bullock, RN	Assistant Manager, Pediatric Intensive Care Unit
Tia Coleman, RN	Assistant Manager, Inpatient Surgery, Adolescent Medicine
Lydia Colley, RN	Nurse Educator, PCCU
Amy Fleming, MD	Assistant Professor of Pediatric Medicine
Debbie Gardner, RN	Nurse Manager, Infant/Toddler/School-age Medicine/Pediatric EMU
Lori Graves, RN	Interim Operating Room Manager
Cynthia Grecu, RN	Nurse Educator, PCCU
John David Hughes, RN	Assistant Manager, PCCU
Vicki Jones, MSN, RN	Manager, Inpatient Surgery, Adolescent Medicine
Andy Lamoreaux, RN	Clinical Nurse Educator, Critical Care
Sheree Lee, RN, WOCN	WOCN Manager, VUH
Dana Loveless, RN	Inpatient Surgery, Adolescent Medicine
Natalie Lyndon, RN	PCCU
Autumne Mayfield, RN, MSN	Manager, Nursing Quality
Manda Mitchell, RN	PCCU
Kathy Moss,MSN, RN	Director Nursing and Clinical Support Services
Donna Nolan, RN	Manager, Cardiac OR and Special Procedures
Debbie Shinkle, RN, MHA	Manager, Patient Care Services, Pediatric Hematology & Oncology
Marcia Spear, RN, MSN, NP	Plastic Surgery Department
Cristy Weems, RN	Pediatric Float Pool

Outcomes/Impact

NDNQI Data

Please refer to the graphs for NDNQI data comparison from 2nd Quarter 2009 through 1st Quarter 2011. Of note on our ongoing monthly PCCU prevalence studies, the PCCU has had sustained improvement as noted by the graph below. The PCCU has gone 4 months without a pressure ulcer noted on the prevalence study.

(See Graph below)
Graph EP 32 EO – 9: PCCU Healthcare Acquired Pressure Ulcer Prevalence Percent



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[EP 32 EO Exhibit D-1-07-06-11 Children's Falls-PU]