

Improving Cervical Collar Application in the Emergency Department

Stephanie L. Brown BSN, RN

Lehigh Valley Health Network, stephanie_l.brown@lvhn.org

Sarahlyn E. Knechel BSN, RN

Lehigh Valley Health Network, sarahlyn_e.knechel@lvhn.org

Erin K. Lynch BSN, RN

Lehigh Valley Health Network, erin_k.lynch@lvhn.org

Nikki M. Mendez BSN, RN

Lehigh Valley Health Network, nikki_m.mendez@lvhn.org

Andrew J. Sheppard BSN, RN

Lehigh Valley Health Network, andrew_j.sheppard@lvhn.org

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Stephanie Brown, BSN RN; Sarahlyn Knechel, BSN, RN; Erin Lynch BSN, RN; Nikki Mendez BSN, RN; Andrew Sheppard BSN, RN

Lehigh Valley Health Network, Allentown, Pennsylvania

BACKGROUND / INTRODUCTION

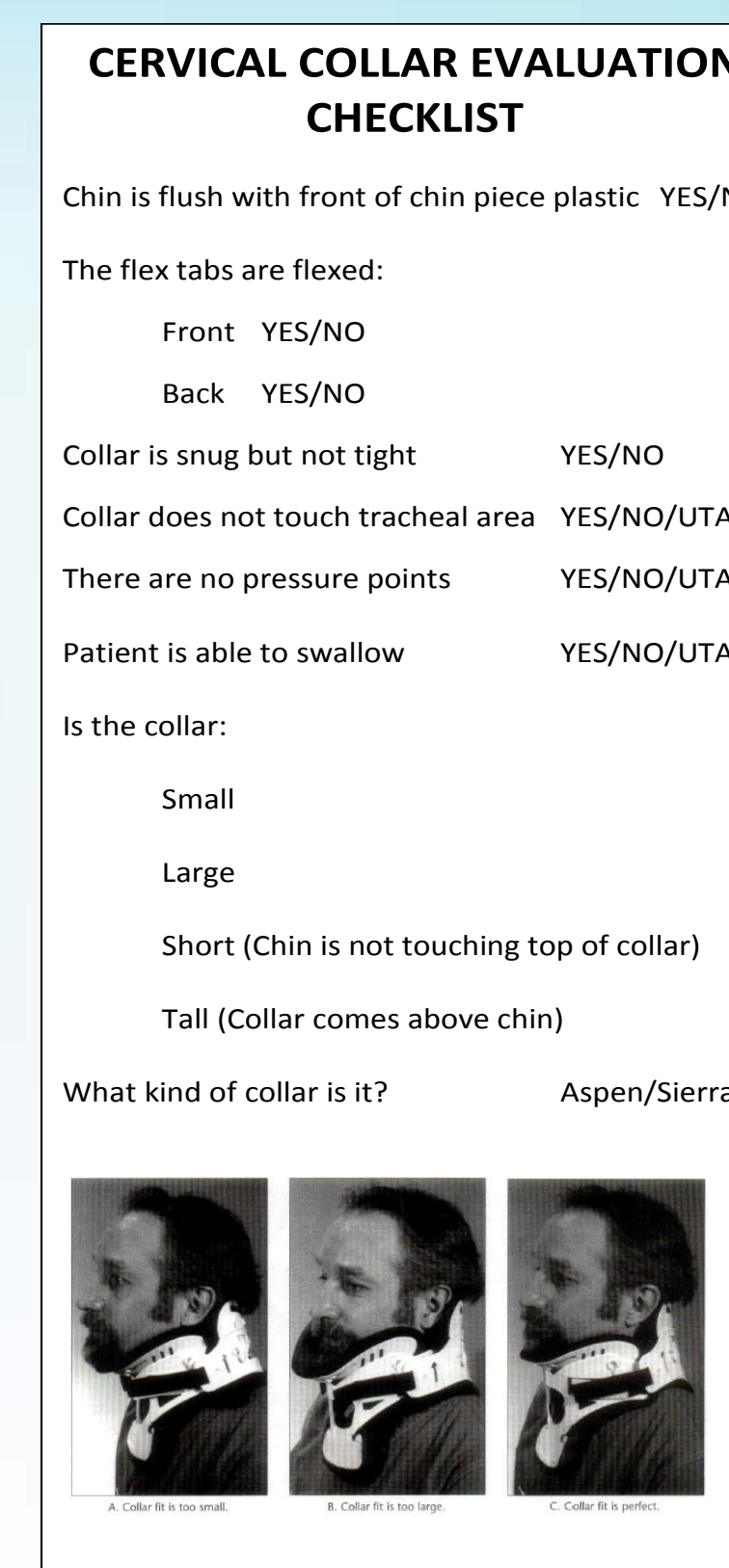
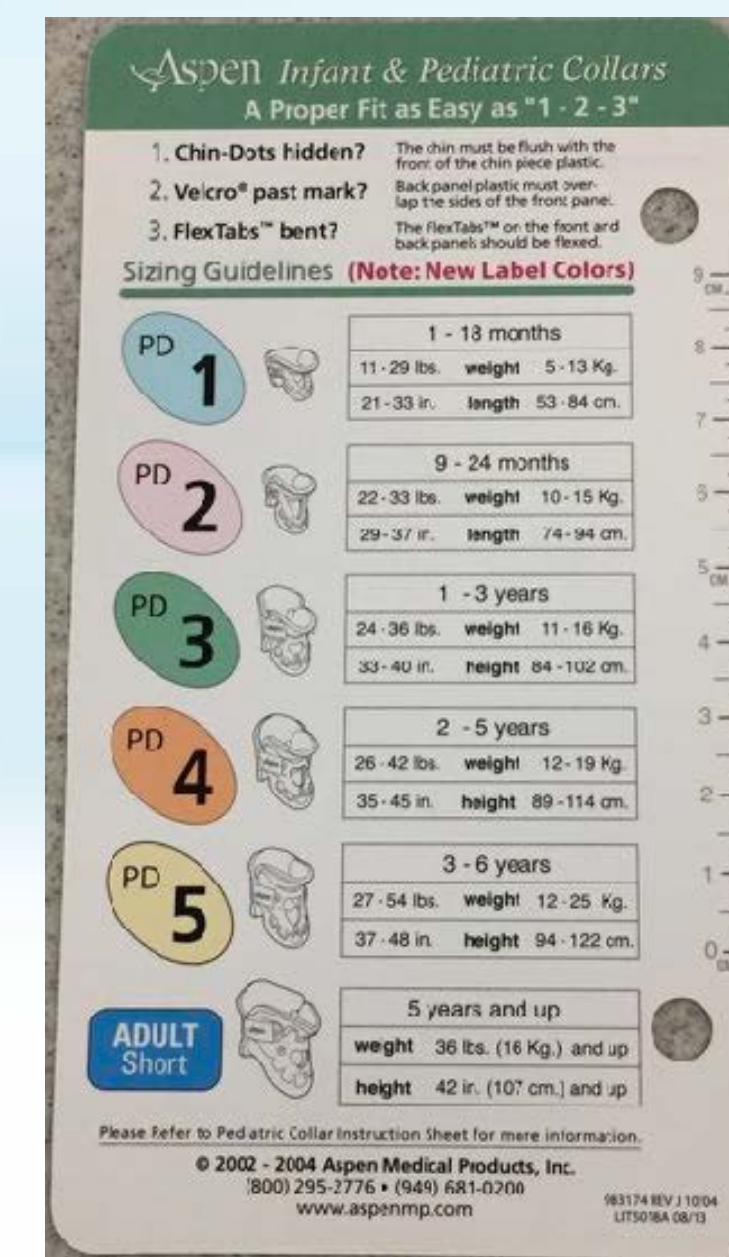
- The importance of appropriate fit and sizing of cervical collars is addressed in the Trauma Nurse Course that all ED nurses receive.
- Practitioners often have to change collars due to fit and sizing, which has a cost impact.
- Many practitioners needed assistance with proper fit and using correct sizing
- Cost: Aspen \$29/each
Sierra \$9 each
- Evidence Based Practice demonstrates that proper collar placement:
 - Prevents further injury to the c-spine
 - Ensures patient compliance with increased comfort
 - Reduces skin breakdown

PICO QUESTION

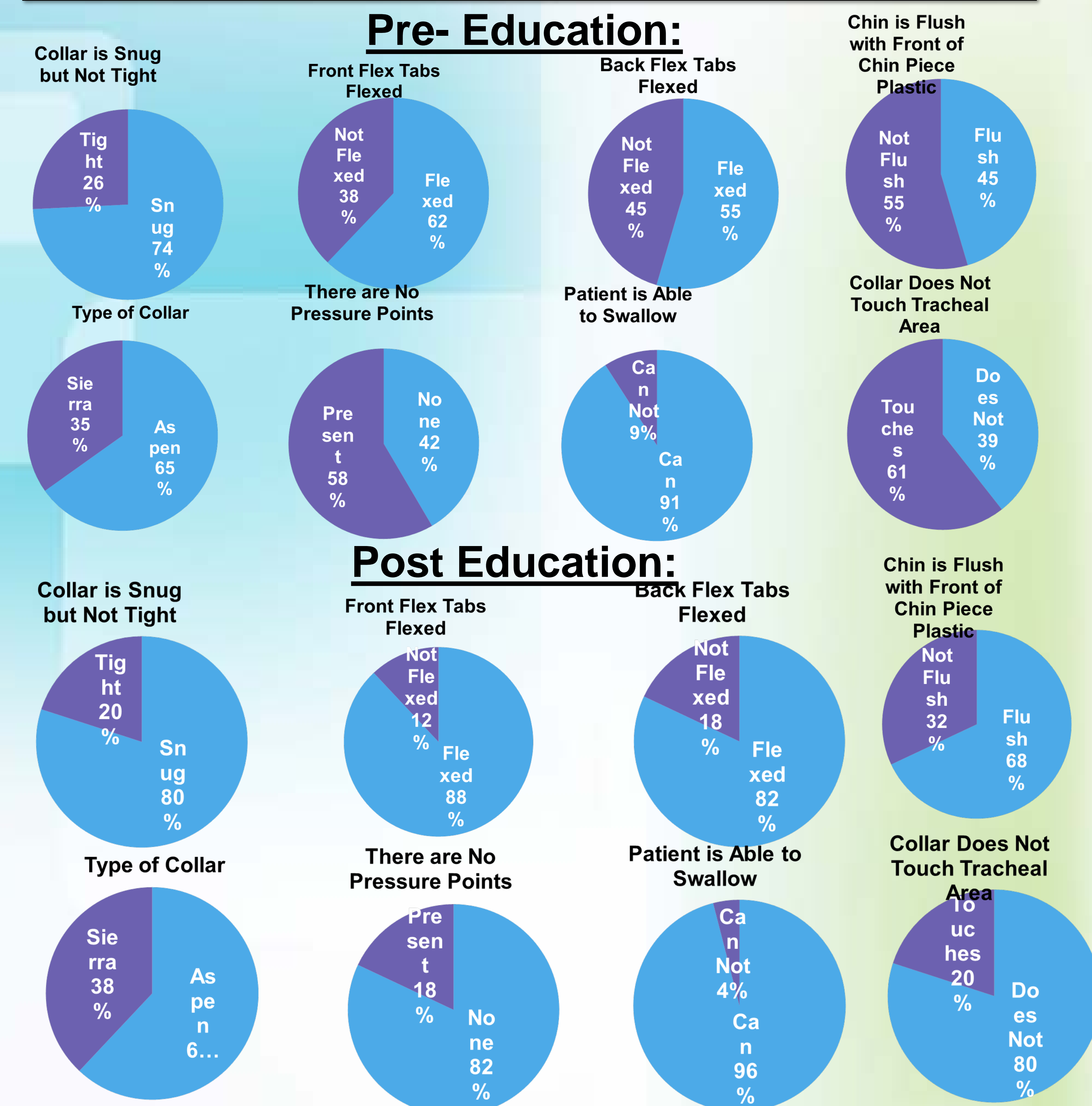
- In patients that require cervical spine immobilization, does implementing formal annual education of emergency department nursing staff on proper application, placement, and utilization of cervical collars increase compliance of evidence based practice?
 - P - Patients requiring cervical spine immobilization in the Emergency Department
 - I - One time education
 - C - No education versus education
 - O - Improved fit and sizing of cervical collar
- Expected outcomes
 - Increase in proper placement of c-collars
 - Increase in use of proper size for patient

METHODS AND IMPLEMENTATION

- Pre-Education Survey
 - Collars were evaluated and surveyed by Trauma RNs and research team
 - 66 total surveys
- Education
 - TLC assignment with Aspen Collar Video
 - In Person education on unit
- Post-Education Survey
 - Same survey as pre-education survey
 - Collars were evaluated and surveyed by Trauma RN and research team
 - 50 total surveys



RESULTS



BARRIERS

During the project, Aspen collars were removed from general supply. Other staff would place/ assist with collars- Technical Partners, Residents, Attending MD; especially in the trauma bay for Alerts/ Code Reds

- Patient noncompliance/misunderstanding of purpose of collar

CONCLUSION

Further education necessary of all members of ED, as well as other inpatient units

- Better patient education necessary for patient compliance
- Results showed overall better fit of c-collars in the ED after education
- Great increase in number of collars that had tabs flexed, which overall causes the collar to fit better immediately
- Fewer pressure points and possibility for skin breakdown
- Overall success with education, staff voiced better understanding of process to fit and size c-collars

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References:

- Freeborn, K. (2005). The Importance of Maintaining Spinal Precautions. *Critical Care Nursing Quarterly*, 28(2), 195-199. doi:10.1097/00002727-200504000-00011
- Kreinst, M., Goller, S., Rauch, G., Frank, C., Gliwitzky, B., Wöfl, C. G., . . . Münzberg, M. (2015). Application of Cervical Collars – An Analysis of Practical Skills of Professional Emergency Medical Care Providers. *PLOS ONE PLoS ONE*, 10(11). doi:10.1371/journal.pone.0143409