

## Lehigh Valley Health Network LVHN Scholarly Works

---

Patient Care Services / Nursing

---

# Cervical Collar Awareness and Safety through RN initiated Patient Education

Abigail E. Moore BS, BSN, RN

Lehigh Valley Health Network, [abigail\\_e.moore@lvhn.org](mailto:abigail_e.moore@lvhn.org)

Danielle A. O'Connor BSN, RN

Lehigh Valley Health Network, [danielle\\_a.oconnor@lvhn.org](mailto:danielle_a.oconnor@lvhn.org)

Kelly R. Shoener BSN, RN

Lehigh Valley Health Network, [kelly\\_r.shoener@lvhn.org](mailto:kelly_r.shoener@lvhn.org)

Ian E. Sullivan BSN, RN

Lehigh Valley Health Network, [ian\\_e.sullivan@lvhn.org](mailto:ian_e.sullivan@lvhn.org)

Courtney L. Werley BSN, RN

Lehigh Valley Health Network, [courtney\\_l.werley@lvhn.org](mailto:courtney_l.werley@lvhn.org)

Follow this and additional works at: <http://scholarlyworks.lvhn.org/patient-care-services-nursing>



Part of the [Nursing Commons](#)

---

### Published In/Presented At

Moore, A., O'Connor, D., Shoener, K., Sullivan, I., Werley, C. (2016, August 19). *Cervical Collar Awareness and Safety through RN initiated Patient Education*. Poster presented at LVHN Vizient/AACN Nurse Residency Program Graduation, Lehigh Valley Health Network, Allentown, PA.

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact [LibraryServices@lvhn.org](mailto:LibraryServices@lvhn.org).

# Cervical Collar Awareness and Safety through RN initiated Patient Education

Abigail Moore BS, BSN, RN, Danielle O'Connor BSN, RN, Kelly Shoener BSN, RN,  
 Ian Sullivan BSN, RN, & Courtney Werley BSN, RN  
 Lehigh Valley Health Network, Allentown, Pennsylvania

## BACKGROUND / INTRODUCTION

- Unsafe cervical collar placement and daily care observed on patients admitted onto TTU. Safety issues: importance of neck stabilization (Aceron, 2005) (Ivancic, 2013) and area of high risk for skin breakdown (Jacobson, et al., 2008)
- New cervical collar teaching video released for staff to watch and implement on unit to improve patient's safety and daily care.

## HYPOTHESIS

- Do awake, alert, and oriented patients 18 years of age or older, who are admitted to TTU in which hard cervical collars are a necessary part of treatment and are being discharged to home, report having a knowledge increase of cervical collar placement and daily care after viewing the cervical collar educational video compared to their reported knowledge prior to viewing the cervical collar educational video?

## METHODS

Rate your current knowledge of importance of maintaining your cervical collar.

1      2      3      4

Rate your knowledge of cervical collar pad changes.

1      2      3      4

Rate your knowledge of how to properly remove cervical collar during pad changes.

1      2      3      4

Rate your knowledge of proper fitting of your cervical collar.

1      2      3      4

Rate your knowledge of skincare while maintaining a cervical collar.

1      2      3      4

1  
No knowledge

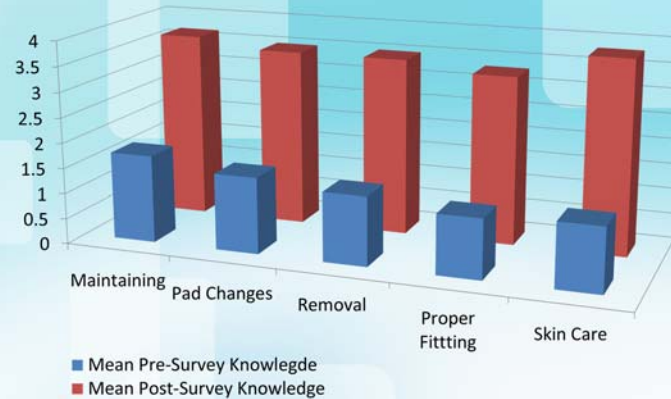
2  
Some Knowledge

3  
Knowledgeable

4  
Very Knowledgeable

## OUTCOMES

Cervical Collar Survey Responses



	Pre-Survey	Post-Survey	$\bar{d}$	$S_d$
Maintaining	1,1,1,1,1,1,1 ,1,1,1,2,2,2, 2,2,2,2,2,2,3 ,3,4	3,3,3,3,3,3,3 ,4,4,4,4,4,4, 4,4,4,4,4,4,4 ,4,4	-1.954545	0.652998
Pad Changes	1,1,1,1,1,1,1 ,1,1,1,1,1,2, 2,2,2,2,2,2,2 ,2,3	3,3,3,3,3,3,3 ,3,3,3,3,4,4, 4,4,4,4,4,4,4 ,4,4	-2.000000	0.308607
Removal	1,1,1,1,1,1,1 ,1,1,1,1,1,1, 1,1,1,2,2,2,2 ,3,3	3,3,3,3,3,3,3 ,3,3,3,3,4,4, 4,4,4,4,4,4,4 ,4,4	-2.136364	0.560226
Proper Fitting	1,1,1,1,1,1,1 ,1,1,1,1,1,1, 1,1,1,1,1,1,1 ,2,4	3,3,3,3,3,3,3 ,3,3,3,3,3,3, 3,3,4,4,4,4,4 ,4,4	-2.136364	0.639602
Skin Care	1,1,1,1,1,1,1 ,1,1,1,1,1,1, 1,1,1,1,1,1,2 ,3,4	3,3,3,3,4,4,4 ,4,4,4,4,4,4, 4,4,4,4,4,4,4 ,4,4	-2.545455	0.800433

## RESULTS

- Paired T-Test performed for each categorical response, with  $\alpha = 0.05$
- $H_0: \mu_{\bar{d}} = 0$
- $H_A: \mu_{\bar{d}} \neq 0$
- From the data collection and analysis, patients showed a statistically significant knowledge increase in all categories after seeing the cervical collar teaching video compared to their knowledge before viewing the video (at a 5% significance level, 95% CI of  $\mu_D$ ).

$$t = \frac{\bar{d} - \mu_0}{S_d \sqrt{n}}$$

## CONCLUSIONS

- As a result of this study, significant data suggests the cervical collar teaching video is effective at increasing patient's knowledge regarding maintenance, pad changes, proper removal, proper fitting, and necessary skin care.
- Although evidence suggests a combination of video, conversation, hands-on demonstration, and etcetera allows for best retention of education (Helding, 2009), the cervical collar teaching video can be used as an effective education tool for patients and staff to improve patient safety, encourage patients' to act as self advocates, and protect patients' from skin breakdown.
- By doing so, hospital stays may be shorter and less costly, and quality of patients' care may improve.

© 2016 Lehigh Valley Health Network

A PASSION FOR BETTER MEDICINE.™

610-402-CARE LVHN.org

