A Single Long-Term Acute Care Hospital Experience With a Pressure Ulcer Prevention Program

Daniel Young, PT, DPT¹ • Cathy Borris-Hale, MHA, BSN, RN²

¹ Assistant Professor; Department of Physical Therapy, University of Nevada, Las Vegas; ² Chief Nursing Officer, The Specialty Hospital of Washington-Hadley, Washington, DC

Purpose

This study describes the experience of a single, long-term care acute hospital (LTAC) with the Medline Pressure Ulcer Prevention Program (mPUPP)

Background/Significance

- The growing light being shed on pressure ulcer (PrU) costs for the people that get them and the health care systems that treat them, has challenged care facilities to look for programs to reduce nosocomial PrU
- Each PrU can cost between \$700 and \$135,000 in medical care related expenses and litigation
- Recent evidence suggests that successful PrU prevention programs have common characteristics

Methods and Materials

Education

- An mPUPP team provided orientation
- Education for caregivers who worked at the facility was provided through Medline University®, a web-based suite of interactive educational material
- All Patient Care Technicians attended a 4-week 1-hour interactive educational session

Products

- Medline supplied skin care products for cleaning, moisturizing and barrier protection, as well as drypads and briefs for incontinence management

Process

- The facility also implemented:
 - removal of cloth chucks from unit supplies
 - an algorithm for treatment of wounds discovered on admission until they could be seen by a wound nurse
- The mPUPP was implemented during month 10 and was fully implemented by month 11

Several variables were analyzed over 24-months:

- wound care team assessment completed w/in 72 hrs
- total number of wounds treated
- total number of PrUs
- total number of nosocomial PrUs
- debridements performed
- total wound care team assessments completed
- healed / closed wounds

Results

- A significant reduction in the mean monthly nosocomial PrU rate pre-program (mean=5.90, SD=2.56) compared to post-program (mean=0.20, SD=0.42), $p<.0001$
- No significant changes in the other measured variables
- Subjectively staff reported approval for the program and ease of implementation

Comparison of pre and post program monthly mean for:	N	Pre-program	Post-program	t statistic	p value
		Means SD	Means SD		
WCT assmt within 72hrs	10	100.00% 0.000	99.56% 0.936	t(9)=1.50	0.168
All wounds	10	232.90 43.67	293.80 104.92	t(9)=-2.03	0.073
PrUs	9	143.89 38.27	155.11 71.64	t(8)=-0.469	0.652
Nosocomial PrUs	10	5.90 2.56	0.20 0.422	t(9)=7.64	<.0005*
Debridements	10	32.00 26.88	49.60 25.22	t(9)=-1.31	0.222
WCT Assessments	10	283.90 50.66	256.60 90.43	t(9)=0.782	0.454
Healed Wounds	10	8.40 4.53	6.40 3.41	t(9)=1.15	0.280

Nosocomial PrUs

Nosocomial PrU rates per 1000 patient days during the study period.

Year	Month	Rate per 1000 patient days
2010	January	2.7
	February	5.3
	March	3.8
	April	2.2
	May	4.0
	June	3.8
	July	4.0
	August	3.1
	September	1.1
	October	1.0
	November	0.0
	December	0.5
2011	January	0.5
	February	0.0
	March	0.0
	April	0.0
	May	0.0
	June	0.0
	July	0.0
	August	0.0
	September	0.0
	October	0.0
	November	0.0

Monthly Total of Debridements and Healed Wounds

Conclusions

- This LTAC experienced a significant reduction in nosocomial PrU following implementation of mPUPP
- The lack of significant change in other measure variables indicates that improvements in nosocomial PrU rates were not simply the result of fewer wounds or patients
- The results at this facility, from using a program with evidence based components, support previous literature
- This reduction in nosocomial PrUs was sustained when rates were examined a year later

Nosocomial PrUs / 1000 patient days

Take home points:

- The mPUPP was a central piece for a single LTAC, nosocomial PrU reduction program
 - The implementation of mPUPP at this facility was associated with a significant reduction in the number of nosocomial PrUs.
 - The program was sustainable