Improving Cervical Collar Application in the Emergency Department

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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

REFERENCES:


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

- Pre-Education: Collar is Snug but Not Tight
  - Front Flex Tabs Not Placed
  - Back Flex Tabs Not Placed
- Education: Collar is Snug but Not Tight
  - Front Flex Tabs Placed
  - Back Flex Tabs Placed
- Post-Education: Collar is Snug but Not Tight
  - Front Flex Tabs Placed
  - Back Flex Tabs Placed

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

CERVICAL COLLAR EVALUATION CHECKLIST

- Chin is flush with front of chin piece plastic
- YES/NO
- Flex tabs are flexed:
  - Front
  - YES/NO
  - Back
  - YES/NO
- Collar snug but not tight:
  - YES/NO
- Collar does not touch tracheal area:
  - YES/NO
- Collar does not touch tracheal area:
  - YES/NO
- There are no pressure points:
  - YES/NO
- Patient able to swallow:
  - YES/NO
- Collar:
  - Small
  - Large
  - Short (chin is not touching top of collar)
  - Tall (collar comes above chin)
- What kind of collar is it?
  - Aspen/Sierra